Factors affecting students' career choice in economics majors in the COVID-19 post-pandemic period: A case study of a private university in Vietnam

Trong Luan Nguyen[a,*], Huu Tri Nguyen[b], Ngoc Han Nguyen[b], Dai Loi Nguyen[b], Thi Thu Dao Nguyen[b], Duy Linh Le[b]

[a] Lecturer, Faculty of Business Administration, FPT University, Can Tho Campus, Vietnam
[b] Faculty of Business Administration, FPT Can Tho University, Can Tho City, Vietnam

ARTICLE INFO

ABSTRACT

The requirement for quantity and quality of human resources, especially occupations in the economics field, has played a significant role in recovering and improving the COVID-19 pandemic economic situation in Vietnam. Therefore, this encouraged economics majors to attract a large number of students to enrol in 2021. This study aims to determine the factors affecting the career choices of economic students in Vietnam. The research focuses on analysing six factors to determine the relationship between variables that help explain students' compatibility and their chosen majors. A survey questionnaire using simple random sampling collected 309 data points from economics students at a private university in Vietnam. Methodologies such as Cronbach's Alpha, exploratory factor analysis, confirmatory factor analysis, regression, and structural equation modelling were employed using SPSS and Amos software to check the correlation between factors and draw conclusions about factors affecting students' career choices. The results revealed that influencers, interests, financial resources and career opportunities were critical elements that influenced students' decisions in choosing a major. Interest (to pursue passion) was considered by students in choosing a major - which could also encourage them to develop their own capabilities. Additionally, the data proved that most job selections were based on future employability; therefore, career opportunities had the most positive impact on students' decisions. The findings of this study identify determinants of students' choice in economics majors and their relationships and can improve students' awareness and future orientation before deciding to choose a major. Moreover, this study provides valuable data for universities to formulate and develop strategies to attract students, such as career consulting.

Introduction

The COVID-19 pandemic has significantly impacted the Vietnamese economy. Economic growth slowed down to 2.9% by 2020, affecting approximately 32 million people. Of these, 69% suffered a reduction in income, 40% had to cut their working hours, and 14% were forced to quit their jobs or be fired. The provision of human resources in the economic sector is critical for solving challenges of economic recovery following the pandemic. According to the Vietnam Ministry of Labour − Invalids and Social Affairs, 2021 research, in the first quarter of 2021, a sample of 23,928 turns of corporations publishing job opportunities via the internet with the necessary number of 148,354 employees. Occupations expected to have the most recruits are business, sales, marketing, customer service, finance, and accounting. Furthermore, companies desire highly skilled employees with strong knowledge who can adapt to ongoing changes in the workplace. This confirms that economics will continue to be a thriving and sought-after profession for many years. Consequently, many students choose economics as their major in college. With almost 1.3 million students seeking to pursue business and management, these two fields have majors with the highest number of Vietnamese registered students in 2021. Ahmed, Shaif and Ahmad (2017), Aryani and Umar (2020), Kazi and Akhlaq (2017), and Ray,

* Corresponding author at: 600 Nguyen Van Cu Street, An Binh Ward, Ninh Kieu District, Can Tho City, 94100, Vietnam.
E-mail addresses: LuanNT73@fe.edu.vn (T.L. Nguyen), TriNHCS150399@fpt.edu.vn (H.T. Nguyen), HanNNCS150461@fpt.edu.vn (N.H. Nguyen), LoiNDCS150878@fpt.edu.vn (D.L. Nguyen), DaoNTTCS150581@fpt.edu.vn (T.T.D. Nguyen), LinhLDCS150716@fpt.edu.vn (D.L. Le).

Bala, Dasgupta and Srivastava (2020) carried out their studies in order to learn more about students' career decisions as well as the factors that impact students' career choices. No prior research has analysed the determinants of students' career choices with economics as a major at a private university, Vietnam. Therefore, this study has three main purposes: 1) to identify the factors influencing students' career choices by choosing economics majors at a private university; 2) the connections between variables will help explain students' adaptability and appropriateness when selecting their major; and 3) to be a crucial database to review when deciding whether to study economics at a private university, and offer policy and strategic developments in the future to attract students.

Literature review

Theoretical perspectives on career choice

The expectation theory model is commonly used to help forecast people's opinions and career options (Mitchell & Beach, 1976). As shown in the expectation theory, social determinants include parental influence, friends' and teachers' impact, social position, and economic factors, such as employment opportunity, wage amount, and work-life balance (Baliyan & Baliyan, 2016). In the Hospitality Department of a college in Guangzhou City, China, many students choose their careers without being influenced by traditional values or their family members. Students' abilities and career aspirations are the most important factors influencing their career decisions, followed by traditional and cultural values, career guidance, parental support, and external consultation (Qiu, Dooley & Palkar, 2017).

Vu (2020) studied the factors affecting the career choices of tourism students in Da Nang, Vietnam. The author suggested that the main factors affecting students' career choices include belief in self-efficacy, career opportunities, culture, intellect, and the influence of others.

Kazi and Akhlaq (2017) found that young people are easily impressed, swayed by their peers, and influenced by the media when choosing a career. They emphasise the role of teachers to motivate and inspire students. The working environment is also a factor that attracts students toward a career. Research has also shown that students are not influenced by their parents' occupations.

According to Kaygin and Gulluce (2013), a student's career choice is influenced by a variety of contextual and organizational variables. However, Gati et al. (2011) suggested that emotional and personality factors may make career decisions challenging for all students.

External and internal factors can influence students' career choices (Hewitt, 2010). Although some students choose careers solely based on their desires or simply because it pays more, familial factors influence many other students' career choices.

