

CAREER INTENTION OF UNIVERSITY FINAL-YEAR STUDENTS IN VIETNAM IN THE CONTEXT OF COVID-19

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Abstract

It has been nearly two years since the COVID-19 pandemic arose worldwide, leading to significant changes in the majority of industries as well as daily routines. As a result, employment difficulties have progressively become a source of anxiety for job seekers, particularly university final-year students. Besides the importance of decision-making skills, there is a tendency for consideration of career intention during the COVID-19 pandemic whether the university final-year students in Vietnam keep following their studying major or working for another field, which can create significant impacts on the future labour market. This empirical research, based on the data obtained from 301 final-year students among universities in Vietnam, would follow the aim of reflecting on the status of how university students change their career intention including the factors and their attitude in COVID times. Therefore, further support capacity is proposed to assist students' career goals in the face of COVID's effects. In terms of methodology, this paper utilizes a mixed technique of qualitative and quantitative research approach to collect and process data. The hypothesis examines the effect of Covid-19 on mental health and job stability expectation, which influences the career intention leading to the impact on choice action. It is hoped that this project could be a useful reference in order to support further in-depth research in the future to provide a better demand forecast for the labour market.

Keywords: Career intention, COVID-19, University Students, Vietnam

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1. Introduction

1.1. Background of the research

Coronavirus disease (Covid-19) is a newly identified coronavirus that causes an infectious illness first detected in Wuhan, China in December 2019 (World Health Organization - WHO, 2019). Based on the statistics recorded in the middle of August in the Vietnam Ministry of Health (<https://ncov.moh.gov.vn/>), nearly 220 thousand Covid cases and approximately 4 thousand death cases and Vietnam also undergoes the period of lockdown by Coronavirus disease.

During the severe situation, according to WHO (2020), in the Covid-19 pandemic, there is the convergence of problems about public health, food security, education, socioeconomic, labour concerns, workers' health and safety in our lives. In addition, in Asian Securities (2020), in Vietnam, except pharmaceutical and electrification industries, almost every industry is affected negatively due to the pandemic. As cited in Sundarasan (2020), the General Director of WHO stated that the pandemic affected people's mental health resulting in loss of income and employment by social isolation, fear of contagion or loss of family members. Based on the estimation by the General Statistics Office of Vietnam - GSO (2020), as cited in Nguyen (2020), due to Covid-19, about 5 million people have lost their jobs. In the second quarter and first six months of 2021, the Vietnamese labour market was affected by the third and fourth outbreaks of the pandemic, the unemployment rate was 2.62% and increased by 0.2% compared to the previous quarter. During this period, the department recorded 0.5 million people lost their job, 4.1 million people suspended their production and business, 4.3 million people reduced their working hours or work alternately and 8.5 million people decreased their income. Besides, about 15.8 million people aged more than 15, were negatively affected by Covid-19. Compared with the first quarter, the number of employees aged over 15 is 49.9 million people, a decrease of 65 thousand people. Labour in urban areas is under more pressure for employment than in rural areas. In addition, the proportion of young people aged from 15 to 24 who are not employed, do not attend education or training continues to increase and account for 16.7 % (GSO, 2021). According to the Ministry of Industry and Trade in the second quarter of 2021, 70,209 enterprises were withdrawing from the market and this figure increased 24.9% compared to the same period in 2020. Specifically, the number of enterprises suspending business in this period was 35,607 enterprises, which increased 22.1% compared to the same period last year. There were 9,942 enterprises dissolved, which grew up 33.8% over the same

period in 2020. Before that, among these enterprises, there were nearly 20% (about 1,953 enterprises) registered for temporary business suspension.

1.2. Rationale for the research

COVID-19 has brought a huge impact worldwide, leading to a global recession that each national economy has to deal with. According to Vu and Nguyen (2021), both aggregate supply and demand were influenced in international commerce, specifically, input shortages cause supply to be frozen or drastically reduced, and demand to be significantly sluggish due to lockdown policy. Another aspect that is also being impacted by the COVID-19 pandemic is students' present labour market engagement and post-college employment aspirations. It has been reported that there has been a decline in the wages and working hours among students, around 35%; students have to suffer from being jobless, internship chance and surprisingly more than 60% of respondents said they had a family member who had salary cut down (Aucejo et al., 2020). Moreover, Du et al. (2020) claim that many students may choose to continue their education by pursuing a postgraduate degree because of labour market issues, which also lengthens studying time and influences on graduate's potential income, becoming out of recession control; however, it remains to be considered if the qualifications they desire will pay off the time and money they have committed. Thus, they conclude that studying abroad will be greatly restricted so the students will have to navigate a shrinking graduate labour market. Vietnam has inevitably experienced the same issue as the rest of the COVID-19 countries in that unequal labour market reforms might aggravate income disparities although Vietnam already has robust unemployment policies that are fundamentally different from those in the United States. As people become unwell or seek to socially separate themselves, the illness has resulted in a direct decline in labour supply, therefore, there has been a collection of data such as demographic and business areas are used to emphasize national heterogeneity in terms of job loss and income inequality (Le et al., 2020). To shed insight on career intention changes during the COVID-19 time, we decide to choose university final-year students as the main respondent for research since, in comparison to the general population, students are increasingly recognized as a vulnerable group, suffering from greater levels of anxiety, depression, drug misuse, and disordered eating; as a result, when the nature of their educational experience drastically alters, such as during the COVID-19 epidemic, the load on this susceptible population's mental health is magnified (Browning et al., 2021).

In general, the process of following career intentions of final-year students in universities is influenced by many factors which is an alarming problem that has been around for years. Tragically, the COVID pandemic is making this situation worse which can cause manpower shortages in some industries in the future. Higher educational institutions need to take positive and appropriate measures to deal with this problem.

We find out that there has been previous research about career decision making for a particular sector such as Tourism and Public Health, however, there is hardly any research that mentions this change especially in Vietnam. Thus, our findings would fill the gap of the factors and the attitude toward career intention change in Vietnam during COVID times among university final-year students from different sectors.

1.3. Research problem and research objectives/questions

Based on the background and rationale of the research, the main purpose of this study is to identify the career intentions of university final-year students in Vietnam in the context of Covid-19. Additionally, this research paper also gives readers a deeper insight by answering the four main questions. The first question is “How do the final-year students’ career intentions in Vietnam change during the COVID and their attitudes towards those changes?” to describe the behaviour, readiness, preparation and actions of university final-year students towards their career intention in Vietnam in the Coronavirus pandemic situation. To be more detailed, our purpose is to analyze the causes for the changes in their career intention by researching thoroughly the question “What are the factors influencing university final-year students’ career intention in the situation of the COVID?”. Last but not least, to explore their expectation about the support from the university, description of a university program in the Covid-19 and evaluation of them on those programs, we propose the solution to the question: “How is the support from the university in the final-year students’ career intention under the effects of COVID?”.

1.4. Research significance

Indeed, there is a gap between university students and the labour market as more and more under and fresh graduates tend to change their beginning career intention. By obtaining various answers from final-year students of universities in Vietnam, there will be an expansion on the current understanding of this phenomenon in the COVID-19 pandemic by analyzing deeper insights of different sectors instead of a particular major. This study provides a clear presentation from the perspective of final-year students to assist educational institutions in

gathering more information on this topic so that they can improve the educational programme and create opportunities for them to follow their desired field. Therefore, if this issue is partly handled, it will make a positive contribution to better allocation of human resources in the right sector along with becoming a basis to find ways to have a better demand forecast for the future labour market to address human shortage or surplus in a certain profession, especially during these volatile COVID times.

2. Literature review

2.1. Key concepts

To research the study thoroughly and deeply, the meaning of “intention” is defined as the degree to which a person is willing to try to accomplish an action, behaviour or the effort that this individual intends to devote and perform the attitude (Fort et al., 2015 as cited in Ajzen, 1991). Based on the research of Zhang et al. (2020), the term “career intention” refers to a person's desire to pursue a certain occupation. In more detail, the study of Cano et al. (2016) indicated that university students’ career choice intention considers the plan students intend and want to perform after finishing their studies for both long-term and short-term in their occupational plan. On the other hand, phrases such as “career aspiration”, “career goal”, “career preference”, “career choice goal” and “future career choice” can be supplanted for the term “career intention” with the similar meaning (Lent et al., 1994; Zhang et al., 2020). In the phase of “career intention change”, “change” means making or becoming distinct or utilizing one thing to replace another; also it implies unusual or new alteration that is better or more satisfying than what existed in advance (“Change,” n.d.). As a consequence, it can be inferred that “career intention change” among university final-year students indicates a shift in their desire to pursue their future career path post-graduate.

2.2. Career intentions of final-year students during the COVID-19

In the situation of Covid-19, final-year students’ career intentions are considered to receive significant impacts. Students, especially those about to graduate, were depressed because they felt anxious to begin their careers (Sundarassen et al., 2020). Based on the study about the tourism industry (Yapici et al., 2021), tourism students changed their career intention and the number of students continuing to pursue this major decreased significantly due to Covid-19. Moreover, after graduating from university, many nursing professionals may decide to no longer pursue this career (Dos Santos and health 2020).

In contrast, some research has shown that undergraduate students do not have differences in their career intentions. For example, different from feelings of reluctance, fear or uncertainty, potential businessmen consider the pandemic as a challenge or an opportunity (Lopes et al. 2021). Furthermore, a large number of medical students do not want to change their career choice despite the complexity of Coronavirus (Byrnes et al. 2020). Besides, the majority of dental students do not change their career choices in this industry; however, they intend to work in private clinics instead of pursuing a residency program in the hospitals (García et al. 2021).

Under the impacts concerning COVID-19, final-year students perceive changes in their future career pursuits. Indeed, a study of career guidance from 93 countries (Ananiadou et al. 2020) states that due to the COVID-19 lockdown, the youth intend to adjust career intention and enrol in online courses. Another, to adapt to remote work fluently, students should have access to advanced professional education and raise their digital skills (Panina et al. 2020). Similarly, research in the USA has analyzed dental students' perception of the influence of the epidemic on the job market (García et al. 2021). In that study, several students emphasize essential preparations in case of another outbreak, whereas others hesitate if they should try more. Moreover, some students pursue disparate career paths post-graduation such as attending a residency program despite extra obstacles or applying to a Masters of Public Health program rather than entering a dental workforce as expected.

