Hungarian University of Agriculture and Life Sciences

Exploring Employment and Entrepreneurship Intentions among International Students in Hungary

Doctoral (Ph.D.) dissertation

by

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Abbreviations

AMOS	Analysis of Moment Structures
ANOVA	Analysis of Variance
AVE	Average Variance Extracted
BFC	Being Employed in other Foreign Countries
BHC	Being Employed in Home-country
CA	Cronbach Alpha
CFA	Confirmatory Factor Analysis
CFI	Comparative Fit Index
CR	Composite Reliability
DV	Dependent Variable
EFA	Exploratory Factor Analysis
EMI	Employment Intentions
ENI	Entrepreneurial Intentions
HTMT	Heterotrait-monotrait Ratio of Correlations
IOIC	Innovative and Opportunity Identification Capacity
KMO	Kaiser-Meyer-Olkin Measurement of Sampling Adequacy
M	Mean
MC	Multicultural Cognition
MNC	Multiple Network Construction
N	Number
NFI	Normed Fit Index
OEP	Overseas Entrepreneurial Perception
OMC	Operation and Management Capacity
RCC	Relationship Coordination Capacity
RMSEA	Root Mean Square Error of Approximation
RTC	Risk Tolerance Capacity
SD	Standard Deviation
SPSS	Statistical Packages for the Social Sciences
SH	Staying Employed in Hungary
SRMR	Standardized Root Mean Residual
VIF	Variance Inflation Factor
χ^2/df	Chi-square/Degree of freedom
β/ beta	Standardized Regression Coefficient

I. INTRODUCTION

1.1 Background of the Study

Globalization provides rich new opportunities for higher education. The flow of international students is increasing, and more students are studying in universities outside their home countries every year. That leads to the development of global universities, with students coming from a wide range of national, ethnic, and cultural traditions. Today's universities are among the most diverse organizations in the world, with representatives from dozens of countries among students, faculty and support staff (HARRISON, 2012). One of the powerful driving forces behind the internationalization of higher education in Europe is the goal of European labour markets, which is to create a competitive labour market: companies are interested in recruiting talented people from larger labour forces (TEMPUS PUBLIC FOUNDATION, 2018). For Hungary, the main objectives include supporting the internationalization and continuous development of higher education, strengthening international relations in the academic and research circles, enhancing the cultural diversity of higher education institutions, and promoting the good reputation and competitiveness of higher education around the world (EUROPEAN MIGRATION NETWORK, 2018). For students, the experience of studying abroad can expand their opportunities to work and live internationally (BROOKS et al., 2012). MAHROUM's (2001) research shows that scientific mobility is a complex phenomenon in students' pursuit of skills, higher income, and better employment opportunities at home and abroad. Over the past few decades, the topic of international students' mobility has gradually been seen as a valuable path to promote personal development, career success and class reproduction in academic and policy discourse (COLLINS et al., 2017).

According to Education at a Glance 2020 (OECD, 2020), the international enrollment of higher education in the world reached 5.6 million in 2018, of which OECD countries attracted 3.9 million and 1.7 million non-OECD countries, and the number is increasing yearly. For Hungary, the Erasmus+ and Stipendium Hungaricum scholarship programs have accelerated the influx of international students. The TEMPUS PUBLIC FOUNDATION (2020) presents that the number of international students receiving higher education in Hungary has been on the rise, and the number has increased 3.5-fold from 11,783 students in 2011 to 38,422 students in the 2019/2020 academic year.

In addition, by referring to HELMS et al. (2014), responses from 110,305 international students from 194 countries and regions around the world showed that 16 per cent expected to return to their home country immediately after graduation, 41 per cent expected to stay in the host country for one to six years, and 15 per cent expected to stay permanently in the host country. Another 22% have not yet decided on their post-study plans. Given that so many international students prefer to stay in the host country permanently or temporarily, finding a job after graduation is the primary concern of most of them. The graduate employment rate (56%) is the most essential measure of graduate achievement considered by international students when choosing a university, followed by a high score of student satisfaction (48%) and how long students find a job after graduation (47%) (GLOBAL INTERNATIONAL STUDENT SURVEY, 2022).

However, attracting international students to Hungary aims to create cultural diversity and a competitive higher education system. Retaining international students is not seen as the goal of immigration policy (EUROPEAN MIGRATION NETWORK, 2018). International students are expected to return to their home country after graduation to spread the good reputation and competitiveness of Hungarian higher education and strengthen scientific, economic, and cultural ties between Hungary and the third country (EUROPEAN MIGRATION NETWORK, 2018).

In the meantime, inter-university mobility programs (such as the Erasmus Project) encourage more students to study abroad and have a causal and positive impact on becoming entrepreneurs (PINTO, 2020). HELMS et al. (2014) mention that the experience of studying, living and working abroad can prepare for a future career in international business and new entrepreneurship around the world. That is because cross-cultural experience enables people to enter a knowledge environment that is entirely different from that of their own countries and contribute to acquiring advanced knowledge, skills and new ideas, thereby enhancing their ability to identify entrepreneurial opportunities (LIU, LU, et al., 2010; LIU, WRIGHT, et al., 2010; VANDOR & FRANKE, 2016) . Moreover, even a short stay for foreign educational exchanges has also been shown to affect a person's ability to identify profitable business opportunities (VANDOR & FRANKE, 2016). Additionally, previous studies have pointed out that overseas experience would increase returnee' knowledge stock and their "social capital" (JONKERS & TIJSSEN, 2008; MEIL & SALZMAN, 2017). In sum, overseas experience positively impacts the possibility of engaging in entrepreneurial activities (BAI et al., 2017; LAI & VONORTAS, 2020; THOMAS & INKPEN, 2013).

Furthermore, entrepreneurial intention is a person's willingness, desire, and preparation to take entrepreneurship as a career choice and participate in entrepreneurial activities (ALAMMARI et al., 2019; SANTOS & LIGUORI, 2020). The focus of entrepreneurship research has always been

to seek out what drives individuals to pursue entrepreneurial careers. That has led to more and more studies trying to determine the predictors of entrepreneurial intention (NENEH, 2020). MARKMAN et al. (2005) elucidate that starting a business is a challenging career requiring high self-confidence. Since people make decisions according to their perceived ability, self-efficacy has become the primary factor in promoting career choices. A stronger sense of self-efficacy will lead to better performance in the challenging environment that entrepreneurs may face. Extensive extant studies have examined the relationship between entrepreneurial self-efficacy and entrepreneurial intention based on data from different countries and regions. They all demonstrate the same result that entrepreneurial self-efficacy contributes to the formation of entrepreneurial intention (CHIEN-CHI et al., 2020; LOAN et al., 2021; PIHIE & BAGHERI, 2013; SALAMI, 2019; SHAHAB et al., 2019; WU et al., 2022; ZHAO et al., 2005).

In addition, a particular society or country's mainstream cultural characteristics and values play a pivotal role in the formation process of individual entrepreneurial intentions (HUESO et al., 2021). Similarly, LINAN (2008) suggests that the social values of entrepreneurship and the perception of personal capabilities greatly influence entrepreneurial intention. Therefore, entrepreneurial intentions related to the context need further exploration (FAYOLLE & LINAN, 2014).

1.2 Significance of the Study

Due to the global development of regional education mobility (HARRISON, 2012), Hungary has gradually become a priority country for international students to pursue higher education (WU & RUDNÁK, 2021). With the annual growth of the number of international students in Hungary (TEMPUS PUBLIC FOUNDATION, 2020), this group has become an integral part of higher education institutions that cannot be ignored. According to the GLOBAL INTERNATIONAL STUDENT SURVEY (2022), 57% of international students prefer to stay permanently or temporarily in the host country to seek job opportunities after graduation. Yet, retaining international students is not seen as the goal of immigration policy in Hungary (EUROPEAN MIGRATION NETWORK, 2018). Thus, policymakers must understand the employment intentions of international students for both the home country and the host country (SOON, 2012), especially in Hungary. However, there is little academic research on the employment intentions of international students after graduation and the specific influencing factors/reasons for choosing different intentions in Hungary.

In addition, students with working experience in foreign countries are more likely to become self-employed (PINTO, 2020). Entrepreneurship is a social activity with different needs according to the specific context, and the study of entrepreneurial intention urgently needs to warrant attention to the contextual and temporal aspects (DONALDSON et al., 2021). As such, after coming to Hungary, international students will be impacted by the new environment to a certain extent, leading to a change in their mindset. It is considered the critical antecedent variable for developing entrepreneurial intention among the influencing factors (BARBOSA et al., 2007; ZHAO et al., 2005). Furthermore, entrepreneur self-efficacy is the degree to which an individual believes that his or her skills and capabilities enable successfully fulfilling the responsibilities needed to start a business (CARDON & KIRK, 2015; MCGEE et al., 2009). As known from the literature, prior studies mainly focused on the entrepreneurship of local Hungarian students or compared the entrepreneurial intention of Hungarian students with that of students in other countries (GUBIK, 2021; GUBIK & FARKAS, 2016; ILLÉS et al., 2015; NOWINSKI et al., 2019). Scant attention has been paid to international students in this domain, especially in Hungary.

To address the above persisting gap, this study explores the choice of employment intentions of international students and its specific reasons in the context of Hungary. Moreover, it provides a more comprehensive perspective to study the influencing factors of entrepreneurial intention from the role of environmental factors, entrepreneurial self-efficacy, and personal characteristics of international students. The findings could provide references for the employment choices of international students in Hungary and provide a database for the Hungarian government, universities, and enterprises to learn more about international graduate students in Hungary. An in-depth understanding of international students in Hungary could help the Hungarian government adjust its educational mobility program or take further action and help universities strengthen Hungarian language training, career skills and entrepreneurial awareness for international students. At the same time, Hungarian enterprises that would like to improve the level of diversification need to understand the job expectations and needs of international students to provide more suitable internship opportunities to enhance their work experience. That will make them more willing to stay and work in Hungary.

1.3 Research Objective

The study takes into account two primary goals. The first is to understand the international education background of Hungary and overview the relevant literature on employment and

entrepreneurial intentions, as well as influencing factors. The second is to put forward three conceptual models and corresponding research questions according to the literature theory, as well as test the hypotheses. To better understand the study, subsequent sub-objectives are proposed:

1. To review the literature on the international education background of Hungary, and the related models and theories affecting people's employment and entrepreneurial intentions. It includes the choice of migration or employment directions and their influencing push-pull factors, as well as entrepreneurial intentions with the influencing potential environmental factors, self-efficacy factors, and personal characteristics factors.
2. To test the changes in employment intentions of international students after coming to Hungary and the specific factors/reasons affecting their different employment directions, as well as rank the items with a considerable influence.
3. To test the changes in entrepreneurial intentions of international students after coming to Hungary and whether external environmental factors have an influence on them, as well as their extent.
4. To test whether entrepreneurial self-efficacy factors and demographic variables have any influence on the entrepreneurial intentions of the international student in Hungary and their influence extent.
5. To summarize the test results and put forward corresponding suggestions.

1.4 Research Structure

According to the research goal, the content of the dissertation is divided into seven parts.

Part I: Introduction. The introduction presents the research's significance and objectives based on the selected topic's background. Following that, the research content and structure of the dissertation are introduced.

Part II: Literature overview. This part contributes to the theoretical basis of this study. Starting from the international education background of Hungary, it draws out the employment intentions of international students and the related migration theory and push-pull factors.

Moreover, the study also focuses on the entrepreneurial intentions caused by the experience of studying abroad. It links the relevant theories of entrepreneurial intention with the concepts of external environmental factors, internal entrepreneurial self-efficacy factors and demographic characteristics that affect international students' entrepreneurial intention.

Part III: Material and method. This part puts forward the research questions and hypotheses according to the literature overview and research objectives and further develops three conceptual models of the research. Then, the process of research design, including questionnaire design, variable measurement, and a pilot study to verify the questionnaire, is conducted.

Part IV: Results and discussion. This part analyzes international students' employment intentions (EMI) and its influencing factors. Moreover, it analyzes the influence of external and internal factors on international students' entrepreneurial intention (ENI), respectively. The research results are explained and discussed at the end of this part.

Part V: Conclusion and recommendations. This part systematically combs the research conclusions based on results, clarifies implications, and proposes specific suggestions and limitations.

Part VI: New scientific results. This part indicates the scientific achievements and innovations of the dissertation.

Part VII: Summary. This part summarizes the research framework of the dissertation.

The overall structure and content of the study are shown in Figure 1.

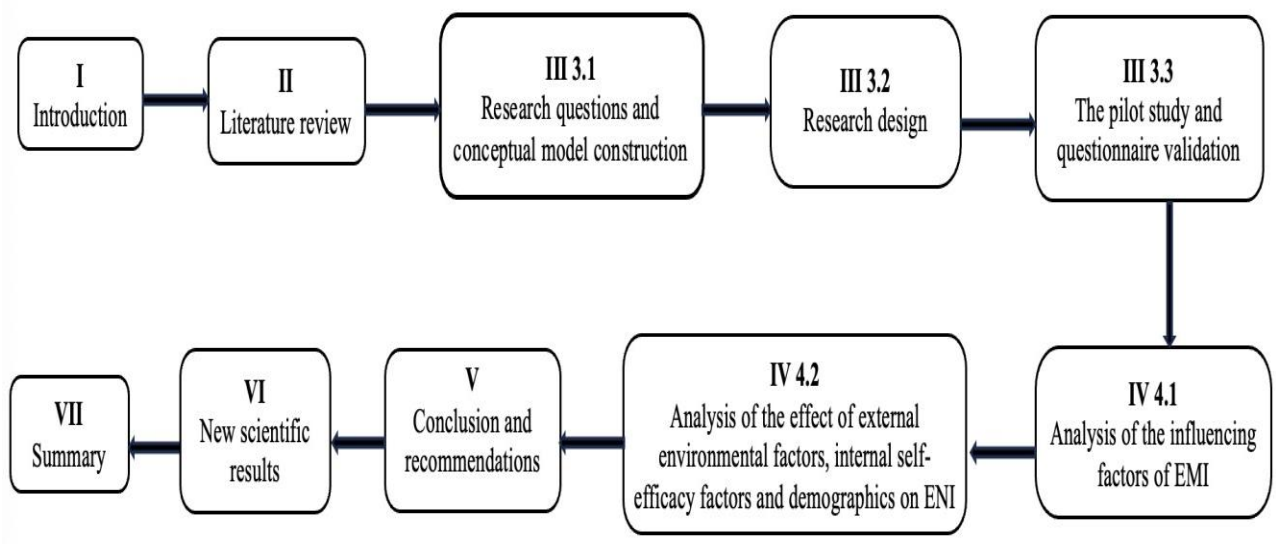

Figure 1. The structure and content of the study

Source: Author's own construction

II. LITERATURE OVERVIEW

2.1 International Educational Background in Hungary

The premise of internationalization undoubtedly assumes that geographical mobility (such as in the form of student study abroad programs) promotes the favorable success of higher education (HE) and increases the likelihood of career development (SABATÉ-DALMAU, 2020). In addition, the traditional driving point for the demand for education, especially higher education (HE), is the realization of the expectation that it can improve the economic and social status of graduates (MAZZAROL & SOUTAR, 2002). Therefore, correspondingly, the international or foreign enrollment of higher education (HE) in the world is increasing year by year, reaching 6.1 million in 2019, of which 4.2 million are attracted by OECD countries and 1.9 million by non-OECD countries (OECD, 2021).

Between 1998 and 2019, the number of international and foreign tertiary students grew at an average annual rate of 5.5 per cent. Compared with OECD countries, the number of foreign students registered in non-OECD countries has been growing rapidly. International students in non-OECD countries are growing at an average annual rate of 7 per cent, compared with 4.9 per cent in OECD countries. In 2019, foreign students enrolled in non-OECD countries accounted for about 31 per cent of the total number of international migrant students worldwide, compared with 23 per cent in 1998 (OECD, 2021). The largest group of international or foreign students at all levels of higher education (HE) is from Asia, accounting for 58 per cent of all migrant students in the OECD in 2019. And then, China and India account for the largest proportion of all migrant students enrolled in OECD countries, contributing more than 30 per cent. The United States is the top destination for international students in OECD countries, accounting for 16 per cent of the global education market, followed by Australia and the UK (8% each) and Germany (6%) (OECD, 2021). In addition, Europe is the second-largest place of origin, accounting for 21 per cent of all migrant students in OECD countries.

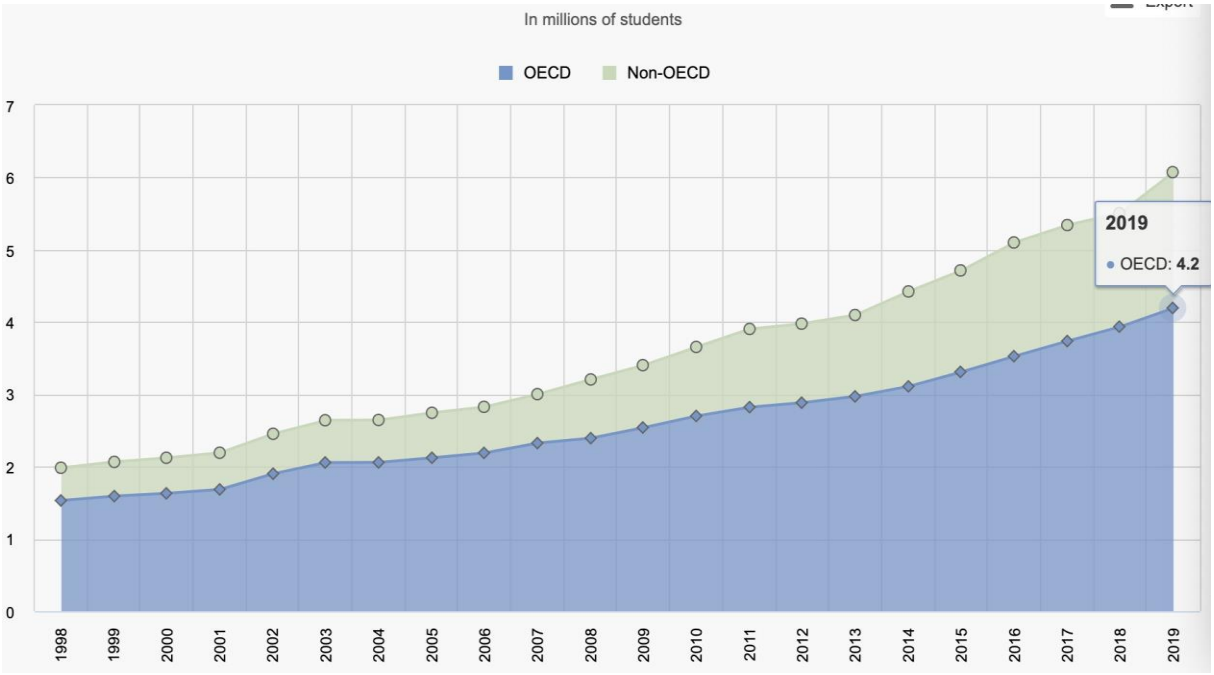

Figure 2. Growth in International or Foreign Enrolment in Tertiary Education Worldwide (1998 to 2019)

Source: OECD (2021)

In Europe, Erasmus+ is a financial tool used to support the flow of international students with social policy objectives (TEMPUS PUBLIC FOUNDATION, 2018). Compared with 2018, the budget for the international dimension of Erasmus+'s International Credit Mobility (ICM) action increased by 18 per cent in 2019, and about 55,500 new short-term academic flows were awarded to students and faculty. More than 33,700 participants from other parts of the world came to study or teach in programme countries, while around 21,700 programme country participants studied or taught in partner countries. The launch of a series of cooperative projects has promoted learning and teaching, and further strengthened the close links between higher education institutions, employers and society as a whole (EUROPEAN UNION, 2019).

In addition, in 2013, the Hungarian Government established a scholarship program, Stipendium Hungaricum (TEMPUS PUBLIC FOUNDATION, 2018). Since the turn of the century, the number of foreign citizens in higher education (HE) in Hungary has been on the rise. From 11,783 students in 2011 to the academic year 2019/2020, we have seen a 3.5-fold increase in this number, which is 326 per cent of the previous figure, which means there are 38,422 international students (TEMPUS PUBLIC FOUNDATION, 2020). The increase in the number of international students in higher education in Hungary has increased their share of the total number of students by 10 percentage points. The sharp decline in the number of Hungarian students and the increase in the

number of international students may be behind the dependence of higher education in Hungary, or at least several of its major institutions, on international students (VINCZE & BÁCS, 2020).

In the choice of majors, the proportion of foreign students in medical and agricultural education is higher, while the proportion in science and social sciences is relatively low. Among the international students participating in degree programs, China has the largest number of students, more than 1,000. However, the growth rate of medical students is slowing, with German students accounting for the largest proportion of this group (TEMPUS PUBLIC FOUNDATION, 2018).

The growth in the number of international students is a significant asset for universities and the cities in which they are located. The existence of these students affects the economic survival or growth of the city (LÁNYI & POZSGAI, 2016). They provide demand for local services in different areas, constituting considerable purchasing power, such as catering and entertainment (KÁROLY et al., 2021). In addition, international students bring several benefits to universities, such as the income from international students' tuition fees is important, because these fees make up a large part of their own income (VINCZE & BÁCS, 2020). When international students leave Hungary and return to their homeland after graduation, they are likely to play an important role in making business decisions or investment choices and in promoting opportunities for Hungarian companies to enter foreign markets (VINCZE & BÁCS, 2020).

2.2 Employment Intentions

The theory of planned behavior shows that intention is a direct predictor of future behavior (AJZEN, 2002). In this study, employment intentions are defined as the perceived probability of an individual staying in the host country, returning to the home country or going to a third foreign country for employment.

2.2.1 Employment Intentions of International Students

Many of the most talented people can make choices and are willing to move to any place where they can maximize their talent (WANG & LIU, 2016). The geographical mobility of all students combines the boundaries of academic and early career trajectories (SABATÉ-DALMAU, 2020). Studying abroad has a more fundamental and long-term impact on foreign students, especially the changes in personal maturity and career goals and prospects, which have long been the focus of attention (WAIBEL et al., 2017). Therefore, the combination of international residential migration, labor market mobility and educational mobility can be seen as a conceptual study of staying abroad (NETZ & JAKSZTAT, 2017).

In the same vein, PAREY and WALDINGER's (2011) results show that students' behaviour in labour market mobility decisions may be potentially affected by educational mobility programs. For example, PINTO (2020) found that the possibility of working abroad would be increased by participating in the Erasmus program while studying in Spain. The overall experience of studying abroad may affect the consideration of whether international graduates work abroad after completing their studies (BOZIONELOS et al., 2015). KRONHOLZ and OSBORN (2016) believe that significant positive changes have taken place in the professional identity assessment reported by university students before and after studying abroad, such as that the experience of studying abroad can expand students' opportunities to work and live abroad (BROOKS et al., 2012), bring them positive returns, promote their job search and career development (NILSSON & RIPMEESTER, 2016; XIONG & MOK, 2020).

However, today's international students face decisions not only about where to work but also about their career decisions, including thoughtful consideration of the cultural factors of their home and host countries, lifestyle choices and thinking about a better future (ARTHUR & FLYNN, 2011). They will evaluate the potential positive and negative consequences of choosing to stay abroad and then estimate the net value of the chosen results, which is a necessary part of international students' consideration of whether to stay and work abroad (BOZIONELOS et al., 2015).

The perception of the economic situation of the motherland will affect the intention to stay abroad and work there (AL ARISS & CROWLEY-HENRY, 2013). As the case study of Chinese students studying in Australia, GUO (2010) shows that students rationalize their decisions by comparing the costs and benefits of finding a job in Australia and China. If international students think it is relatively easy to find a job abroad but think it will be difficult to find a job at home, they are likely to develop a tendency to stay abroad after completing their studies, and vice versa (BOZIONELOS et al., 2015). In terms of personal factors, in addition to professional considerations of feasible and well-funded job opportunities, personal living conditions also play an equally important role in influencing when, where and whether or not to move (ACKERS, 2005; GUTH & GILL, 2008).

WAIBEL et al. (2017) propose that only one-fourth or less of respondents reported any actual career changes after their stay abroad. This suggests that studying abroad may be more likely to reaffirm and advance a chosen career path than to cause individuals to fundamentally question their original career plans. In addition, foreign students may face a dilemma in their initial path choice because they want to seek the best future or later when they realize that their first choice did not come true as expected (THARENOU, 2015). The career outcome and response of graduates who remain employed in the host country may affect whether they are repatriated or migrate to a third country in the future (THARENOU, 2015).

2.2.2 Theoretical Model of Employment Intention

The push-pull theory can be traced back to the "Law of Migration" put forward by Ravenstein in the 1880s (RAVENSTEIN, 1885). He published the paper at the Statistical Society of London (later the Royal Statistical Society). The concepts of "absorption" and "dispersion" and mobility rates and net balance are used to describe and map lifelong migration patterns at the county level (REES & LOMAX, 2020). The original seven laws of migration are as follows in Figure 3.

Year-Law#	Text The Laws of Migration, *Ravenstein* (1885)	Pages
1885-1	We have already proved that the great body of our migrants only proceed a short distance, and that there takes place consequently a universal shifting of displacement of the population, which produces "currents of migration" setting in the direction of the great centres of commerce and industry which absorb the migrants. In forming an estimate of this displacement we must take into account the number of natives of each county which furnishes the migrants, as also the population of the towns or districts which absorb them.	p.198
1885-2	It is the natural outcome of this movement of migration, limited in range, but universal throughout the country, that the process of absorption would go on in the following manner: The inhabitants of the country immediately surrounding a town of rapid growth, flock into it; the gaps thus left in the rural population are filled up by migrants from more remote districts, until the attractive force of one of our rapidly growing cities makes its influence felt, step by step, to the most remote corner of the kingdom. Migrants enumerated in a certain centre of absorption will consequently grow less with the distance proportionately to the native population which furnishes them, and a map exhibiting by tints the recruiting process of any town ought clearly to demonstrate this fact. That this is actually the case will be found by referring to maps 3, 4, 8 and 9. These maps show at the same time that facilities of communication may frequently countervail the disadvantages of distance.	p.198-9
1885-3	The process of dispersion is the inverse of that of absorption and exhibits similar features.	p.199
1885-4	Each main current of migration produces a compensating counter-current.	p.199
1885-5	Migrants proceeding long distances generally go by preference to one of the centres of commerce or industry.	p.199
1885-6	The natives of towns are less migratory than those of the rural parts of the country.	p.199
1885-7	Females are more migratory than males.	p.199

Figure 3. The Laws of Migration

Source: RAVENSTEIN (1885: 198-199) from REES & LOMAX (2020)

Based on RAVENSTEIN's (1885) migration theory, Bogue introduced the concept of the "push-pull factor" in 1969, which is the explanatory variable to explain the migration decision (Figure 4). The push factor refers to the fact that the place of origin is considered to have a negative impact on the quality-of-life indicators, while the pull factor is a positive factor to attract potential migrants to the destination (BOGUE, 1969, 1977).

Push factors	*Pull factors*
• Decline of regional income, causing localized recession • Loss of employment (from causes other than recession, e.g., mechanization) • Political, religious, ethnic and/or other forms of oppression, or discrimination • Little or no pathway to increase personal development in structures such as marriage, status or career • Catastrophe. For example, floods, fire, earthquake, war, etc.	• Perceived superior career opportunities in another location • Greater income in another place • Personal growth opportunities such as better education, group assocation, etc. • Preferable environment, such as climate, housing, schools and/or other institutional facilities • Desire to be with kin, or other favourable people, in another place • Lure of different social or physical activities in another place

Figure 4. Bogue's Push and Pull Factors

Source: BOGUE (1969:753-754)

Everett Lee put forward a comprehensive theory of migration in 1966. He started his formula with some factors that led to the spatial movement of people in any region.

These factors include:

(i) Factors relating to the place of origin,

(ii) Factors related to the place of destination,

(iii) Intervening obstacles, and

(iv) Personal factors.