Factors affecting the career choice of students

Influencers (INL)

Most young adults appear to choose vocations based on the advice of their parents, instructors, and family elders (Ayaz, Khan & Khan, 2016). A few studies have shown that parents impact their children's career choices (Camarero-Figuerola, Dueñas & Renta-Davids, 2020; Fouad, Kim, Ghosh, Chang & Figueiredo, 2016; Kazi & Akhlaq, 2017). Contact between parents and children influences their professional choices (Adekeye, Adeusi, Ahmadu & Okojide, 2017). In addition, many students select a university major based on their friends' recommendations (Istiqomah, Hariani & Afian, 2018); family and peers also have an important influence on determining students' major choices (Kumara, Bhakti, Astuti, Ghiffari, & Ammattulloh, 2019). According to Killam, Degges-White and Michel (2016), approximately 18.46% of those surveyed agreed that their parents' opinions influenced their profession. However, Bikse, Lūsēna, Libkovska, & Rivža,

2018 claimed that 5% of United Kingdom (UK) teenagers believe that career planning from parents is beneficial in deciding on a major, and only 1.6% of Latvian respondents believe that job advice, particularly from professionals, helps decide on a major. The following hypothesis is developed to assess whether influencers (INL) impact a private university students' decisions to major in economics:

H1. Influencers impact students' career decisions in economics majors.

Interest (INT)

Interest (INT) is an indispensable premise in selecting a career and is described as 'an emotion that arouses attention to, curiosity about, and concern' (Akbulut & Looney, 2007; Mirzanaveedshahzad, Takdees & Ahmed, 2018); these authors concluded that students choose their careers based on their interests. Alexander et al. (2011) showed that student interest in information technology as a subject influenced their career choices. Ahmed et al. (2017) asserted that 'interest in the subject' is the most important factor in the career choice of business students. Suutari (2003) supposed that there is a close relation between interest and decision-making in choosing a career. Moreover, individual interest is a key factor in students' career choices (Edwards & Quinter, 2011).

H2. Interest impacts students' career decisions in economics majors.

Financial resources (FIN)

Sources of financial support for students are factors that influence career choice. Ahmed et al. (2017) found that career choice is affected by the level of financial resources (FIN). According to Reid (2017), family income is closely related to students' decision to choose a career. The use of FIN at their discretion significantly contributes to an individual's career choices (Kerka, 2000). Limited FIN negatively affect students' decision-making in choosing a career (USHURHE, 2014). According to Mirzanaveedshahzad et al. (2018), financial factors have a strong impact on career choices.

H3. Financial resources impact students' career decisions in economics majors.

Self-Capacity (CAP)

Alexander et al. (2011) projected that there was a relationship between self-efficacy and career choice, therefore, the capability to make conceivable careers. Furthermore, it was ascertained that students' apparent self-efficacy affected their career advantages, capacities, objectives, and certainty in scanning for a desired career. Taylor and Popma (1990) inferred that career investigation capacities were anticipated by the amount of general self-efficacy, whereas Bergeron and Romano (1994) mentioned that self-efficacy convictions impact the choice of majors and career decisions of undergraduate students (Atta, Akhter, Shujja & Shujaat, 2013). The research findings highlighted the significance of the concept of self-efficacy and emphasized that students developed their self-efficacy according to their characteristics and occupations (Ghuangpeng, 2011).

The search for or exploration of career information is an attempt to obtain information about one's self-characteristics to achieve appropriate career goals (Zhang & Huang, 2018). Most Vocational High School (VHS) students are not ready to enter the work world because of their low ability to make career decisions and choice of work outside their field of ability (Karacay, 2018). Self-efficacy in career decision-making will be conceptualised because of the psychological motivation aspect that is necessary for career decision-making (Cordeiro, 2015; Schunk & Usher, 2019).

H4. Self-capacity impacts students' career decisions in economics majors.

Career opportunities (OPP)

Students' perceptions regarding job opportunities may influence their field selection. The wider the field offers job opportunities, the more likely students are to choose that field (Uyar, Gungormus & Kuzey, 2011). According to Ahmed et al. (2017), numerous influences exist in an individual's job selection, with the strongest influence being the ability to obtain a respected social position and income and make a difference in society. These influences shape the future of society, as an individual's career choice decisions are important to society. However, Ahmed et al. (2017) studied business students and found that ease in grades, financial outcomes, and future job opportunities was less related or had a minor impact on students' decisions.

H5. Career opportunities impact students' career decisions regarding economics majors.

Culture (CUL)

Tradition and cultural value eclipsed its importance in influencing students' decisions about their future occupations. Most respondents did not concur with the statement, 'I chose hospitality as a major because of traditional values'(Qiu et al., 2017). Vu (2020) indicated that amongst the key factors that affect the career choice of students in tourism, cultural factors also affect career choice. Additionally, Tear et al. (2020) demonstrated that cultural perceptions are affected by the interaction of national values for power distance and power conferred by positions within a hierarchy. Alves and Gama (2020) proved that a culture of commitment is considered a 'common factor' for boosting economic and financial performance, alongside concepts such as perpetuity and the conservation of the family's heritage and assets.

H6. Culture impacts students' career decisions in economics majors.

The conceptual framework of this study is depicted in Fig. 1.

Research methods and materials

Research design

This study employed quantitative data collection methods and methodologies. According to Neuman (2015), such a design is simple and cost-effective. This study only considered variables at a single time point, making it appropriate for the researcher's goal. Likewise, because it provided a more accurate picture of the respondents' opinions, a survey was selected as the primary study design (Sekaran & Bougie, 2016). This method was applied to gather all the results from the respondents and solve them in a fair amount of time and at a reasonable cost. Before surveying the students, a survey questionnaire was created and distributed to ten school experts for completion and review. Google Forms was the platform used in this study. After collecting data from the surveyors, they were encrypted in Microsoft Excel and analysed. Using Google Forms to create an online questionnaire is both convenient and rapid. Questionnaires help to collect necessary and reliable information on relevant topics in social studies (Taherdoost, 2016, 2018).