2.3. Factors affecting the career intention of final-year students before and during COVID-19

According to Ozlen and Arnut (2013), before the COVID-19, the factors influencing university students' career choice are primarily family and technology environment, however, not by their educational environments. Surprisingly, in terms of personal orientation, Bosnia and Herzegovina students tend to evaluate themselves based on their capacity corresponding to their chosen major for the long term and believe to can access changes in career intention. Moreover, their findings claim that there are also some side factors such as easy-to-do occupations, accessible scholarships, and employment possibilities. According to the outcome of the findings, Yapici et al., (2021) concluded that the COVID-19 pandemic has brought a direct impact on tourism management and travel destinations as well as participants who got postgraduate tourist education tend to be more motivated to pursue their chosen major rather than those who acquired undergraduate tourism education, based on educational level assessment themselves.

Even though COVID-19 has an impact on all populations, particularly in socially disadvantaged communities and individuals employed as essential workers, university students are among the most severely impacted by the virus due to concerns about academic success, future careers, and social life during college, among other things (Aristovnik et al., 2020). Aristovnik et al. (2020) claim that students' mental health during the physical halt of public life was strongly influenced by the degree of change in their daily routine as well as the social assistance they received during that difficult moment, therefore, the contrast between positive and negative levels suggests that the pandemic and the different government responses (e.g., public life suspension, travel bans, etc.) will have distinct short- and long-term effects on students' education and mental health. Furthermore, students who have fewer concerns about education issues tend to be satisfied with their university's program (Händel et al., 2020 as cited in Aristovnik et al., 2020). However, as a consequence of the altered delivery and unpredictability of university education, technological issues of E-learning, being away from home, social distance, lower family income, and future career, many students experience heightened stress, anxiety, and depressive symptoms which occurs in universities all around the world (Aristovnik et al., 2020). University students appear to be in unwanted outcomes as a result of their abrupt joblessness and financial uncertainty, which is troubling their socioeconomic and mental health. Living with the family has long been recognized as a powerful source of comfort for individuals, which helps to alleviate pessimistic views since positive family settings have been shown to improve the mental health of vulnerable young members suffering from depression or anxiety (Harmelen et al., 2016, cited in Islam et al., 2020). Islam et al. (2020) emphasize that COVID-19 has put several families in financial difficulties that refrain university students from earning money to support their parents. Especially, students who are non-Hispanic Asian females having a health problem with average family income tend to be at a higher rate of psychological impact (Browning et al., 2021).

Moreover, that COVID-19 induces unpleasant emotion has a detrimental impact on hospitality management students' vocational affiliation with the hospitality industry (Birch et al., 2021). They also emphasize that these unenthusiastic feelings make students reevaluate their career orientation because the charisma of hospitality is no longer attractive enough to compare with the desirability of working in this sector. In terms of health, Wang et al. (2021) show that the level of threat caused by COVID-19 may lead to changes in UM (Undergraduate Medical) students' attitudes.

While there are still UM students pursuing medical majors since they consider cognition, doctor-patient dispute, views of real practice and the amount of wage as their motivation, the others assume that healthcare is in danger because not only their parents' support reduces but they also feel overwhelmed by the higher pressure and workload.

Indeed, in both hospitals and clinics, the present COVID-19 pandemic is likely to raise the turnover rate and tension for public health workers (Dos Santos and health 2020). Moreover, several final dental and dental hygiene students find it difficult to remain in their desired occupation after graduation as the lockdown policy has prevented them from practical activities towards work and clients. Unexpectedly, interruption in licensing examination is also cited by half of the final-year dental students as a key obstacle to post-graduation employment (García et al., 2021).

On the other hand, Wang et al. (2021) claim that two main factors influence university students which are internal value components including hobbies and proficient character as well as external value components like job stability, earnings and welfare. However, not only are the students' mainly internship and jobs significantly confounded due to the appearance of COVID-19 but the labour market also hardly avoids these concerning interruptions (Aucejo, French et al., 2020). Akkermans et al., 2018, as cited by J. Akkermans, Richardson & Kraimer (2020), concur that the COVID-19 pandemic is disruptive and an exceptional occurrence. Once it occurs, it is more likely to begin a purposeful cognitive process because of its limited controllability. Thus, both abrupt changes in occupation (even respite) and larger social shifts are regarded as epiphanies by certain students, prompting them to reconsider their career path and life goal.

To shed a better light on how these factors interact, this research paper will be based on the Social Cognitive Career Theory (SCCT) which aims to explain three interconnected phases of career development (Lent et al., 1994). This paper concentrated on the SCCT's Choice Model - the way educational and career choices are made. This model indicates that individuals' career selection is inter-influenced continuously by multiple factors of the external environment, which affect human behaviours after undergoing a cognitive process (Lent et al., 2011; Duffy et al., 2014; Chang & Edwards, 2015; Thompson et al., 2016; Liguori et al., 2019 as cited in Lee et al., 2021).

Self-efficacy is the most noticed factor in career literature, which can be understood as the perception of oneself in their ability to perform a series of actions to achieve planned outcomes

(Bandura, 1986 as cited in Lent et al., 1994). This element can affect the outcome expectations - the beliefs in the possible results of the behaviours (e.g., job stability, income level; Lent et al., 1994; Carrico et al., 2019). The interests then receive the impacts from the level of self-efficacy and outcome expectations, followed by the development of choice goals (i.e., career intention), choice action (eg., enrolling in corresponding major) and performances, according to Lent et al., 1994. Hence, the level of performance domains and attainments can be a barrier or support when it affects the learning experiences again like a loop (Lent et al., 1994).

Under SCCT, the environmental factors can be divided into the proximal element (eg., family approval/disapproval, financial concerns/resources) and background contextual influences/distal elements (eg., family background, social-economic status, technological environment, education policies), stated by Lent et al., 2000 as cited in Carrico et al., 2019. Personal inputs (eg., health conditions) are also a part of the process which influence both the proximal and distal environment as well as the learning experiences.

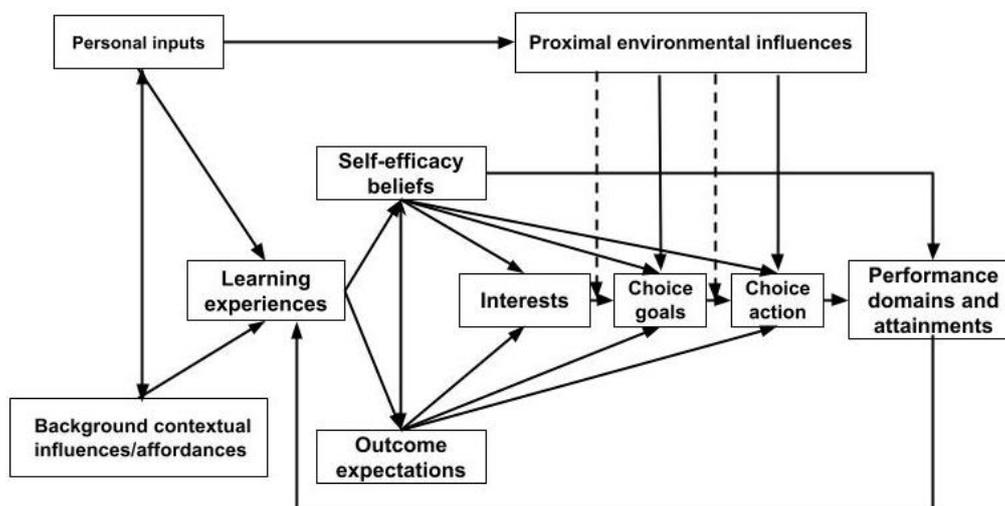


Figure 1. SCCT's Choice Model

Based on the SCCT's Choice Model, this research paper will evaluate the model in the context of COVID-19 by adding the COVID-19 pandemic element to evaluate the factors affecting the process of following career intentions. Since the COVID-19 pandemic is a relatively new disease (WHO, 2019), this research paper will focus mainly on how this pandemic impacts the factors impacting the career intention of the final-year students as well as choice action through the direct changes in personal inputs (eg., mental health) and outcome expectations (eg., job stability expectation) to have a better prediction about the human resources.



Figure 2. Conceptual framework for the factors

2.4. Roles of the university to career intentions

As stated in Career guidance policy and practice in the pandemic (Ananiadou et al., 2020), the young are particularly susceptible due to the precariousness of the COVID-19. Subsequently, the support from the university in this pandemic can play a crucial role in helping the final-year students to overcome this situation.

It is considered important for the youth to comprehend occupational orientation and training programs related to high-quality employment (Ananiadou et al., 2020). Hence, vocational education and training which have work-based characteristics such as internships and apprenticeships witnesses an increase in the demand from students studying the last year (Ananiadou et al., 2020).

Moreover, the provided information about the labour market in higher education institutes needs to be updated timely to help the students adapt to the rapidly shifting market, according to Ananiadou et al. (2020). Indeed, to cope with the rising number of graduates desiring to change career path intention, during the COVID-19, stated by Panina et al. (2021), considering students' career interests, aspirations, professional objectives, and perspectives is inevitable.

However, some interviewees in Career guidance policy and practice in the pandemic (2020) mentioned that some universities may have lacked resources and were inadequate to effectively help learners throughout lockdown. This situation can be a result of COVID-19 impact on the students perceiving the support from universities due to the difference between online and offline services or time, money and talent available. As a result, additional resources and support should be provided by the universities in the context of the COVID-19 pandemic (Plakhotnik et al., 2021).

3. Methodology

3.1. Methodological approach

The study was conducted in an empirical research method. Aiming to examine graduate trajectory during COVID-19 times, a combination of qualitative and quantitative methods was utilized to collect primary data. Cited in Basias & Pollalis (2018), the qualitative approach was employed first to detect, comprehend, and assess prime elements and phases of research objectives. Since the complexity of this subject requests an in-depth comprehension of various fields, using the qualitative method is an appropriate approach to the research. Then, to articulate the magnitude of each element and prioritize essential variables, a quantitative approach was used. This method might be employed to identify and assess the ranking of variables (Basias & Pollalis, 2018).

3.2. Data collection and statistical analysis

In the qualitative method, the researcher utilized some experience surveys to interview final-year students to discover deeper their desire about support programs from universities as well as an assessment of these programs.

Regarding the quantitative method, the e-questionnaire contains multiple-choice or brief questions that cover final-year students' career intention change, factors influencing their career path in the context of COVID-19, and their attitudes towards the effect of COVID-19 on their career intention. This approach utilized a simple random sampling technique with a target population of students enrolled in different universities across Vietnam, whose sample representative is final-year students. 301 participants anonymously responded to the online survey conducted through email or social media. Subsequently, the quantitative data was processed on statistical software SPSS (version 25) and Microsoft Excel.