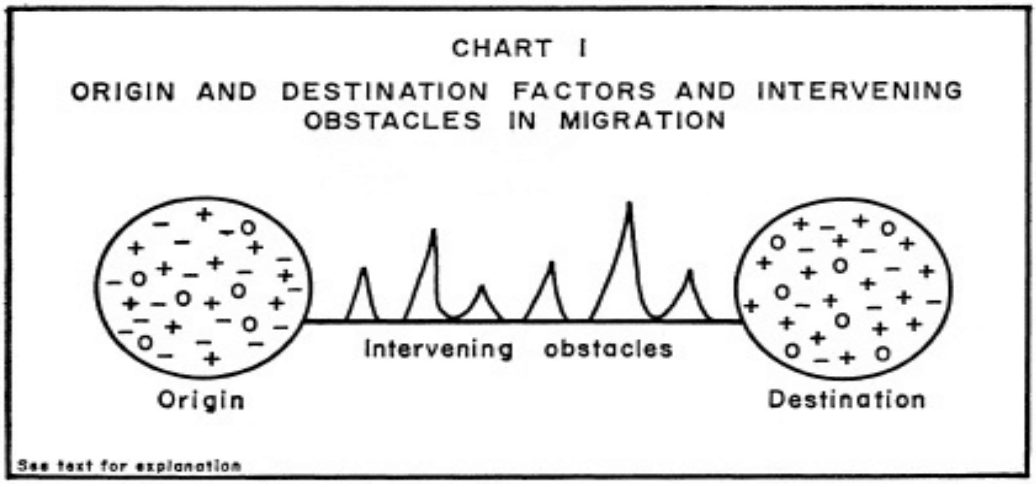

Figure 5. Lee's Push-Pull Theory of Migration

Source: LEE (1966)

LEE (1966) shows that countless factors hold people within or attract people to a region, and other factors tend to repel them in each region. These are shown as + and - signs in Figure 5. There are others, using 0 to indicate that people are basically indifferent to it. While some of these factors affect most people in the region, others tend to have a different impact. Migration in any region is the net result of the interaction of these factors.

2.2.3 Factors Affecting Employment Intention

BOZIONELOS et al.'s (2015) research results confirm the push-pull view, that is, there is a direct correlation between the strength of employment opportunities at home and abroad and the intensity of interest in working abroad. Push factors are the disadvantages that make people move elsewhere, such as lack of employment opportunities, limited opportunities, political and social chaos and loss of wealth. Pull factors refer to the favorable conditions that attract immigrants to another region, such as employment opportunities, family ties and better living conditions (WANG & LIU, 2016).

As mentioned by THARENOU and CAULFIELD (2010), according to the push-pull theory, repatriation can be an attractive force in the home country to attract graduates and make them easier to return home, as well as a deterrent force within the host country, driving them away and making repatriation desirable. Likewise, staying abroad can be an attractive force for the host country, which makes it easy for foreign students to stay and tends to encourage them to stay, coupled with China's domestic deterrent to keep graduates out, making repatriation unwelcome.

In addition, THARENOU (2015)develops a model to explain the career choices faced by international graduates through the lens of push-pull theory. The core of this model is the two main career paths after graduation. The first way is to repatriate to the home country, and the second way is to stay in the host country or a third country. In the same manner, the specific push-pull factors for international students to return to their home country and stay in the host country or other foreign countries for employment are as follows:

Pull Factor

(1) Home Country

In determining the career path, the consideration of family factors is an important basis for deciding (BOZIONELOS et al., 2015). International students who have close family and social ties in their home countries are more likely to return home and are less likely to stay in the host

country (BARUCH et al., 2007; SOON, 2012). Such as, students with well-off and well-connected families tend to consider returning home to take advantage of their family's resources and connections, which may promote their careers (GUO, 2010). They study abroad to learn about the Western way of life (including society and work) and earn a degree, then return home to reunite with their families and work in their family businesses (BARUCH et al., 2007).

Some international students return home with the human capital (knowledge) they have acquired abroad, perhaps for the sake of higher wages in their home country (NAITO & ZHAO, 2020). In a survey of Chinese students, 70% of the respondents said that the desire to be reunited with their families was the main reason for their return (WANG & LIU, 2016). Moreover, international students may be under the pressure of working abroad because of family relationships. The relationship can be emotional (for example, attachment to family members and relatives, opposition from home families), practical (for example, taking care of elderly parents, helping the family business), or both (BOZIONELOS et al., 2015).

Furthermore, the author finds that the return rate of Chinese students is on the rise, mainly because of China's attractiveness, including the Chinese government's incentive program (NAITO & ZHAO, 2020; THARENOU & SEET, 2014). According to the career preferences of international students, the governments of Beijing, Shanghai, Zhejiang and other places have implemented a series of policies to attract them to return home to contribute to the local economy, such as providing generous subsidies and venture capital to international students (MOK et al., 2020).

Through an in-depth interview with eight graduates returning to work in China, GILL (2010) learned that returning to work is a desire to "play a role" in the transformation of modern China, and they believe that China will have more opportunities for professional development and that it is difficult to find relevant jobs in their disciplines in the host country. Likewise, more than 60% of the respondents in a survey said that China's culture and stable political environment also seem to be listed as the main factors attracting overseas Chinese to return home. However, the stress of life, loneliness, discrimination and fierce cross-cultural challenges and struggles have not had a significant impact on moving back to China (WANG & LIU, 2016).

In addition, THARENOU and SEET (2014) find that the decision of foreign students to return home after graduation is not only based on career and economic considerations but also social and psychological considerations. Students' perception of lifestyle has the greatest impact on the probability of planning to return home. If students think that the way of life at home is very good (SOON, 2012) or miss the "Chinese way of life", this will also be an important reason for many

students to return to China (MOK et al., 2020). About 35% of the respondents from a survey of Chinese students believe that the comfort and stability of life in China are the main reasons for their return (WANG & LIU, 2016).

(2) Host Country or Other Foreign Countries

ROWTHORN (2008) believes that they are highly skilled foreign workers who account for almost all of the contribution of international workers to the economy of the host country. BROOKS et al. (2012) research shows that many foreign students are more willing to cross their own borders and look for jobs and career development in other countries or regions with good opportunities. Particularly, prior contact and immersion in the international context will give them a comforting feeling, which will make students consider looking for employment opportunities in the host country after graduation (BOZIONELOS et al., 2015; MOSNEAGA & WINTHER, 2013).

MOSNEAGA and WINTHER (2013) and THARENOU (2015) propose that culture shock and cross-cultural adjustment are most likely to occur when international students first enter the host country and have been managed to a large extent during their studies. Therefore, the reasons why international students stay in the host country are more likely to be related to their employment and assimilation rather than venturing to other places to start a new life. Regarding this point, the view of the labor market of the host country has a great influence on the intention of international students to stay in the host country after graduation (BARUCH et al., 2007).

GROGGER and HANSON (2015) examine the location choices of foreign students after obtaining a doctorate from an American university and state that if there has been strong GDP growth in the US economy in recent years or if GDP growth in the country where foreign students were born is weak, then foreign students are more likely to stay in the United States. For overseas graduates, it seems that although admission to related jobs is subject to certain restrictions, the financial return is higher than that of local graduates (WIERS-JENSSEN & TRY, 2005). The results of IMRAN et al. (2011) study of Pakistani medical graduates show that respondents want to emigrate because they believe that overseas training will have a positive impact on their future careers and give them a competitive advantage in a saturated job market. This leads to economic security, better working conditions and better training experiences.

Additionally, THARENOU (2015) has conducted a study on Chinese foreign business graduates. The reason why they choose to stay in the host country is that the full force of the career and lifestyle benefits of the host country make it easier for them to stay: for example, better career and

economic opportunities and a better working environment than in China; the opportunity to gain work experience in the host country to provide a better quality of life and living environment for their children and families. Therefore, repatriation will lead to significant sacrifices.

Push Factor

Home Country, Host Country or Other Foreign Countries

Staying abroad may be due not only to the pull force of the host country but also to unattractive aspects of Chinese life, including lifestyle and interpersonal factors, resulting in repatriation costs that may exceed China's expected benefits (THARENOU, 2015). In addition, during the period of studying abroad, the lack of a domestic system and social relations may become an obstacle to finding a job after graduation in the home country (WIERS-JENSSEN & TRY, 2005).

Foreign students are less likely to stay in the host country if they come from a country with a higher average income or a country that has recently been democratized (GROGGER & HANSON, 2015). The reasons why international students leave the host country after graduation are more dominant in the job market and access to the job market (including the ability to speak local languages) than other factors (NILSSON & RIPMEESTER, 2016). CAMERON et al.'s (2019) research shows that for respondents, visa status and discrimination are considered to be the main obstacles to the perception of employers in the host country. Moreover, BARUCH et al.'s (2007) study finds that foreign students from powerful emerging economies with greater cultural distance from the host country, such as the Chinese mainland, Taiwan and Thailand, are less likely to stay in the host country after completing their studies.

Regarding working in other foreign countries, SOON (2012) proposes that a longer stay in the host country allows students to obtain first-hand information and compare it with their home country. This may explain, to some extent, why the length of stay in the host country does not have any significant impact on the possibility of going to other foreign countries. THARENOU (2015) has conducted a study on Chinese foreign business graduates. If returning home or living in the host country is ultimately unattractive to graduates, if there is a push force in both countries, and if there is an attractive pull force in a third country, Chinese foreign business graduates may choose to move to a third country.

2.3 Entrepreneurial Intentions

The key to understanding the entrepreneurial process is having entrepreneurial intention and being seen as the first step in a long and complex entrepreneurial process (KRUEGER, 1993). The study of entrepreneurial intention has existed in the entrepreneurial literature for decades.

2.3.1 Entrepreneurial Intentions of International Students

With the continuous development of the internationalization of the company and the globalization of the labor force, global competence has become an important ability to discover business opportunities (MUZYCHENKO, 2008). Entrepreneurs are engaged in the business of discovering and taking advantage of opportunities, so entrepreneurs with a global perspective are more likely to take advantage of the resources unique to the international market (HELMS et al., 2014). International experience, such as short-term overseas study courses or experiences, provides students with learning opportunities and will have a great impact on them to increase their cultural understanding and global awareness (RACZOSKI et al., 2018).

Likewise, HELMS et al. (2014) conclude that, for students, the experience of studying, living, and working abroad can help them engage in international business and new entrepreneurship around the world for future careers. Therefore, international mobility is regarded as an opportunity for organizational work (corporate expatriation) and entrepreneurship (expatriate entrepreneurship) (BALUKU et al., 2018). GUBIK's (2021) research shows that the idea of starting a business is largely formed by a positive attitude toward entrepreneurship, a supportive environment, greater self-confidence, and the university atmosphere of entrepreneurship. In this sense, Sommer expresses that the existing international academic education experience can well overcome the obstacles caused by the formation of international entrepreneurial intention (SOMMER, 2013) and has a positive impact on the risk of transitioning to entrepreneurship (LAI & VONORTAS, 2020).

In the same vein, PINTO's (2020) research shows that participating in the Erasmus project has a causal and positive impact on becoming an entrepreneur. This is due to the fact that mastery of foreign languages has a special impact on university students, who are positioned by the market as mobile employees with entrepreneurial spirit. By exploring the impact of mobility actions in Spain on labor market outcomes and skill development, PINTO (2020) concludes that the probability of foreign students becoming entrepreneurs, working abroad and improving their information sharing and communication skills has a positive impact after studying abroad. Moreover, the direct experience of studying abroad and the cultural, social, and economic

environment of the host country greatly affect the entrepreneurial process of international students returning home (LAI & VONORTAS, 2020).

2.3.2 Theoretical Model of Entrepreneurial Intention

The generally accepted study by scholars began in the 1980s, when SHAPERO and SOKOL (1982) entrepreneurial event model was put forward. SHAPERO and SOKOL's (1982) model emphasizes the phenomenon of entrepreneurial events, which is influenced by the perception of desirability (the personal value system and social system to which the individual belongs) and the perception of feasibility (financial support and potential partners). The decision to start an entrepreneurial activity requires a pre-existing belief that the activity is desirable and feasible, as well as an individual's tendency to take action on opportunities and certain types of triggers (Figure 6).

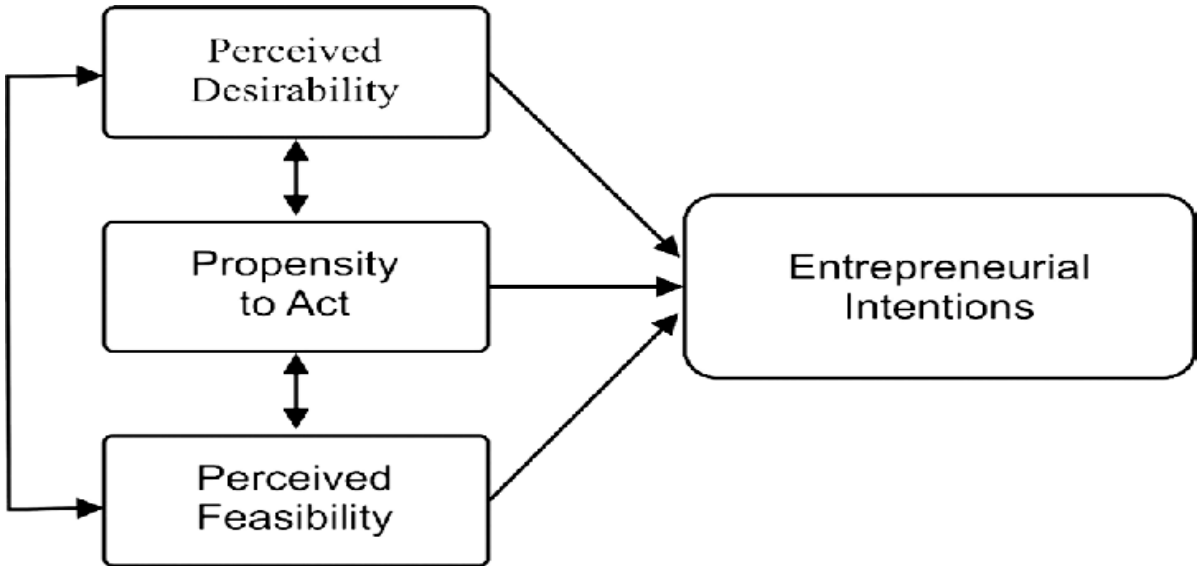

Figure 6. Shapero's Entrepreneurial Event Model

Source: SHAPERO and SOKOL (1982).

Subsequently, KRUEGER (1993) gave strong support on Shapero's Entrepreneurial Event Model and put forward prior entrepreneurial exposure on intentions (Figure 7). KRUEGER (1993) found that previous entrepreneurial experiences should indirectly influence entrepreneurial intentions through these perceptions. Feasibility and desirability perception and propensity to act have all been proved to be important antecedents of entrepreneurial intentions. What's more, the feasibility of perception is significantly related to the breadth of previous exposure. The desirability of perception is significantly related to the positiveness of previous exposure.

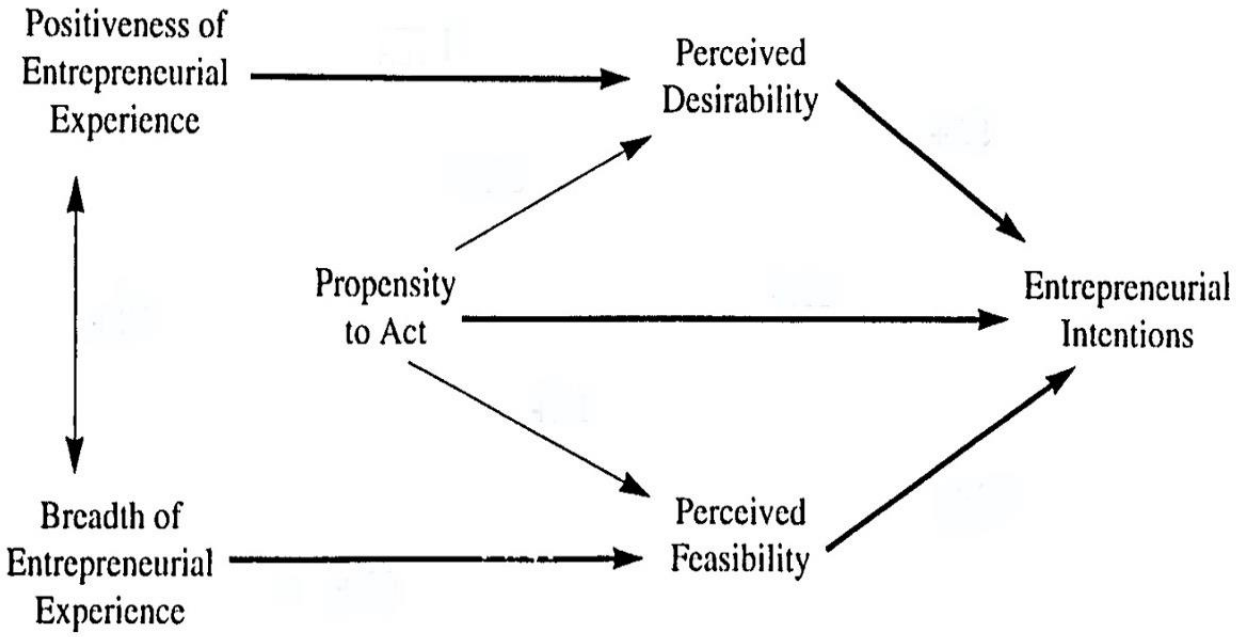

Figure 7. Path Model of Entrepreneurial Intentions

Source: KRUEGER (1993)

Afterwards, AJZEN's (1991) theory of planned behavior became another predominant view entering the field of vision. AJZEN's (1991) model is based on individual intention, which is the result of three determinants: attitude towards behavior (personal evaluation), subjective norms (social pressure) and perceived behavior control (ability to implement behavior) (Figure 8). It is the basis for understanding the relationship among attitude, intention and behavior and focuses on how the cultural and social environment affects human behavior. Both models regard intention as a predictor of entrepreneurial behavior (DABIC et al., 2012; KRUEGER et al., 2000).

That is, the perception of feasibility is consistent with the behavior control of perception, and the perception of desirability aligns with the attitude towards behavior (FITZSIMMONS & DOUGLAS, 2011). KRUEGER et al. (2000) further support these two models. Intention is the single best predictor, while individual variables and situational variables contribute only a small amount of explanatory power to entrepreneurial behavior.

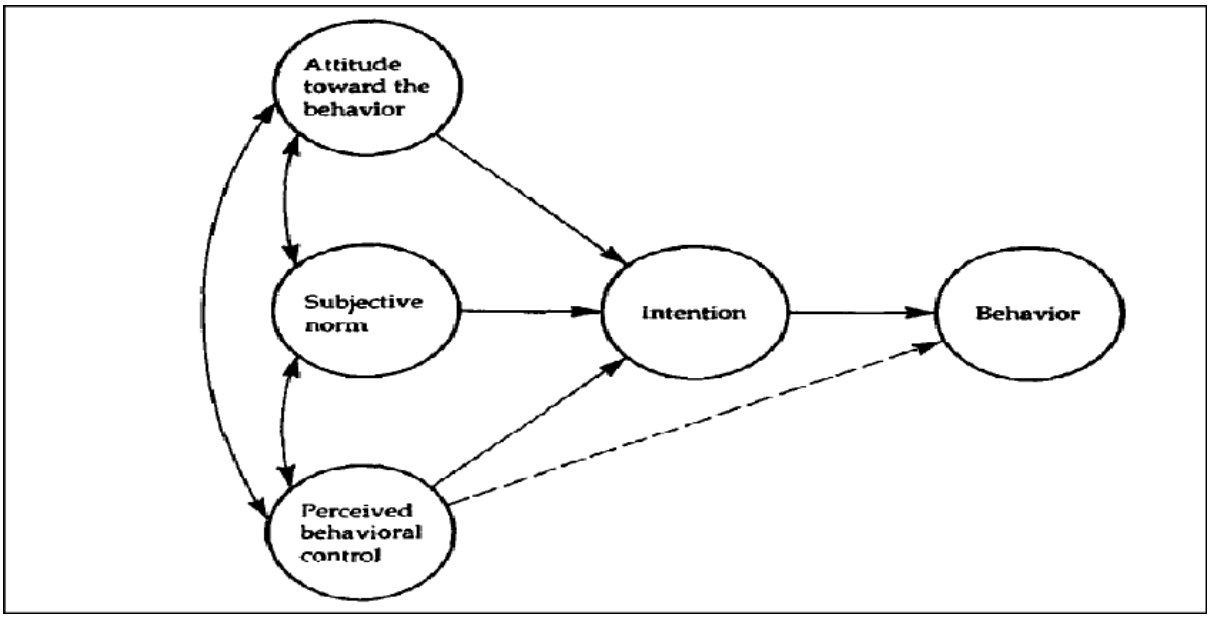

Figure 8. Theory of Planned Behaviour

Source: AJZEN (1991)

Based on reviewing the existing literature, PHAN et al. (2002) divided the reported antecedents of entrepreneurial intention into three conceptual blocks: socio-economic background variables, attitude variables and belief structure (Figure 9). Attitudes and beliefs related business succuss jointly affect individual entrepreneurial intention. Beliefs not only directly affects entrepreneurial intention, but also regulates the influence of attitude on entrepreneurial intention, and personal attitudes and beliefs will be affected by background factors.

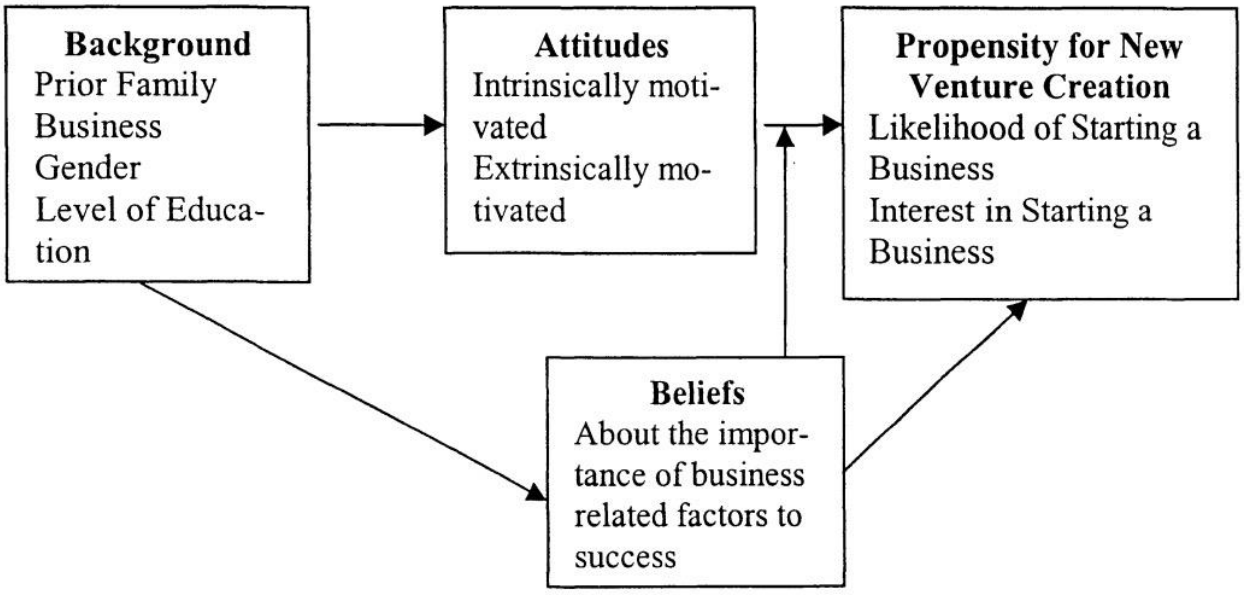

Figure 9. Precursors to Entrepreneurship

Source: PHAN et al., (2002)

LÜTHJE and FRANKE (2003) revised and constructed the structure model of entrepreneurial intention on the basis of previous studies. The model shows that the influencing factors of entrepreneurial intention mainly include personality traits and contextual factors, as shown in Figure 10. The model indicates that personal traits especially with a propensity to high risk-taking and an internal locus of control impact on entrepreneurial intention through attitude, which is an intermediate variable. Meanwhile, individual perceived obstacles and support directly affect entrepreneurial intention.

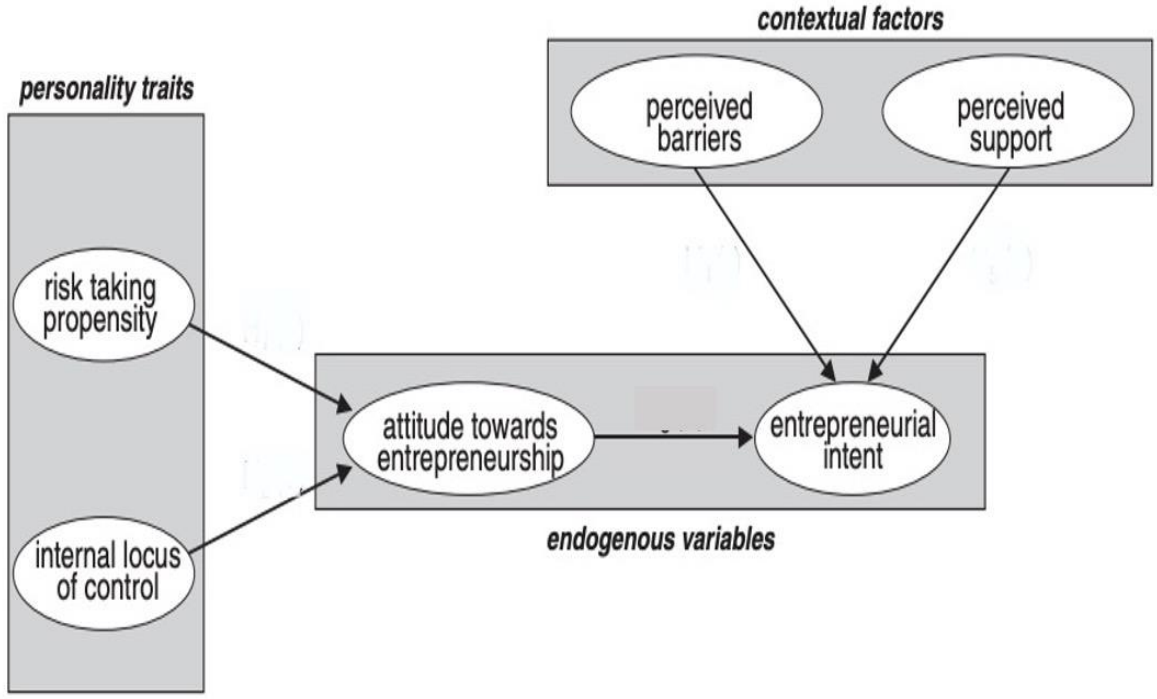

Figure 10. Structural Model of Entrepreneurial Intent

Source: LÜTHJE and FRANKE (2003)

Furthermore, WAGNER and STERNBERG (2004) explored entrepreneurial intention from the perspective of socio-demographic variables and regional environment, as shown in Figure 11. The model shows that entrepreneurship is not only an individual event, but also a regional and national event. The model mainly starts from the entrepreneurs' macro-environmental factors (including regional, national environment and policies) and micro-environmental factors, by influencing potential entrepreneurs' perception of the two environments, and further combined with the role of relevant personal factors (gender, age, education level, employment status) to explore the impact of environmental factors on entrepreneurial intention.