As shown in Table 7, the questionnaire is divided into three sections: Section A gathers respondents' demographic data, such as gender, age, school year, and income; Section B discusses variables that influence students' choice of economics major (INL, INT, FIN, CAP, OPP, and CUL); and Section C offers statements to measure the dependent variable. Sections B and C require respondents to respond to questions on a 5-point Likert scale (Awang, Afthanorhan & Mamat, 2015), which is intended to measure target respondents' views of variables influencing their choice of economics majors at university. The scale ranges from 1 to 5, with 1 being 'strongly disagree' and 5 being 'strongly agree'. The basic and optimal psychological measurement tool used in educational and social studies is usually the Likert scale (Joshi, Kale, Chandel & Pal, 2015). A Likert scale is typically used as the data are simple to code (Colosi, 2006). Pilot research was conducted in an environment with features comparable to those under examination to ensure that the questions were not vague.

Sample

To generalise the findings, a representative sample was chosen because it is challenging to include all groups in a study. To determine the specimen size, the expert used a table in Krejcie and Morgan (1996). According to Krejcie and Morgan's table, the targeted sample size should be 380, given a population size of 43,560. Owing to the known sample size and equal likelihood that any member of the population will be included in the sample, the researcher chose simple random sampling for this study.

Data were collected from a survey in the fourth quarter of 2021 at a private university, Vietnam. Of a total of 800 students from the Faculty of Business, 330 students participated in this survey, representing a sampling rate of more than 40% of the population. We used simple random sampling because the survey participants were geographically close to each other and had similar characteristics. Any individual can be selected from the population by using a random table or lottery. The advantages of this method are that it is simple,
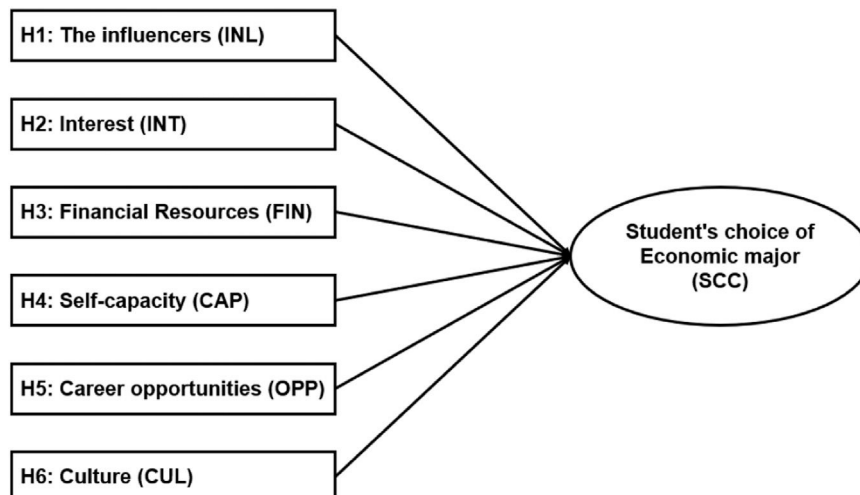

Fig. 1. Research model.

fast, and has a sufficient analytical basis. However, the limitation of simple random sampling is that the sampling error is large and less accurate than that for other sampling methods of the same size. After removing invalid votes, the remaining 309 votes were deemed reliable for analysis.

Data analysis technique

Quantitative analysis was performed using SPSS 25.0. This software was used to synthesise data on the frequency, statistical description, and impact of factors on students' career choices while majoring in economics. Additionally, we used Cronbach's Alpha to test reliability of the factors, with a cut-off point of 0.60. Moreover, exploratory factor analysis (EFA) was used to eliminate inappropriate variables, reduce observed variables, and shorten the model. Next, we ran a regression model to evaluate and draw conclusions about the factors affecting the choice of economics students at a private university. The Amos software used to run a confirmatory factor analysis (CFA) which provides convergent and discriminant validity. Convergent validity indicates strong-weak relationships, whereas discriminant validity indicates no strong relationship. Based on the CFA, we can close the gap between hypothesis and detection. Furthermore, structural equation modelling (SEM) is a method for estimating and evaluating the linear model between the variables observed in the research paper and other variables. Thereafter, theories were identified and improved by the SEM model.

Results

Reliability test

Cronbach's Alpha was used to test the reliability and validity of the factors affecting students' career choices in economic majors. Cronbach's Alpha coefficient should be larger than or equal to 0.60, and the adjusted total correlation value should be greater than or equal to 0.3 (George & Mallery, 2019). As presented in Table 1, Cronbach's Alpha values for all factors are greater than 0.7. The correlation coefficients of all variables were larger than 0.3, indicating that these variables met the requirements. The results satisfied the standard Cronbach's Alpha performance of the analysis; therefore, the factors in the study were reliable and were retained for further analysis.

Exploratory factor analysis

EFA was used to test the relationship between the variables in all groups of factors and to remove insignificant variables. The

Table 1
The result of Cronbach's alpha scale

Constructions	Code	Items	Cronbach's Alpha
Influencers	INL	5	0.75
Interest	INT	4	0.80
Financial Resources	FIN	4	0.83
Self-Capacity	CAP	5	0.86
Career Opportunities	OPP	5	0.88
Culture	CUL	3	0.70

Table 2
Exploratory factor analysis

Constructs	Items	Factor Loadings	CR	AVE
Influencers (INL)	2	0.57 - 0.78	0.74	0.60
Interest (INT)	4	0.60 - 0.88	0.80	0.50
Financial Resources (FIN)	4	0.77 - 0.85	0.83	0.55
Self-Capacity (CAP)	5	0.64 - 0.84	0.86	0.56
Career Opportunities (OPP)	5	0.65 - 0.88	0.88	0.59
Culture (CUL)	2	0.73 - 0.84	0.72	0.58

Note: CR = Composite Reliability; AVE = Average Variance Extracted.