3.3. Hypothesis test

The core objective of this study is to investigate how the university final-year students' career intentions are affected by the COVID-19 crisis in Vietnam, which factors affect the career intention of final-year students during the COVID-19 part. To test the link between variables in the conceptual framework of this paper, there are some assumptions proposed that:

H1: The COVID-19 pandemic significantly affects the mental health of university final-year students in Vietnam.

H2: The COVID-19 pandemic significantly affects the field's stability expectation of university final-year students in Vietnam.

H3: There is a difference between the two genders in the influence of job stability on career intention change during the COVID-19 pandemic.

H4: There is a difference between the two genders in the influence of mental health on career intention change during the COVID-19 pandemic.

4. Results

4.1. Qualitative data

We conducted an interview with 5 final year students from different majors and universities to gain deep insight into their future career intentions based on our research question. The first question was what happened in the final-year students' career plans in Vietnam during the COVID, and how they reacted to those changes. Not only did L., Tourism Major, 2021 but also the four other students claimed that the formation to change career intention or not in their mindset mostly came from the COVID-19, which means a worrisome issue or an opportunity.

“If the pandemic is well controlled, I think I will still follow the tourism industry or move to a small niche of the industry. For example, working in an airline agency.

If the pandemic is difficult to control and I am in my final year and about to graduate, I will switch to another industry that has a number of similarities with the tourism industry. Because tourism majors are trained in many other professions, which can be applied to many different fields. It's not that you study tourism, you can only do tourism.” (L., Tourism Student)

However, V., Medical major, 2021 found that: *“The COVID-19 pandemic has shown everyone the importance of disease prevention. But as I mentioned above, I am studying Public Health, which is a major in disease prevention and control. So because of the COVID-19 epidemic, I feel the importance and necessity of the major I have chosen”.*

The next question was about the factors influencing university final-year students' career intention in the context of the COVID-19 and 3 among 5 students considered changing to another field or another industry. For example, L., Tourism major, 2021 wants to take advantage of her knowledge in the tourism industry to switch to marketing, so it will be more convenient than other positions during COVID-19. Moreover, D. is also a Tourism student but she assumed that the time to face COVID-19 would be prolonged and hard to predict: *“Since*

this pandemic is affecting negatively the tourism industry which is my major now a lot, it makes me feel that I can not stick with this industry in the long term. The pandemic may still happen due to different virus variants and I cannot know when this will end, but I know it will take at least a few years. Meanwhile, I will graduate next year and I can not wait too long, therefore it would be better for me to pursue other career paths which have a better potential to grow, such as being a psychologist.”

Another point of view was from T., Accounting major, 2021 which was the inconvenient working space in her area and the income that made her interested in the Education field.

However, M., IT major, 2021 found his industry still able to develop even in COVID-19: *“I still have many future plans for my current career. Most of all, the IT industry is one of the industries that still develops and brings good income during the pandemic because basically we just can't go to work, the rest is still fine. The desired job position after graduation is to become a blockchain developer, there is a change from the current job (web developer). It was a decision to follow the trend of new technology, many new things and the promise of a better income”*

Similarly, V., Medical major, 2021 emphasized the importance of her studying major in COVID-19 and also her interest:

“I see that for the time being, my major is quite lacking in human resources and the whole country is also focusing on strengthening the field of disease prevention, so I think the job opportunities will be more open in the future”

“My mother is also in the industry, so she is also the one who suggested to me about this industry, and the choice is still decided by myself. I can feel that I like learning about improving people's health, so I also decided to choose this major”.

In terms of further support of universities to final-year students' career intention under the effects of COVID, it seems that universities have not focused on this issue and even specialized seminars are not attractive enough for students.

“I don't really care about the programs of my school because I think they are not relevant to the field that I like.” (D., Tourism major, 2021)

On the other hand, L., Tourism major, 2021 suggested that: *“It is difficult to switch from Tourism to Accounting because Accountants have academic knowledge and high expertise.*

Tourism can be transferred to the Hotel, Marketing, so the universities can give some suggestions and orientations related to the nature of the studied industry, which is the Career Orientation Counseling Program”

4.2. Quantitative data

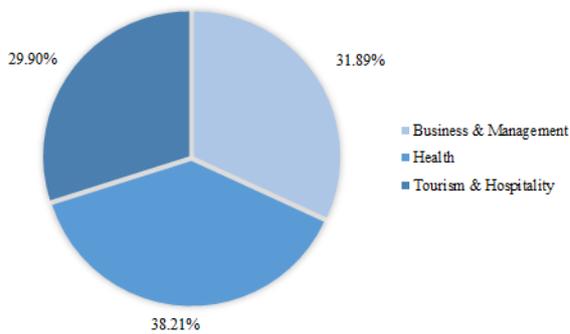


Figure 3. Majors of participants

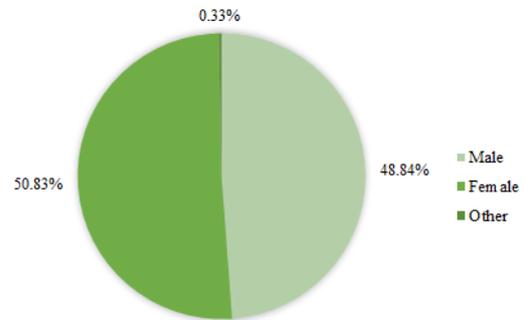


Figure 4. Gender of participants

Aiming to get a specific insight of final year students, we approached 301 students divided into three main studying majors, including Business & Management Industry, Health Industry, and Tourism & Hospitality. It can be seen that there was not much fluctuation among these three majors, however, Health Industry still ranked first place with 38.21% of respondents. In terms of gender, the number of male and female students was quite close with 48.84% and 50.83% respectively.

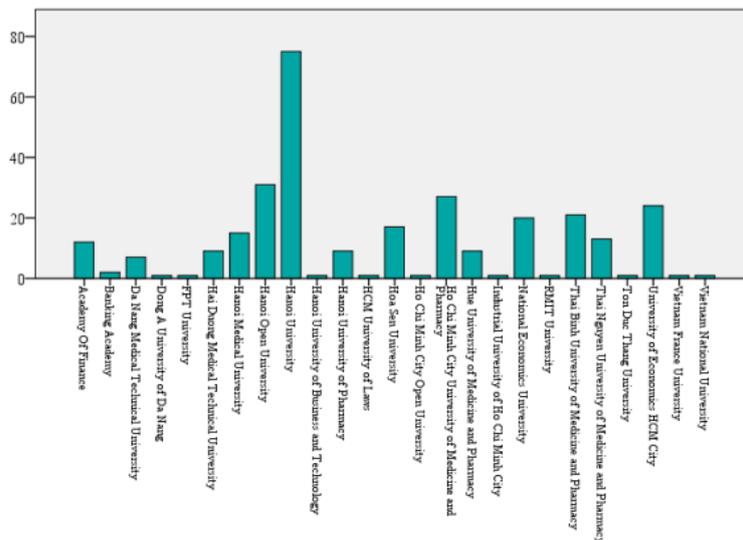


Figure 5. Universities of participants

The number of final year students that joined our survey was from universities of North, Central and South of Vietnam including three majors mentioned above. The highest figure of students

belonged to Hanoi University with nearly two-thirds of those in Hanoi Open University and Ho Chi Minh City University of Medicine and Pharmacy. While two economic universities which are National Economic University and University of Economic HCM City were around one-third as many as that of Hanoi University, the other universities were quite sporadic.

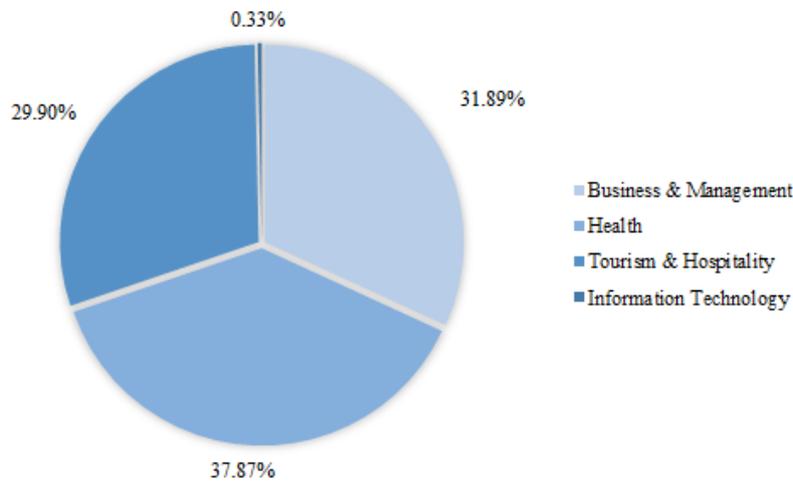


Figure 6. Intended working filed of final-year students before COVID-19

There were no significant differences from this pie chart compared to the studying major one. Thus, most students from these three majors assumed that they would pursue the same majors as they studied in university to apply for a career.

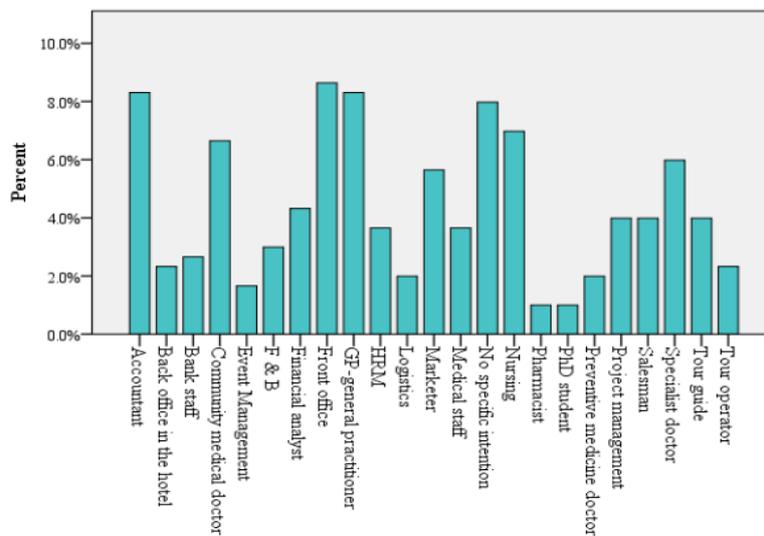


Figure 7. Career intention (Job position) of final-year students before COVID-19

This bar chart shows more details about the job position among the three majors. In terms of Business & Management Industry, the accountant was claimed to be the most chosen and twice

as many as that of salesman while logistics and bank staff occupied around 20% of this group. The marketer was noticed more when nearly 60% of students intended. Front Office was preferred by a majority of Tourism students with more than 80% while tour guide and F&B was half of this figure. For the Health Industry, general practitioner (GP) took the leading position along with the closeness of community medical doctors and nursing. However, it was also quite considered that the number of people who did not have specific intentions was higher than other chosen positions.