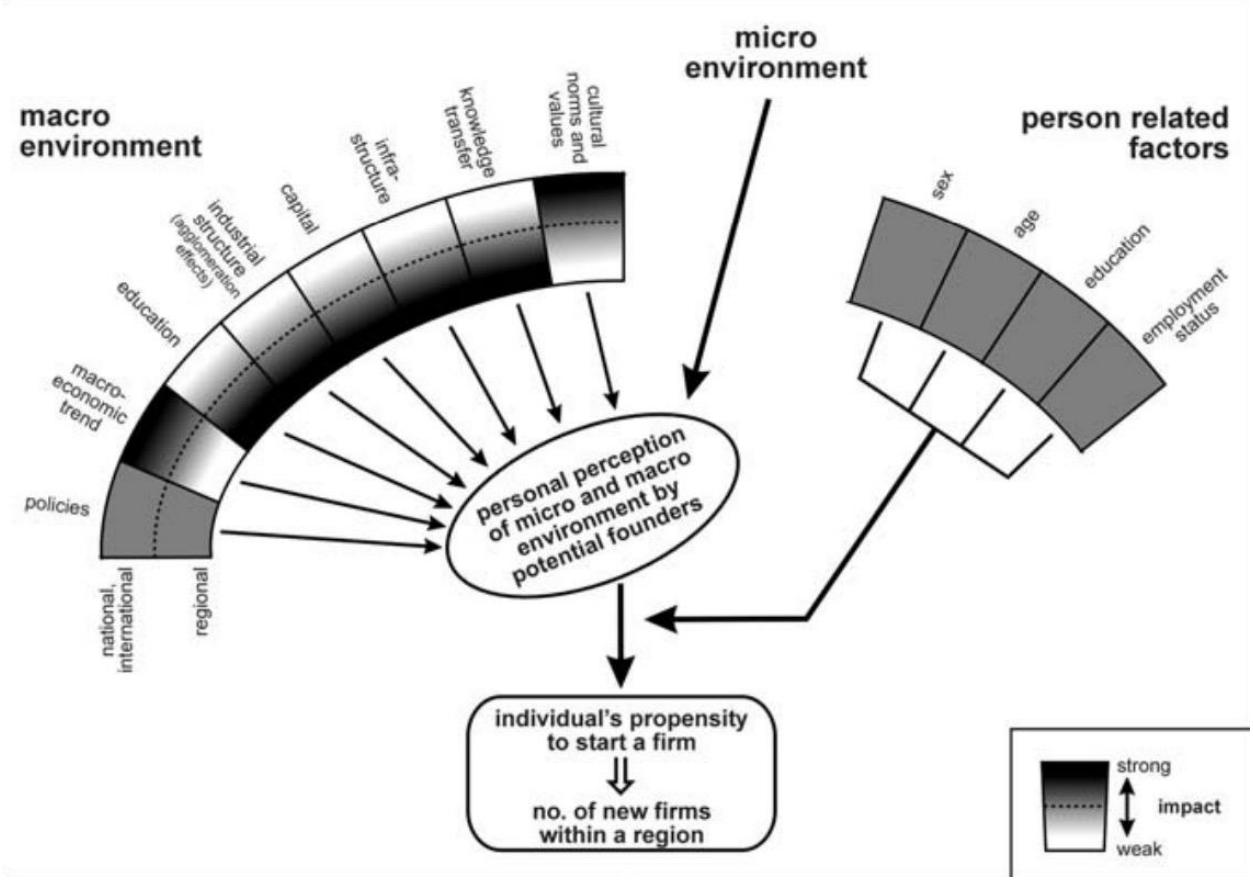

Figure 11. Entrepreneurial Support Policy Model

Source: WAGNER and STERNBERG (2004)

2.3.3 The Related Environmental Factors of Entrepreneurial Intention

In order to determine the level of entrepreneurial activity, it is very useful to understand, study and investigate entrepreneurial intentions, which can provide valuable insights and help (SHAH et al., 2020). As is clear, entrepreneurial intention is affected not only by personality traits but also by environmental factors (KEAT et al., 2011).

When society supports entrepreneurship, individuals are more likely to make this choice because they feel that the environment around them approves their decision to become entrepreneurs (LINAN, 2008). Such as political and economic factors, social background and perception of opportunities and resources (FERNANDES et al., 2018).

Moreover, the dynamic characteristics of job insecurity, increased demand for services and high unemployment in the labor market make individuals begin to consider non-traditional employment, such as self-employment (BALUKU et al., 2018).

In addition, individuals are also affected by the valuation of their more intimate environment, which may be related to their closer ties with family or friends (LINAN, 2008).

Multiple Network Construction

SCHRÖDER et al.'s (2021) research confirms the importance of having a personal network related to successful entrepreneurship. Due to the unfamiliarity of the environment, many student entrepreneurs urgently need to get in touch with new people and rely on existing possible connections (KAANDORP et al., 2020). Prior studies have pointed out that overseas experience not only increases the knowledge stock of returnees but also increases their "social capital" (JONKERS & TIJSSEN, 2008). Being in a foreign country gives returnees access to professional networks and sources of advanced knowledge and new ideas (LIU, LU, et al., 2010).

Returnees may be able to maintain social relations in the host country after returning to their home countries, which enables them to continue to update their technology. This social capital helps them still have access to different sources of information and knowledge when they return to their home countries (LAI & VONORTAS, 2020). However, the academic entrepreneurship of international students forms another dimension of entrepreneurial mobility, but there is a lack of evidence that cooperation with entrepreneurs who return after graduation or after completing postdoctoral tasks may benefit the universities of the host country (SIEGEL & WRIGHT, 2015).

Overseas Entrepreneurial Perception

LAI and VONORTAS (2020)research show that returnees are more likely to engage in entrepreneurial activities. Studying or working abroad enables people to enter a completely different knowledge environment from their own country, providing them with an opportunity to acquire advanced knowledge and new ideas (LIU, WRIGHT, et al., 2010). Likewise, research by PINTO (2020) points out that participation in the Erasmus project has a causal and positive impact on becoming an entrepreneur because the university graduates' international mobility helps students master foreign languages quickly and they are positioned by the market as entrepreneurial mobile employees.

Moreover, local governments in some Chinese cities, such as Beijing, Shanghai and Zhejiang, have also implemented a series of policies to attract graduates studying abroad to return home according to their career preferences. For example, providing generous subsidies and venture

capital for students abroad enables them to contribute to the economy of their hometown (MOK et al., 2020). In addition, higher education institutions have a responsibility to train and prepare students to work in a dynamic, fast-changing entrepreneurial and global environment. Introducing International Entrepreneurship Education to students can help them start a business abroad or start exporting (DZISI & ODOOM, 2017).

Multicultural Cognition

Personal factors play a vital role in the entrepreneurial process of returnees, which is largely determined by their direct experience studying abroad as well as the cultural, social and economic environment of the host country (LAI & VONORTAS, 2020). HARRIS et al. (2011) and ALON et al. (2016) find that the factors that affect entrepreneurial intention vary from culture to culture and national characteristics and cultural attitudes are important factors.

PINTO (2020) examines the impact of Spanish mobility on labor market outcomes and skill development, then concludes that the experience of students studying abroad has a positive impact on the possibility of becoming entrepreneurs, working abroad and improving information sharing and communication skills for foreigners. Meanwhile, the cultural background and language skills of returnees enable them to make use of non-local experience and knowledge (LIU, LU, et al., 2010). Compared with their local counterparts, the companies founded by returnees are more innovative. When returnees start new businesses, their multicultural knowledge, overseas education and work experience may be another important driver of innovation (LIU, WRIGHT, et al., 2010).

2.4 Entrepreneurial Self-Efficacy

Self-efficacy is the perception of the capability to achieve the expected performance level, which is gradually accumulated through cognitive, social, and physical experience (CANINA et al., 2012). Accordingly, entrepreneurial self-efficacy reflects the extent to which individuals believe that their skills and capabilities can successfully perform the responsibilities needed (CARDON & KIRK, 2015; MCGEE et al., 2009), different tasks and behaviors to start a business in a complex environment (CIUCHTA & FINCH, 2019) or specific areas (ZHAO et al., 2005). Moreover, it can be regarded as a personal resource that helps entrepreneurs transform their growing perception of uncertainty into exploration and opportunity identification (SCHMITT et al., 2018).

This recognition of entrepreneurial capability and the excavation of entrepreneurial opportunities promote entrepreneurial practice, leading new ventures (ABU BAKAR et al., 2017). Individuals with a high sense of self-efficacy indicate that they are fully prepared and capable of facing challenging conditions in developing new businesses and pursuing their own goals (MEMON et al., 2019). On such a basis, entrepreneurial self-efficacy is conceptualized as one of the main explanations and plays a vital role in motivating and supporting individuals (NENEH, 2020; PIHIE & BAGHERI, 2013).

2.4.1 Entrepreneurial Self-Efficacy and Entrepreneurial Intention

According to the entrepreneurial literature, the role of entrepreneurial self-efficacy in predicting entrepreneurial intention has been widely researched (BOYD & VOZIKIS, 1994; SCHMITT et al., 2018), and it is one of the most frequently studied factors in the formation of entrepreneurial intention (ESFANDIAR et al., 2019). For example, there is a strong direct and indirect relationship between entrepreneurial self-efficacy and entrepreneurial intention, which is the most significant factor affecting students' entrepreneurial intention (BARBOSA et al., 2007; CHIEN-CHI et al., 2020; ELNADI & GHEITH, 2021; LOAN et al., 2021; PIHIE & BAGHERI, 2013; SALAMI, 2019; SHAHAB et al., 2019; ZHAO et al., 2005).

Additionally, entrepreneurial self-efficacy is an individual's belief in his or her entrepreneurial ability. The higher the perceived level of entrepreneurial self-efficacy, the stronger the entrepreneurial intention they have (CHIEN-CHI et al., 2020; DRNOVSEK et al., 2010; LIU et al., 2019). People with a high level of entrepreneurial self-efficacy tend to successfully carry out entrepreneurial activities (HASSAN et al., 2020; LINAN & CHEN, 2009), overcome difficulties

and face challenges in the process of entrepreneurship (LIU et al., 2019) since they firmly believe that a venture can be easily built up (TSAI et al., 2016).

In contrast, entrepreneurs with low self-efficacy cannot widely learn from the experience of successful entrepreneurial situations, and the increasing uncertainty is unlikely to lead to exploration as a means to deal with this situation (SCHMITT et al., 2018). Therefore, entrepreneurial self-efficacy is an essential prerequisite for new entrepreneurial intentions since it forms a complex network of interrelated views on people's capability to achieve entrepreneurial goals (LEE et al., 2011).

The value of self-efficacy in entrepreneurial intention may not be wholly inherent but can be realized and improved through students' perceptions of ecosystems or environmental factors (ELNADI & GHEITH, 2021). Likewise, NENEH (2020) clarifies that the relationship between entrepreneurial self-efficacy and entrepreneurial intention may not be significant and that a favorable environment characterized by high social support leads to high entrepreneurial intention even in the case of low entrepreneurial self-efficacy.

In addition, ZHAO et al. (2005) find that self-efficacy can predict entrepreneurial intention and further play an intermediary role in the impact of perceived course learning on entrepreneurship, entrepreneurial experience, and risk propensity. Since self-efficacy is also influenced by external factors, it is desirable for the government to continue to create a favorable business environment in which young people can have sufficient confidence to engage in successful entrepreneurship (EPHREM et al., 2021).

2.4.2 Theoretical Model of Entrepreneurial Self-Efficacy

"Self-efficacy" is first defined by BANDURA (1977) as an individual's belief in his or her ability and skills to accomplish a specific set of tasks and undertake a job. This definition describes how action, behavior, perception, cognition, and environment interact with each other in a self-motivating way. Compared with people with low self-efficacy, people with high self-efficacy are more likely to persevere in completing a particular job or task (BANDURA, 1997).

According to the theory of self-efficacy, people obtain information from their performance achievements, vicarious (observation) experience, forms of verbal persuasion, physiological and emotional indicators to evaluate effectiveness (Figure 12). Personal performance provides the most reliable guide for evaluating efficacy. Success will improve efficiency, and failure will reduce

efficiency, but once a strong sense of efficacy is formed, failure may not have much impact (BANDURA, 1986).

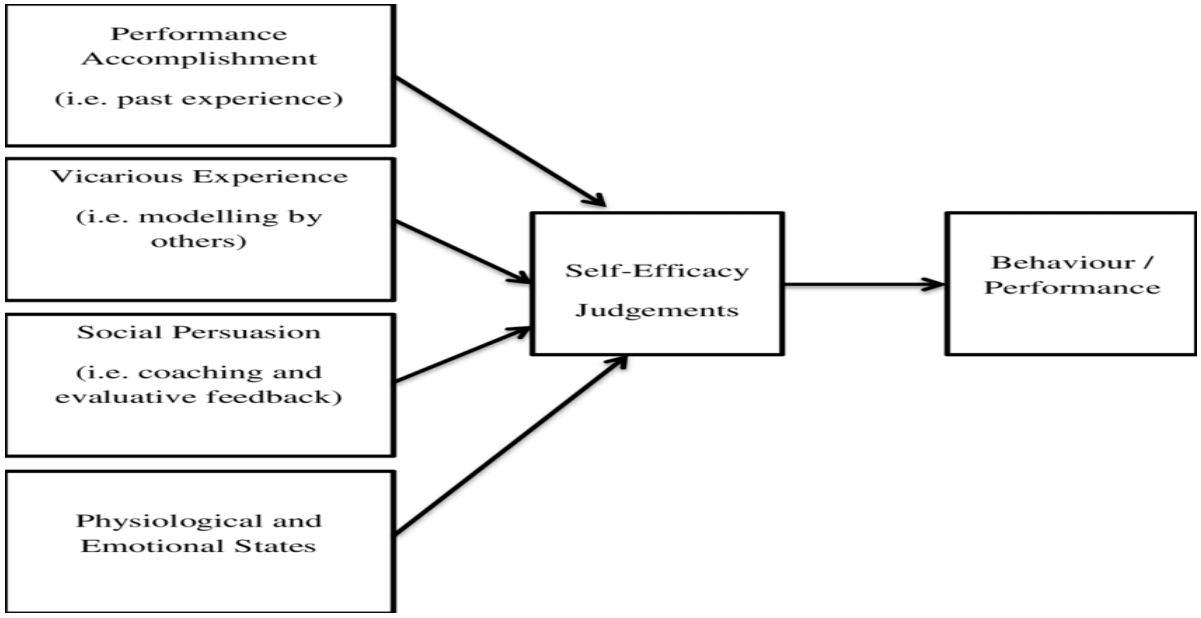

Figure 12. Self-Efficacy Theory

Source: BANDURA (1986)

Furthermore, BANDURA (1977) proposed a comprehensive theoretical framework to explain and predict the psychological changes brought about by difference modes of treatment. This theory holds that psychological processes, regardless of their form, will change the level and intensity of self-efficacy. It is assumed that expectations of personal efficacy determine whether coping behavior is initiated, how much effort is made, and how long it lasts in the face of obstacles and disgusted experiences.

Figure 13 shows the different influence procedures commonly used to reduce defensive behavior and shows the main sources of mastery expectations for each treatment. Any given method, depending on how it is applied, can of course make use of one or more other sources of efficacy information to a lesser extent.

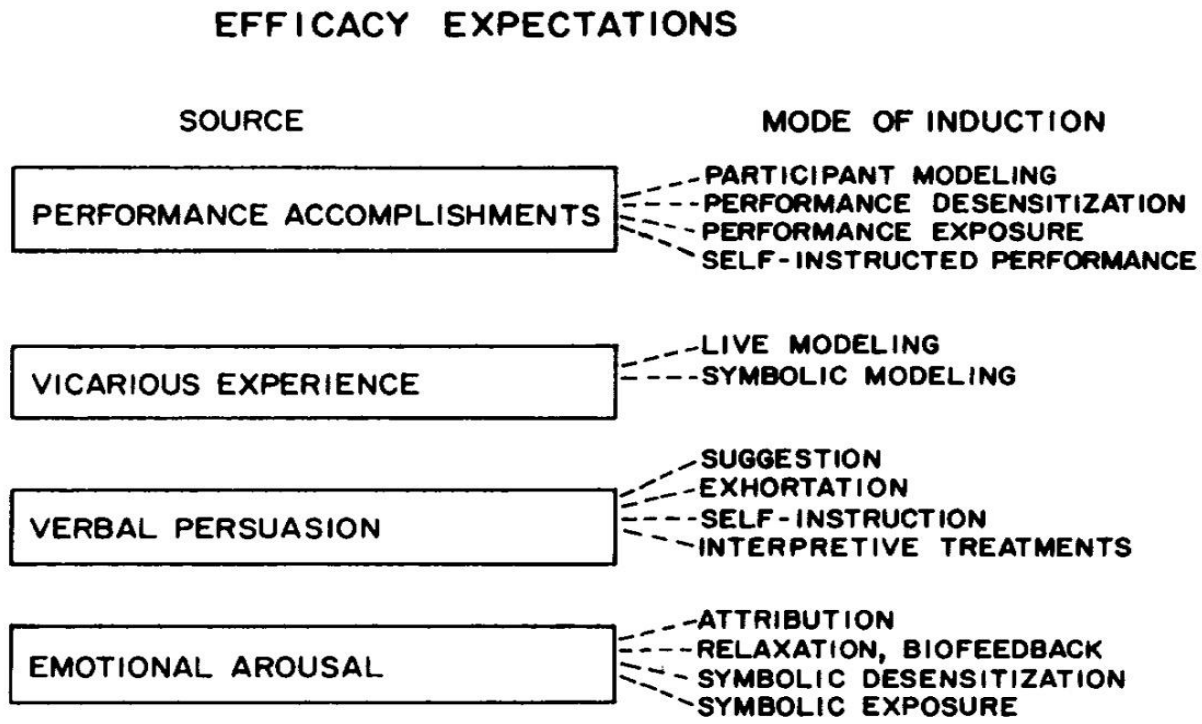

Figure 13. Major Source of Efficacy Information and Its Modes of Treatment Operation

Source: BANDURA (1977)

Subsequently, the structure of self-efficacy appears to be suitable for entrepreneurial research because it influences the development of both entrepreneurial career intentions and subsequent actions (BIRD, 1988; BOYD & VOZIKIS, 1994). BIRD (1988)believes individuals' entrepreneurial intentions are based on a combination of personal and contextual factors. Personal factors include previous entrepreneurial experience, personality characteristics and abilities. Contextual factors for entrepreneurship include social, political and economic variables such as displacement, market changes and government deregulation. Intention consists of rational/analytical thinking (goal-oriented behavior) and intuitive/holistic thinking (vision).

Afterwards, self-efficacy is thought to provide insight into the source of efficacy judgments that determine the intensity of entrepreneurial intentions and the possibility that these intentions will lead to entrepreneurial action. The integration of self-efficacy into Bird's model provides more insight into the cognitive process of entrepreneurial intention through specific behavior development and implementation (BOYD & VOZIKIS, 1994) (Figure 14).

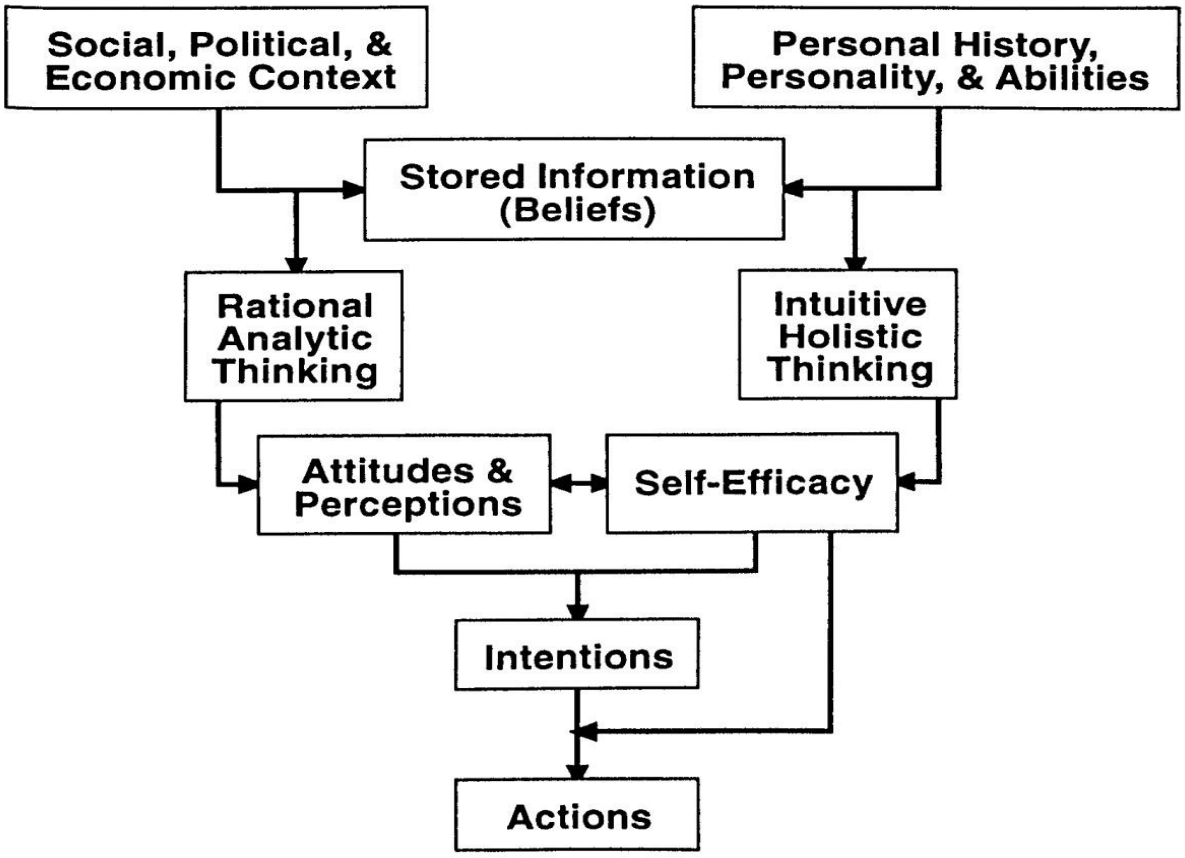

Figure 14. A revised Model of Bird's (1988) Context of Entrepreneurial Intentionality

Source: BOYD and VOZIKIS (1994)

Moreover, different definitions of entrepreneurial self-efficacy have been excavated in the literature (DRNOVSEK et al., 2010). One stream of study defines self-efficacy as the entrepreneur's confidence in task-specific tasks (BAUM et al., 2001; BOYD & VOZIKIS, 1994). Other studies define self-efficacy as the ability to master the cognitive, memory processing and behavioral facilities needed to respond effectively to the environment (CHEN et al., 1998; SEGAL et al., 2002). Self-efficacy is not only a good predictor of entrepreneurial intention (KRUEGER et al., 2000) but also a key determinant of start-up growth and personal success (MARKMAN et al., 2002).

The research in the field of entrepreneurship clearly investigated the relationship between entrepreneurial self-efficacy and entrepreneurial career preference and found that individuals with higher entrepreneurial self-efficacy had a higher entrepreneurial intention (BOYD & VOZIKIS, 1994; CHEN et al., 1998; KRUEGER et al., 2000). CHEN et al. (1998) develop the construct of entrepreneurial self-efficacy as a means to convince individuals of their ability to perform tasks related to new venture management.

In addition, corresponding to the results of the study, the author mentions that SEQUEIRA et al. (2007) research emphasizes the impact of social ties and self-efficacy on entrepreneurship (Figure 15). A personal network of supportive and strong relationships, coupled with a high sense of entrepreneurial self-efficacy, will increase the likelihood of entrepreneurial intention and nascent behavior. Personal relationships with weak business knowledge and experience also increase the likelihood of entrepreneurial nascent behavior, but do not increase entrepreneurial intentions.

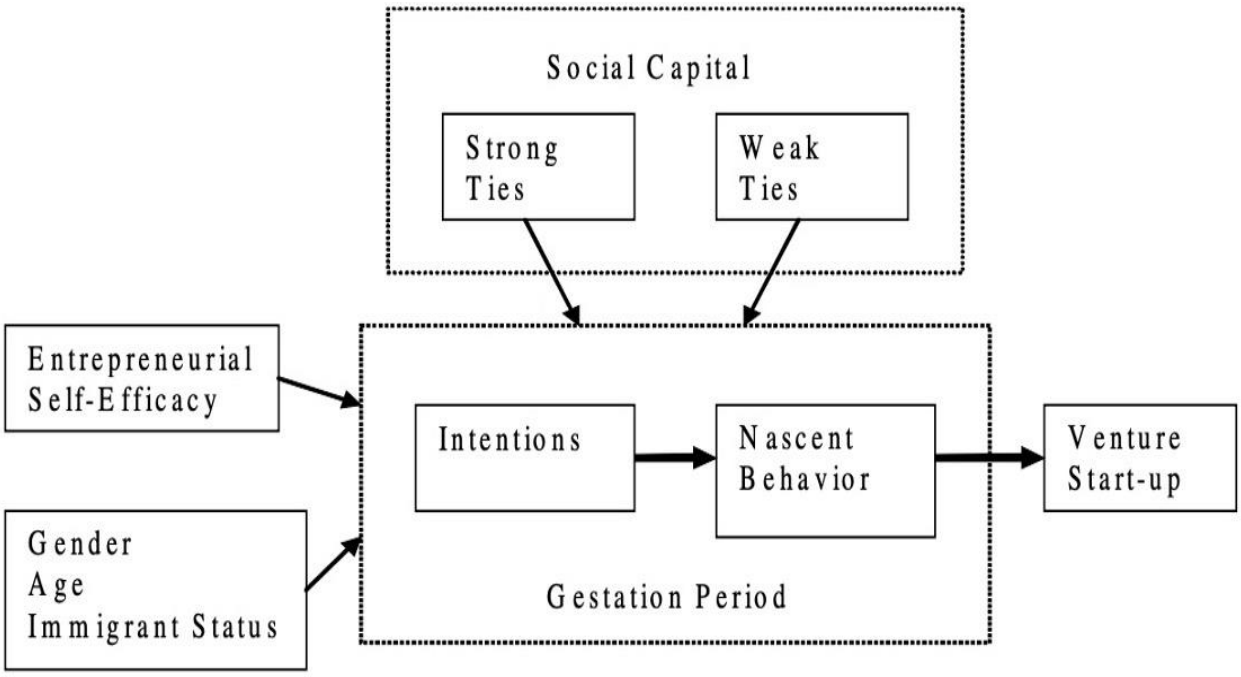

Figure 15. Nascent Entrepreneur Process Model

Source: SEQUEIRA (2007)

2.4.3 The Related Capabilities of Entrepreneurial Self-Efficacy

Entrepreneurship can be thought of as the business creation process of an entrepreneur who is willing to take risks, be dissatisfied with existing conditions, seek change, and constantly take advantage of opportunities to create value (ALI et al., 2019). Clarifying the mechanism by which self-efficacy affects behavior has always been one of the focuses of researchers and educators, especially in the field of entrepreneurship (PIHIE & BAGHERI, 2013). Entrepreneurial self-efficacy contains many aspects of creativity related to the entrepreneurial field, so creative self-efficacy should cultivate a sense of entrepreneurial ability so as to stimulate entrepreneurial self-efficacy (FULLER et al., 2018).

DABIC et al. (2012) believe that perceived desirability is the attractiveness of entrepreneurship to individuals, including internal and external factors, while feasibility is related to individuals' cognition of their entrepreneurial ability, and attitude is related to expected returns. More specifically, personality characteristics, risk-taking tendencies and initiative are regarded as some of the variables most related to entrepreneurial behavior (FERNANDES et al., 2018).

While, the development of perceived entrepreneurial skills includes creativity, problem-solving, opportunity recognition, leadership and communication, innovation, and networking (LINAN, 2008). These views are also supported by the study of the entrepreneurial characteristics of undergraduate students, SALAMZADEH et al. (2014) conclude that the main identifiable characteristics are an open mind, a need for achievement, pragmatism, tolerance of ambiguity, foresight, risk-taking and an internal source of control.

Operation and Management Capacity

Operation and management capability refers to establishing and developing organizational capabilities and dealing with the organizational operation and management process in a timely and effective manner (BURKE et al., 2002). In particular, operational capability is deemed to be the ability of each organization within the company to respond effectively and quickly to external market changes (HSU et al., 2014) and develop products or services to achieve its business goals (NEWEY & ZAHRA, 2009).

TATIKONDA et al. (2013) manifest that those specific operational capabilities support the survival of startups and have a particular influence on specific life stages of startups. In addition, XIE et al. (2021) research on agricultural entrepreneurs shows that operational capability reflects the entrepreneur’s ability to coordinate and manage business projects. Strong operational capabilities will focus on existing network relationships and resources, as well as the integration of management to improve the survival and development of business projects.

Enterprise management capabilities are considered necessary for the daily operation of the enterprise, including planning, problem-solving, legal skills, decision-making, the development and implementation of business models, strategic capabilities, delegation and business development (KERRIN et al., 2017).

OLSON (1987) expresses that management ability becomes very important when enterprises enter the stage of rapid growth, but the early stages of start-ups do not always require highly developed

management capabilities. This stage needs to focus on creating and developing innovative products and services. Moreover, individual management experience and industry experience can be improved through direct entrepreneurial experience and entrepreneurial parents (LINDER et al., 2020).