Eigenvalue criterion was greater than 1, and the cumulative variance of 63.83% was greater than 50%, indicating that six factors accounted for 63.83% of the variation in the data of the 23 observed variables. The KMO coefficient of the study was 0.85 > 0.5, which was sufficient for factor analysis to be appropriate. Bartlett's test was statistically significant at the Sig level. = 0.000 < 0.05, indicating that the observed variables were correlated with the factor. The factor loadings were greater than 0.5, indicating factors of practical significance. The composite reliability (CR) of each face in this model scale was greater than 0.7, strengthening the feasibility of the study. The average variance extracted (AVE) value of the variables to measure the convergence validity of the model was higher than the standard AVE ratio of 0.5. As the six factors satisfied the above conditions, the discriminant values that were considered appropriate are presented in Table 2.

Regression

After testing the reliability of the factors using the above methods, we found six significant factors in the study. Subsequently, we developed a multiple regression model as follows:

$Y = \beta_0 + \beta_1 INL + \beta_2 INT + \beta_3 FIN + \beta_4 CAP + \beta_5 OPP + \beta_6 CUL$

Therein:

+ Dependent variable: Students' choice of economics major (Y).

+ Independent variable: influencers (INL), interest (INT), financial resources (FIN), self-capacity (CAP), career opportunities (OPP), and culture (CUL).

The regression results in Tables 3 and 4 show that the adjusted R-squared = 0.54, F-test in ANOVA had a Sig level. = 0.000. Thus, the regression model is suitable, and these factors can explain 54.0% of the variation in the dependent variable. INL, INT, FIN, CAP, OPP, and CUL are all significant in the study because of the Sig coefficient < 0.05. The factor model affecting students' career choices in economic majors has six factors with specific equations:

$Y = 1.37 - 0.08 (INL) + 0.27 (INT) - 0.10 (FIN) + 0.14 (CAP) + 0.39 (OPP) + 0.10 (CUL)$

Confirmatory factor analysis (CFA)

After using SPSS for EFA, we used Amos for CFA. The variables INL1, INL2, INL4, and CUL4 were removed because they had a significance level greater than 0.05, and the variable was not suitable or significant. With the six indicators shown in Table 5, the results are

Table 3
The examination of the explanatory level of the model (Model Summary)

					Model Summary[b]					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.74[a]	.55	.54	.43	.55	61.36	6	302	.000	1.99

[a] Predictors: (Constant), CUL, INT, FIN, INL, OPP, CAP.
[b] Dependent Variable: SCC.

Table 4
The result of the partial correlative appraisal of regression coefficients

		Coefficients[a]				
	Model	Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	1.37	.24		5.73	.000
	INL	−0.08	.03	−0.12	−3.03	.003
	INT	.27	.04	.32	6.89	.000
	FIN	−0.10	.03	−0.13	−3.26	.001
	CAP	.14	.05	.15	2.82	.005
	OPP	.39	.05	.42	8.09	.000
	CUL	.10	.03	.12	3.06	.002

[a] Dependent Variable: SCC.

Table 5
CFA measurement model fit indices

	Observed value	Ideal threshold	Result
Chi-square/df	1.91	≤2.00	Good
GFI	0.90	≥0.90	Good
CFI	0.94	≥0.90	Good
TLI	0.93	≥0.90	Good
RMSEA	0.05	≤0.08	Good
PCLOSE	0.19	≥0.05	Good

consistent and satisfactory with the ideal threshold of the CFA model. The Chi-square/df was good with a value of 1.91, which was less than 2. The goodness of fit index (GFI) was 0.90, which is equal to the ideal threshold. The comparative fit index (CFI) value was 0.94, greater than 0.9, and the final value was a root mean square error of approximation (RMSEA) of 0.05, which was less than 0.08. The model shows a good fit, and all scales are acceptable (Hair, Black, Babin & Anderson,

2010). This is a necessary condition to continue performing the SEM model.

Structural equation modelling (SEM)

Using the SEM model, we obtained the relationship between the independent and dependent variables. The basic indicators are shown in Fig. 2 and Table 6. The Chi-square/df value was 1.83, which was less than 2. The goodness of fit index (GFI) was 0.91, which is greater than 0.9. The comparative fit index (CFI) value was 0.93, greater than 0.9, and the final value was a root mean square error of approximation (RMSEA) of 0.05, which was less than 0.08. During the data run, two out of six independent variables—CAP and CUL—had Sig values greater than 0.005, so we excluded them from the model. The remaining four variables, OPP, FIN, INL, and INT, all have Sig values of *** (AMOS symbol *** is sig equivalent to 0.000), less than 0.005. This result proves that the independent variables OPP, FIN, INL, and INT have strong impacts on the dependent variable (SCC).

Discussion

Previous research has highlighted the importance of career choices and their lasting impact on students' careers and lives. Many universities show that many students choose to drop out of school because they initially chose the wrong major. Empirical studies have also shown that students' career choices are influenced by various factors, such as socio-economic, political, and demographic factors, which vary from country to country. We used SEM to analyse survey data to identify factors affecting students' career choices at a private university, which consist of INL, INT, FIN, CAP, OPP, and CUL.