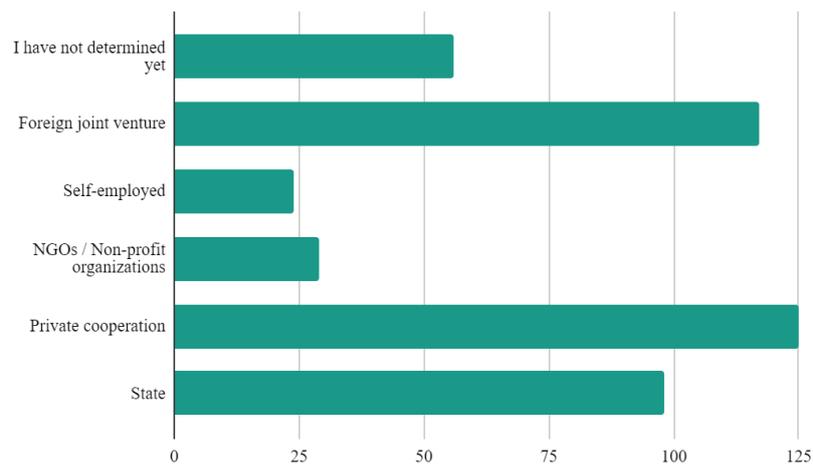


Figure 8. Type of organizations/businesses working intention of final-year students (before COVID-19)

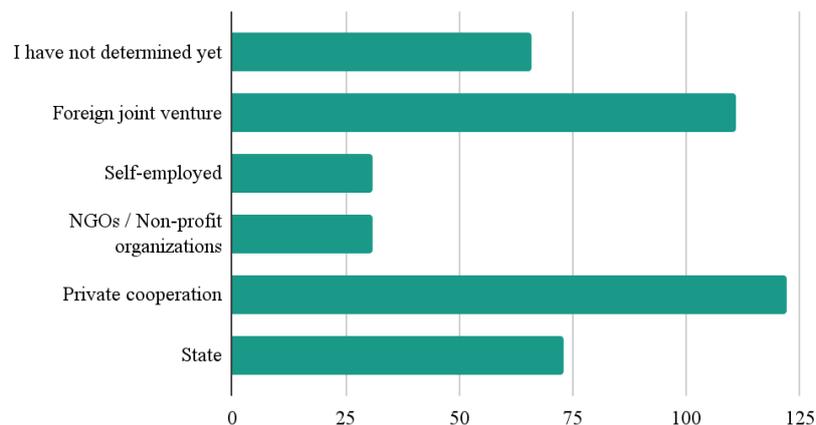


Figure 9. Type of organizations/businesses working intention of final-year students (in the context of COVID-19)

Our survey clarified the question into two parts including before and in the context of COVID-19. This question was about the types of organizations/businesses that respondents tend to work for. It can be easily seen that Foreign joint ventures and Private Cooperation were at the highest

rate in both situations with more than 100 respondents. However, there was a considerable decrease of the State from 98 down to 73 people while self-employed and NGOs/Non-profit organizations did not fluctuate much. The number of "I have not determined yet" options was slightly increased in the context of COVID-19.

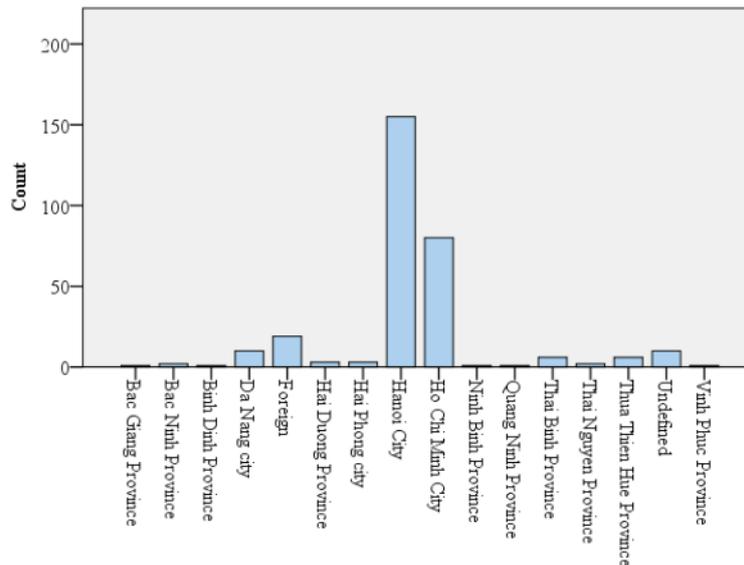


Figure 10. Cities that final-year students intend to work before COVID-19

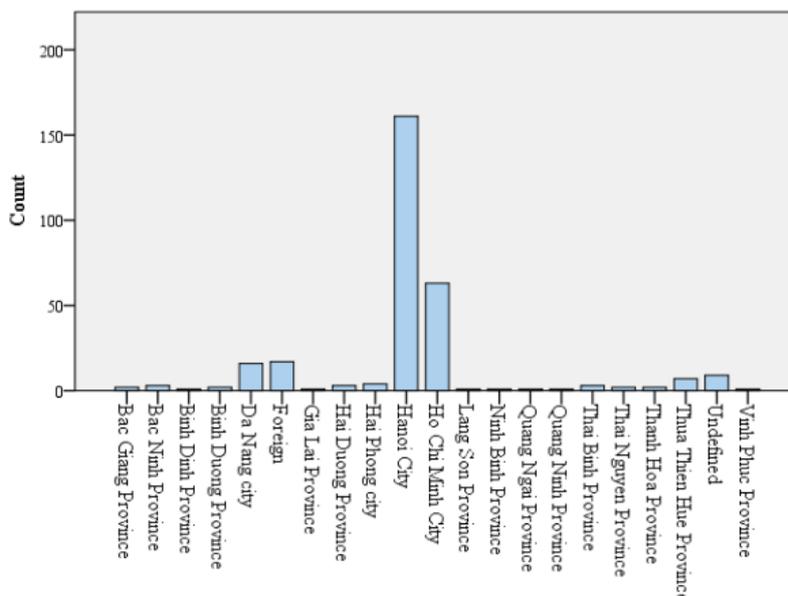


Figure 11. Cities that final-year students intend to work in the context of COVID-19

For the question about where intended to work in both contexts, the majority of students were likely assumed that more job opportunities were found in big cities, especially in Hanoi and Ho Chi Minh City.

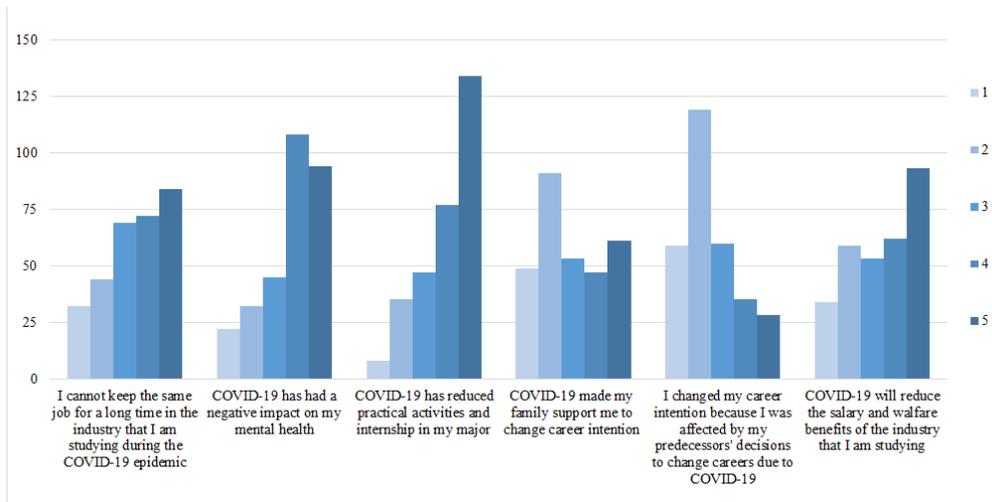


Figure 12. Effect level of COVID-19 on final-year students

The bar chart displays the rate of COVID-19’s effect on final-year students from 1 to 5 (Strongly disagree - Disagree - Neutral - Agree - Strongly Agree). It can be seen that final year students were most affected by COVID-19 due to the lack of industry practice and internships that accounts for more than 125 people strongly agree as well as the decline in mental health. Rising concern about the salary and welfare in the industry made it difficult for nearly a-third of total respondents to keep the same job for a long time in the COVID-19.

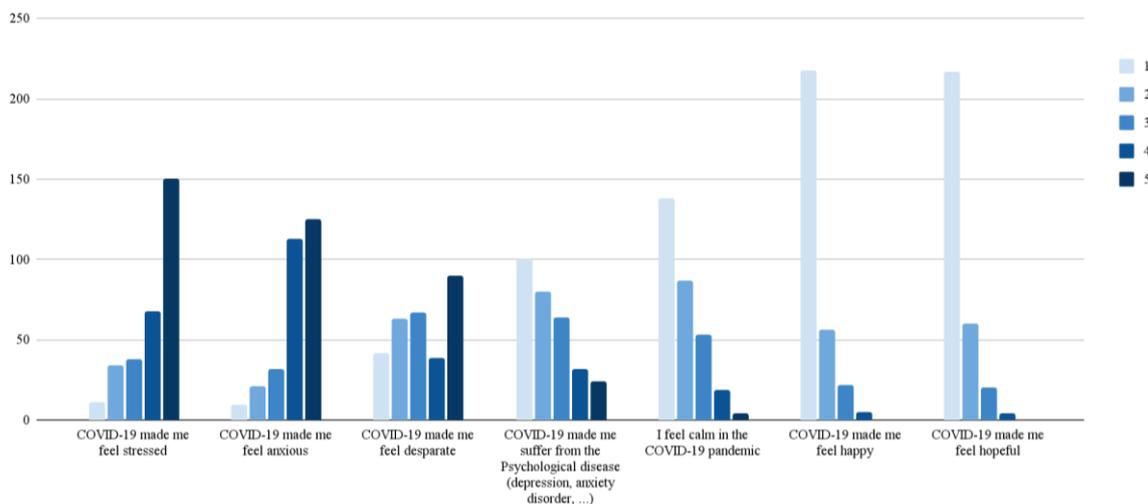


Figure 13. Effect level of COVID-19 on mental health of final-year students

Similarly, this question was still in scale from 1 to 5 format (Strongly disagree - Disagree - Neutral - Agree - Strongly Agree) and particularly about the level effect of COVID-19 on mental health. According to the bar chart, although the down mood that COVID-19 had brought such as stress, anxiety and desperate attained most of strongly agree from students, being on

the verge of getting psychological disease comprised around two-fifths of those who disagreed. Another common point is that the strongly disagree section ranked first among the three remaining statements which were feeling calm, happy and hopeful in COVID-19.