Relationship Coordination Capacity

Entrepreneurship can be understood as a system or network of interconnected actors closely linked to today's complex social challenges, such as sustainability (LYNCH et al., 2021). Social networks promote the growth and development of established and start-up companies by enabling individuals, teams, and organizations to gain access to external information and resources (XIE et al., 2021).

In a similar vein, DE CAROLIS et al. (2009) results confirm that the progress of new startups is directly related to social networks and relational capital. New entrepreneurs tend to seek functional benefits in network relationships. They need more help in carrying out activities such as marketing, manufacturing, and product development. Since they lack experience and do not know what activities to do and how to do them, they look forward to building relationships to help them carry out these activities (ZHENG et al., 2019).

Additional, markets and international networks refer to relationships established between suppliers and competitors in the local market as well as through international contacts (HUANG et al., 2013). Entrepreneurs with international social relations will recognize the opportunities of new ventures overseas more easily than others (ELLIS, 2011).

Based on a survey of the activities of 116 multinational small and medium-sized enterprises in Chile, DIMITRATOS et al. (2014) find that risk-taking tendencies and network relationships with domestic and foreign partners increase the possibility of companies becoming micro-multinational enterprises. Nevertheless, HUANG et al.'s (2013) study of entrepreneurs in the Middle East and North Africa concludes that entrepreneurs are more likely to turn to their home networks in the early stage than in the later stage, which is statistically significant.

Risk Tolerance Capacity

Risk has become a notable concept in the study of entrepreneurial scope since uncertainty, ambiguity, frustration, and stress are situations that entrepreneurs often have to face (LIU, 2020). In addition to that, high-risk tolerance is generally regarded as one of the basic characteristics of entrepreneurs (AHN, 2010; EKELUND et al., 2005). People who are willing to take risks tend to have a high likelihood of becoming entrepreneurs (AHN, 2010). Given that, entrepreneurs' propensity to take risks, tolerance for ambiguity, and motivation to start their businesses make them seem different from their fellow citizens (DABIC et al., 2012).

Compared with wage-earners, entrepreneurs are more optimistic, more likely to take risks and more motivated by non-monetary enjoyment of work (PURI & ROBINSON, 2013). Moreover, there are uncertainties and risks in the entrepreneurial process, and different types of entrepreneurs deal with them differently (LIU & ALMOR, 2016). Individuals with high risk tolerance are likely to make excellent progress in starting a business since they do not attach too much importance to the risk and focus more time, energy and resources on starting a business (DE CAROLIS et al., 2009). In the same vein, existing entrepreneurs with high entrepreneurial self-efficacy are more effective in regulating their emotions associated with an increased perception of uncertainty. They are less likely to be influenced by threatening and anxiety-proving thoughts (SCHMITT et al., 2018).

In situations where risks and uncertainties are involved (such as career choices), the relationship between self-efficacy and entrepreneurship can be best demonstrated (CHEN et al., 2001). NETO et al. (2018) suggest that people with a high sense of self-efficacy may reap greater rewards since they are more proactive and take more risks. However, when the environment is considered more uncertain than usual, entrepreneurs with lower entrepreneurial self-efficacy are more likely to respond passively, such as with withdrawal, since they doubt their ability to actively respond to the situation, thus reducing exploration (SCHMITT et al., 2018).

A culture that values key aspects of entrepreneurship, such as a willingness to tolerate uncertainty and individual competitive behavior, is considered to be the driving force behind entrepreneurship (STEPHAN & PATHAK, 2016). In addition, risk-taking companies tend to operate in the context of information sharing and learning together, so they can improve their knowledge and identify opportunities faster than their competitors (FOSFURI & TRIBÓ, 2008). A sense of regret for missing a profit opportunity serves to encourage people to take risks, thereby increasing their entrepreneurial intentions (BERGNER et al., 2021).

Moreover, HORMIGA and BOLÍVAR-CRUZ (2014) find that the potential new reason for the improvement of the entrepreneurial level of the non-native population is that immigrants have a higher tolerance to risk, and their lower risk awareness also increases their tendency to start a business.

Innovation and Opportunity Identification Capacity

The focus of today's social goals has shifted from the management of scarce resources and the creation and distribution of wealth to improving the quality of life through technological innovation (IDREES & SARWAR, 2021). Entrepreneurial behavior not only reflects the attitude of entrepreneurs to bear and share risks but also reflects their capacity to engage in innovative activities (IDREES & SARWAR, 2021).

Innovation is considered to be an important factor in the entrepreneurial process because it is associated with the identification of opportunities and the development of new products and businesses (KO & BUTLER, 2007). Moreover, creativity is regarded as a cognitive resource in which people instinctively remain vigilant to their surroundings so that they can actively identify or create opportunities (GIELNIK et al., 2012).

As a result, the country gradually attaches importance to innovation, such as developing new means of production, the provision of new products, and the creation of new markets (IDREES & SARWAR, 2021; SHAN et al., 2016). Alongside this, the innovation and creativity of entrepreneurship have become the driving factors for individuals with high initiative to engage in entrepreneurial activities (BALUKU et al., 2018) and for the country to promote economic prosperity (IDREES & SARWAR, 2021). Entrepreneurship will bring multiple challenges related to establishing a company, which individuals may see as obstacles, but they may become increasingly eager to overcome them by developing innovative and alternative ideas (LI et al., 2020).

Opportunities are regarded as gaps in the market that entrepreneurs have not managed, and these unexplored opportunities or possibilities become the targets they scan and look for (GRÉGOIRE et al., 2009; HANSEN et al., 2011). SCHMITT et al. (2018) believe that opportunity identification is a dynamic process that is constantly refined and iterated. Such entrepreneurs engage in activities to practice their original business ideas, which are shaped continuously, developed, or changed.

Overall, business opportunity is the first condition for establishing start-ups, business performance and the development of venture enterprises (SCHMITT et al., 2018). The ability to identify opportunities increases one's chances of becoming an entrepreneur, since this ability needs to be reflected before starting a business (BARON & ENSLEY, 2006).

The potential gap between seeing opportunities and being able to seize them shows that training and mentoring founders after opportunities are identified is particularly valuable (LINDER et al., 2020). Furthermore, GIELNIK et al. (2012) express that opportunity can be found in the environment since it exists objectively, such as through deliberate search and combination to obtain new information. In this case, people should be vigilant about the environment, actively look for new ideas, and collect appropriate and effective information about new products or services (BELLO et al., 2018; MAHMOOD et al., 2019).

2.5 Demographic Characteristics

Through the extensive study of international mobility and entrepreneurship, employment intention and entrepreneurial intention have been confirmed by scholars as coming from environmental variables and individual variables, which cannot be explained separately (MUSTAFA et al., 2016).

2.5.1 Demographic Characteristics and Employment Intention

The motivation of students to study abroad, whether short-term or long-term, can be attributed to acquiring multicultural experience, improving foreign language skills, and broadening their career prospects (THISSEN & EDERVEEN, 2006). Living abroad increases the possibility of working abroad (BETÁKOVÁ et al., 2021; WIERS-JENSSEN & TRY, 2005). ZIGURAS and LAW (2006) show that the longer they stay in the host country, the more likely it is for international students to stay there after graduation because it enables students to get used to the host country and make wiser decisions.

Moreover, WIERS-JENSSEN and TRY (2005) find that background variables such as age, gender, social origin and marital status have no significant direct impact on the probability of working abroad. In the same vein, SOON (2012) also manifests that age, marital status, gender and family socioeconomic background have no significant impact on the probability of an employment intention outcome.

However, WIERS-JENSSEN and TRY (2005) contend that family conditions affect the possibility of working abroad among migrant students. Families that support student migration programmes have a significant impact on the probability of planning to return to or stay in the host country (SOON, 2012). SOON's (2012) research on studying in New Zealand shows that the length of stay in New Zealand, work experience, initial willingness to return home and family support for immigrant workers have a significant impact on the probability that students intend to work in the country of their destination.

2.5.2 Demographic Characteristics and Entrepreneurial Intention

Due to extensive research on the important role of entrepreneurial intention, people realize that the intention to start a business comes not only from the environment-oriented factors but also from the people-oriented characteristics (GEORGE et al., 2016; MUSTAFA et al., 2016).

In terms of gender, DABIC et al. (2012) state significant gender differences in the feasibility and desirability of entrepreneurial perception between males and females. Females are more concerned about the difficulties and workload of entrepreneurship (DAIM et al., 2016), have less confidence, and are more nervous, reluctant, and worried about starting a business (DABIC et al., 2012). Moreover, compared with men, women are more afraid of failure, risk aversion, lack of understanding of their abilities and desire for a balance between life and work, limiting the expansion of enterprise-scale, resulting in a relatively low-risk tendency (SCHRÖDER et al., 2021). Through a study of Chinese vocational college students, WEN et al. (2020) conclude that the total score of entrepreneurial self-efficacy of male students is significantly higher than that of female students, indicating that male students are more confident in entrepreneurial activities than female students.

Furthermore, students with entrepreneurial experience are more interested in self-employment (DAVEY et al., 2011). Entrepreneurial self-efficacy may be enhanced by previous experiences and past behaviors, thus affecting the entrepreneurial intentions and actions of becoming (MCGEE & PETERSON, 2019; ZHAO et al., 2005). ZHENG et al. (2019) notice that, based on their experience, network orientation is indeed different. New entrepreneurs with rich entrepreneurial experience can better understand their future needs and strategic vision, reducing entrepreneurial unknowns and clarifying the types of relationships they need to develop. Besides, industry experience for new ventures is more specific and more important since success depends on the type of experience (LINDER et al., 2020). The lack of previous experience would increase the unknowns new venture leaders face in exploring the development of opportunities (ZHENG et al., 2019).

In regard to family business background, people with entrepreneurial backgrounds increase the likelihood that other family members or close friends plan to start a company (GUBIK, 2021; LINAN, 2008). GUBIK's (2021) research on Hungarian graduates confirms that students with family entrepreneurial backgrounds significantly influence their career planning as entrepreneurs. That is due to the fact that family relationships provide a series of professional and non-professional resources for new entrepreneurs and act as a strong business link in the business network, which positively impacts the establishment and activities of new enterprises (SAHBAN et al., 2016). Moreover, students whose parents own businesses show higher initiative, entrepreneurial attitude, and intention, which further proves the relative importance of the interaction between role models and entrepreneurial intentions (ZAMPETAKIS et al., 2009).

III. MATERIAL AND METHOD

3.1 Research Questions and Conceptual Model Construction

This part mainly describes the research questions and transforms them into specific research hypotheses. After that, the research models are constructed based on the corresponding research topics.

3.1.1 Employment Intention

MOSNEAGA and WINTHER (2013) believe that international students are regarded as potential skilled workers in the global competition for talent. With the launch of the state-funded Stipendium Hungaricum project, Hungary plans to further increase the proportion of non-Hungarian citizens in Hungarian higher education, including scholarship holders and self-financed students (EUROPEAN MIGRATION NETWORK, 2018).

However, due to nationalism or national protectionism in some Western countries, international students are forced to return to their home countries (XIONG & MOK, 2020). Nor is it a policy goal for Hungary to retain international students here. International students are expected to return to their motherland, disseminate good reputations for higher education in Hungary and promote Hungary's scientific, economic and cultural links with each third country (EUROPEAN MIGRATION NETWORK, 2018). According to European internationalization labour market demand, for enterprises to recruit internationally outstanding talents and for Hungary to retain international students is not a policy goal (BETÁKOVÁ et al., 2021). The questions need to be explored as follows:

1. Have international students' employment intentions (EMI) changed after studying in Hungary?
2. What are the main reasons (influencing factors) for choosing different employment directions?

This study explores the current employment intentions of international students in Hungary. They prefer to join the international labour market of Hungary or are more likely to return to their home country or go to other foreign countries. The present study is conducted to understand whether overseas experience has salient influences on the career development and employment choice of

international students, testing whether their employment intentions have changed after studying in Hungary. Moreover, it is necessary to determine the main reasons for choosing different employment intentions. The main reasons include three major influencing factors: push factors, pull factors and personal thinking factors. The research model of employment intentions is shown in Figure 16.

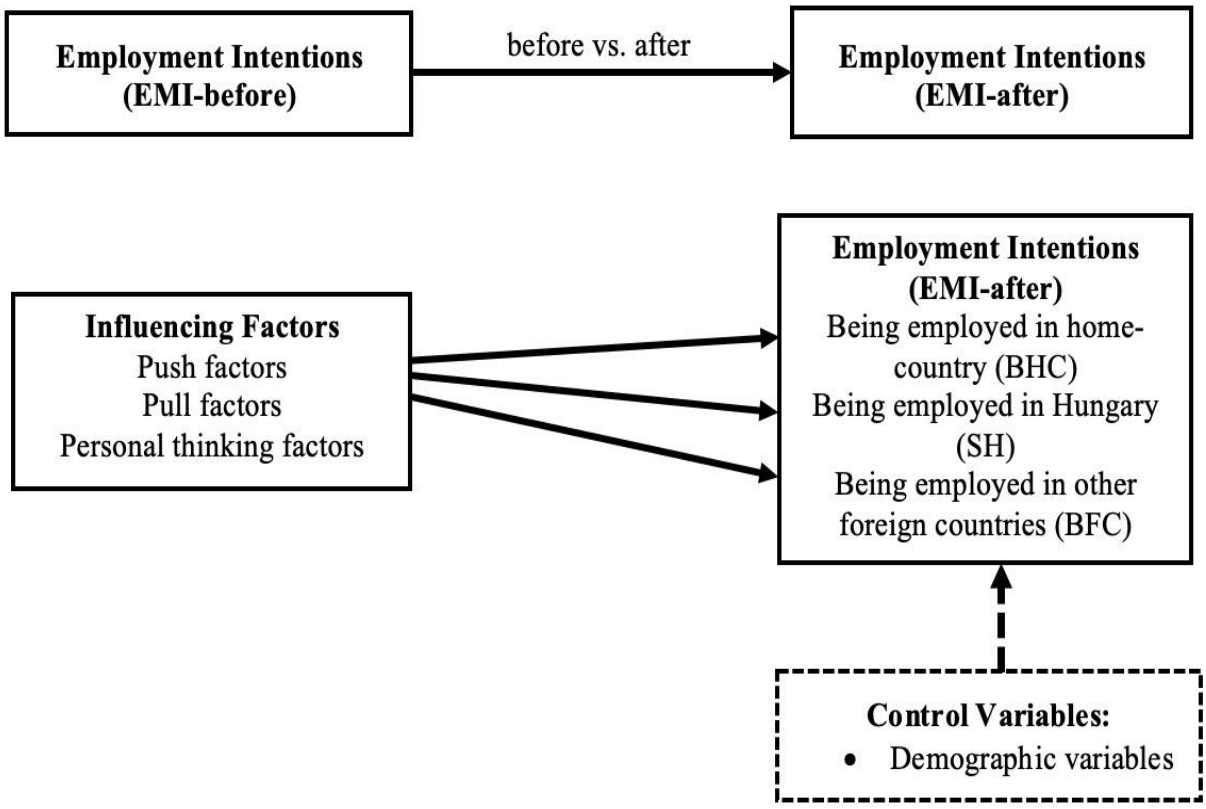

Figure 16. Conceptual Model of the Research for Employment Intentions

Source: Author's own construction

Accordingly, to achieve the purpose of this objective, the following hypotheses are put forward:

- **Hypothesis 1.** There is no difference in employment intentions (EMI) of international students to be employed in the home country (BHC) (H1a), stay employed in Hungary (SH) (H1b), and be employed in other foreign countries (BFC) (H1c) before and after studying in Hungary.
- **Hypothesis 2.** The pull of the home country (H2a), the push of Hungary (H2b), and personal thinking (H2c) have a statistically significant relationship with the choice of employment in the home country by international students after studying in Hungary.

- **Hypothesis 3.** The pull of Hungary (H3a)**,** the push of the home country (H3b), and personal thinking (H3c) have a statistically significant relationship with the choice of employment in Hungary by international students after studying in Hungary.
- **Hypothesis 4.** The pull of other foreign countries (H4a)**,** the push of the home country or Hungary (H4b), and personal thinking (H4c) have a statistically significant relationship with the choice of employment in other foreign countries by international students after studying in Hungary.

3.1.2 Entrepreneurial Intention and External Environmental Factors

With the continuous development of internationalization, regional mobility has undoubtedly greatly been promoted, which has led to the success of global higher education and increased the possibility of the career development of international students (HARRISON, 2012). The experience of studying, living and working abroad can lay the foundation for a future career in international business and new ventures around the world (HELMS et al., 2014). That is because different environments may lead to different social realities, resulting in differences in the factors of entrepreneurial feasibility (WARD et al., 2019).

Notably, cross-cultural experience helps people enter a knowledge environment that is entirely different from their home countries, thus acquiring advanced knowledge, skills and new ideas and enhancing their ability to identify (LIU, LU, et al., 2010; LIU, WRIGHT, et al., 2010; VANDOR & FRANKE, 2016). Even short-term foreign educational exchanges will likely improve people's ability to find profitable business opportunities (VANDOR & FRANKE, 2016). At present, international students in Hungary have become a part of higher education institutions that should not be ignored. It is speculated that the experience of studying in Hungary may also increase the entrepreneurial willingness of international students. Thus, the following questions are worth digging into:

1. Have the entrepreneurial intentions (ENI) of international students changed since coming to Hungary?
2. What environmental factors would bring about changes in entrepreneurial intention before (ENI-before) and after (ENI-after) coming to Hungary? To what extent is it affected?

Overseas experience not only provides the knowledge stock for returnees but also contributes to the growth of their "social capital" (JONKERS & TIJSSEN, 2008). Returnees may maintain social

relations with the host country after returning home, enabling them to update their technology constantly. This "social capital" enables them to access different sources of information and knowledge after returning to their home countries (LAI & VONORTAS, 2020). Moreover, PINTO's (2020) research points out that participating in the Erasmus project has a causal and positive effect on becoming an entrepreneur. That is because international mobile helps university graduates master foreign languages quickly, so they are positioned as entrepreneurial migrant workers in the market.

In addition, the factors that affect entrepreneurial intention vary from culture to culture, among which national characteristics and cultural attitudes are important (ALON et al., 2016; HARRIS et al., 2011). Companies founded by returnees tend to be more innovative than their local counterparts. Multicultural knowledge, overseas education and work experience may be important sources of innovation-driver forces for returnee entrepreneurs (LIU, WRIGHT, et al., 2010). Therefore, the environmental factors tested in this study include multiple network construction (MNC), overseas entrepreneurial perception (OEP) and multicultural cognition (MC). The research model of entrepreneurial intention (external environmental factors) is shown in Figure 17.

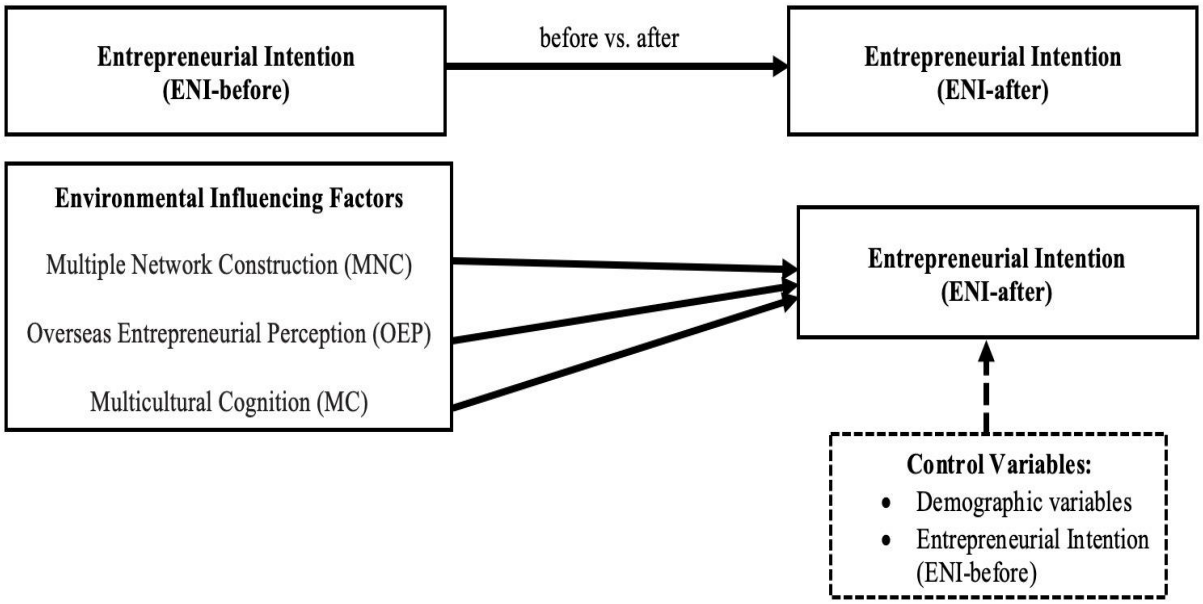

Figure 17. Conceptual Model of the Research for Entrepreneurial Intentions (External Environmental Factors)

Source: Author's own construction

According to the conceptual framework of entrepreneurial intention (external environmental factors), the relevant hypotheses are as follows:

- **Hypothesis 5.** There is a significant difference in entrepreneurial intentions (ENI) of international students before and after coming to study in Hungary.
- **Hypothesis 6.** Multiple network construction (MNC) (H6a), overseas entrepreneurial perception (OEP) (H6b), and multicultural cognition (MC) (H6c) of external environmental factors have a significant impact on the entrepreneurial intention (ENI) of international students in Hungary.

3.1.3 Entrepreneurial Intention and Internal Self-Efficacy Factors

Entrepreneurship is not only an essential driving force of social health and wealth but also a powerful engine of economic growth (GILL et al., 2021) and technological progress in all countries (YU et al., 2021). What drives individuals to pursue entrepreneurship has always been the focus of entrepreneurial research, which leads to a growing body of studies trying to clarify the predictors of entrepreneurial intention (NENEH, 2020).

Through extensive research on the topic of entrepreneurial intention, scholars confirm that entrepreneurial intention comes from environment-oriented factors and people-oriented characteristics (GEORGE et al., 2016; MUSTAFA et al., 2016). Moreover, MUSTAFA et al. (2016) disclose that the dynamic nature of entrepreneurial intention cannot be fully explained by individual or environmental variables separately. SHAH et al. (2020) indicate that previous studies have found a strong correlation between students' entrepreneurial intention and self-efficacy, demographic factors, and entrepreneurship education.

To advance the external environment factors on the impact of entrepreneurial intentions. Such a study on the role of entrepreneurial self-efficacy and personal characteristics on international students in the Hungarian context could provide a more comprehensive perspective of influencing factors on entrepreneurial intentions. Hence, the study will propose the following questions:

1. Does international students' entrepreneurial self-efficacy impact their entrepreneurial intention (ENI) in Hungary? What is the magnitude of these capabilities?
2. Are there significant differences in demographic characteristics among international students in Hungary related to their entrepreneurial intention (ENI)?

Self-efficacy is considered the critical antecedent variable for developing entrepreneurial intention among the influencing factors (BARBOSA et al., 2007; ZHAO et al., 2005). Notably, entrepreneurial self-efficacy is the degree to which an individual believes that his or her skills and

capabilities enable successfully fulfilling the responsibilities needed to start a business (CARDON & KIRK, 2015; MCGEE et al., 2009). The self-efficacy of entrepreneurship in this study is tested by the following four capability dimensions: operation and management capacity (OMC), relationship coordination capacity (RCC), risk tolerance capacity (RTC), and innovative and opportunity identification capacity (IOIC). In addition, when examining the entrepreneurial intention (ENI) of international students and considering their broad sense of self-efficacy, narrow personality traits should not be ignored.

More specifically, operation and management capability is regarded as the ability to establish and develop organizations, and timely and effective responses to the organizational management process (BURKE et al., 2002). Moreover, social networks enable individuals, teams, and organizations to access external information and resources, thereby promoting the growth and development of established companies and start-ups (XIE et al., 2021).

Additionally, entrepreneurs with high entrepreneurial self-efficacy are more effective at regulating emotions and less likely to feel threatened and anxious because of uncertainty (SCHMITT et al., 2018). Entrepreneurial self-efficacy helps entrepreneurs turn their growing perception of uncertainty into exploration and opportunity identification (SCHMITT et al., 2018). What's more, innovation and creativity are the core factors for highly active entrepreneurs to carry out entrepreneurial activities (BALUKU et al., 2018) and for the country to promote economic prosperity (IDREES & SARWAR, 2021). Accordingly, the research model of entrepreneurial intention (internal self-efficacy factors) is shown in Figure 18.

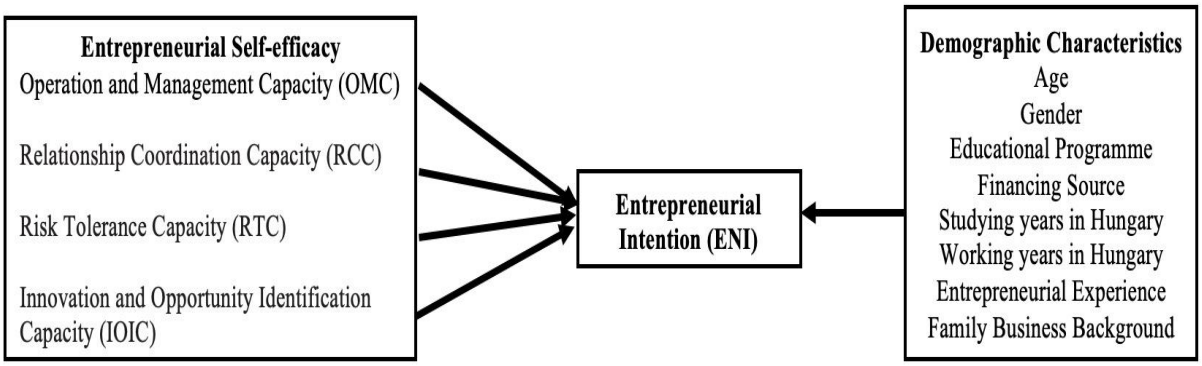

Figure 18. Conceptual Model of the Research for Entrepreneurial Intentions (Internal Self-efficacy Factors)

Source: Author's own construction

In light of the above conceptual framework of entrepreneurial intention (internal self-efficacy factors), this study proposes the following hypotheses:

- **Hypothesis 7.** Operation and management capacity (OMC) (H7a), relationship coordination capacity (RCC) (H7b), risk tolerance capacity (RTC) (H7c), and innovative and opportunity identification capacity (IOIC) (H7d) in entrepreneurial self-efficacy significantly influence the entrepreneurial intention (ENI) of international students in Hungary.
- **Hypothesis 8.** Demographic characteristics among international students in Hungary are significantly associated with their entrepreneurial intention (ENI).
- **Hypothesis 9.** There are significant differences in demographic characteristics among international students in Hungary related to their entrepreneurial intention (ENI).

3.2 Research Design

This section carries on an empirical research design to test the research models and the corresponding research hypotheses in this study. First, the author refers to the maturity scale, which scholars widely use to screen and design the scale of each variable in this study and develop the initial questionnaire according to the Hungarian context. Subsequently, the initial questionnaire is tested and improved through a pilot study. The expression and arrangement of items are further adjusted according to the suggestions of supervisors and respondents, and finally, a formal questionnaire is formed.

3.2.1 Questionnaire Design

This study adopts the quantitative research method of, and the data is collected through self-administered online questionnaires. As the topics of this study are employment intentions and entrepreneurial intentions, the two contents are unrelated. To avoid too many items in the questionnaire, making it tiresome for the respondents. The author designs two questionnaires for these two topics, which makes it easier to complete and obtain high-quality responses. This study implements the questionnaire design process through the following steps:

Step 1:

Based on the relevant measurement scale of the existing literature related to employment intentions and entrepreneurial intentions, as well as according to the research questions and contexts of Hungary, the author appropriately modified the initial measurement scale for the initial questionnaire.

Step 2:

The structure of the questionnaire is designed according to the scale of each variable. The introduction guides the respondents in completing the questionnaire in the first part. The introduction of the questionnaire aims to clarify the purpose of the survey, commit to confidentiality and express gratitude to the respondents. Moreover, it also explains the specific requirements the respondents should meet to complete the questionnaire correctly. The second part of the questionnaire asks about the general data of the respondents (gender, age, educational level, etc.). The third part, the main body of the questionnaire, deals with the measurement items of the variables involved in research model.