The findings suggest that INL, such as family, friends, and teachers, are factors that influence economics students' decision-making in

Fig. 2. Direct and Indirect effects on students' career choice in Economics.
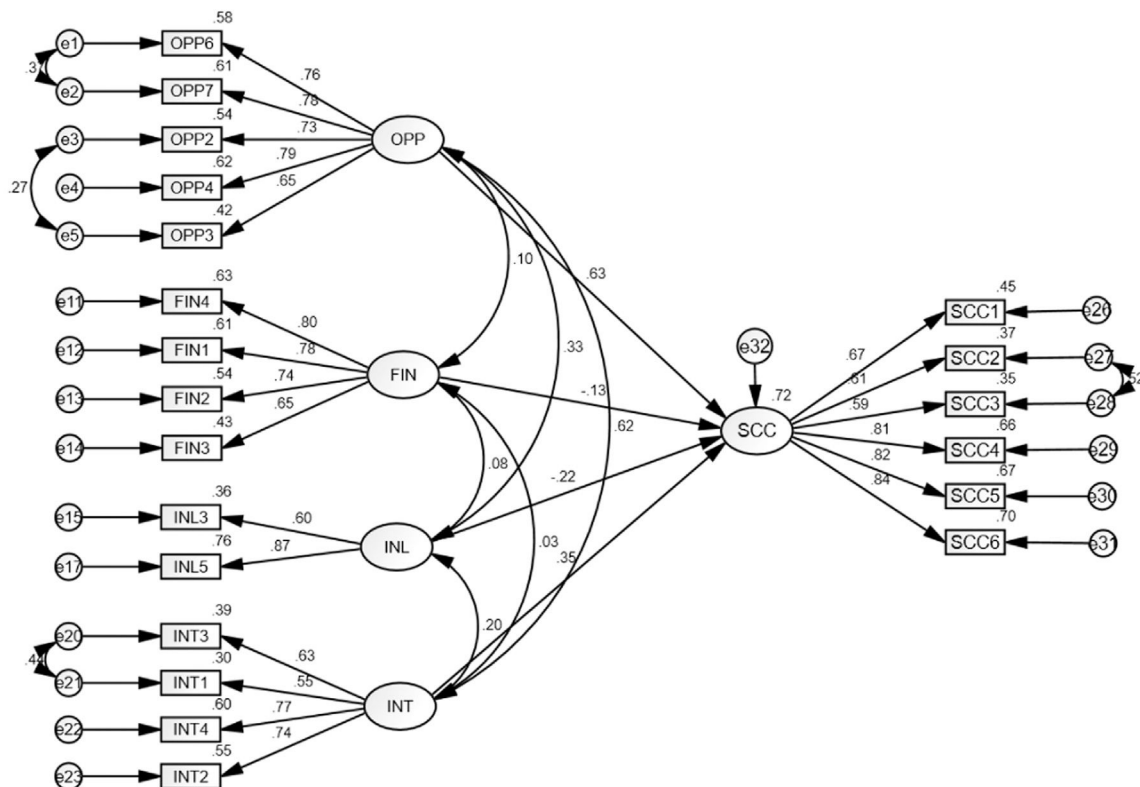
Notes: CMIN/DF =1.833, GFI=0.911 CFI=0.953, RMSEA=0.052 and TLI=0.944. ***p<0.001.

Table 6
Results of the integrating model

	Explanatory variables	Significant results
H1	Influencers impact the career choice of students majoring in economics.	$P = 0.000$
H2	Interest impacts the career choice of students majoring in economics.	$P = 0.000$
H3	Financial Resources impact the career choice of students majoring in Economics.	$P = 0.000$
H5	Career Opportunities impact the career choice of students majoring in Economics.	$P = 0.000$

Note: ***, p-value < 0.001. Significant at the 0.05 level.

choosing a career. Malik and Hussain (2020)) state that parental education significantly impacts college students' career choices. Parents who are regularly present in their children's daily lives will increase their confidence in choosing the best profession in a variety of exciting career fields. As pointed out by Koech et al. (2016), parents can influence their children's career development by actively reinforcing or punishing certain behaviours, which may encourage or discourage particular interests or behaviours associated with certain abilities. This means that the influencer factor plays an important role in a student's career choices. They can provide advice or ask for the support of consultants to help students choose a career that best suits their abilities and interests. Most students also trust advisors' advice in the decision-making process.

This study proves that INT affects the career choice of students at a private university. It plays an important role in students' career choices and success (Uyar et al., 2011). When students study a major they love, they will experience passion for it and for learning. This factor is critical to stimulating ability and developing the capacity to help students meet job requirements. In addition, students' interests

motivated them to participate more in activities in which they were personally interested.

FIN significantly impact career choice, which was also accepted. The limited financial resources available to students negatively impact their career choices (USHURHE, 2014). Several studies have shown a positive association between financial outcomes and career choices. The issue widely discussed in the research is the financial difficulties faced by individuals, which hinder their career choice decision-making process (Ahmed et al., 2017). In this research, many students had average incomes, so they considered choosing a career with affordable tuition that their family could afford.