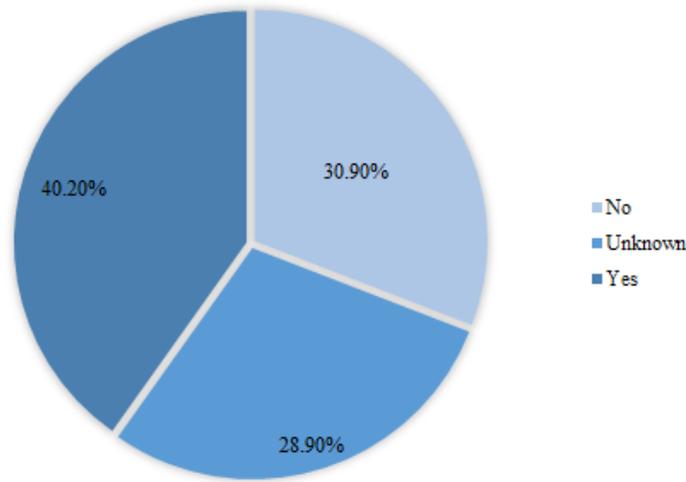


Figure 14. Career intention change of final-year students

The pie chart represents the question of whether the final year students changed career intentions and the figure is relatively evenly distributed. However, those who chose to change career intention still got the highest proportion then refuse and unknown respectively (30.9% and 28.9%)

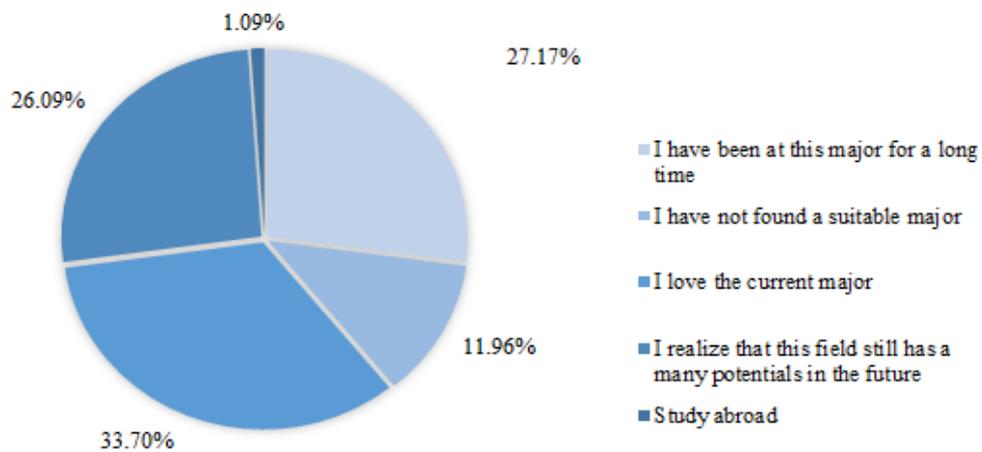


Figure 15. Reasons why final-year students do not change their career intention in the context of COVID-19

In figure 15, the results we received were various, however, the most common reason why some students did not change the career intention during COVID-19 was the personal interest

in the major along with a long time studying, which made them firmly attached to the career. Moreover, they also found that their major could have many potentials in the future (26.09%).

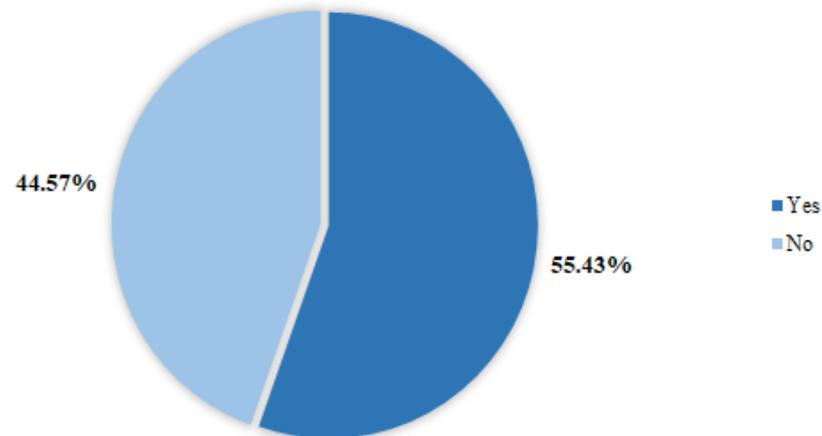


Figure 16. Job position intention change of final-year students in the context of COVID-19

When being asked if they wanted to change the position in their desired industry after experiencing the COVID-19 pandemic or not, 55,43% responded “Yes” while 44,57% chose “No”.

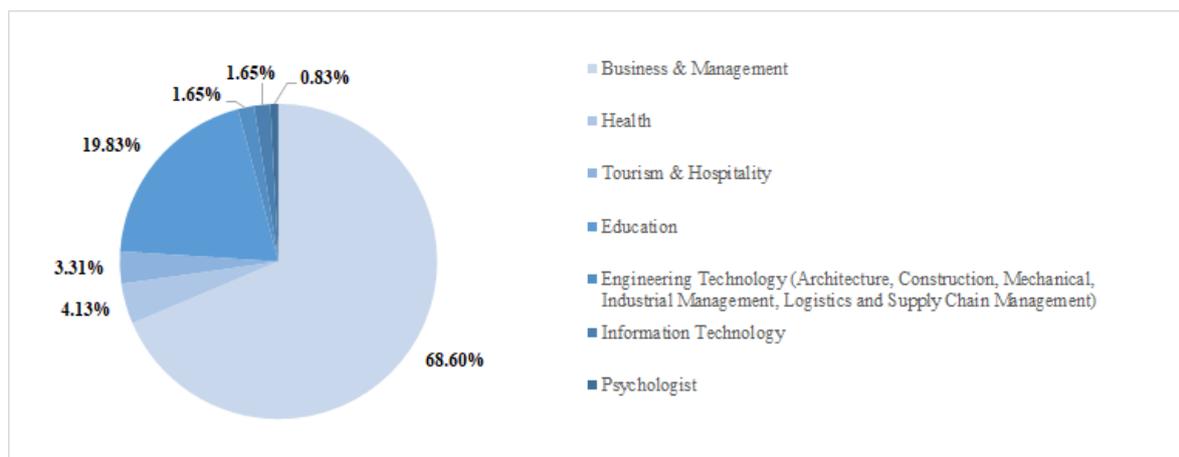


Figure 17. Intended working field of final-year students in the context of COVID-19

Most of the respondents (68.60%) claimed that Business and Management was their desired career field after the COVID-19 pandemic happened. Education field ranked second with 19.83%, followed by the Health Industry (4.13%) and Tourism and Hospitality (3.31%). Others reported pursuing Psychologist, Information Technology and Construction, Mechanical, Industrial Management, Logistics and Supply Chain Management.

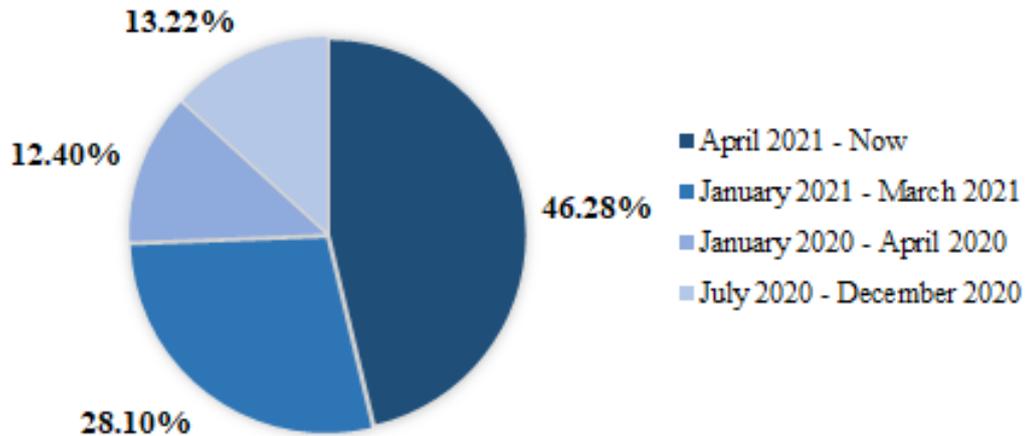


Figure 18. Time that final-year students started to change career intention

46.28% of respondents claimed to change their career intention in the period from April 2021 to November 2021, 28.10% chose January 2021 - March 2021, 13.22% and 12.40% chose July 2020 to December 2020 and January 2020 to April 2020 respectively.