Specifically, the employment intentions questionnaire concerns the choice of employment intentions and the influencing factors of three different employment directions. The entrepreneurial intentions questionnaire includes the entrepreneurial intentions scale, external environmental factors, and internal entrepreneurial self-efficacy scales. In addition, a 5-point Likert scale allows respondents to show the extent of their agreement for all items, ranging from 1 = strongly disagree to 5 = strongly agree. The fourth part of the questionnaire expresses gratitude for the cooperation of the respondents.

Step 3:

The pilot study is carried out to test the quality of the questionnaire. This study takes international students from the Hungarian University of Agricultural and Life Sciences as the object to test its reliability and validity. Then, through the feedback collected, the questionnaire items are modified and improved to ensure the quality of the data collected by the formal questionnaire. The data collected for the pilot study are not included in the final valid sample.

Step 4:

The revised formal questionnaire is used to collect data for this research. The author shares links to several universities in Hungary through social media platform groups to fill in and collect data online.

3.2.2 Design and Measurement of Variables

Based on the literature overview and theoretical analysis, this section designs the measurement indicators of the related variables of employment intentions, entrepreneurial intentions, external environment and internal entrepreneurial self-efficacy. The following will introduce the selection and measurement of related variables for this study.

Employment Intention

Employment intentions are divided into three directions: being employed in home-country (BHC), staying employed in Hungary (SH) and being employed in other foreign countries (BFC). The specific possible influencing factors (reasons) for choosing a different direction of employment are based on the current study experience in Hungary and the research literature of many scholars, as shown in Table 1.

Table 1. Specific Items for the Reasons of Choice for Employment Intentions

Independent variables	Items
Being employed in home-country (BHC)	1. After studying abroad, I will get more job opportunities when I return home. 2. I hope to live in my own country after graduating from studying in Hungary. 3. I have the responsibility of taking care of my family, so I need to go back to work in my own country. 4. I go back to work in my own country to develop the family business. 5. I can't get used to eating habits or adapt to the natural climate of Hungary. 6. I feel lonely in foreign countries, I can't get my family's care and support. 7. The experience of studying abroad has increased my competitiveness to work in my own country. 8. My family expects me to return to my own country for employment. 9. Working in my own country gives me a sense of belonging. 10. When I go back to work in my own country, I can get more spiritual and life support from my family. 11. The choice of employment in my own country is diversified. 12. My country's economy is developing very well, and I can get a better salary when I return to work in my country. 13. Going back to work in my own country will save some unnecessary expenses. 14. The familiar social environment of my own country makes me very comfortable. 15. Due to the limitations of language and specialty, it is hard for me to find good jobs in Hungary. 16. Compared with my own country, Hungary's living costs are high. 17. It is difficult to apply for a work residence permit in Hungary. 18. The culture of Hungary is quite different from that of my own country. 19. There is racial discrimination in Hungary, and the locals are unfriendly to foreigners. 20. Before I came to study in Hungary, I signed an agreement with my country that I had to return home to work after graduation.
Staying employed in Hungary (SH)	1. I mastered the Hungarian language, and I could easily find a good job. 2. I love Hungary's cultural and social environment very much. I would like to settle down in Hungary after graduation. 3. I like Hungary's working environment and working atmosphere. 4. I can find companies with cooperative projects with my own country here, which makes it easier for me to find a job. 5. I can start a business in Hungary and trade with my own country. 6. I hope to bring my family to Hungary so that my children can be educated in Europe. 7. Hungary has the conditions to realize my personal ambition. 8. The economic development of Hungary is better than that of my own country and I will get more income. 9. Living conditions and social security in Hungary are better. 10. It is easy to apply for a work residence permit in Hungary. 11. The choice of employment in Hungary is diversified. 12. Work experience in Hungary can help me find a better job when I return home country. 13. Hungary is a springboard for my stay in Europe. After working in Hungary I will go to other countries where economies are better developed, such as Western European countries. 14. My family and friends are in Hungary. I would like to stay and work here. 15. My family expects me to stay and work in Hungary. 16. The education level in Hungary is very good. I hope to work here so that I can continue my studies here. 17. My home-country is not conducive to the realization of my personal ambitions. 18. My country's economic development is not good, and there are few job opportunities. 19. Hungary has great cultural inclusiveness and locals are very friendly to foreigners.
Being employed in other foreign countries (BFC)	1. I have relatives and friends in other countries. I will go to them and work in other countries. 2. I would like to go to a country with a better business environment, which is conducive to venture activities for my career. 3. I would like to work in other countries with better economic development and social security so that I can get more income. 4. I don't fit into Hungary's cultural and social environment; I would like to go to other foreign countries I can adapt to. 5.I like other foreign countries' cultures and social environments, and I hope to settle down there. 6. I would like to work in other countries because I want to go to a new environment. This can broaden my horizons, let me feel other countries' humanities customs.

	7. I would like to work in other countries because I want to study there to improve my educational background. 8. I have language barriers in Hungary, and I would like to go to other foreign countries without language barriers. 9. I don't like the working environment and working atmosphere in Hungary and my home country. 10. Other foreign conditions are more likely to realize my personal ambition. 11. My family supports me to work in other countries. 12. The choice of employment in other foreign countries is diversified. 13. Hungary and my country's employment environment is not very good; I am not easy to find good jobs in these two countries. 14. Working experience in other foreign countries can help me find a good job when I return home. 15. Working visas are easier to obtain in other foreign countries. 16. My country has traded with other foreign countries, and I am easier to find good jobs there. 17. Compared with Hungary and my home-country, other foreign countries would have lower costs to live. 18. Racial cultures are more inclusive in other foreign countries so that I won't be discriminated against by race.

Source: Author's own construction based on literature

Entrepreneurial Intention

Table 2 shows specific indicators for measuring individual entrepreneurial intentions, including six items. The items from ENI2 to ENI5 refer to the entrepreneurial intention scale invented by THOMPSON (2009). Besides, ENI1 and ENI6 have been added to fit the research context. This scale is measured in two dimensions, including entrepreneurial intent and entrepreneurial preparation. Moreover, it is worth noting that after comparing the entrepreneurial intentions before and after coming to Hungary, the data of entrepreneurial intention after coming to Hungary (ENI-after) are used to analyze the impact of environmental factors and entrepreneurial self-efficacy factors as the dependent variables. The period after coming to Hungary is defined as arriving in Hungary until the time point of data collection.

Table 2. Entrepreneurial Intention Scales

Codes	Items
ENI1	I have a sense of entrepreneurship.
ENI2	I plan to start a company in the future.
ENI3	I have been looking for entrepreneurial projects and opportunities.
ENI4	I spend time learning entrepreneurial knowledge and other people's entrepreneurial experience.
ENI5	I have saved money or considered the source of funds to start a company.
ENI6	I hope to get wealth and a sense of achievement through starting a business.

Source: Author's own construction based on literature

External Entrepreneurial Environment

The potential environmental factors explored in this study include multiple network construction (MNC), overseas entrepreneurial perception (OEP) and multicultural cognition (MC). Multiple network construction (5 items) includes contacts between international students and Hungarian organizations or individuals. Then, overseas entrepreneurial perception (6 items) is the education, knowledge, resources, opportunities and so on perceived after coming to Hungary. Multicultural cognition (6 items) is the ability to discover and adapt to the cultural differences brought about by Hungarian and other international students. These three factors are considered independent variables based on the summary of studying experience in Hungary and related literature (Table 3).

Table 3. External Environmental Scales

Variables	Code	Items (External environmental factors)
Multiple Network Construction (MNC)	MNC1	I have established contact with Hungarian universities.
	MNC2	I have established contact with business partner in Hungary.
	MNC3	I have established contact with potential clients in Hungary.
	MNC4	I have established contact with relevant enterprises in Hungary.
	MNC5	I have established contact with investors in Hungary.
Overseas Entrepreneurial Perception (OEP)	OEP1	The experience of studying in Hungary has expanded my entrepreneurial horizons and possibilities.
	OEP2	Hungarian universities promote and encourage students to start a business, resulting in a strong entrepreneurial atmosphere.
	OEP3	The experience of studying in Hungary made me find the opportunity to start a business.
	OEP4	Hungarian universities provide students with education, resources and policy support for entrepreneurship.
	OEP5	The background of studying abroad helps me to get preferential policies or financial support for entrepreneurship when return home country.
	OEP6	Studying in Hungary has enhanced my foreign language skills needed for starting a business.
Multicultural Cognition (MC)	MC1	I am well aware of the differences between the culture of my own country and that of Hungary.
	MC2	I can quickly adapt to Hungarian culture and life.
	MC3	I can understand and adjust the conflicts brought about by multi-culture.
	MC4	I know how to communicate with Hungarians and students of different nationalities.
	MC5	I am very interested in the culture and customs of Hungarian and students with different cultural backgrounds, and often have cultural exchanges with them.
	MC6	I can change my behavior and cognition according to different cultural needs.

Source: Author's own construction based on literature

Internal Self-Efficacy Factors

Four capability dimensions in this study are used to reflect entrepreneurial self-efficacy as independent variables. Operation management capacity (OMC) includes five items and measures the cognition of the enterprise's management knowledge and operational skills. Relationship coordination capacity (RCC) consisted of three items for the cognition of sustaining interpersonal relationship ability. Risk tolerance capacity (RTC) is constructed by four items to measure the ability to identify and face the risk of failure. Lastly, innovation and opportunity identification capability (IOIC) is the perception of innovation and opportunity-seeking, including five items. These four dimensions are consistent with the 'Entrepreneurial Self-Efficacy Scale' used by WEN et al. (2020). The specific measurement scale in this study is developed to combine with the research context for international students (Table 4).

Table 4. Internal Self-efficacy Scales

Variables	Code	Items (Internal self-efficacy factors)
Operation and Management Capacity (OMC)	OMC1	I am willing and able to make a clear plan for the future development of the enterprise.
	OMC2	I have the knowledge and skills of operation and management.
	OMC3	I can assign tasks well and lead my colleagues to complete the tasks successfully.
	OMC4	I can analyze the financial data and prepare the operating budget.
	OMC5	I have received entrepreneurship education and know how to start a business.
Relationship Coordination Capacity (RCC)	RCC1	I can communicate with others effectively.
	RCC2	I can maintain a long-term and good relationship with my colleagues and supervisors.
	RCC3	I can consider problems from the point of view of others and be good at solving conflicts.
Risk Tolerance Capacity (RTC)	RTC1	I tend to accept uncertainty and have less anxiety about it.
	RTC2	I have the ability to identify risks and make reasonable plans to reduce the possibility of risks.
	RTC3	I am not afraid of the risk of failure brought by starting a business.
	RTC4	I have the courage to face failure and I can try again.
Innovation and Opportunity Identification Capacity (IOIC)	IOIC1	I can always come up with some new and good ideas.
	IOIC2	I can easily accept and deal with the challenges of new things.
	IOIC3	I can identify the potential value of innovation.
	IOIC4	I pay more attention to the news of entrepreneurship and innovation to help me find the possibility of starting a business.
	IOIC5	My strong foreign language capacity can help me to identify more opportunities to start a business.

Source: Author's own construction based on literature

3.3 The Pilot Study and Questionnaire Validation

A pilot test of the questionnaire is essential, as it helps establish and validate research instruments and determine the feasibility (validity and radiance) of the scale before conducting the study (HAIR et al., 2017). The pilot study is the first step in the entire research protocol, usually to help plan and modify the study with a smaller sample size for the major study (ARNOLD et al., 2009; THABANE et al., 2010). Piloting prior to formal research can increase the likelihood of success and help avoid failure (THABANE et al., 2010).

3.3.1 The Pilot Study

After the preliminary design of the questionnaire, a small number of samples are collected to analyze the reliability and validity of the questionnaire. This way helps find the possible problems with the test items. Then, the questionnaire can be further modified to get a formal one and conduct formal research. This study takes international students from the Hungarian University of Agricultural and Life Sciences as the object to carry out the pilot study. The questionnaire on employment intentions (EMI) is divided into three directions, and its influencing factors differ. Thus, the goal of each employment direction is to collect at least 50 responses, respectively. Moreover, the goal number of the entrepreneurial intentions (ENI) questionnaire is to collect 100 online questionnaires. As a result, the total number of valid respondents for employment intentions is 226, of which 117 students choose to work in their home countries, 51 students choose to stay in Hungary, and 58 students choose to work in other foreign countries. Additionally, the valid responses to entrepreneurial intentions questionnaires are 74.

3.3.2 Questionnaire Validation

To ensure the reliability of the constructs, the author uses a Cronbach alpha test. Cronbach's alpha coefficient is used to measure the internal consistency or average correlation of items in the survey instruments to measure their reliability (FIELD, 2009). Furthermore, exploratory factor analysis (EFA) is used to observe how these items are distributed and what structure they have (WATKINS, 2018). Here, principal component analysis with the varimax rotation method and eigenvalues greater than one are checked to assess the validity of the constructs.

A. Employment Intentions Questionnaire

Concerning the employment intentions questionnaire, Table 5 shows that the employment intentions of international students after studying in Hungary include being employed in their home country, staying employed in Hungary and being employed in other foreign countries. Their Cronbach Alpha values are 0.814, 0.847 and 0.812, respectively. As DEVELLIS (2016) suggested, the Cronbach alpha coefficient of the scale should be greater than 0.7, indicating high reliability. Therefore, the questionnaire tested by the pilot study related to employment intentions is expected to be highly reliable.

Moreover, based on the collected data for the pilot study, the author conducts an exploratory factor analysis of the items to initially evaluate the validity of the variables. Before using the factor analysis method, the sphericity test of Bartlett (BARTLETT, 1954) and the sampling adequacy test of Kaiser-Meyer-Olkin (KMO) (KAISER, 1974) help to assess the factorability of the data set. To meet the testing requirements, the Kaiser-Meyer-Olkin (KMO) value should be 0.6 or more, and Bartlett's test of sphericity value should be significant at $p < 0.05$ (TABACHNICK & FIDELL, 2007). The test results, as seen in Table 5, show that the KMO value is between 0.6 and 0.8 and the significance level is 0.000 ($p < 0.05$), indicating that the scale used for employment intentions is suitable for exploratory factor analysis.

Table 5. Cronbach's Alpha Reliability of Constructs for Employment Intentions

Reasons for the choice of employment intention (EMI)	N of Items	Cronbach's Alpha	KMO	Bartlett's test of Sphericity_Sig.
Being employed in home-country (BHC)	20	0.814	0.793	0.000
Staying employed in Hungary (SH)	19	0.847	0.722	0.000
Being employed in foreign countries (BFC)	18	0.812	0.671	0.000

Source: Author's own construction

For the influencing factors of employment intentions to choose employment in home-country. The principal component analysis (Table 6) finds that there are three components with eigenvalues greater than 1, which explained a total of 56.81% of the variances, contributing 31.98%, 15.84% and 8.99%, respectively. Moreover, communalities provide information on how much variance is explained by each item. A low value (less than 0.3) could indicate that the item does not match other items in its component (PALLANT, 2011).

Here, the communality values in Table 6 show that BHC4, BHC5, BHC6 and BHC20 are less than 0.3, so the items should be removed at this stage. Additionally, the varimax rotation technique is performed and shows that the main loadings on Component 1 are items belonging to the pull of

the home country (8 items), the main loadings on Component 2 are items belonging to the push of Hungary or other foreign countries (5 items), and the main loadings on Component 3 are items belonging to personal thinking (3 items).

Besides, there is a reasonable correlation with the presence of many coefficients of 0.3 and above among these three components. The Cronbach's alpha of the reliability of these three constructs is 0.876 (the pull of the home country), 0.756 (the push of Hungary or other foreign countries) and 0.729 (the personal thinking), respectively.

Table 6. Rotated Component Matrix (Being employed in home-country)

No	Items-Being employed in home-country (BHC)	Component			Communalities
		1	2	3	
13	Going back to work in my own country will save some unnecessary expenses.	0.853			0.742
8	My family expects me to return to my own country for employment.	0.723			0.540
11	The choice of employment in my own country is diversified.	0.716			0.548
12	My country's economy is developing very well, and I can get a better salary when I return to work in my country.	0.722			0.522
3	I have the responsibility of taking care of my family, so I need to go back to work in my own country.	0.691			0.512
10	When I go back to work in my own country, I can get more spiritual and life support from my family.	0.692			0.612
14	The familiar social environment of my own country makes me very comfortable.	0.662			0.556
9	Working in my own country gives me a sense of belonging.	0.639			0.581
20	Before I came to study in Hungary, I signed an agreement with my country that I had to return home to work after graduation.	Deleted			0.058
18	The culture of Hungary is quite different from that of my own country.		0.845		0.596
17	It is difficult to apply for a work residence permit in Hungary.		0.726		0.536
19	There is racial discrimination in Hungary, and the locals are unfriendly to foreigners.		0.702		0.572
15	Due to the limitations of language and specialty, it is hard for me to find good jobs in Hungary.		0.661		0.489
16	Compared with my own country, Hungary's living costs are high.		0.612		0.445
6	I feel lonely in foreign countries, I can't get my family's care and support.		Deleted		0.260
5	I can't get used to eating habits or adapt to the natural climate of Hungary.		Deleted		0.241
7	The experience of studying abroad can increase my competitiveness to work in my own country.			0.806	0.645
1	After studying abroad, I will get more job opportunities when I return home.			0.799	0.681
2	I hope to live in my own country after graduating from studying in Hungary.			0.558	0.515
4	I go back to work in my own country to develop the family business.			Deleted	0.226
Total variance explained %		31.98	15.84	8.99	
Eigenvalues		5.116	2.535	1.439	

Note: 1. Extraction Method: Principal Component Analysis; Rotation Method: Varimax with Kaiser Normalization.
Source: Author's own construction

Similarly, factor analysis with a rotated solution extracts three components for the influencing factor of employment intentions to choose employment in Hungary (Table 7). SH6, SH10, SH13, SH15 and SH16 with lower communality values are deleted, which resulted in a total explanation of 61.96% of the variance. These three components with eigenvalues greater than one are perceived as the pull of Hungary (35.5%, 6 items), personal thinking (14.21%, 5 items) and the push of home or other foreign countries (12.25%, 3 items). Moreover, there are reasonable correlations among these three components. The Cronbach's alpha of the three constructs is 0.866, 0.711 and 0.702, respectively.

Table 7. Rotated Component Matrix (Staying employed in Hungary)

No	Items-Staying employed in Hungary (SH)	Component			Communalities
		1	2	3	
8	The economic development of Hungary is better than that of my own country and I will get more income.	0.903			0.826
7	Hungary has the conditions to realize my personal ambition.	0.801			0.732
12	Work experience in Hungary can help me find a better job when I return home country.	0.711			0.532
9	Living conditions and social security in Hungary are better.	0.706			0.750
11	The choice of employment in Hungary is diversified.	0.701			0.754
19	Hungary has great cultural inclusiveness and locals are very friendly to foreigners.	0.658			0.539
10	It is easy to apply for a work residence permit in Hungary.	Deleted			0.262
16	The education level in Hungary is very good. I hope to work here so that I can continue my studies here	Deleted			0.283
3	I like Hungary's working environment and working atmosphere.		0.833		0.847
2	I love Hungary's cultural and social environment very much. I would like to settle down in Hungary after graduation.		0.787		0.770
4	I can find companies with cooperative projects with my own country here, which makes it easier for me to find a job.		0.782		0.706
5	I can start a business in Hungary and trade with my own country.		0.591		0.354
1	I mastered the Hungarian language, and I could easily find a good job.		0.538		0.383
6	I hope to bring my family to Hungary so that my children can be educated in Europe.		Deleted		0.233
18	My country's economic development is not good, and there are few job opportunities.			0.800	0.811
17	My home-country is not conducive to the realization of my personal ambitions.			0.726	0.747
14	My family and friends are in Hungary. They don't want me to go back to my own country or work in other countries.			0.614	0.624
15	My family expects me to stay and work in Hungary.			Deleted	0.298
13	Hungary is the springboard for me to stay and work in Europe so that I can go to other economically developed countries like Western European countries.			Deleted	0.225
Total variance explained %		35.50	14.21	12.25	
Eigenvalues		4.970	1.989	1.715	

Note: 1. Extraction Method: Principal Component Analysis; Rotation Method: Varimax with Kaiser Normalization.

Source: Author's own construction

The same factor analysis procedure is used to evaluate the influencing factors of employment in other foreign countries. The result shown in Table 8 is that there are three components with eigenvalues greater than 1. After deleting BFC1 and BFC11 with lower communality values, the three components explain the variance of 52.22% in total, contributing 26.29%, 13.20% and 10.66%, respectively. Three components are perceived as the personal thinking (4 items), the push of Hungary or the home country (5 items) and the pull of other foreign countries (7 items). The correlations among these three components are reasonable and the Cronbach's alpha of the three constructs is 0.755, 0.754 and 0.711, respectively.

Table 8. Rotated Component Matrix (Being employed in other foreign countries)

No	Items-Being employed in other foreign countries (BFC)	Component			Communalities
		1	2	3	
3	I would like to work in other countries with better economic development and social security so that I can get more income.	0.811			0.725
6	I would like to work in other countries because I want to go to a new environment. This can broaden my horizons, let me feel other countries' humanities customs.	0.771			0.622
2	I would like to go to a country with a better business environment, which is conducive to venture activities for my career.	0.744			0.596
7	I would like to work in other countries because I want to study there to improve my educational background.	0.646			0.508
11	My family supports me to work in other countries.	Deleted			0.291
9	I don't like the working environment and working atmosphere in Hungary and my home country.		0.736		0.648
13	Hungary and my country's employment environment is not very good, I am not easy to find good jobs in these two countries.		0.728		0.645
4	I don't fit into Hungary's cultural and social environment. I would like to go to other foreign countries I can adapt to.		0.722		0.614
10	Hungary and my home country 's conditions are not likely to realize my personal ambition.		0.716		0.535
8	I have language barriers in Hungary, and I would like to go to other foreign countries without language barriers.		0.627		0.425
16	My country has traded with other foreign countries, and I am easier to find good jobs there.			0.887	0.773
15	Working visas are easier to obtain in other foreign countries.			0.824	0.668
17	Compared with Hungary and my home-country, other foreign countries would have lower costs to live.			0.775	0.479
14	Working experience in other foreign countries can help me find a good job when I return home.			0.665	0.456
18	Racial cultures are more inclusive in other foreign countries so that I won't be discriminated against by race.			0.641	0.413
5	Other foreign countries' cultures and social environments are more attractive, and I hope to settle down there.			0.641	0.410
12	The choice of employment in other foreign countries is diversified.			0.517	0.329
1	I have relatives and friends in other countries. I will go to them and work in other countries.			Deleted	0.235
Total variance explained %		26.29	13.20	10.66	
Eigenvalues		4.467	2.244	1.812	

Note: 1. Extraction Method: Principal Component Analysis; Rotation Method: Varimax with Kaiser Normalization.

Source: Author's own construction

B. Entrepreneurial Intentions Questionnaire

Regarding the entrepreneurial intentions questionnaire, the Cronbach's alpha reliability coefficient of entrepreneurial intentions before and after coming to Hungary is 0.899 and 0.904, respectively. For external environment factors, the values of Cronbach's alpha for MNC (0.875), OEP (0.845) and MC (0.862) are presented as reliable. Moreover, for internal self-efficacy factors, the values of Cronbach's alpha of OMC (0.859), RCC (0.869), RTC (0.816) and IOIC (0.857) are all greater than 0.7. This means that all constructs for the pilot study seem to have acceptable internal reliability.

According to the research design, the effects of external environmental factors (MNC, OEP and MC) and internal self-efficacy factors (OMC, RCC, RTC, and IOIC) on entrepreneurial intentions (ENI) are analyzed separately, so their validity analysis will be tested separately. Bartlett's test of sphericity and Kaiser-Meyer-Olkin (KMO) first test the adequacy and suitability of the dataset for factor analysis. In terms of external environmental factors, Bartlett's test of this dataset reaches a significant level ($p < 0.001$) and the value of KMO is 0.834, exceeding the minimum value of 0.6, which appropriately conducts factor analysis (KAISER, 1974; TABACHNICK & FIDELL, 2007). Relating to internal self-efficacy factors, the results of Bartlett's test are significant ($p < 0.001$), and the data are detected to have a KMO value of 0.885 (KOM > 0.6), so the factor analysis is also appropriate.

The principal component analysis (Table 9) for external environmental factors finds that there are four components with eigenvalues greater than 1, which explained a total of 66.4% of the variances, contributing 33.68%, 17.07%, 8.48% and 7.21%, respectively. The total variance explained satisfied the criterion of 50% suggested by KLINE (2014). Afterwards, communalities provide information on how much variance is explained in each item. A low value (less than 0.3) could indicate that the item does not match other items in its component (PALLANT, 2011). Here, the communality values in Table 9 show that MNC1, OEP3 and OEP6 are less than 0.3, so the items are removed.

Moreover, the varimax rotation technique is performed and shows that the main loadings on Component 1 are items belonging to entrepreneurial intention (ENI), and the main loadings on Components 2, 3 and 4 are items belonging to multiple network construction (MNC), overseas entrepreneurial perception (OEP) and multicultural cognition (MC), respectively. Besides, there is a reasonable correlation with the presence of many coefficients of 0.3 and above among these four

components. Therefore, the results of factor analysis support the use of the ENI items, MNC items, OEP items and MC items as separate scales.

Table 9. Rotated Component Matrix (External environmental factors).

Items	Component				Communalities
	1	2	3	4	
ENI1	0.723				0.632
ENI2	0.783				0.695
ENI3	0.849				0.805
ENI4	0.782				0.693
ENI5	0.693				0.590
ENI6	0.784				0.702
MNC1		Item deleted			0.281
MNC2		0.844			0.760
MNC3		0.902			0.843
MNC4		0.839			0.774
MNC5		0.879			0.813
OEP1			0.603		0.563
OEP2			0.808		0.776
OEP3			Item deleted		0.275
OEP4			0.852		0.771
OEP5			0.655		0.603
OEP6			Item deleted		0.276
MC1				0.694	0.533
MC2				0.718	0.599
MC3				0.779	0.716
MC4				0.789	0.668
MC5				0.723	0.598
MC6				0.744	0.575
Total variance explained %	33.68	8.48	7.21	17.07	
Eigenvalues	7.747	1.950	1.657	3.925	

Note: 1. Extraction Method: Principal Component Analysis; Rotation Method: Varimax with Kaiser Normalization. 2. ENI: Entrepreneurial Intention; MNC: Multiple Network Construction; OEP: Overseas Entrepreneurial Perception; MC: Multicultural Cognition.

Source: Author's own construction

In the same manner, the principal component analysis (Table 10) for internal self-efficacy factors with the varimax rotation method is obtained. It finds that the five dimensions (ENI, OMC, RCC, RTC, and IOIC) of variables all have eigenvalues greater than one, with Component 1 contributing 41.47%, Component 2 contributing 11.47%, Component 3 contributing 7,98%, Component 4 contributing 5.54% and Component 5 contributing 4.94%. They explain 71.4% of the variance in total. The communality values in Table 10 show that OMC3, RTC2 and IOIC4 are less than 0.3, so the items are removed.

Additionally, the rotated solution revealed that the five components show several strong loadings, and most variables load substantially on only one component. The interpretation of the five components is consistent with items from entrepreneurial intentions (ENI) loading strongly on Component 1 and items from internal self-efficacy (OMC, RCC, RTC and IOIC) loading strongly on Components 2, 3, 4 and 5. Moreover, there are reasonable correlations among these five

components. Therefore, the results support the use of ENI items, OMC items, RCC items, RTC items and IOIC items as separate scales for further analysis.

Table 10. Rotated Component Matrix (Internal self-efficacy factors).