CAP in choosing a career is indispensable for students. Students should consider taking subject options congruent with the aptitudes and abilities that they identify (Falaye & Adams, 2008). According to Bandura (1986), self-efficacy is a predictor of career choices. Statistics from universities show that many students drop out even though they are in their 2nd or 3rd year of university because they felt that their current major was no longer suitable for their abilities, felt discouraged, and wanted to give up. Some students have chosen to quit their majors

Table 7
Survey questions

Factors	Code	Items	1*	2*	3*	4*	5*
Influencers	INL1	My parents influence my decision to choose an economic major					
	INL2	I have a brother/sister who also majored in economics					
	INL3	Relatives give me advice on choosing a major					
	INL4	Most of my friends are studying economics					
	INL5	My teachers advise me to study economics.					
	INL6	I have attended career counselling sessions at several universities.					
Interest	INT1	I am passionate about economic-related industries					
	INT2	I feel satisfied with the industry that I am studying					
	INT3	If I have to choose again, I will still study economics					
	INT4	The interesting factor is one of the important factors for me to choose a career					
Financial Resources	FIN1	My tuition is mainly supported by my family					
	FIN2	Having financial resources to support my studies makes me feel confident					
	FIN3	A bank loan can support my studies in times of need					
	FIN4	Financial resources is one of the important factors affecting my career choice					
Self-Capacity	CAP1	The major I am studying is a choice based on my ability					
	CAP2	I am confident that my skills will be relevant to my current major					
	CAP3	I easily apply the knowledge I have learned to practice					
	CAP4	I have a creative, logical mind and always want to find new ideas					
	CAP5	I usually take the initiative at work					
	CAP6	I think communication skills are essential in the working environment					
	CAP7	I always try to complete the assigned work well					
	CAP8	I love to explore and learn good things from other people and everything around					
Career Opportunities	OPP1	The demand for human resources in the major I am studying is quite high					
	OPP2	The major I am studying will have a good starting salary in the future					
	OPP3	The major I am studying has a safe working environment					
	OPP4	I will work in a dynamic and professional environment in the future with my major					
	OPP5	With the major I am studying, I can take on many positions in many different fields					
	OPP6	I will get a good image or status when I go to work with my major					
	OPP7	The major I'm studying will make it easier for me to get promoted and develop					
Culture	CUL1	I often learn about the cultural traditions of the place where I study before deciding to attend					
	CUL2	My career decisions are influenced by the cultural environment in which I study					
	CUL3	I chose the major because of the school's long tradition of training					
	CUL4	I chose to study my profession because it is related to the traditional family work					
	CUL5	The culture of the discipline helps me easily integrate with the people around me when I go to work					
	CUL6	The place where I am studying is extremely civilized and polite					
	CUL7	My future career in my major requires understanding the workplace culture					

* 1: Strongly Disagree; *2: Disagree; *3: Neutral; *4: Agree; *5: Strongly Agree.

and start studying another major, making them more interested in learning and matching their abilities. In this study, self capacity positively influenced students' career choices. If students do not major in the right field, they will waste a lot of time, money, and effort.

As expected, OPP shows that if the economy develops well, career opportunities for students will increase. Previous research has found that wages, security, and future employability are important considerations. Rettenmayer, Berry and Ellis (2007) assumed that high wages and job security were the most valued and critical aspects of job readiness. Furthermore, Thai art students consider salary and wages to be the most important aspects of their career decision-making processes (Ghuangpeng, 2011). Career opportunities are considered an influential factor in the career choices of students at a private university. Career opportunities for students will be high, and they will have more job options if the economic situation is good. On the contrary, when the economic situation is worse, students' career choices will be less and more limited. Job security and availability seem to be frequent factors in previous studies.

The study's findings reflect the relationship between job selection decisions and CUL amongst private university Economics students. Lingnan culture is defined by assertiveness and entrepreneurship, which promotes owning one's own business rather than working for others and is viewed as proof of professional success when parents pass the business on to their children (Wong, 2005). In fact, many students choose to study economics because their families have a commercial heritage, and parents frequently want their children to be successors and further the family's business. Students choose to study economics at a private university as it is one of the institutions that provide students with numerous cultural values and unique experiences. Students can gain experience in company culture while still in school through internship programs.

Culture, intellect, and career opportunities are the three variables that determine students' major decisions (Vu, 2020). The author's findings are that belief in self-capacity, and the imposition of others have no meaning in the study. The findings of this study have implications for the relationship between culture, interest, career opportunities, and students' career choices. Moreover, the research also showed that CAP and INL impacted students' choice of field of study. Similarly, Kazi and Akhlaq (2017), the findings of the present study share certain characteristics. The authors highlighted the variables that impact students' professional choices as family influences, peer groups, financial reasons, interests, and the influence of others. These factors affect students' career decisions, which were explored in this study.

Conclusion

This study aimed to examine the main factors affecting students' career choices in economic majors. Survey data were collected from students at a private university, who have experienced the choice of majors. This provides useful information to high school students in the process of choosing a university major. The results of this study showed that INL, INT, FIN, and OPP impact students' career choices in economics. This means that students should better understand the above factors and carefully consider them before deciding to choose a suitable major, and avoid making temporary decisions that adversely affect their future. These results will provide universities with a better assessment of how to attract economics majors to their universities.

Limitation and recommendation

This study was conducted using a variety of designs. We used a simple method to gather data for the application of Cronbach's Alpha trust factor, excluding unqualified variables, and ensuring the tightness of the remaining variables. Additionally, we use advanced EFA to eliminate observation variables and shorten the model. However,

this study has certain limitations as follows. First, this study was only conducted at a private university. Thus, the environment may affect the outcome as data from other universities may vary. Furthermore, because participation in the survey was entirely voluntary, the sample did not reflect the full student population, and the number of students who participated was small. Lastly, respondents were restricted to the selection variables specified in the survey, with no option to express any other components that they thought to be relevant to their field of study choice.

Despite its shortcomings, this research created a model that shows the elements driving students' economics sector choices at a private university in Vietnam. It gives students a better understanding of how they choose the field they wish to follow. Similarly, understanding these affected variables might help in the development of tools and strategies to attract university students.

Reference

Adekeye, O., Adeusi, S., Ahmadu, F., & Okojide, A. (2017). Determinants of career maturity among senior high school students in Nigeria. *ICERI2017 Proceedings*, *1*. doi:10.21125/iceri.2017.2026.