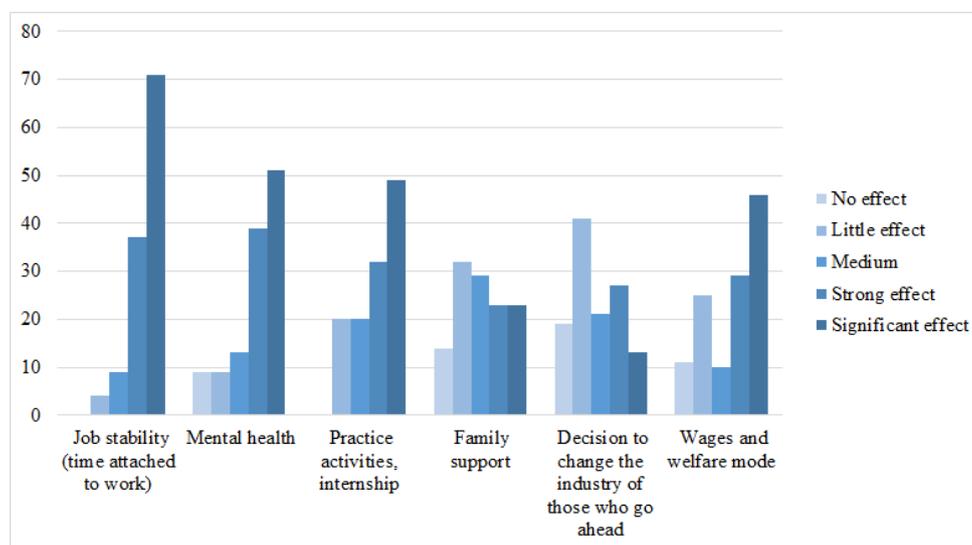


Figure 19. Effect level of factors on career intention change in the context of COVID-19

In the next question, our survey focused on the level effect of COVID-19 on six factors in career intention which scaled from 1 to 5 (From Strongly disagree - Disagree - Neutral - Agree - Strongly agree). The first factor related to the length of the time that the respondents can maintain and around 70 people agreed and fewer than 50 people disagreed. In terms of mental health and the reduction of practical activities and internship, these two factors received a dominant rate for “agree” to “strongly agree: with more than 100 students whereas family support and changing the decision affected by predecessors' decisions were not considered to

be an influential element. Although the salary was one of the motivations for workers, the disagreement proportion shared the approximate number as the agreement, accounting for 60 people.

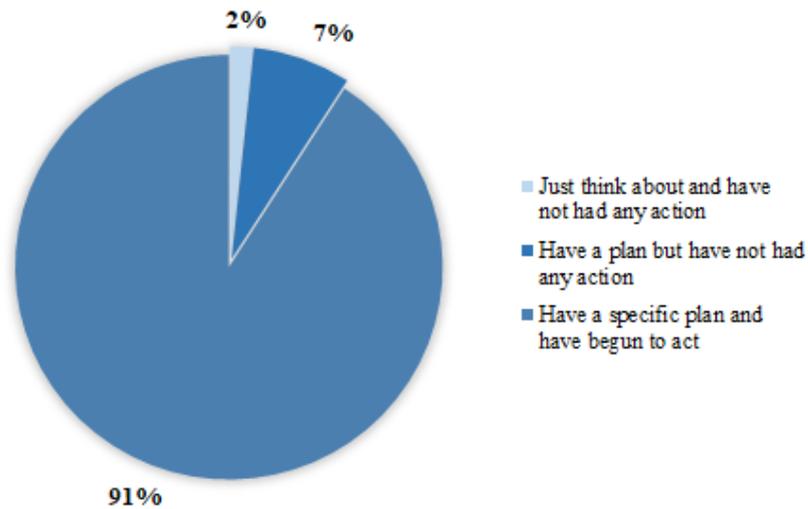


Figure 20. The influence level of career intention changes on action of final-year students

More than 90% of surveyed students had a specific plan and began to act, while only 9 students had a plan but no actions and 2 students just thought about the career change without any action.

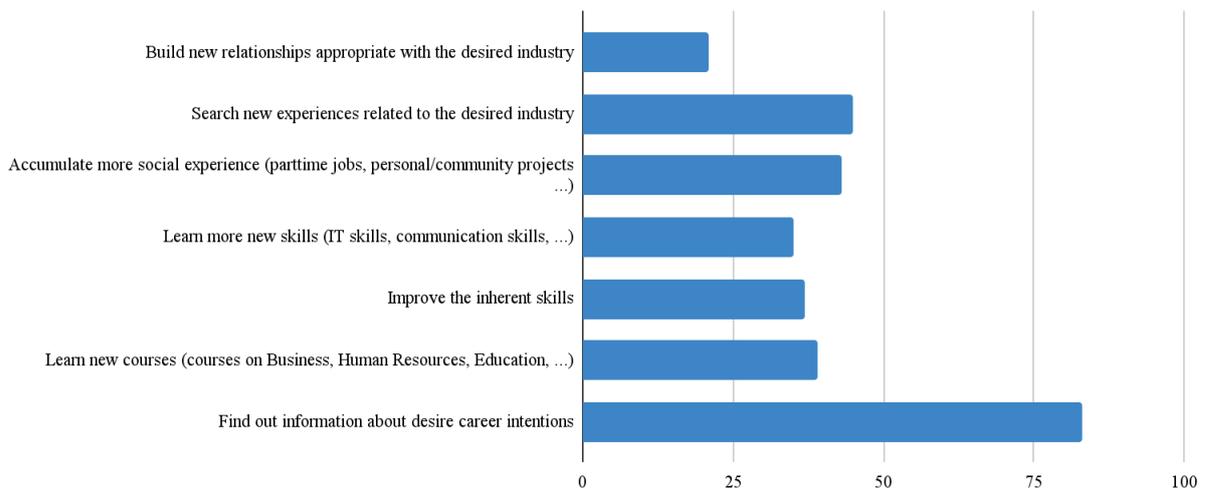


Figure 21. Actions of final-year students pursue new career intention (in the context of COVID-19)

The most popular activity was finding out information about the desired career (27.39%). Otherwise, gaining new experiences related to the desired career and accumulating more social

experiences through part-time jobs, personal/community projects, etc.) were also widely chosen with 14.19% and 12.87% respectively. Learning new courses, improving inherent skills, learning new skills and building relationships in the desired career field were other actions that surveyed students were doing.

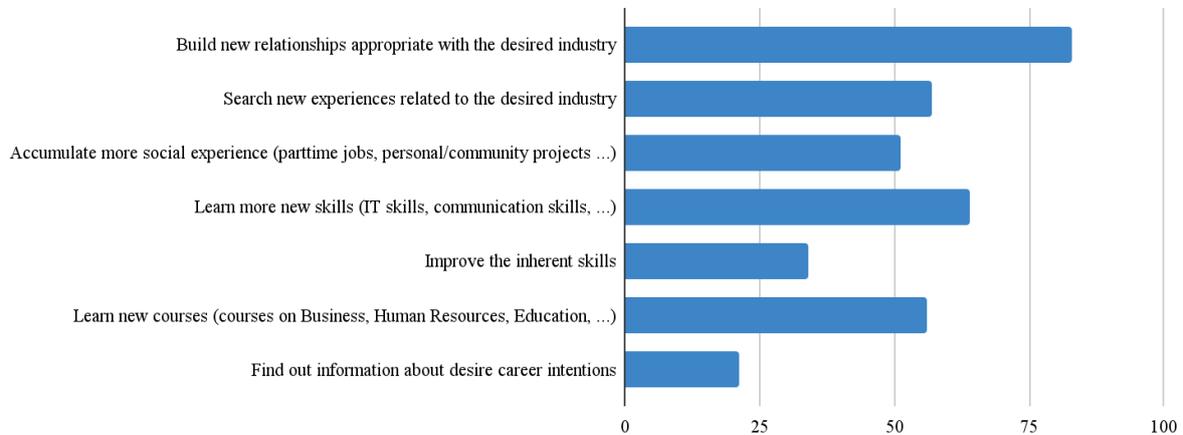


Figure 22. Actions of final-year students to pursue new career intention (in the future)

When being asked about the future actions to pursue the new career intention, building new relationships in their new career industry was the most chosen (22.68%), learning more new skills (17.49%) and searching for new experiences related to that industry (15.57%) ranked the second and third. Finding information about the desired career intentions received the least number of votes with only about 5.74%.

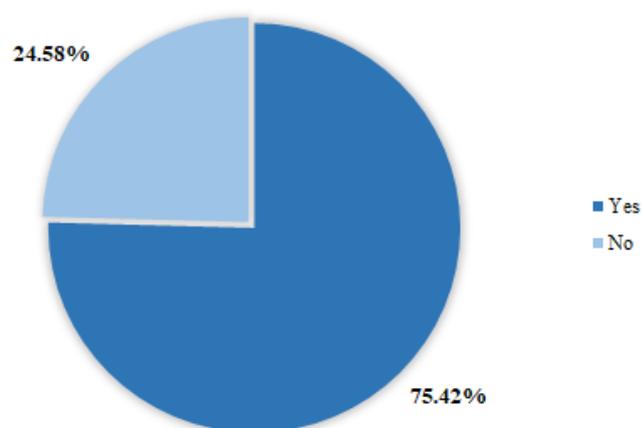


Figure 23. Support programs of university for final-year students to change their career intention

According to the survey, 75.42% of the students perceived that their universities had programs to support those who wanted to change their career, while only 24.58% chose “No”.

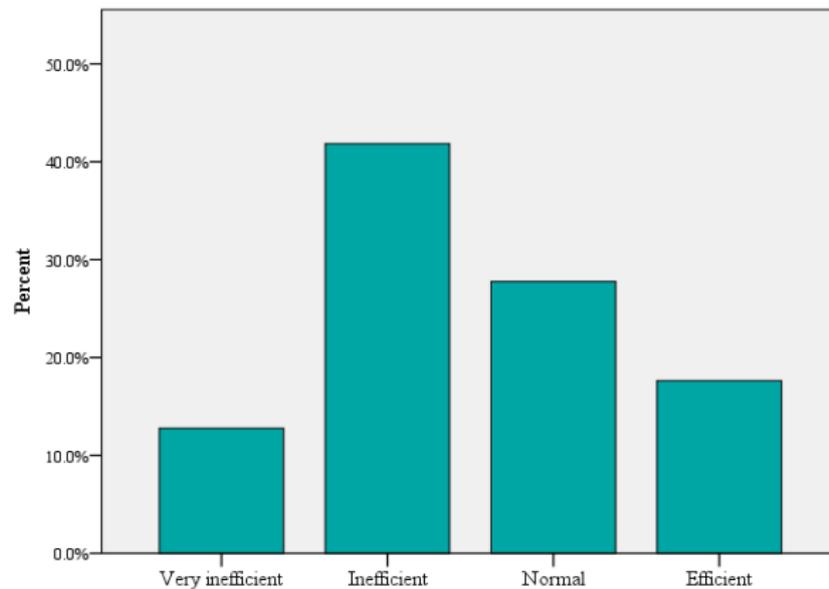


Figure 24. The efficiency of university support program from the perspective of final-year students

These programs were rated “Inefficient” by more than 40% of the participants, about 27% chose “Normal”, followed by approximately 18% believed they were “Efficient” and around 13% rated “Very inefficient”.