Items	Component					Communalities
	1	2	3	4	5	
ENI1	0.762					0.688
ENI2	0.817					0.706
ENI3	0.839					0.837
ENI4	0.777					0.746
ENI5	0.701					0.745
ENI6	0.779					0.742
OMC1		0.621				0.629
OMC2		0.784				0.810
OMC3		Item deleted				0.242
OMC4		0.806				0.736
OMC5		0.723				0.602
RCC1			0.773			0.756
RCC2			0.775			0.770
RCC3			0.700			0.765
RTC1				0.657		0.641
RTC2				Item deleted		0.250
RTC3				0.772		0.719
RTC4				0.690		0.721
IOIC1					0.722	0.700
IOIC2					0.803	0.792
IOIC3					0.650	0.715
IOIC4					Item deleted	0.276
IOIC5					0.651	0.531
Total variance explained %	42.47	11.47	7.98	4.54	4.94	
Eigenvalues	9.77	2.64	1.84	1.04	1.14	

Note: 1. Extraction Method: Principal Component Analysis; Rotation Method: Varimax with Kaiser Normalization. 2. ENI: Entrepreneurial Intention; OMC: Operation and Management Capacity; RCC: Relationship Coordination Capacity; RTC: Risk Tolerance Capacity; IOIC: Innovation and Opportunity Identification Capacity.

Source: Author's own construction

From the rotated component matrix of exploratory factor analysis in Tables 6, 7, 8, 9 and 10, the factor load coefficient of each item is greater than 0.5, indicating that the convergence validity of the scale is acceptable. In addition, the reliability of each construct is also tested, with a Cronbach's alpha value of between 0.702 and 0.876 for the employment intentions questionnaire, and between 0.816 and 0.904 for the entrepreneurial intentions questionnaire. Hence, the overall reliability and validity of the research instruments for the two questionnaires in the pilot study are all good. On this basis, these two questionnaires are further optimized and adjusted to form a formal version of the questionnaires.

IV. RESULT AND DISCUSSION

Based on the research models in Part III, this part will empirically analyze of the proposed research hypothesis by obtaining a large sample of data. First, the author will describe the formal questionnaire for a broader range of data collection processes and explain the characteristics of the collected data for a preliminary analysis. Subsequently, the common method bias test, reliability and validity analysis of sample data are further processed by exploratory factor analysis (EFA), confirmatory factor analysis (CFA) and so on using SPSS 29.0 and AMOS 26.0 software. The data collected by the employment intentions questionnaire and the entrepreneurship intentions questionnaire will be analyzed separately.

4.1 Employment Intentions

The study on employment intentions (EMI) aims to analyze whether there are statistically significant differences in the employment intentions of international students before and after studying in Hungary. The paired-sample *t*-test tool is used here to compare the changes in the three employment directions in the home country, Hungary and other foreign countries separately. Moreover, the author analyzes the factors that affect employment directions and why international students choose different ones after studying in Hungary. By conducting hierarchical multiple regression analysis, after controlling the demographic variables, the study examines the influence of push-pull factors and personal thinking factors on three employment intentions after coming to Hungary. What is more, descriptive statistical analysis is used to rank the main items in choosing different employment intentions.

4.1.1 Data Collection and Sample Characteristics

Data Collection

The employment intentions survey was conducted from September 2020 to May 2023. The questionnaire title is "Investigation on the Employment Intention of Overseas Students in Hungary". Before filling out the questionnaire, the respondents were informed that the survey was only for academic purposes and that their responses would not be disclosed.

The online questionnaire is delivered to several social media platform groups, such as WhatsApp, WeChat, e-mail, Messenger and Facebook groups of international students who recently studied in Budapest and surrounding cities across Hungary. After obtaining informed consent, the total number of participants in the survey is 702. After further eliminating the invalid questionnaires with incomplete answers and apparent errors, a total of 622 valid questionnaires were obtained, and the overall valid response rate of the questionnaire accounted for 94.3%.

The questionnaire is divided into three parts: The first part is the demographic information of international students currently in Hungary, including gender, age and so on. The second part checks whether the international students have changed their employment intentions after studying in Hungary. Here, employment intentions are divided into three directions, including being employed in your home country, staying employed in Hungary and being employed in other foreign countries. Among valid responses, 344 chose to work in their home countries, 151 chose to stay in Hungary, and 167 chose to work in other foreign countries. The questions are captured on a 5-point Likert scale ranging from 1 (not at all) to 5 (extremely), and the items recorded with higher scores represent a stronger mindset. The third part is the influencing factors /reasons why international students choose different employment intentions. It consists of several potential influencing factors of different employment directions.

After excluding invalid items through the pilot study, there are 16 items belonging to employment in the home country, 14 items belonging to employment in Hungary and 16 items in other foreign countries. The specific items questioned in the questionnaire are shown in Table 6, Table 7, and Table 8. Meanwhile, a 5-point Likert scale is used, and the score for the items ranges from 1 to 5, with 1 for strongly disagreeing and 5 for strongly agreeing.

Demographic Profile of the Sample

The demographic characteristics of the respondents from the employment intentions questionnaire are shown in Table 11. Specifically, female respondents were higher than male respondents, compared with 56.9% females and 43.1% males. Most respondents were younger than 23 years old (44.6%), followed by 24-28 years old (35.3%), but more than 29 years old (20.1%) were relatively fewer. Additionally, 88.7% of respondents were single, while fewer were married (11.3%). Moreover, 66.6% of respondents were awarded scholarships for studying in Hungary, whose number was twice as large as 33.4% of respondents at their own expense.

Table 11. Demographic Profiles of Sample for Employment

Demographic variables	Item and Code	Frequency	Percent
Gender	Male=1	285	43.1
	Female=2	377	56.9
Age	Less than 23 years old=1	295	44.6
	24-28 years old=2	234	35.3
	More than 29 years old=3	133	20.1
Marital Status	Single=1	587	88.7
	Married=2	75	11.3
Financing Source	Self-financed=1	221	33.4
	Scholarship=2	441	66.6

Source: Author's own construction

Figures 19 and 20 show that most respondents are involved in the degree program, with 44.7% of respondents studying bachelor courses in Hungary, followed by master courses at 36.7% and doctoral respondents at 14.8%. However, respondents in non-degree courses were only 3.8%. Respondents mainly have been studying in Hungary for 2-3 years (46.5%), and some respondents have been studying for less than one year (39.4%). There were fewer respondents with more than four years of study (14.0%) in Hungary.

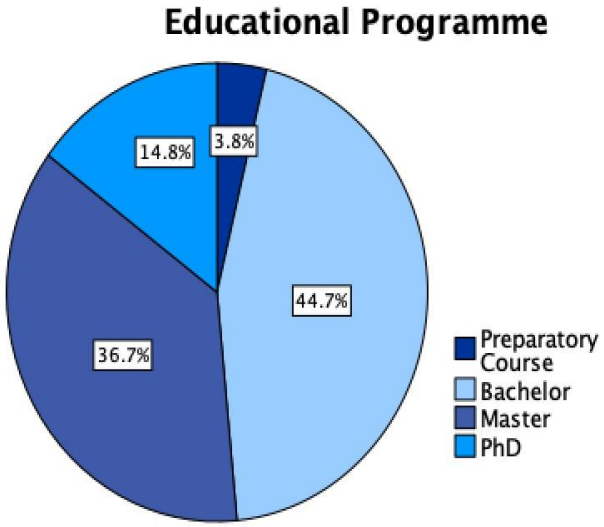

Figure 19. Educational Programme of the Respondents for Employment

Figure 20. Studying Years in Hungary of the Respondents for Employment

Source: Author's own construction

From Figures 21 and 22, only about 29.3% of respondents had worked in Hungary, including less than 1 year (20.7%), 2-3 years (7.7%) and more than 4 years (0.9%), while about 70.7% of respondents did not have any work experience during their studies in Hungary. Most respondents studying in Hungary do not speak Hungarian, accounting for 69.3%, while about 29.8% of respondents can speak Hungarian, but few speak Hungarian proficiently, accounting for only 0.9%.

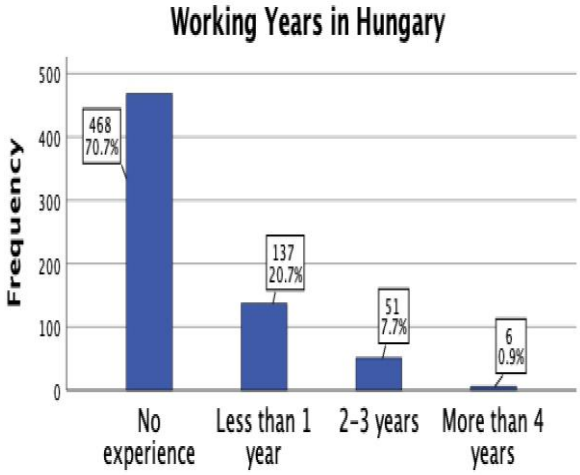

Figure 21. Working Years in Hungary of the Respondents for Employment

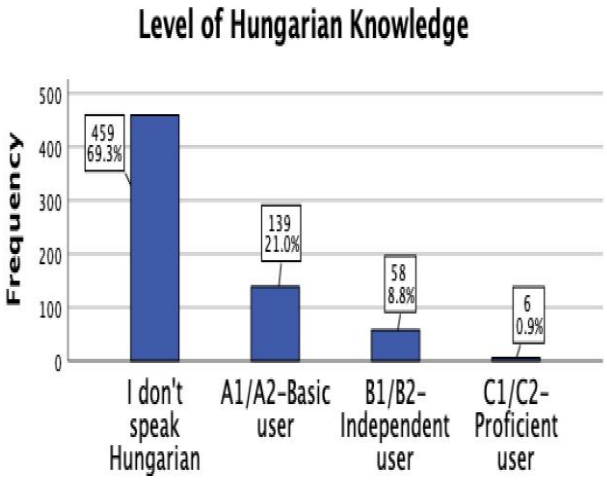

Figure 22. Level of Hungarian Knowledge of the Respondents for Employment

Source: Author's own construction

4.1.2 Common Method Bias

Common method biases refer to the data stemming from the same person in the same measurement context using the same item context and similar item characteristics for both predictive variables and criterion variables (PODSAKOFF et al., 2003). PODSAKOFF et al. (2003) believe that the common method variance (e.g., "variance that is attributable to the measurement method rather than to the constructs the measures represent") is a potential problem that usually exists in behavioral research. Therefore, it is necessary to control the method biases in the study process of questionnaire design and statistical controls to avoid affecting the follow-up data analysis.

In the questionnaire design stage, preventive control measures were taken in this study. It includes ensuring the anonymity of respondents to allay evaluation apprehension and improving scale items to reduce ambiguous and unfamiliar terms (PODSAKOFF et al., 2003). In the data analysis stage, Harman's single-factor test is conducted to check the research data. Specifically, this study loads all measured variables into an exploratory factor analysis through SPSS 29.0 software to test the unrotated factor solution and a single extracted factor (PODSAKOFF et al., 2003).

The results show that the one extracted factor can explain 28.38% of the variation for employment in the home country, 31.79% for employment in Hungary and 23.04% for employment in other foreign countries, which are all lower than the recognized maximum variance of 50% in the Herman one-factor test (PODSAKOFF et al., 2012). Therefore, there is no obvious obstacle to common method bias in the sample data collected by the employment intention questionnaire.

4.1.3 Reliability Analysis

Before the empirical analysis, it is necessary to test the reliability of the scale data, and high-quality data can ensure the accuracy and reliability of the empirical analysis results. Here, Cronbach's alpha test is used to check the reliability of the constructs. As can be seen from Table 6, the Cronbach's alpha values of the three constructs of employment in the home country are 0.874, 0.734 and 0.704. For staying employed in Hungary, their Cronbach's alpha values for three constructs are 0.878, 0.708 and 0.755. Meanwhile, the Cronbach's alpha values of the three constructs of employment in other foreign countries are 0.774, 0.759 and 0.740. The ideal value of the Cronbach alpha coefficient for a scale is greater than 0.7 (DEVELLIS, 2016). Therefore, all the research variables in the three directions of employment intention have good reliability.

4.1.4 Validity Analysis

The validity of the collected data from the employment intentions questionnaire is tested by exploratory factor analysis (EFA) and confirmatory factor analysis (CFA). From the pilot study in Part III, the author has tested the factor structure of the questionnaire through EFA. The data collected from the pilot study show that the factor load values of the measurement items of the variables are all higher than 0.5. It shows that the constructs of the variables involved in employment intentions have high validity.

Convergent Validity

Furthermore, confirmatory factor analysis (CFA) determines whether the dimensions and constructs revealed by exploratory factor analysis (EFA) are consistent with a factor, that is, the latent variable. A further test was carried out by CFA, which was calculated using AMOS 26.0 software to test the convergent validity. Convergent validity refers to the degree to which a measure positively correlates with alternative measures of the same constructs (HAIR et al., 2017). Its evaluation requires checking the average variance extracted (AVE) value, and AVE greater than 0.5 is known to be legitimate and convergent (HAIR et al., 2016). Moreover, composite reliability (CR) is another validity test used to measure the internal consistency of the constructs (HAIR et al., 2017). The value of CR needs to meet the standard threshold requirement, with all values being higher than 0.7 (BAGOZZI et al., 1991; FORNELL & LARCKER, 1981).

Table 12. Cronbach's Alpha Reliability of Constructs and Convergence Validity for Employment

Constructs		Items	Cronbach's Alpha	CR	AVE	Result
Being employed in home-country (BHC)	Pull of home-country	8	0.874	0.892	0.511	Confirmed
	Push of Hungary or other foreign countries	5	0.734	0.837	0.509	Confirmed
	Personal thinking	3	0.704	0.770	0.533	Confirmed
Stay employed in Hungary (SH)	Pull of Hungary	6	0.878	0.885	0.564	Confirmed
	Personal thinking	5	0.708	0.836	0.513	Confirmed
	Push of home or other foreign countries	3	0.755	0.759	0.515	Confirmed
Being employed in other foreign countries (BFC)	Personal thinking	4	0.774	0.833	0.556	Confirmed
	Push of Hungary or home-country	5	0.759	0.833	0.500	Confirmed
	Pull of other foreign countries	7	0.740	0.871	0.501	Confirmed

Note: AVE, average variance extracted; CR, composite reliability.
Source: Author's own construction

As can be seen from Table 12, the AVE value for the three constructs/factors from the three employment intentions explained ranged from 0.500 to 0.564, satisfying the required threshold of 0.50. Meanwhile, the values of CR range from 0.759 to 0.892, exceeding the required standard of 0.70. The two results all meet standards and are considered to have good convergent validity.

In addition, the convergent validity of the scale is further evaluated by model fit indices, including "chi-square/degree of freedom (χ^2/df)", "normed fit index (NFI)", "comparative fit index (CFI)", "root mean square error of approximation (RMSEA)" and "standardized root mean residual (SRMR)". According to HOOPER et al. (2008) and (HU & BENTLER, 1999) suggestions, the corresponding limits or threshold values of these indices are as follows: $\chi^2/df < 5$, NFI ≥ 0.9, CFI > 0.9, RMSEA ≤ 0.09 and SRMR ≤ 0.06.

The model fit test of three constructs/factors for the three employment intentions is carried out by AMOS 26.0 software. As shown in Table 13, the three-factor model is the most reasonably good fit of data to the three models, respectively. For the three-factor model on employment in the home country (Model 1), $\chi^2/df = 2.750$ meets the recommended limit value of $\chi^2/df < 5$. Meanwhile, NFI = 0.901, CFI = 0.934, RMSEA = 0.071 and SRMR = 0.063 all meet the standard of threshold values reflecting fitness. The three-factor model of employment in Hungary (Model 2) shows that $\chi^2/df = 2.678$, NFI = 0.904, CFI = 0.917, RMSEA = 0.085 and SRMR = 0.064. Likewise, the three-factor model of employment in other foreign countries (Model 3) shows that $\chi^2/df = 2.416$, NFI = 0.919, CFI = 0.936, RMSEA = 0.080 and SRMR = 0.064.

Table 13. Model Fit Indices for Employment

Fit index	χ^2	df	χ^2 /df	NFI	CFI	RMSEA	SRMR
Three-factor Model 1	233.759	85	2.750	0.901	0.934	0.071	0.063
Three-factor Model 2	141.942	53	2.678	0.904	0.917	0.085	0.064
Three-factor Model 3	193.308	80	2.416	0.919	0.936	0.080	0.064

Note: Model1, factors of employment in home country; Model 2, factor of employment in Hungary; Model 3, factors of employment in other foreign countries.
Source: Author's own construction

As can be visually observed in the figure below, the confirmatory factor analysis chart regarding the factors of employment in the home country distribution of the scale is displayed in Figure 23, the factors of employment in Hungary distribution of the scale is shown in Figure 24, and the factors of employment in other foreign countries distribution of the scale is observed in Figure 25. In sum, the fit values from the confirmatory factor analysis indicated a reasonably good fit of the data to all models. Therefore, the scales from the factors of the three employment intentions have good convergence validity.

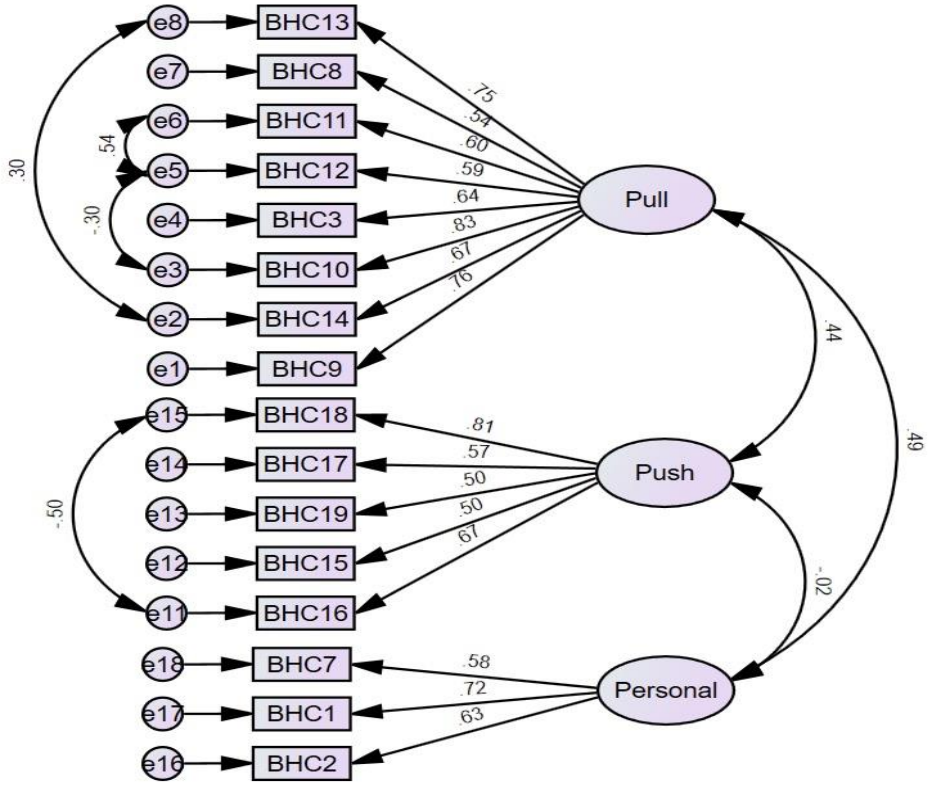

Figure 23. Confirmatory Factor Analysis Model Scale for Factors of Employment in Home Country
Source: Author's own construction by Amos

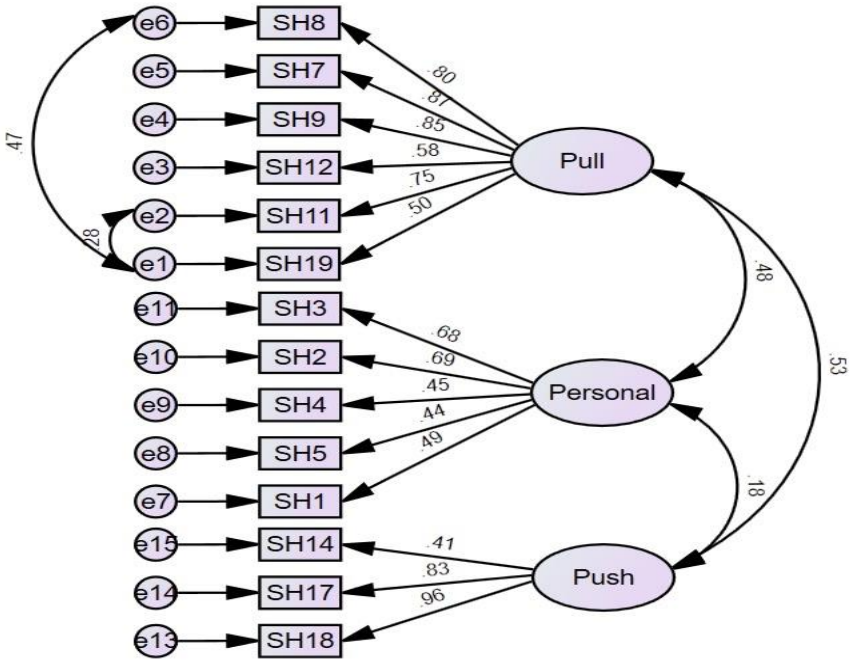

Figure 24. Confirmatory Factor Analysis Model Scale for Factors of Employment in Hungary

Source: Author's own construction by Amos

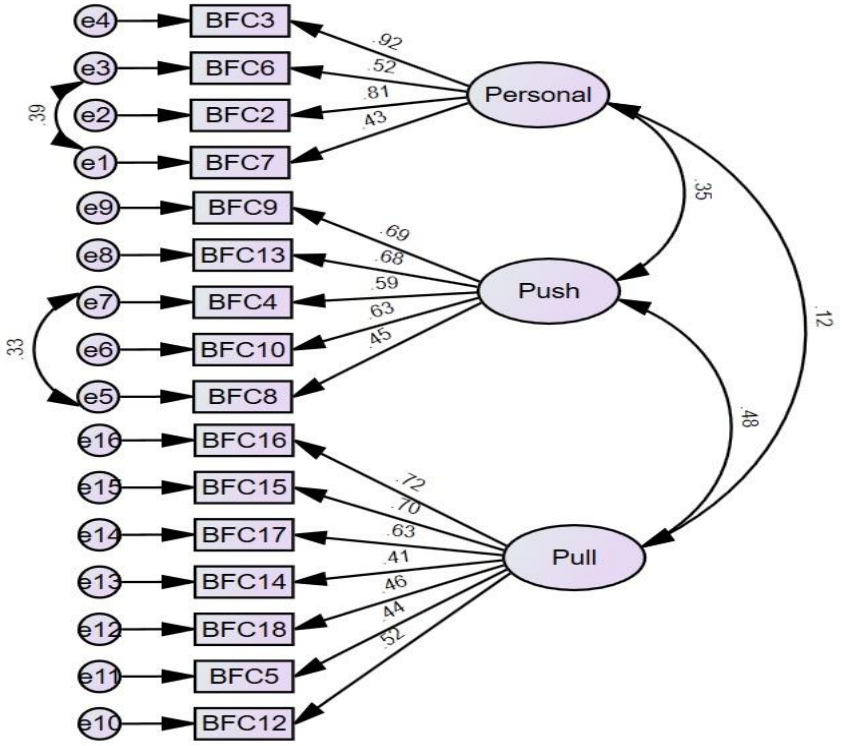

Figure 25. Confirmatory Factor Analysis Model Scale for Factors of Employment in Other Foreign Countries

Source: Author's own construction by Amos

Discriminant Validity

Discriminant validity is used to evaluate the validity of factors/constructs and to ensure that they are different from one another other (FORNELL & LARCKER, 1981). The two methods to test the discriminant validity are the Fornell-Larcker criterion proposed by FORNELL and LARCKER (1981) and the Heterotrait-Monotrait ratio of correlations (HTMT) put forward by HENSELER et al. (2015).

In the Fornell-Larcker criterion, this study compares the square root of each construct's average variance explained (AVE) to the correlation coefficients between constructs. If AVE's square root is greater than the correlation coefficients between constructs, it can be considered discriminant validity between constructs (FORNELL & LARCKER, 1981). The results in Table 14 displayed that the correlation coefficients between constructs of three employment intentions do not exceed all of the square roots of AVE. Hence, the constructs of discriminant validity for factors of employment in the home country, employment in Hungary and employment in other foreign countries are satisfied.

Table 14. Fornell-Larcker Criterion for Employment

	Constructs	Pull	Push	Personal
Being employed in home-country (BHC)	Pull of home-country	**0.715**		
	Push of Hungary or foreign country	0.274**	**0.713**	
	Personal thinking	0.375**	-0.058	**0.730**
	Constructs	Pull	Personal	Push
Stay employed in Hungary (SH)	Pull of Hungary	**0.715**		
	Personal thinking	0.381**	**0.716**	
	Push of home or foreign country	0.353**	0.161*	**0.717**
	Constructs	Personal	Push	Pull
Being employed in other foreign countries (BFC)	Personal thinking	**0.745**		
	Push of Hungary or home-country	0.275**	**0.701**	
	Pull of other foreign country	0.309**	0.431**	**0.708**

** $p \leq 0.01$, *$p \leq 0.05$. **Note: 1.** The numbers in bold are the AVE square root values of each variable.
Source: Author's own construction

Compared with the cross-loading method of the Fornell-Larcker criterion, the Heterotrait-Monotrait ratio (HTMT) has higher specificity and sensitivity, so the two discriminant validity tests are of great significance in checking the validity of the research (FASSOTT et al., 2016). According to HENSELER et al. (2015), the HTMT value between the two constructs should be less than 0.85. As can be seen from Table 15, the constructs of the three employment intentions all meet the HTMT criteria, which fulfill the discriminant validity.

Table 15. HTMT Criterion for Employment

	Constructs	Pull	Push	Personal
Being employed in home-country (BHC)	Pull of home-country	-		
	Push of Hungary or other foreign countries	0.339	-	
	Personal thinking	0.503	0.090	-
	Constructs	Pull	Personal	Push
Stay employed in Hungary (SH)	Pull of Hungary	-		
	Personal thinking	0.499	-	
	Push of home or other foreign countries	0.432	0.222	-
	Constructs	Personal	Push	Pull
Being employed in other foreign countries (BFC)	Personal thinking	-		
	Push of Hungary or home-country	0.372	-	
	Pull of other foreign countries	0.391	0.572	-

Source: Author's own construction

4.1.5 Hypothesis Test

The primary purpose of this section is to test the hypothesis put forward by the study of employment intentions. To understand whether the experience of studying abroad in Hungary has an impact on the career development and employment choice of international students, that is, whether their employment intentions have changed after studying in Hungary. The employment directions of international students in Hungary can be divided into being employed in their home country, staying employed in Hungary and being employed in other foreign countries. In addition, the effects of push-pull factors and personal thinking factors on the three employment intentions are tested after controlling the demographic variables. Lastly, the study shows the main items/reasons by ranking the mean values for different employment intentions.

Paried Sample t-Test

To compare whether the three employment intentions of studying in Hungary have changed, the results of the paired-sample T-test show that the *p*-value of being employed in the home country is greater than 0.05, while the *p*-values of employment in Hungary and other foreign countries are less than 0.05 (Table 16). As Sig. (2-tailed) reaches 5% means the level of significance ($p < 0.05$) (PALLANT, 2011), so there is no significant difference in international students' intention to be employed in their home country before and after studying in Hungary ($p > 0.05$). However, there is a significant difference for being employed in Hungary and in other foreign countries ($p < 0.05$) before and after coming to Hungary.

By comparing the mean values of the three employment intentions, the results show that international students have the strongest desire to return to their home country for employment, followed by employment in other foreign countries and employment in Hungary. Moreover, the largest gap between before and after coming to Hungary is the willingness to stay employed in Hungary (0.33), followed by employment in other foreign countries (0.29) and then employment in their own country (0.09). These mean that after studying in Hungary, the intention of international students to stay and work in Hungary has increased most obviously, and the willingness to work in other countries has also increased, but the willingness to return to their own country has not changed much.

Table 16. Paired Samples T-Test for Employment

	Comparison of employment intentions (EMI) **before** and **after** studying in Hungary	Mean	Paired Differences Mean	Std. Deviation	Sig. (2-sided)
Pair 1	Be employed in home-country---**Before**	3.66	0.08	1.157	.066
	Be employed in home-country---**After**	3.58		1.161	
Pair 2	Stay employed in Hungary---**Before**	2.57	0.33	1.201	.000
	Stay employed in Hungary---**After**	2.90		1.250	
Pair 3	Be employed in other foreign countries---**Before**	2.89	0.29	1.296	.000
	Be employed in other foreign countries---**After**	3.18		1.330	

Source: Author's own construction

Hierarchical Multiple Regression Analysis

In order to test the influence factors for employment intentions, hierarchical multiple regression analysis is conducted to check whether push-pull factors and personal thinking factors have an influence on the three employment intentions of international students after studying in Hungary, as well as the influencing extent under the control of demographic variables (gender, age, marital status, educational program, financial source, studying years in Hungary, working years in Hungary and Hungarian knowledge level).