Afaq Ahmed, K., Sharif, N., & Ahmad, N (2017). Factors influencing students' career choices: Empirical evidence from business students. *Journal of Southeast Asian Research*. doi:10.5171/2017.718849.

Akbulut, A. Y., & Looney, C. A. (2007). Inspiring students to pursue computing degrees. *Communications of the ACM*, *50*(10). doi:10.1145/1290958.1290964.

Alexander, P. M., Holmner, M., Lotriet, H. H., Matthee, M. C., Pieterse, H.v., Naidoo, S., et al. (2011). Factors affecting career choice: comparison between students from computer and other disciplines. *Journal of Science Education and Technology*, *20*(3). doi:10.1007/s10956-010-9254-3.

Alves, C. A., & Gama, A. P. M. (2020). Family business performance: A perspective on family influence. *Revista Brasileira de Gestao de Negocios*, *22*(1). doi:10.7819/rbgn.v22i1.4040.

Aryani, F., & Umar, N. F. (2020). Factors affecting z generation on selecting majors in the university: An Indonesian case. *Journal of Social Studies Education Research*, *11*(3).

Atta, M., Akhter, N., Shujja, S., & Shujaat, J. (2013). Impact of self-efficacy on negative career thoughts in University Graduates. *International Journal of Business and Social Science*, (6), 4.

Awang, Z., Afthanorhan, A., & Mamat, M. (2015). The Likert scale analysis using parametric based Structural Equation Modeling (SEM). *Computational Methods in Social Sciences*, *4*(1).

Ayaz, M., Khan, I. U., & Khan, S. (2016). Impact of parents' income level on students' self-concept at secondary level in Khyber Pakhtunkhwa. *Gomal University Journal of Research*, *32*(2), 175–184.

Baliyan, P. S., & Baliyan, S. P. (2016). Employment preference of undergraduate accounting students in Botswana: Perceptional analysis of practitioners and students. *International Journal of Business and Management*, (12), 11. doi:10.5539/ijbm.v11n12p271.

Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory /Albert bandura.* (p. 16). New Jersey: Prentice-Hall 1986.

Bergeron, L. M., & Romano, J. I. (1994). The relationships among career decision-making self-efficacy, educational indecision, vocational indecision, and gender. *Journal of College Student Development*, 35.

Camarero-Figuerola, M., Dueñas, J. M., & Renta-Davids, A. I. (2020). The relationship between family involvement and academic variables: A systematic review. *Research in Social Sciences and Technology*, *5*(2), 57–71.

Colosi, L. (2006). *Designing an effective questionnaire.* Cornell Cooperative Extension.

Cordeiro, P. M. (2015). Cognitive-Motivational determinants of career decision-making processes: Validation of a conceptual model. *Doctoral dissertation*. (Portugal): Universidade de Coimbra.

Edwards, K., & Quinter, M. (2011). Factors influencing students career choices among secondary school students in Kisumu Municipality, Kenya corresponding author: Kochung Edwards. *Journal of Emerging Trends in Educational Research and Policy Studies (JETERAPS)*, *2*(2).

Erdogan, K., & Ali Caglar, G. (2013). The relationship between career choice and individual values: A case study of a Turkish University. *International Journal of Humanities and Social Science*, *3*(3) 03(3).

Falaye, F. W., & Adams, B. T. (2008). An assessment of factors influencing career decisions of in-school youths. *Pakistan Journal of Social Sciences*, *5*(3), 222–225.

Fouad, N. A., Kim, S. Y., Ghosh, A., Chang, W. H., & Figueiredo, C. (2016). Family influence on career decision making: Validation in India and the United States. *Journal of Career Assessment*, (1), 24. doi:10.1177/1069072714565782.

Gati, I., Gadassi, R., Saka, N., Hadadi, Y., Ansenberg, N., Friedmann, R., et al. (2011). Emotional and personality-related aspects of career decision-making difficulties: Facets of career indecisiveness. *Journal of Career Assessment*, *19*(1). doi:10.1177/1069072710382525.

George, D., & Mallery, P. (2019). Reliability Analysis. IBM SPSS Statistics 25 Step by Step: A Simple Guide And Reference. *IBM SPSS statistics 25 step by step.*

Ghuangpeng, S. (2011). *Factors influencing career decision-making: A comparative study of Thai and Australian tourism and hospitality students.* Victoria University PhD thesis.

Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). Multivariate data analysis. *Technometrics*, *15*(3).

Taherdoost, Hamed (2016). How to test the validation of a questionnaire/survey in a research. *Validity and Reliability of the Research Instrument*, *5*(3).

Bikse, V., Lūsēna - Ezera, I., Libkovska, U., & Rivža, B. (2018). *Comparative analysis of career choices by students in Latvia and the UK*. In *4th International Conference on Higher Education Advances (HEAde18) Universitat Politecnica de Valencia, Valencia*. https://doi.org/10.4995/head18.2018.8202

Hewitt, J. (2010). Factors influencing career choice. *Cited from www. ehow. com. on*, *15* (02), 2020.

Istiqomah, I., Hariani, L. S., & Afian, A (2018). Pengaruh konformitas teman sebaya, motivasi dan minat karir terhadap pemilihan program studi akuntansi di perguruan tinggi. *Jurnal Riset Pendidikan Ekonomi*, *3*(2). doi:10.21067/jrpe.v3i2.3801.

Joshi, A., Kale, S., Chandel, S., & Pal, D. (2015). Likert scale: explored and explained. *British Journal of Applied Science & Technology*, *7*(4). doi:10.9734/bjast/2015/14975.