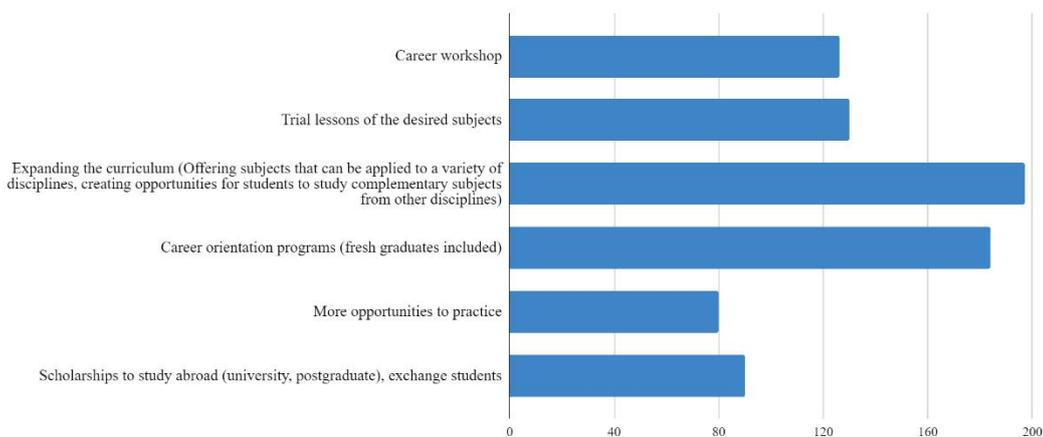


Figure 25. Expectation of final-year students about support programs of educational institutions

In the question of finding what the students were expecting about the support programs, expanding the curriculum received the highest number of votes (24.41%) and career orientation

programs (including for fresh graduates) were highly recommended (22.8%). Career workshops and trial lessons of desired subjects were widely chosen with around 16.1%, and finally were scholarships to study abroad (11.15%) and practice opportunities (9.91%).

4.3. Hypotheses

In Vietnam, there is not much research study on measuring the effect of the COVID-19 pandemic on a large number of aspects of life such as mental health or job stability expectation of university final-year students. Thus, we surveyed 301 university final-year students among cities and provinces in Vietnam to conclude these questions. On the other hand, we assume that there will be a considerable influence of the epidemic on final-year students' mental health and the field's stability expectation. Therefore, a One-sample t-test method was applied to examine hypotheses 1 and 2 that are the significant effect of the COVID-19 epidemic on the mental health and field's stability expectation of university final-year students in Vietnam. In this hypothesis test method, we use 3 as a test value which is a medium level of influence.

In the first hypothesis, according to the One-sample t-test and decision rule, the mean value is 3.73 which is above the average value (3) in the level of COVID-19 influence and $p\text{-value} = 0.007 < \alpha = 0.05$. Hence, we conclude that there is a significant influence of the COVID-19 pandemic on the mental health of final-year students in Vietnam's universities.

In the second hypothesis, based on the One-sample t-test and decision rule, the mean value is 3.44 which is a little higher than the average value (3) in the level of impact and $p\text{-value} = 0.014 < \alpha = 0.05$. Hence, we conclude that there is a significant influence of the COVID-19 pandemic on the field's stability expectation of university final-year students in Vietnam.

Of 301 final-year students participating in the online survey, 120 students (40,2%) responded "YES" to the question "Do you change your career intention?". Additionally, we assume that there will be a divergence among male and female students in the assessment of whether factors could affect career intention change. Consequently, a Chi-square method was utilized to examine hypotheses 3 and 4 that are the correlation between two genders for the influence of job stability and mental health on career intention change of final-year students in the context of COVID-19.

Based on the Chi-Square tests, it can be concluded that male and female final-year students have no difference in the assessment of the influence of job stability ($p\text{-value} = 0.246 > \alpha =$

0.05), and mental health ($p\text{-value} = 0.127 > \alpha = 0.05$) on career intention change due to COVID-19 lockdown.

5. Discussion

This study focuses on identifying the career intentions of final-year students learning in the Health Industry, Tourism and Hospitality, Business and Management at universities in Vietnam in the context of the COVID-19 pandemic and their perceptions about support programs of their universities. The number of students who changed their career intentions ranked the highest proportion, followed by those who do not change and occupying the least percentage is those who do not know what they will do after graduation. Nevertheless, the differential rate between the three choices is not significant. After the pandemic happened, the final-year students of Tourism and Hospitality and Health Industry tended to leave the industry, mainly due to the decrease in job stability and mental health condition, while the Business and Management Industry witnessed a sharp increase of interested students. Gender is not considered to create differences in the affection level of job stability and mental health condition on career intention change in this pandemic. Most of them had a specific plan for this change and began to take action, mainly starting with searching for more information about desired fields. For students who do not change their career intentions, the most popular reasons are personal interest and having learned a long time made them not willing to change anymore. However, instead of changing the major, they chose to alter their job positions. In this situation, although most of the universities are reported to have support programs for these students, the results indicate that a large proportion of students evaluated as inefficient, with the expectations of expanding the curriculums and having more career orientation programs (even for fresh graduates).

Researching this topic in this special period makes us find similarities with previous studies in terms of difficulties caused by COVID-19: Limited learning activities and internship, graduation delay, especially the majority of respondents whether change and do not change career intention suffer from the significant impact on mental health (Aristovnik et al., 2020, Birch et al., 2021, Wang et al. 2021, García et al., 2021). Before the COVID-19 most of the students still intend to work in the studying major in this survey as their willingness and the amount of salary for their job. However, the COVID-19 time has partly affected their thinking as there was a high level of agreement with the difficulty of long-term commitment in the field of study. Mental health tends to go down with common symptoms like stress, pressure, and

despair instead of positive emotions like calm, happiness, and hope. The result built on existing evidence of job stability as a factor that influences university students' intention (Wang et al., 2021). Thus, our study is not only based on Wang et al. (2021) survey but also shows that the results are consistent with previous studies with the majority of people agreeing with this factor predominating. Other significant factors that are also widely agreed are the downward effect on mental health, the decrease in practice activities and internship and wages and welfare mode. Moreover, other significant factors that are also widely agreed with Wang et al. (2021) and García et al. (2021) are the downward effect on mental health, the decrease in practice activities and internship and wages and welfare mode. It can be seen that participants tend to be in a lower mood more during COVID-19 but not to the extent of psychological illnesses (less than 10% of the total number of students have). Mental health is an internal factor that will affect students' daily life along with preventing students from going to practice and internships, which causes delay graduation as well as contributes to students' anxiety and feeling that they are lacking experience. Besides, the issue of salary also makes students consider whether they can earn enough to support themselves and their families, especially in this difficult pandemic situation leading to the consideration of career intention change. Therefore, when compared with SCCT's Model, our results also prove to be true according to the model with the match of all 3 environmental factors including proximal element refer to financial concerns/resources, background contextual influences/digital elements (social-economic status), personal input (health condition). However, in terms of family support and decision to change the industry of those who go ahead is not significantly affected.

Attaining from the previous findings, we realize that there has been an increase in career intention changes during COVID-19, especially for the tourism industry, yet it also depends on the level of decision when some students have registered for different online career courses and some students are still wondering about it (Yapicai et al., 2021, Ananiadou et al. 2020). Meanwhile, according to our survey results, only 1/3 out of 301 students choose to change their career intention and nearly 30% of students are still undecided whether they will pursue their major or not. Furthermore, to have a comprehensive view of the issue, we have compared the two different periods before and during the COVID-19 pandemic when surveying the location of the desire to work, the type of company and the job position. Indeed, students tend to work in places with great potential and economic development such as big cities rather than provinces and while the main preferred type of company is a foreign joint venture and private cooperation instead of state and there was a slight increase in startups. Therefore, it can be seen

that even during the COVID-19 period, private companies and foreign enterprises still receive considerable attention as well as self-starting businesses. Regarding the working positions, we have received diverse results with the common point of having high corporate connectivity and communication such as front office, general practitioner, nursing, accountant etc. Not only did we study those who change career intentions but we also surveyed students who did not change majors to find out why they still chose their major and the typical results were due to their interests, long study time and the potential industrial development. In addition, we mentioned whether students who did not change majors were planning to move to another position while still in the same industry. We received more than 50 responses with a number of students wanting to switch from community medical doctors to medical researchers and marketers in the business and management industry cluster. However, we also found that the number of students who had a specific plan and began to act dominated the level of action because most of them had learned about the desired career intention, learned new courses and skills for the better. career and build new relationships appropriate with the orientation industry. This also has a connection with the time they change career intentions, especially during the outbreak from April to the present (November 2021) in Vietnam when students enter their final year of university. However, both students who change majors and students who do not change majors mostly feel that the quality of the program for students who want to change majors is ineffective because partly the university has not paid attention to this issue and the programs are not related to the major students planning to change. Therefore, the student's expectation is in favour of expanding opportunities for students to study the field they want to pursue to ensure their interests as well as the development of the education industry.

To complement the purpose of the research, we not only follow the theories from the previous findings but also provide more specific insight into the career orientation of students in Vietnam during the COVID-19 period. Indeed, it shows that the status of final-year students' career intentions in Vietnam has been significantly affected during the COVID-19 pandemic as well as points out the shortcomings of educational programs at universities to contribute to setting out new policies, effective and appropriate programs to support students' further development in the future.

6. Limitations

Due to some scarcity in available resources and time constraints, this study has limitations in the sample size. As the research was conducted during another outbreak of the COVID-19

wave in Vietnam, approaching the participants met some difficulties because of the pandemic prevention policies of the government.

7. Conclusions and recommendations

It can be demonstrated that there are changes in career intentions of final-year students in universities in Vietnam in the context COVID-19 pandemic. Even for those who do not alter their majors, there are still changes in job positions intention. As being affected significantly by the pandemic, final-year students learning in the Tourism, Hospitality and Health industry are experiencing a decrease as desired fields, while more students are changing to Business majors, largely due to the reduction in job stability expectation and mental health conditions, regardless of their genders. Most of the universities have provided some supporting programs for the students who want to change their career intention, however, it is likely to not be effective enough. Expanding the curriculums and organizing more career orientation programs, also for fresh graduates, are most recommended by the students.

To assist the future labour workforce to have better preparations during the changes caused by the COVID-19 pandemic, academic institutions, especially universities in Vietnam should have better support on their mental health and updating job market situations, as well as creating more orientation programs to compensate for the lack of practices due to safety regulations. Further studies about supporting policies for students who want to change their career intentions from the perspective of educational specialists can be conducted to minimize the gap between bachelors and the labour market, hence reducing the unemployment rate in Vietnam.