(1) Being Employed in Home Country

Before implementing the multiple regression analysis, several assumptions need to be tested. TABACHNICK and FIDELL (2007) give a formula for sample calculation: $N > 50 + 8\ m$ (where m = number of independent variables). Here, the employment intention of being employed in the home country has three independent variables and eight control variables, so the sample size needs to be at least 138.

The sample size of employment in the home country is 344, which satisfies this assumption. Then, the Pearson correlation matrix for employment in the home country (Table 17) visually displays the correlation coefficient between each variable, ranging from −0.185 to 0.689. When the correlation coefficient between two variables is greater than 0.7, the variable will have the problem of multicollinearity (PALLANT, 2011). In addition, the tolerance variance of all independent and control variables is from 0.337 to 0.902 and their VIF is from 1.106 to 2.964, which meet the limitation of no multicollinearity (tolerance > 0.10, VIF < 10). Therefore, the data meet the assumption of no multicollinearity. Moreover, the normal P-p plot presents a reasonably straight diagonal line from bottom left to top right. The scatterplot reveals that the residuals are roughly rectangularly distributed and not more than 3.3 or less than −3.3 (PALLANT, 2011; TABACHNICK & FIDELL, 2007). In this case, these results ascertain the assumption of normality, linearity and no outlier.

Table 17. Pearson Correlation Matrix (Being employed in home country)

Variables	1	2	3	4	5	6	7	8	9	10	11	12
1.BHC-After	1											
2.Gender	0.243**	1										
3.Age	0.157**	0.069	1									
4.Marital status	0.100*	−0.102*	0.532**	1								
5.Educational program	0.142**	0.022	0.689**	0.319**	1							
6.Finance source	−0.086	0.149**	0.377**	0.177**	0.360**	1						
7.Studying years in Hungary	0.012	−0.155**	−0.103*	−0.170**	−0.067	−0.200**	1					
8.Working years in Hungary	0.002	0.072	−0.072	−0.141**	−0.056	−0.202**	0.304**	1				
9.Hungarian knowledge level	−0.158**	0.078	−0.145**	−0.064	−0.081	0.162**	0.120*	0.076	1			
10.BHC-Pull	0.458**	0.049	−0.038	0.004	0.035	−0.253**	0.129**	−0.020	−0.106*	1		
11.BHC-Push	−0.041	−0.133**	−0.025	−0.051	0.052	−0.139**	0.125*	0.065	−0.185**	0.274**	1	
12.BHC-Personal	0.468**	0.123*	0.335**	0.245**	0.132**	0.088	−0.099*	0.005	0.043	0.375**	−0.058	1

N = 344, ** $p \leq 0.01$; * $p \leq 0.05$. Note: BHC: Being employed in home country.

Source: Author's own construction

After testing the assumptions, the main models of hierarchical multiple regression analysis are evaluated. As can be observed in Table 18, Model 1 is a basic model that includes only control variables (demographic variables) and Model 2 contains all the variables (demographic variables, pull factors, push factors and personal thinking factors). The R square value in Model 1 shows that the demographic variables explain 14.7 per cent of the variance. After the independent variables have been included, Model 2 as a whole explains 40.2 per cent. Furthermore, the R square change value is 0.255 ($p < 0.05$), which means that the independent variables explain an additional 25.5 per cent of the variance in employment intention of being employed in the home country after the effects of the demographic variables are statistically controlled for. This is an acceptable result.

Table 18. Regression Analysis (Being employed in home country)

Variables	DV: Being employed in home country (BHC-After)	
Control variables	**Model 1**	**Model 2**
Gender	0.300*	0.213*
Age	0.56	−0.069
Marital Status	0.092	0.035
Educational Programme	0.125	0.145*
Finance source	−0.184*	−0.084
Studying Years in Hungary	0.082	0.075
Working Years in Hungary	−0.048	−0.019
Hungarian Knowledge Level	−0.134*	−0.173*
Independent variables		
BHC-Pull		0.300*
BHC-Push		−0.134*
BHC-Personal		0.339*
R^2	0.147	0.402
Overall F	7.198*	20.278*
R^2 change	0.147*	0.255*

* $p \leq 0.05$. Note: DV: Dependent variables.

Source: Author's own construction

For specifically evaluating how well each of the variables relates, Model 2 in Table 18 exhibits that the pull factors, push factors and personal thinking factors all make a unique statistically significant impact on BHC-after ($p < 0.05$). In detail, the personal thinking factors have a greater impact ($\beta = 0.339$), followed by the pull factors ($\beta = 0.186$). In comparison, the influence of push factors is relatively low ($\beta = -0.134$). In addition, gender ($\beta = 0.213$, $p < 0.05$), educational programme ($\beta = 0.145$, $p < 0.05$) and Hungarian knowledge level ($\beta = -0.173$, $p < 0.05$) belonging to control variables have a significant impact on the employment intention of being employed in the home country (BHC-after) of international students.

(2) Staying Employed in Hungary

In a similar vein, some assumptions need to be tested before implementing the multiple regression analysis. The sample size of employment in Hungary is 151, which meets the least number from the formula calculation put forward by TABACHNICK & FIDELL (2007). The correlation coefficient from the Pearson correlation matrix (Table 19) between each of the variables ranges from −0.324 to 0.469, which is less than 0.7 (PALLANT, 2011). Moreover, the tolerance value of all independent and control variables is from 0.483 to 0.866, which is well above the cut-off of 0.10. Their VIF values range from 1.155 to 2.069, which are well below the cut-off of 10. These results have not violated the multicollinearity assumption (tolerance > 0.10, VIF < 10). In addition, the normal P-p plot and the scatterplot all present reasonable patterns. Thus, the author ascertains no violation of the assumptions of normality, linearity and no outliers.

Table 19. Pearson Correlation Matrix (Staying employed in Hungary)

Variables	1	2	3	4	5	6	7	8	9	10	11	12
1.SH-After	1											
2.Gender	0.193**	1										
3.Age	0.226**	−0.062	1									
4.Marital status	0.199**	−0.111	0.393**	1								
5.Educational program	0.329**	0.037	0.193**	0.111	1							
6. Finance source	0.178*	−0.212**	0.420**	0.193**	0.179*	1						
7. Studying years in Hungary	0.058	0.097	0.117	−0.190*	0.355**	−0.226**	1					
8. Working years in Hungary	0.108	−0.226**	0.315**	−0.028	0.073	0.139*	0.355**	1				
9.Hungarian knowledge level	−0.039	−0.110	−0.093	−0.324**	−0.264**	0.040	0.296**	0.256**	1			
10.SH-Pull	0.246**	−0.107	0.435**	0.022	0.184*	0.469**	0.019	0.226**	0.071	1		
11.SH-Personal	0.285**	0.012	0.100	0.184*	0.144*	0.145*	0.069	0.043	0.168*	0.381**	1	
12.SH-Push	0.078	−0.255**	0.158*	−0.030	0.002	0.462**	−0.065	0.115	0.163*	0.353**	0.161*	1

N = 151, ** $p \leq 0.01$; * $p \leq 0.05$. Note: SH: Staying employed in Hungary.

Source: Author's own construction

As can be observed in Table 20 from the hierarchical multiple regression analysis, Model 1 presents only control variables (demographic variables) and Model 2 contains all the variables (demographic variables, pull factors, personal thinking factors and push factors). The R square value in Model 1 shows that the demographic variables explain 11.7 per cent of the variance. Model 2 includes all variables as a whole and explains 35.7 per cent. The R square change value is 0.240 ($p < 0.05$), which means that the independent variables explain an additional 24.0 per cent of the variance in employment intention of staying employed in Hungary after the effects of the demographic variables are statistically controlled for.

Table 20. Regression Analysis (Staying employed in Hungary)

Variables	DV: Staying employed in Hungary (SH-After)	
Control variables	**Model 1**	**Model 2**
Gender	0.242*	0.244*
Age	0.110	0.091
Marital Status	0.099	0.069
Educational Programme	0.371*	0.331*
Finance source	0.036	−0.016*
Studying Years in Hungary	−0.170	−0.163
Working Years in Hungary	0.121	0.123
Hungarian Knowledge Level	0.146	0.082*
Independent variables		
SH-Pull		0.164*
SH- Personal		0.175*
SH- Push		0.046
R^2	0.117	0.357
Overall F	3.926*	4.381*
R^2 change	0.117*	0.240*

* $p \leq 0.05$. Note: DV: Dependent variables.

Source: Author's own construction

In detail, the pull factors and personal thinking factors make a unique statistically significant impact on SH-after ($p < 0.05$). The personal thinking factors has a greater impact ($\beta = 0.175$), followed by the pull factors ($\beta = 0.167$) with a similar impact. For demographic variables, gender ($\beta = 0.244$, $p < 0.05$), educational programme ($\beta = 0.331$, $p < 0.05$), finance source ($\beta = -0.016$, $p < 0.05$) and Hungarian knowledge level ($\beta = 0.082$, $p < 0.05$) belonging to control variables have a significant impact on the employment intention of staying employed in Hungary (SH-after) of international students.

(3) Being Employed in other Foreign Countries

In the same manner, the sample size of employment in other foreign countries is 167, which satisfies the formula recommended by TABACHNICK and FIDELL (2007). Moreover, a preliminary analysis is carried out to ensure that the assumptions of normality, linearity, multicollinearity and absence of outliers are not violated. In detail, the Pearson correlation matrix for employment in other foreign countries (Table 21) shows that the correlation coefficient between each variable ranges from −0.280 to 0.511, which is less than 0.7 (PALLANT, 2011). The tolerance values of all variables range from 0.578 to 0.814 and their VIF values range from 1.173 to 1.730 (tolerance > 0.10, VIF < 10). The pattern displayed in the normal P-p plot and scatterplot reveals no violation of the assumption.

Table 21. Pearson Correlation Matrix (Being employed in other foreign countries)

Variables	1	2	3	4	5	6	7	8	9	10	11	12
1.BFC-After	1											
2.Gender	−0.139*	1										
3.Age	0.085	−0.122	1									
4.Marital status	−0.072	−0.160*	0.373**	1								
5.Educational program	0.191**	−0.129*	0.511**	0.183**	1							
6. Finance source	0.030	−0.092	0.096**	0.211**	0.154*	1						
7. Studying years in Hungary	0.104	−0.351**	0.169**	−0.026	0.223**	−0.242**	1					
8. Working years in Hungary	0.104	−0.160*	0.340	−0.053	0.288**	0.050	0.468**	1				
9.Hungarian knowledge level	−0.054	0.042	−0.052	0.177*	−0.151*	0.246**	−0.026	0.020	1			
10.BFC-Personal	0.360**	0.056	−0.109	0.003	−0.194**	−0.280**	0.107	−0.008	−0.026	1		
11.BFC-Push	0.099	−0.211**	−0.016**	0.128*	−0.180*	−0.128*	0.190**	0.066	−0.069	0.275**	1	
12.BFC-Pull	−0.011	0.216**	−0.250*	−0.058	−0.251**	−0.064	−0.120	−0.092	0.123	0.309**	0.431**	1

N = 167, ** $p \leq 0.01$; * $p \leq 0.05$. Note: BFC: Being employed in other foreign countries.

Source: Author's own construction

From Table 22, demographic variables as control variables shown in Model 1 explain 6.7 per cent of the variance in employment intention of being employed in other foreign countries (BFC-after). After adding the personal thinking factors, push factors and pull factors in Model 2, the total

variance explained by the model as a whole is 26.7 per cent. The independent variables explain an additional 20% of the variance in BFC-after after controlling for demographic variables, in which the R squared change value is 0.20 ($p < 0.05$). This is an acceptable result.

More specifically, Model 2 exhibits that the personal thinking factor and the pull factor make a unique statistically significant impact on BFC-after ($p < 0.05$). Among them, the personal thinking factor has a greater impact ($\beta = 0.477$), followed by the pull factor ($\beta = -0.211$). In addition, marital status ($\beta = -0.213$, $p < 0.05$) and educational programme ($\beta = 0.278$, $p < 0.05$) belonging to control variables have a significant impact on the employment intention of being employed in other foreign countries (BFC-after) of international students.

Table 22. Regression Analysis (Being employed in other foreign countries)

Variables	DV: Being employed in other foreign countries (BFC-After)	
Control variables	**Model 1**	**Model 2**
Gender	−0.127	−0.126
Age	0.021	0.036
Marital Status	−0.136	−0.213*
Educational Programme	0.180	0.278*
Finance source	0.019	0.135
Studying Years in Hungary	0.012	−0.057
Working Years in Hungary	0.011	−0.013
Hungarian Knowledge Level	−0.001	0.031
Independent variables		
BFC- Personal		0.477*
BFC-Push		0.098
BFC- Pull		−0.211*
R^2	0.067	0.267
Overall F	1.405	5.127*
R^2 change	0.067	0.200*

* $p \leq 0.05$. Note: DV: Dependent variables.

Source: Author's own construction

Descriptive Statistics

Through descriptive statistics, the study ranks the mean value of the main reasons why international students choose different employment intentions after studying in Hungary. According to the previous section of multiple regression analysis, the push-pull factors and personal thinking factors have a significant impact on the intention to be employed in the home country. Personal thinking and pull factors significantly affect employment in Hungary and other foreign countries. The top three items will be shown in Table 23 to confirm the specific reasons for choosing different employment intentions.

For international students who are more willing to return to their home country for employment, the personal thinking factor includes the desire of international students to live in the country of birth, with a mean value of 4.28. They can get more job opportunities (4.20), and the experience of studying abroad will improve their competitiveness to work back home (3.90).

Pull factors include the familiar social environment in the home country, which makes them feel more comfortable (4.15) and give them a sense of belonging (4.12). Besides, they need to take care of their families, which is 4.04. The push factors include language and specialty constraints for them to find satisfactory jobs in Hungary (3.42). Moreover, Hungarian culture (3.26) and cost of living (2.78) are quite different from their own country.

For international students who are willing to stay and work in Hungary, personal thinking factors include that they like the working environment and atmosphere in Hungary (3.74) and the cultural and social environment (3.54) of Hungary. In addition, they are willing to carry out entrepreneurial activities through trade cooperation with Hungarians (3.14). The pull factors include the work experience gained in Hungary, which can help them find a good job when they return home (3.52). The living conditions and social security of Hungary are better (3.51), and its economic conditions could realize their ambitions (3.31).

The most important personal thinking factor for international students who want to work in other countries is that they prefer to go to foreign countries with better economic levels and social security (4.27). Then, they are willing to broaden their horizons and experience different cultural environments (3.95). Moreover, a better business environment (3.90) is also important. The pulling factors include that the cultural and social environment of other foreign countries is more attractive for me to settle down (3.57), and their employment options are more diversified (3.34). Similar to the reasons for international students who want to stay and work in Hungary, they strive to improve their work experience abroad to help them find a good job when they return home in the future (3.23).

Table 23. Descriptive Statistics for Employment

Items-Being employed in home-country (BHC)		Mean Rank	SD
Personal Thinking factors	**BHC2** I hope to live in my own country after graduating from studying in Hungary.	4.28	0.946
	BHC1 After studying abroad, I will get more job opportunities when I return home.	4.20	0.826
	BHC7 The experience of studying abroad can increase my competitiveness to work in my own country.	3.90	1.023
Pull Factors	**BHC14** The familiar social environment of my own country makes me very comfortable.	4.15	1.084
	BHC9 Working in my own country gives me a sense of belonging.	4.12	1.009
	BHC3 I have the responsibility of taking care of my family, so I need to go back to work in my own country.	4.04	1.104
Push Factors	**BHC15** Due to the limitations of language and specialty, it is hard for me to find good jobs in Hungary.	3.42	1.155
	BHC18 The culture of Hungary is quite different from that of my own country.	3.26	1.019
	BHC16 Compared with my own country, Hungary's living costs are high.	2.78	1.104
Items-Staying employed in Hungary (SH)		**Mean Rank**	**SD**
Personal Thinking Factors	**SH3** I like Hungary's working environment and working atmosphere.	3.74	0.838
	SH2 I love Hungary's cultural and social environment very much. I would like to settle down in Hungary after graduation.	3.54	0.992
	SH5 I can start a business in Hungary and trade with my own country.	3.14	1.120
Pull Factors	**SH12** Work experience in Hungary can help me find a better job when I return home country.	3.52	1.113
	SH9 Living conditions and social security in Hungary are better.	3.51	1.119
	SH7 Hungary has the economic conditions to realize my personal ambition.	3.31	1.097
Items-Being employed in other foreign countries (BFC)		**Mean Rank**	**SD**
Personal Thinking Factors	**BFC3** I would like to work in other countries with better economic development and social security so that I can get more income.	4.27	0.846
	BFC6 I would like to work in other countries because I want to go to a new environment. This can broaden my horizons, let me feel other countries' humanities customs.	3.95	0.974
	BFC2 I would like to go to a country with a better business environment, which is conducive to venture activities for my career.	3.90	0.882
Pull Factor	**BFC5** Other foreign countries' cultures and social environments are more attractive, and I hope to settle down there.	3.57	0.996
	BFC12 The choice of employment in other foreign countries is diversified.	3.34	0.797
	BFC14 Working experience in other foreign countries can help me find a good job when I return home.	3.23	1.064

Source: Author's own construction

4.1.6 Discussion of Employment Intentions

This study explores whether the employment intentions of international students change before and after studying in Hungary and whether push-pull factors and personal thinking factors impact their choice of employment intentions. It also reveals the specific items that affect the three

employment intentions. The results show that among the main 4 hypotheses put forward by the employment intentions study, 9 sub-hypotheses are supported by data, and the specific hypothesis test results are shown in Table 24.

Table 24. Hypothesis Test Results for Employment

Hypotheses	Sig.	Result	The techniques used in the study
H1a	$p > 0.05$	Not Confirmed	T-test
H1b	$p < 0.05$	Confirmed	T-test
H1c	$p < 0.05$	Confirmed	T-test
H2a	$\beta = 0.300$, $p < 0.05$	Confirmed	Multiple regression
H2b	$\beta = -0.134$, $p < 0.05$	Confirmed	Multiple regression
H2c	$\beta = 0.339$, $p < 0.05$	Confirmed	Multiple regression
H3a	$\beta = 0.164$, $p < 0.05$	Confirmed	Multiple regression
H3b	$\beta = 0.046$, $p > 0.05$	Not Confirmed	Multiple regression
H3c	$\beta = 0.175$, $p < 0.05$	Confirmed	Multiple regression
H4a	$\beta = -0.211$, $p < 0.05$	Confirmed	Multiple regression
H4b	$\beta = 0.098$, $p > 0.05$	Not Confirmed	Multiple regression
H4c	$\beta = 0.477$, $p > 0.05$	Confirmed	Multiple regression

Source: Author's own construction

On the comparison of the changes in the three employment intentions before and after studying in Hungary, the *p*-value of the paired sample t-test will clarify the level of significant difference. The results reveal no significant difference in the willingness of international students to work in their home country before and after studying in Hungary ($p > 0.05$), so H1a is not confirmed. In other words, studying in Hungary does not change the desire of international students to work in their own country. This finding contrasts with the study of WAIBEL et al. (2017), who concluded that studying abroad may be more likely to reaffirm and promote a selected career path rather than any actual career path change. The reasons can be explained by the fact that international students with families or other strong relationships in their home countries are expected to reduce the likelihood of considering and planning migration due to expected economic, social and emotional costs (KLEY, 2011). SOON's (2012) research on this view shows that international students who initially intend to return home are more likely to maintain this intention and reduce the likelihood of going elsewhere.

However, there is a great difference in employment intentions to stay employed in Hungary and in other foreign countries ($p < 0.05$), so H1b and H1c are confirmed. These indicate that the initial willingness to work in Hungary and other foreign countries has become stronger after studying in Hungary. The overall experience of studying abroad may affect whether international graduates work abroad after completing their studies (BOZIONELOS et al., 2015). KRONHOLZ and

OSBORN (2016) believe that significant positive changes have taken place in the professional identity assessment reported by university students before and after studying abroad, such as that the experience of studying abroad can expand students' opportunities to work and live abroad (BROOKS et al., 2012).

Moreover, according to the mean value of the data samples from the survey, it can be concluded that international students in Hungary are more likely to work in their own countries, followed by other foreign countries, while the willingness to work in Hungary is relatively small. Among the three employment intentions, international students studying in Hungary have the greatest increase in their willingness to stay and work in Hungary. That may be related to the familiar overseas environment and internship experience that promoted them to stay and work in Hungary.

What's more, under the control of the demographic variables of international students in Hungary, the author made a hierarchical multiple regression analysis of the relationship relating the three employment intentions with the push-pull factors and the personal thinking factors. The results show that the push-pull factors and personal thinking factors of choosing to work in their home country all reached a significant level ($p < 0.05$), so H2a, H2b and H2c are confirmed.

Regarding the employment intention of choosing to stay in Hungary, the pull factors and the personal thinking factors significantly impact SH-after ($p < 0.05$). However, the push factor does not significantly affect it ($p > 0.05$). Therefore, H3a and H3c are confirmed, but H3b is not confirmed. Additionally, a similar finding pertains to the significant influencing factors of employment intention in other foreign countries, which are the personal thinking factor and the pull factor ($p < 0.05$), while the push factors still have no significant impact ($p > 0.05$). Thus, H4a and H4c are confirmed, but H4b is not confirmed.

This finding further indicates that personal thinking factors influence on BHC-after ($\beta = 0.339$) most. Specifically, it includes the desire of international students to live in their country of birth ($M = 4.28$), study abroad to get more job opportunities in their home countries ($M = 4.20$) and improve their competitiveness to work back home ($M = 3.90$). KOVÁCS and KASZA (2018) point out that for those who plan to return home after completing their studies in Hungary, it is important to gain more international experience, whether through additional school education, travel, or work. The benefit of studying abroad is that it enhances their studies and labor market status, as well as their personal development (LÁNYI & POZSGAI, 2016). Moreover, as NAITO and ZHAO (2020) mentioned, some international students return home with the human capital (knowledge) they have acquired abroad, perhaps to earn higher wages in their home countries.

Subsequently, pull factors have a relatively general impact on BHC-after (β = 0.186). The specific reason is that the familiar social environment of their own country gives people a sense of comfort (M = 4.15) and belonging (M = 4.12), and they need to assume the responsibility of taking care of their parents (M = 4.04). Students' perception of lifestyle has the greatest impact on the probability of planning to return home. If students think that the way of life at home is good (SOON, 2012) or miss the way of life at home, this will also be an important reason for many students to return to their home country (MOK et al., 2020). Besides, considering family factors is important for determining a career path (BOZIONELOS et al., 2015).

In addition, the push factors have a relatively low impact on BHC-after (β = −0.134). The specific reasons for its impact are language and specialty restrictions on finding good jobs (M = 3.42), large cultural differences (M = 3.26) and the high cost of living in Hungary (M = 2.78). NILSSON and RIPMEESTER (2016) also believe that the reasons why international students leave the host country after graduation are more likely to have hard access to the job market (including the ability to speak local languages). To an extent, visa status and discrimination are considered the main obstacles affecting the perception of employers in host countries (CAMERON et al., 2019). In addition, BARUCH et al. (2007) find that international students from powerful emerging economies with a large cultural distance from the host country are less likely to stay in the host country after completing their studies.

With regard to the employment intention to stay in Hungary, the personal thinking factor (β = 0.175) and pull factor (β = 0.164) have similar impacts on SH-after. On the one hand, the reasons for the personal thinking factors are that international students like the working environment and atmosphere of Hungary (M = 3.74), as well as the cultural and social environment (M = 3.54) and their desire to start a business with Hungarians (M = 3.14). CAMERON et al. (2019) point out that many international graduates have taken part-time jobs in the host country during their studies. They choose to work in the host country because they are generally familiar with the relevant cultural norms. What's more, the experience of studying, living and working abroad can help international students participate in international business and new ventures around the world in their future careers (HELMS et al., 2014).

On the other hand, the pulling factors include that obtaining work experience in Hungary is conducive to returning home to find a good job (M = 3.52). Hungary's living conditions and social security are better (M = 3.51), and its economic conditions are conducive to realizing personal aspirations (M = 3.31). These views are consistent with the findings of a study of Pakistani medical graduates by IMRAN et al. (2011) that respondents wanted to emigrate because they believed that

overseas training would positively impact their future careers to gain a competitive advantage in a saturated job market. That will lead to financial security, better working conditions and a training experience.

Similarly, personal thinking factors and pull factors are the main factors that affect employment intention in other foreign countries, and the influence degree of personal thinking factors (β = 0.477) is higher than that of pull factors ($\beta = -0.211$). Personal thinking factors include foreign countries where international students pursue better economic development and social security to increase their income (M = 4.27). In addition, they hope to broaden their horizons and explore a new environment (M = 3.95) and a good business environment is conducive to their venture activities (M = 3.90). A study of Chinese foreign business graduates conducted by THARENOU (2015) shows that the career and lifestyle benefits of a foreign country make them more willing to stay. That includes better career and economic opportunities and a good working environment to provide their families with a better quality of life and living environment.

What's more, the pulling factors are that the cultural and social environment of other foreign countries is more attractive (M = 3.57), their employment options are more diversified (M = 3.34), and the work experience of other countries can help them find a good job when back home (M = 3.23). Many international students prefer to cross their national boundaries and look for jobs and career development in other countries or regions with good opportunities (BROOKS et al., 2012). The choice of overseas work location for international students is often based on the economic development of the region (GROGGER & HANSON, 2015).

4.2 Entrepreneurial Intentions

The study on entrepreneurial intentions (ENI) is mainly analyzed from the perspective of external environmental factors and internal self-efficacy factors. The influencing factors of these two aspects will be analyzed separately. For external environmental factors, the paired-samples t-test tool is used to check whether the entrepreneurial intentions of international students has changed before and after coming to Hungary. Additionally, to deeply understand which specific items have been changed, the six items in the entrepreneurial intentions are all compared separately.

Then, hierarchical multiple regression analysis is used to test, after controlling for demographic variables and ENI-before, whether external environment factors (MNC, OEP and MC) have an impact on entrepreneurial intentions (ENI) after coming to Hungary. For internal self-efficacy factors, evaluate whether the four dimensions of entrepreneurial self-efficacy (OMC, RCC, RTC, and IOIC) and the demographic variables impact the formation of entrepreneurial intentions (ENI) among international students in Hungary. In the same vein, hierarchical multiple regression is performed. Moreover, to test whether there are significant differences in demographic characteristics among international students in Hungary related to their entrepreneurial intentions (ENI), the independent samples t-test and the one-way between-groups ANOVA are implemented.

4.2.1 Data Collection and Sample Characteristics

Data Collection

The main period for collecting data on entrepreneurial intentions was from March 2021 to May 2023. Its title is "The Effect of Studying Abroad in Hungary on the Entrepreneurship Intention of International Students". After obtaining informed consent, 588 students filled out the questionnaire, of which 467 responses were valid without missing values and were retained for further analysis. The respondents mainly included international students from the Hungarian University of Agriculture and Life Sciences, Corvinus University of Budapest, Budapest University of Technology and Economics, Eötvös Loránd University and Budapest Business School-University of Applied Science, which is located in the Hungarian capital, Budapest and surrounding cities. Questionnaires are collected online and sent to several social media platform groups, such as WhatsApp, WeChat, email, Messenger and Facebook groups.

The structured questionnaire consists of four sections. The first section is about the demographic characteristics of the respondents. The second section required respondents to fill in the scale of their entrepreneurial intentions (ENI) before and after coming to Hungary, which is used to detect whether their entrepreneurial intentions have changed. After that, the third section is to find out the potential environmental factors that affect the change caused by coming to study in Hungary. The last section is an evaluation of the internal entrepreneurial self-efficacy of international students.

The specific items questioned in the questionnaire are shown in Table 2, Table 3 and Table 4. A 5-point Likert scale allows respondents to show the extent of their agreement on all items, ranging from 1 = strongly disagree to 5 = strongly agree. In addition, MNC1, OEP3 and OEP6 belong to environmental factors, while OMC3, RTC2 and IOIC4 belong to self-efficacy factors, which were found invalid in the pilot study. These items are deleted from the formal questionnaire.