Karacay, G. (2018). Talent development for industry 4.0: managing the digital transformation. *Springer series in advanced manufacturing* (pp. 123−136). Cham: Springer.

Kazi, A. S., & Akhlaq, A. (2017). Factors affecting students' career choice. *Journal of Research and Reflections in Education*, *2*.

Kerka, S. (2000). Career development and gender, race, and class. Eric Cleaning House on Adult Career and Vocational Education Columbus., *ED 421641*.

Killam, W. K., Degges-White, S., & Michel, R. E. (2016). Career counseling interventions: Practice with diverse clients. *Career counseling interventions: Practice with diverse clients*.

Koech, J., Bitok, J., Rutto, D., Koech, S., Okoth, J. O., Korir, B., et al. (2016). Factors influencing career choices among undergraduate students in public Universities in Kenya: A Case Study of University of Eldoret. *International Journal of Contemporary Applied Sciences*, *3*(2).

Krejcie, R. V., & Morgan, D. W. (1996). Determining sample size for research activities", educational and psychological measurement. *International Journal of Employment Studies*, *18*(1).

Kumara, A. R., Bhakti, C. P., Astuti, B., Ghiffari, M. A. N., & Ammattulloh, F. I. (2019). Development of Android Application based on Holland's Theory of Individual Student Planning. International Conference on Social Science and Character Educations (IcoSSCE 2018) and International Conference on Social Studies, Moral, and Character Education (pp. 32−36). ICSMC.

Malik, N., & Hussain, I. (2020). Effects of demographic variables on career choice of University Students. *Global Educational Studies Review*, *V*(III). doi:10.31703/gesr.2020 (v-iii).09.

Mirzanaveedshahzad, S., Takdees, F., & Ahmed, M. (2018). Factors influencing on students' career choices: multivariate analysis. *International Journal of Contemporary Applied Researches*, *5*(6).

Mitchell, T. R., & Beach, L. R. (1976). A review of occupational preference and choice research using expectancy theory and decision theory. *Journal of Occupational Psychology*, (4), 49. doi:10.1111/j.2044-8325.1976.tb00348.x.

Neuman, L. (2015). Basic of Social Research. *Acta universitatis agriculturae et silviculturae mendelianae brunensis: 53*.

Qiu, S., Dooley, L., & Palkar, T. (2017). What factors influence the career choice of hotel management major students in Guangzhou? *Independent Journal of Management & Production*, *8*(3). doi:10.14807/ijmp.v8i3.618.

Ray, A., Bala, P. K., Dasgupta, S. A., & Srivastava, A. (2020). Understanding the factors influencing career choices in India: From the students' perspectives. *International Journal of Indian Culture and Business Management*, *20*(2). doi:10.1504/ijicbm. 2020.105641.

Reid, H. (2017). Introduction to career counselling & coaching. *Introduction to career counselling & coaching*. doi:10.4135/9781473958142.

Rettenmayer, J., Berry, R., & Ellis, S. (2007). The image of the information system profession: An investigation of gender differences. *Journal of Computing Sciences in Colleges*, *22*(5).

Schunk, D. H., & Usher, E. L. (2019). Social Cognitive Theory and Motivation. *The Oxford handbook of human motivation*. doi:10.1093/oxfordhb/9780190666453.013.2.

Suutari, V. (2003). Global managers: Career orientation, career tracks, life-style implications and career commitment. *Journal of Managerial Psychology*, *18*(3). doi:10.1108/02683940310465225.

Taherdoost, H. (2018). Validity and Reliability of the Research Instrument; How to Test the Validation of a Questionnaire/Survey in a Research. *SSRN Electronic Journal*. doi:10.2139/ssrn.3205040.

Taylor, K. M., & Popma, J. (1990). An examination of the relationships among career decision-making self-efficacy, career salience, locus of control, and vocational indecision. *Journal of Vocational Behavior*, *37*(1). doi:10.1016/0001-8791(90) 90004-L.

Tear, M. J., Reader, T. W., Shorrock, S., & Kirwan, B. (2020). Safety culture and power: Interactions between perceptions of safety culture, organisational hierarchy, and national culture. *Safety Science*, *121*. doi:10.1016/j.ssci.2018.10.014.

Sekaran, Uma, & Bougie, Roger (2016). *Research method for business-A skill- building approach* (Seventh Edition). Encyclopedia of Quality of Life and Well-Being Research.

Uyar, A., Gungormus, A. H., & Kuzey, C. (2011). Factors Affecting Students Career Choice In Accounting: The Case Of A Turkish University. *American Journal of Business Education (AJBE)*, (10), 4. doi:10.19030/ajbe.v4i10.6061.

USHURHE, 2014 − 11th lecture series: 'developing a successful career among secondary school teachers in Nigeria: a genetic or environmental factor'

Vietnam Ministry of Labour − Invalids and Social Affairs (2021). Vietnam's Quarterly Labour Market Update Newsletter 2021. Cited from http://molisa.gov.vn/Upload/ ThiTruong/LMU-So29-Q12021-final-EN.pdf on, 12(01), 2023

Vu, H. T. (2020). Factors affecting the career choice of students in tourism: Evidence from Danang city, Vietnam. *Management Science Letters*, (13), 10. doi:10.5267/j. msl.2020.5.003.

Wong, A. L. Y. (2005). Type A behaviour at work - An empirical study of Taiwanese managers and entrepreneurs. *International Journal of Human Resource Management*, (11), 16. doi:10.1080/09585190500315166.

Zhang, H., & Huang, H. (2018). Decision-making self-efficacy mediates the peer support −career exploration relationship. *Social Behavior and Personality*, *46*(3). doi:10.2224/sbp.6410.