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Appendix A. Experience survey – Interview questions

1. Can you introduce a little bit about yourself?
2. How does COVID-19 affect your career intention after graduation (impact/reason,...)
3. Have you changed your career intention (compared to your current major) in light of COVID-19?
 - 3.1. (If the answer is no change) Can you share the reason why you have not changed your career intention amid this pandemic? Have you changed anything about your intended job position after graduation? Please share more of your experience with this decision.
 - 3.2. (If the answer is yes, change)
 - 3.2.1. Please share more about your experience with this decision (what industry did you change to, what factors impacted,...)
 - 3.2.2. If there is a factor of "Mental health" or "Expectations for job stability", how do these two factors affect your intention to change career?
 - 3.2.3. What are the effects of a change in career intentions on your actions?
4. To your knowledge, what student support programs does your university have and what is your assessment of those programs? How would you like educational institutions to support students (in changing career orientation, if any) during/after their studies?

Appendix B. Questionnaires

CAREER INTENTION OF UNIVERSITY FINAL-YEAR STUDENTS IN VIETNAM IN THE CONTEXT OF COVID-19

Dear final-year students at universities in Vietnam,

Currently, the MOTIVE project is being implemented with the common goal of ensuring that the higher education system solves the difficulties in implementing the reform policy on student tracking after graduation in Vietnam.

With the desire to contribute data to the project, we are a group of students who are conducting a scientific research paper with the topic "Career intentions of final-year students at universities in Vietnam". Vietnam in the context of COVID-19". All your information and personal data will be kept confidential and used only for non-profit research purposes, ensuring anonymity for survey participants.

The information you provide can be of great value in developing higher education programs and connecting students more closely with the labor market, especially in the context of the COVID-19 pandemic fluctuations. So we look forward to hearing from you in full!

Thank you very much for your participation!

**Compulsory*

Section 1: General Information

Your gender is: *

- Male
- Female
- Other

Which university are you studying? *

Which major are you studying? *

- Major in Business and Management (Business: business administration, marketing, international business, commercial business, e-commerce; Finance - Banking; Accounting - Auditing; Administration - Management: human resource management, project management, etc.)

- Tourism and Hospitality
- Health (Public health; Medicine, Pharmacy; Nursing - Midwifery; Nutrition; Dentistry; Health management; Medical engineering)
- Other industries: _____

Before the COVID-19 pandemic, which field are you intended to work in after graduation?

- Major in Business and Management (Business: business administration, marketing, international business, commercial business, e-commerce; Finance - Banking; Accounting - Auditing; Administration - Management: human resource management, project management, etc.)
- Tourism and Hospitality
- Health (Public health; Medicine, Pharmacy; Nursing - Midwifery; Nutrition; Dentistry; Health management; Medical engineering)
- Other industries: _____

Before the COVID-19 pandemic, which job position do you plan to do when you graduate? *

Before the COVID-19 pandemic, what kind of organization/business do you plan to work in when you graduate? *

- Government
- Private Cooperation
- NGOs/Non-profit organizations
- Self-employed
- Foreign joint ventures
- I have not determined yet

Before the COVID-19 pandemic, which province/city do you plan to work in after graduation? *

- Foreign
- Hanoi City
- Ho Chi Minh City
- An Giang province
- Ba Ria Vung Tau Province
- Bac Lieu Province

- Bac Giang province
- Bac Kan Province
- Bac Ninh province
- Ben Tre Province
- Binh Duong Province
- Pacify the province
- Binh Phuoc
- Binh Thuan Province
- Ca Mau Province
- Can Tho city
- Hai Phong city
- Da Nang city
- Gia Lai province
- Hoa Binh province
- Ha Giang Province
- Ha Nam province
- Ha Tinh Love
- Hung Yen province
- Hai Duong Province
- Hau Giang province
- Dien Bien Province
- Dak Lak Province
- Dak Nong Province
- Dongnai province
- Dong Thap Province
- Khanh Hoa province
- Kien Giang Province
- Kon Tum Province
- Lai Chau Province
- Long An Province
- Lao Cai Province
- Lam Dong Province
- Lang Son Province
- Nam Dinh

- Nghe An province
- Ninh Binh Province
- Ninh Thuan Province
- Phu Tho province
- Phu Yen Province
- Quang Binh Province
- Quang Nam Province
- Quang Ngai province
- Quang Ninh Province
- Quang Tri province
- Soc Trang Province
- Son La Province
- Thanh Hoa province
- Thai Binh Province
- Thai Nguyen province
- Thua Thien Hue province
- Tien Giang Province
- Tra Vinh province
- Tuyen Quang Province
- Tay Ninh province
- Vinh Long Province
- Vinh Phuc Province
- Yen Bai Province
- Have not decided

During the COVID-19 pandemic, what kind of organization/business do you plan to work in when you graduate? *

- Government
- Private Cooperation
- NGOs/Non-profit organizations
- Self-employed
- Foreign joint ventures
- I have not determined yet

During the COVID-19 pandemic, which province/city do you plan to work in after graduation? *

- Foreign
- Hanoi City
- Ho Chi Minh City
- An Giang province
- Ba Ria Vung Tau Province
- Bac Lieu Province
- Bac Giang province
- Bac Kan Province
- Bac Ninh province
- Ben Tre Province
- Binh Duong Province
- Pacify the province
- Binh Phuoc
- Binh Thuan Province
- Ca Mau Province
- Can Tho city
- Hai Phong city
- Da Nang city
- Gia Lai province
- Hoa Binh province
- Ha Giang Province
- Ha Nam province
- Ha Tinh Love
- Hung Yen province
- Hai Duong Province
- Hau Giang province
- Dien Bien Province
- Dak Lak Province
- Dak Nong Province
- Dongnai province
- Dong Thap Province
- Khanh Hoa province
- Kien Giang Province
- Kon Tum Province

- Lai Chau Province
- Long An Province
- Lao Cai Province
- Lam Dong Province
- Lang Son Province
- Nam Dinh
- Nghe An province
- Ninh Binh Province
- Ninh Thuan Province
- Phu Tho province
- Phu Yen Province
- Quang Binh Province
- Quang Nam Province
- Quang Ngai province
- Quang Ninh Province
- Quang Tri province
- Soc Trang Province
- Son La Province
- Thanh Hoa province
- Thai Binh Province
- Thai Nguyen province
- Thua Thien Hue province
- Tien Giang Province
- Tra Vinh province
- Tuyen Quang Province
- Tay Ninh province
- Vinh Long Province
- Vinh Phuc Province
- Yen Bai Province
- Have not decided

Section 2: Career intention

Please indicate your level of agreement with the following statements on a scale of 1 to 5 (with 1 being "Strongly disagree" and 5 being "Strongly agree") *

	1	2	3	4	5
I cannot keep the same job for a long time in the industry that I am studying during the COVID-19 epidemic					
COVID-19 has had a negative impact on my mental health					
COVID-19 has reduced practical activities and internship in my major					
COVID-19 made my family support me to change career intention					
I changed my career intention because I was affected by my predecessors' decisions to change careers due to COVID-19					
COVID-19 will reduce the salary and welfare benefits of the industry that I am studying					

Please indicate your level of agreement with the following statements on a scale of 1 to 5 (with 1 being "Strongly disagree" and 5 being "Strongly agree") *

	1	2	3	4	5
COVID-19 makes me feel stressed					
COVID-19 makes me feel anxious					
COVID-19 made me feel desparate					
COVID-19 made me suffer from the Psychological disease (depression, anxiety disorder, ...)					
I feel calm in the COVID-19 pandemic					
COVID-19 made me feel happy					
COVID-19 made me feel hopeful					

Do you change your career intention?

- Yes
- No
- Unknown

If the career intention remains the same

Why don't you change your career intention? *

Are you planning to switch the intended job position (in the industry)? *

- Yes
- No

If yes, from which position to which position did you change? (If not, skip this question)

If there is a change in your career intention:

Which industry are you planning to change to? *

- Major in Business and Management (Business: business administration, marketing, international business, commercial business, e-commerce; Finance - Banking; Accounting - Auditing; Administration - Management: human resource management, project management, etc.)
- Tourism and Hospitality
- Health (Public health; Medicine, Pharmacy; Nursing - Midwifery; Nutrition; Dentistry; Health management; Medical engineering)
- Other industries: _____

In the context of COVID-19, when did your career intention start to change? *

- January 2020 - April 2020
- July 2020 - December 2020
- January 2021 - March 2021
- April 2021 - present

In the context of COVID-19, how do the following factors affect your intention to change career? *

	No effect	Little effect	Medium	Strong effect	Significant effect
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Job stability (time attached to work)					
Mental health					
Lack of practice activities, internship					
Family support					
Decision to change the industry of those who go ahead					
Wages and welfare regime					

How the change in your career intention affects your actions: *?

- Just think about and have not had any action
- Have a plan but have
- Have a specific plan and have begun to act

If you take action, what have you been doing to pursue your new career intentions in the context of COVID-19?

- Find out information about desire career intentions
- Learn new courses (courses on Business, Human Resources, Education, ...)
- Improve the inherent skills
- Learn more new skills (IT skills, communication skills, ...)
- Accumulate more social experience (part-time jobs, personal/community projects ...)
- Search new experiences related to the desired industry
- Build new relationships appropriate with the desired industry
- Other: _____

In addition to the actions you have chosen above, do you have any further plans in the future to pursue your new career intentions?

- Find out information about desire career intentions
- Learn new courses (courses on Business, Human Resources, Education, ...)
- Improve the inherent skills
- Learn more new skills (IT skills, communication skills, ...)
- Accumulate more social experience (part-time jobs, personal/community projects ...)
- Search new experiences related to the desired industry
- Build new relationships appropriate with the desired industry

- Other: _____

Section 4: University support programs

Does your university have support programs for students to change their major's/study other majors?

- Yes
- No

If yes, how would you rate the effectiveness of these support programs on your career orientation?

- Very inefficient
- Inefficient
- Normal
- Efficient
- Very efficient

How would you expect educational institutions to support students in changing career orientation during/after their studies?

- Scholarships to study abroad (undergraduate, graduate), exchange students
- More opportunities to practice
- Career orientation programs (fresh graduates included)
- Expanding the curriculum (Offering subjects that can be applied to a variety of disciplines, creating opportunities for students to study complementary subjects from other disciplines)
- Trial lessons of the desired subjects
- Career workshop
- Other: _____