Demographic Profile of the Sample

The following are the demographic profiles of respondents from the entrepreneurial intention questionnaire displayed in Table 25. The share of gender was similar, with 224 (48.0%) males and 243 (52. 0%) females. Most of the respondents were between 25 and 29 years old (45.2%), followed by those under 24 years old (30.2%) and older than 30 years old (24.6%). More than half of the respondents were scholarship winners (65.7%) and 77.9% had no family business background.

Table 25. Demographic Profiles of Sample for Entrepreneurship

Demographic variables	Item and Code	Frequency	Percent
Gender	Male=1	224	48.0
	Female=2	243	52.0
Age	Less than 24 years old=1	141	30.2
	25-29 years old=2	211	45.2
	More than 30 years old=3	115	24.6
Financing Source	Self-financed=1	160	34.3
	Scholarship=2	307	65.7
Family Business Background	Yes=1	103	22.1
	No=2	364	77.9

Source: Author's own construction

Moreover, educational programs included exchange students (2.6%), bachelor's (22.5%), master's (49.7%) and PhD (25.3%) programs, as shown in Figure 26. From Figure 27, the proportion of respondents who studied in Hungary for 2-3 years was the highest (43.9%), followed by those who

studied for less than 1 year (39.4%), while the proportion of respondents who studied in Hungary for more than 4 years accounted for relatively few (16.7%).

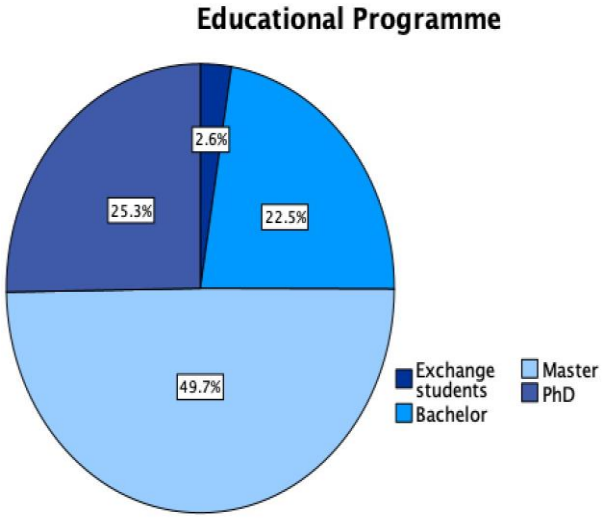

Figure 27. Educational Programme of the Respondents for Entrepreneurship

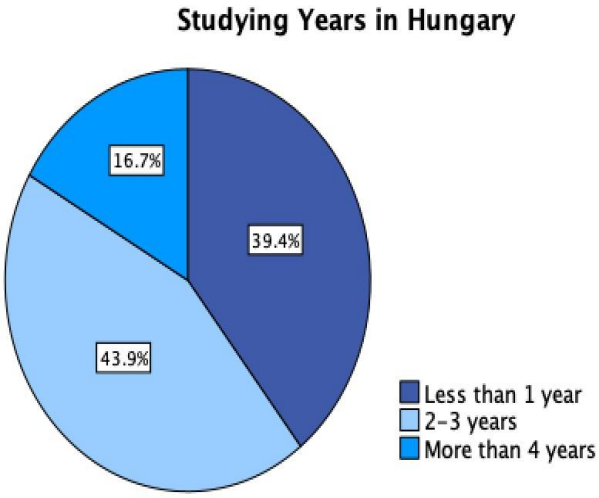

Figure 26. Studying Years in Hungary of the Respondents for Entrepreneurship

Source: Author's own construction

Furthermore, Figures 28 and 29 show that 58.5% of the respondents had no work experience in Hungary; 31.5% had less than 1 year of work experience; and fewer respondents had more than 2 years of work experience, for a total of 10.1%. 73.7% of the respondents had no entrepreneurial experience, and quite a few of the respondents (26.3%) had entrepreneurial experience.

Figure 29. Working Years in Hungary of the Respondents for Entrepreneurship

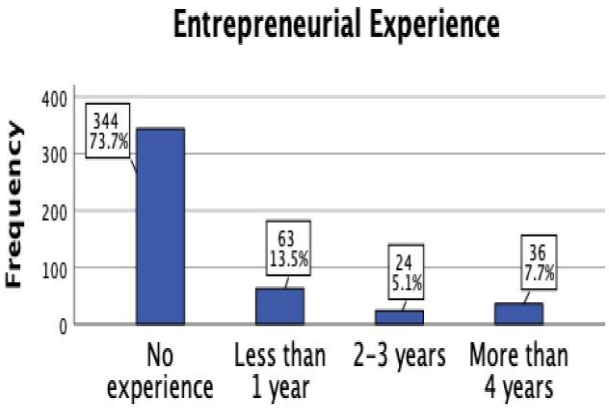

Figure 28. Entrepreneurial Experience of the Respondents for Entrepreneurship

Source: Author's own construction

4.2.2 Common Method Bias

The same method is used to eliminate common method bias as employment intentions. This study controls the method biases through the process of questionnaire design and statistical controls to avoid affecting the follow-up data analysis. In the questionnaire design phase, the questionnaire ensures the anonymity of the respondents to allay concerns about the evaluation and improves the scale items to reduce ambiguity and unfamiliar terminology to prevent and control common method bias (PODSAKOFF et al., 2003).

Then, Harman's single-factor test is conducted to check the sample data. This study loads all measured variables into an exploratory factor analysis through SPSS 29.0 software to test the unrotated factor solution and a single extracted factor (PODSAKOFF et al., 2003). The results show that the one extracted factor can explain 33.35% of the variation, which is lower than the recognized maximum variance of 50% in the Herman one-factor test (PODSAKOFF et al., 2012). Therefore, there is no obvious obstacle to common method bias in the sample data collected for the study of entrepreneurial intentions.

4.2.3 Reliability Analysis

Before analyzing the data deeply, Cronbach’s alpha test is used to check the reliability of the construct. Cronbach's alpha coefficient is used to measure the internal consistency or average correlation of items in the survey instruments to measure their reliability (FIELD, 2009). DEVELLIS (2016) suggests that the Cronbach alpha coefficient of a scale greater than 0.7 is highly reliable.

As shown in Table 26, Cronbach’s alpha reliability coefficient of entrepreneurial intentions before and after coming to Hungary is 0.899 and 0.904, respectively. For external environment factors, the values of Cronbach’s alpha for MNC (0.875), OEP (0.845) and MC (0.862) are presented as reliable. Moreover, for internal self-efficacy factors, the values of Cronbach’s alpha of OMC (0.859), RCC (0.869), RTC (0.816) and IOIC (0.857) are all greater than 0.7. That means all constructs in this study have acceptable internal reliability and are expected to produce pragmatic results.

Table 26. Cronbach's Alpha Reliability of Constructs for Entrepreneurship

Constructs		Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
Entrepreneurial Intention (ENI)	Before studying in Hungary	0.899	0.898	6
	After studying in Hungary	0.904	0.904	6
Multiple Network Construction (MNC)		0.875	0.880	4
Overseas Entrepreneurial Perception (OEP)		0.845	0.844	4
Multicultural Cognition (MC)		0.862	0.864	6
Operation and Management Capacity (OMC)		0.859	0.863	4
Relationship Coordination Capacity (RCC)		0.869	0.869	3
Risk Tolerance Capacity (RTC)		0.816	0.816	3
Innovation and Opportunity Identification Capacity (IOIC)		0.857	0.862	4

Source: Author's own construction

4.2.4 Validity Analysis

After the reliability test, exploratory factor analysis (EFA) and confirmatory factor analysis (CFA) are used to test the validity of the collected data from the entrepreneurial intentions questionnaire. Exploratory factor analysis is used to observe how these items are distributed and what structure they have (WATKINS, 2018). Principal component analysis with the varimax rotation method and eigenvalues greater than one is checked to assess the validity of the constructs by EFA.

As in the pilot study in Part III, the author has examined the factor structure of external environmental factors and internal self-efficacy factors from the entrepreneurial intentions questionnaire. The factor analysis supports using the MNC items, OEP items and MC items belonging to external environmental factors, the OMC items, RCC items, RTC items and IOIC items belonging to internal self-efficacy factors and ENI items as separate scales. The results from the pilot study show that the factor load values of the measurement items for the variables are all higher than 0.5. Therefore, the structure of variables related to entrepreneurial intentions has high validity.

Convergent validity

Further, the author carries out confirmatory factor analysis (CFA) of sample data through AMOS 26.0 software to test the convergent validity (CV). Its evaluation requires checking the value of

average variance extracted (AVE) and composite reliability (CR). Table 27 presents that the AVE value of each construct ranges from 0.501 to 0.751, satisfying the required threshold of 0.50 (HAIR et al., 2016). The values of CR range from 0.750 to 0.923, with all values higher than 0.7 (BAGOZZI et al., 1991; FORNELL & LARCKER, 1981) . The two results all meet standards and indicate good convergent validity.

Table 27. Convergent Validity for Entrepreneurship

Constructs		CR	AVE	Result
Entrepreneurial Intention (ENI)		0.897	0.593	Confirmed
External Environmental Factors	Multiple Network Construction (MNC)	0.923	0.751	Confirmed
	Overseas Entrepreneurial Perception (OEP)	0.835	0.508	Confirmed
	Multicultural Cognition (MC)	0.880	0.551	Confirmed
Internal Self-efficacy Factors	Operation and Management Capacity (OMC)	0.825	0.544	Confirmed
	Relationship Coordination Capacity (RCC)	0.794	0.563	Confirmed
	Risk Tolerance Capacity (RTC)	0.750	0.501	Confirmed
	Innovation and Opportunity Identification Capacity (IOIC)	0.801	0.503	Confirmed

Note: AVE, average variance extracted; CR, composite reliability.
Source: Author's own construction

Moreover, the model fit test of external environmental factors and internal self-efficacy factors for entrepreneurial intentions is carried out by AMOS 26.0 software. The model fit indices could further evaluate the convergent validity of the scale, which needs to meet the recommended limit values as follows: $\chi^2/df < 5$, NFI ≥ 0.9, CFI > 0.9, RMSEA ≤ 0.09 and SRMR ≤ 0.06 (HOOPER et al., 2008; HU & BENTLER, 1999).

Table 28 shows that the most reasonably good fit of data to the external environmental factors model is the four-factor model and the model for internal self-efficacy factors is the five-factor model. For the model of external environmental factors (Model 1), $\chi^2/df = 3.79$ meets the recommended limit values of $\chi^2/df < 5$. Meanwhile, NFI = 0.914, CFI = 0.935, RMSEA = 0.077 and SRMR = 0.06 all meet the standard of threshold values reflecting fitness. Likewise, the model of internal self-efficacy factors (Model 2) shows that $\chi^2/df = 3.91$, NFI = 0.915, CFI = 0.935, RMSEA = 0.079 and SRMR = 0.06.

Moreover, the confirmatory factor analysis chart regarding the external environmental factors distribution of the scale is shown in Figure 30 and the internal self-efficacy factors distribution of the scale is observed in Figure 31. In sum, the fit values from the confirmatory factor analysis indicated a reasonably good fit of the data to both models. Therefore, both the external

environmental factor scales and the internal self-efficacy factor scales have good convergent validity.

Table 28. Model Fit Indices for Entrepreneurship

Fit index	χ^2	df	χ^2 /df	NFI	CFI	RMSEA	SRMR
Four-factor Model 1	549.556	145	3.790	0.914	0.935	0.077	0.0646
Five-factor Model 2	555.219	142	3.910	0.915	0.935	0.079	0.0650

Note: Model1, external environment factor; Model 2, internal self-efficacy factors.
Source: Author's own construction

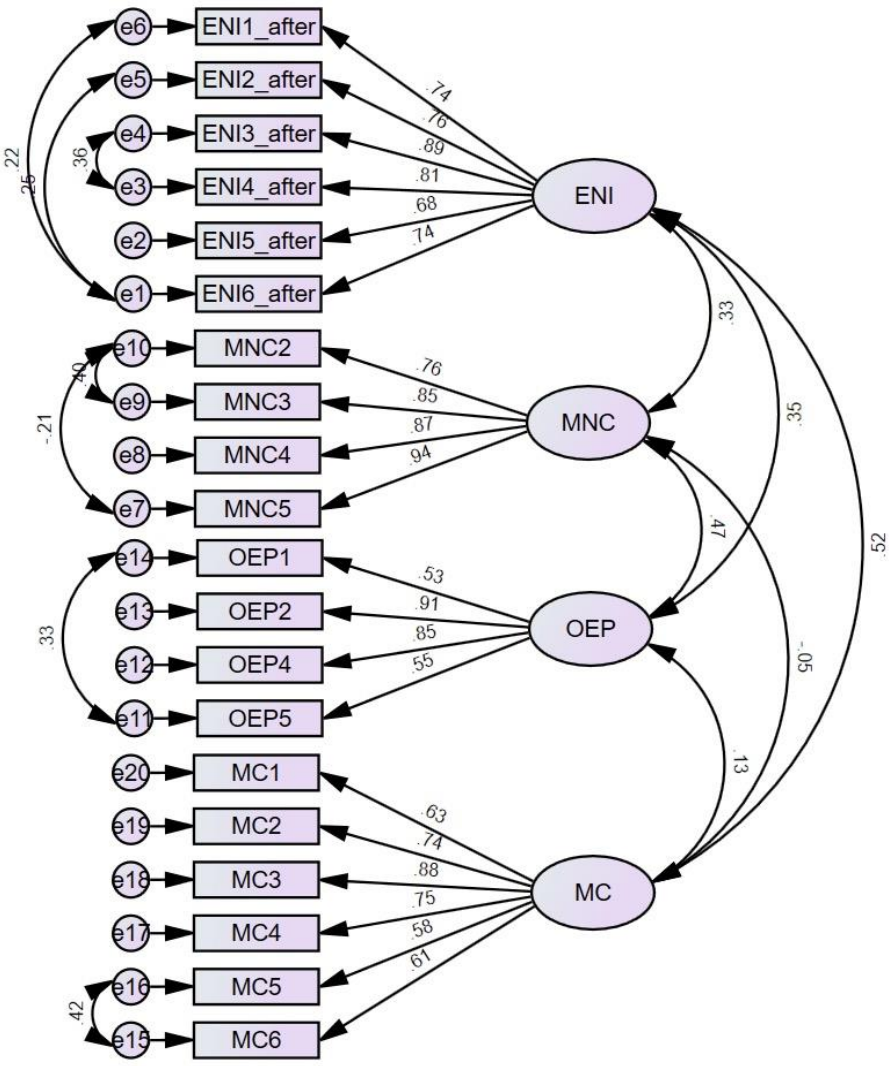

Figure 30. Confirmatory Factor Analysis Model Scale for External Environmental Factors
Source: Author's own construction by Amos.

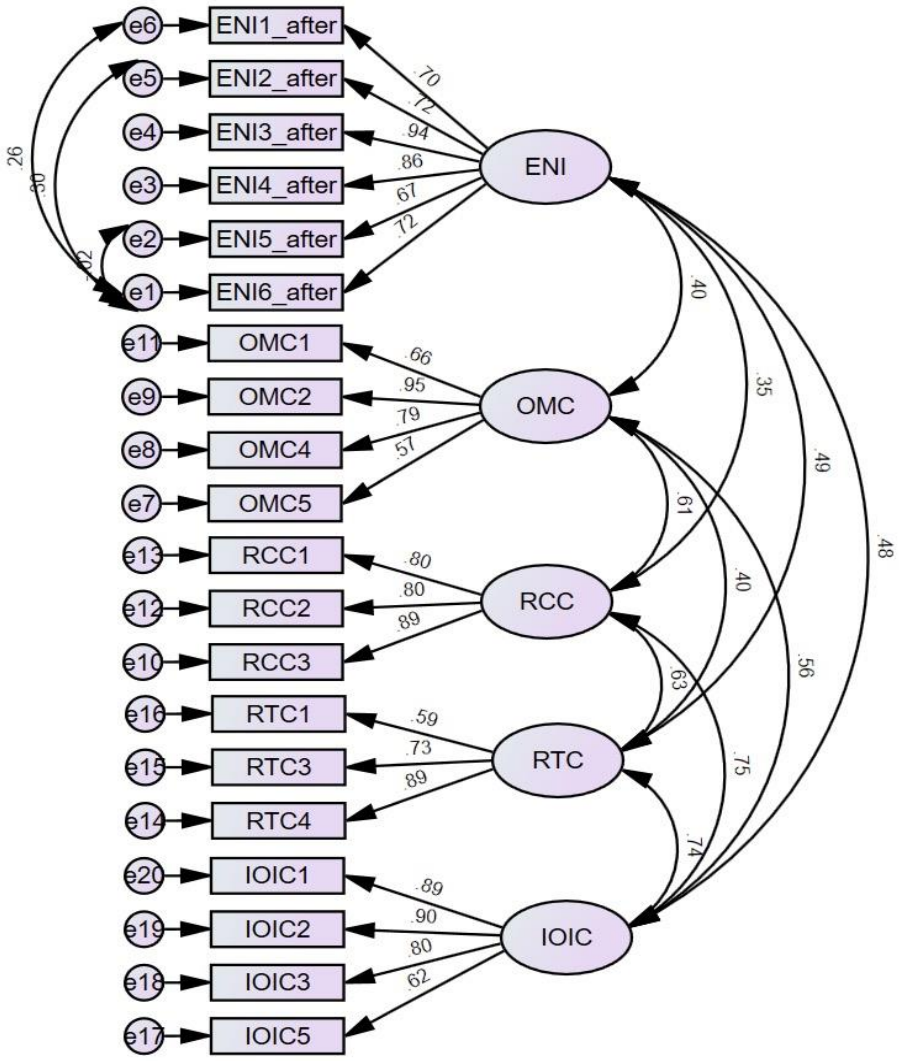

Figure 31. Confirmatory Factor Analysis Model Scale for Internal Self-efficacy Factors
Source: Author's own construction by Amos.

Discriminant validity

The author tests the discriminant validity using the Fornell-Larcker criterion (FORNELL & LARCKER, 1981) and the Heterotrait-Monotrait ratio of correlations (HTMT) (HENSELER et al., 2015). According to the Fornell-Larcker criterion, the square root of each construct's average variance explained (AVE) needs to be compared to the correlation coefficients between constructs. When AVE's square root is greater than the correlation coefficients between constructs, it can be proved to have discriminant validity between constructs (FORNELL & LARCKER, 1981). Tables 29 and 30 display that the correlation coefficients between constructs do not exceed all of the square roots of AVE. Hence, the constructs of discriminant validity for external environmental factors and internal self-efficacy factors are satisfied.

Table 29. Fornell-Larcker Criterion (External environmental factors)

Variables	ENI	MNC	OEP	MC
ENI	**0.771**			
MNC	0.324**	**0.866**		
OEP	0.447**	0.390**	**0.737**	
MC	0.442**	−0.013	0.285**	**0.742**

N = 647, ** $p \leq 0.01$. **Note:** 1. ENI: Entrepreneurial Intention; MNC: Multiple Network Construction; OEP: Overseas Entrepreneurial Perception; MC: Multicultural Cognition. 2. The numbers in bold are the AVE square root values of each variable.

Source: Author's own construction

Table 30. Fornell-Larcker Criterion (Internal self-efficacy factors)

Variables	ENI	OMC	RCC	RTC	IOIC
ENI	**0.780**				
OMC	0.413**	**0.737**			
RCC	0.333**	0.520**	**0.750**		
RTC	0.421**	0.348**	0.559**	**0.708**	
IOIC	0.457**	0.514**	0.668**	0.622**	**0.709**

N = 647, ** $p \leq 0.01$**. Note: 1.** ENI: Entrepreneurial Intention; OMC: Operation and Management Capacity; RCC: Relationship Coordination Capacity; RTC: Risk Tolerance Capacity; IOIC: Innovation and Opportunity Identification Capacity. 2. The numbers in bold are the AVE square root values of each variable.

Source: Author's own construction

Moreover, the heterotrait-monotrait ratio (HTMT) is another discriminant validity test in research that has higher specificity and sensitivity compared with the cross-loading method of the Fornell-Larcker criterion (FASSOTT et al., 2016). The HTMT value between the two constructs should be less than 0.85 (HENSELER et al., 2015). As such, the constructs of external environmental factors and internal self-efficacy factors shown in Tables 31 and 32 meet the HTMT criteria. Thus, they all fulfill the discriminant validity.

Table 31. HTMT Criterion (External environmental factors)

Variables	ENI	MNC	OEP	MC
ENI	-			
MNC	0.355	-		
OEP	0.518	0.451	-	
MC	0.499	0.023	0.334	-

Note: 1. ENI: Entrepreneurial Intention; MNC: Multiple Network Construction; OEP: Overseas Entrepreneurial Perception; MC: Multicultural Cognition.

Source: Author's own construction

Table 32. HTMT Criterion (Internal self-efficacy factors)

Variables	ENI	OMC	RCC	RTC	IOIC
ENI	-				
OMC	0.481	-			
RCC	0.377	0.618	-		
RTC	0.502	0.441	0.693	-	
IOIC	0.528	0.649	0.732	0.774	-

Note: 1. ENI: Entrepreneurial Intention; OMC: Operation and Management Capacity; RCC: Relationship Coordination Capacity; RTC: Risk Tolerance Capacity; IOIC: Innovation and Opportunity Identification Capacity.

Source: Author's own construction

4.2.5 Hypothesis Test for External Environmental Factors

The main purpose of this section is to test the hypotheses for entrepreneurial intentions. The external environmental factors and internal self-efficacy factors that affect international students' entrepreneurial intentions will be analyzed separately. As for the external environmental factors, whether the entrepreneurial intentions of international students have changed before and after coming to Hungary will be tested. Then, after controlling the demographic variables and entrepreneurial intention (ENI-before), the impact of external environmental factors (MNC, OEP and MC) on the entrepreneurial intention after coming to Hungary will be examined.

Paired Samples T-Test

To find out whether the entrepreneurial intentions of international students have changed before and after coming to Hungary, the paired samples *t*-test is applied. The paired sample *t*-test is suitable for collecting data from one group of people on two different occasions or under two different conditions (PALLANT, 2011). Table 33 presents that all six items in the entrepreneurial intentions (ENI) are compared.

The results show that except for the *p*-value of ENI2 (I plan to start a company in the future) being more than 0.05, the *p*-values of the other five items are all less than 0.05. Moreover, due to Sig. (2-tailed) reaching a 5% mean significance level ($p < 0.05$) (PALLANT, 2011), therefore ENI1, ENI3, ENI4, ENI5 and ENI6 are significant ($p < 0.05$). Subsequently, the author judges that there is a significant difference in the entrepreneurial intentions of international students before and after coming to study in Hungary due to most of the items reaching this standard.

Table 33. Paired Samples T-Test for Entrepreneurship

	Comparison of Entrepreneurial Intention before and after Coming to Hungary		Mean	Paired Mean Differences	Std. Deviation	Sig. (2-tailed)
Pair 1	ENI1	Before	3.15	0.14	1.216	0.002
		After	3.29		1.161	
Pair 2	ENI2	Before	3.39	0.05	1.242	0.351
		After	3.44		1.211	
Pair 3	ENI3	Before	3.01	0.17	1.311	0.001
		After	3.18		1.211	
Pair 4	ENI4	Before	2.94	0.18	1.228	0.001
		After	3.12		1.237	
Pair 5	ENI5	Before	2.68	0.15	1.202	0.003
		After	2.83		1.184	
Pair 6	ENI6	Before	3.44	0.11	1.216	0.027
		After	3.55		1.144	

Note: ENI: Entrepreneurial intention.
Source: Author's own construction

Specifically, comparing the mean values of six items in entrepreneurial intentions, the results show that the mean values of ENI6, ENI2 and ENI1 are relatively high. It means most international students hope to gain wealth and a sense of achievement by starting a business. They plan to start a business in the future and have entrepreneurial spirits. Moreover, ENI4 and ENI3 changed the most after coming to Hungary, with paired mean differences of 0.18 and 0.17, respectively. That is, "I have been looking for entrepreneurial projects and opportunities" and "I spend time learning entrepreneurial knowledge and other people's entrepreneurial experience". Therefore, it could be concluded that after coming to study in Hungary, international students have taken more substantial actions for entrepreneurship.

However, the intention of international students to start a company in the future (ENI2) has not changed much after going abroad. That could mean that having the initial willingness to start a business is also an important and independent determinant for international students to engage in entrepreneurship activities in the future.

Hierarchical Multiple Regression Analysis

To obtain more rigorous results, hierarchical multiple regression analysis is performed to detect whether multiple network construction (MNC), overseas entrepreneurial perception (OEP) and multicultural cognition (MC) have an impact on the entrepreneurial intention (ENI-after) of international students after coming to study in Hungary, as well as their influencing extent under the control of demographic variables (gender, age, educational program, finance source, studying years in Hungary, working years in Hungary, entrepreneurial experience and family business background) and ENI-before.

Before implementing the multiple regression analysis, several assumptions need to be tested. TABACHNICK and FIDELL (2007) give a formula for sample calculation: $N > 50 + 8\,m$ (where m = number of independent variables). Here, the study has three independent variables and nine control variables, so the sample size needs to be 146. The sample size of this study (467) meets this assumption well. Then, the Pearson correlation matrix (Table 34) visually displays the correlation coefficient between each variable, ranging from −0.193 to 0.644. When the correlation coefficient between two variables is greater than 0.7, the variable will have the problem of multicollinearity (PALLANT, 2011).

In addition, the tolerance variance of all independent and control variables is from 0.594 to 0.933, and their VIF is from 1.072 to 1.685, which meets the limitation of no multicollinearity (tolerance >

0.10, VIF < 10). Therefore, the data meet the assumption of no multicollinearity. Moreover, the normal P-p plot presents a reasonably straight diagonal line from bottom left to top right. The scatterplot reveals that the residuals are roughly rectangularly distributed, not more than 3.3 or less −3.3 (PALLANT, 2011; TABACHNICK & FIDELL, 2007). In this case, these results ascertain the assumption of normality, linearity and no outlier.

Table 34. Pearson Correlation Matrix (External environmental factors)

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13
1.ENI-After	1												
2.ENI-Before	0.644**	1											
3.Gender	−0.004	−0.057	1										
4.Age	0.115*	0.123**	−0.218**	1									
5.Educational program	0.004	−0.100*	−0.154**	0.542**	1								
6.Finance source	0.301**	0.206**	−0.016	0.049	0.055	1							
7.Studying years in Hungary	0.206**	0.029	−0.065	−0.024	−0.065	−0.128**	1						
8.Working years in Hungary	−0.013	−0.092*	−0.092*	0.024	0.099*	−0.062	0.341**	1					
9.Entrepreneurial experience	0.235**	0.380**	−0.104*	0.296**	0.138**	0.115*	−0.084	0.002	1				
10.Family business background	−0.175*	−0.193**	−0.035	−0.145**	−0.078	0.019	0.004	0.075	−0.256 **	1			
11.MNC	0.324**	0.415 **	0.003	0.122**	−0.014	0.014	0.133**	0.138**	0.153**	−0.040	1		
12.OEP	0.447**	0.332 **	0.148**	0.085	0.013	0.208**	−0.052	−0.044	0.164**	−0.049	0.390**	1	
13.MC	0.442**	0.225 **	0.001	0.083	0.121**	0.164**	0.140**	0.050	0.029	−0.006	−0.013	0.285**	1

N = 467, ** $p \leq 0.01$; * $p \leq 0.05$. Note: ENI: Entrepreneurial intention; MNC: Multiple network construction; OEP: Overseas entrepreneurial perception; MC: Multicultural cognition.

Source: Author's own construction

After testing the assumptions, the main models of hierarchical multiple regression analysis are evaluated. As can be observed in Table 35, model 1 is a basic model that includes only control variables (demographic variables and ENI-before) and model 2 contains all the variables (demographic variables, ENI-before, MNC, OEP and MC). The R square value in model 1 shows that the demographic variables and ENI-before explain 50.2 per cent of the variance. After the independent variables have been included, model 2 as a whole explains 59.5 per cent. Furthermore, the R square change value is 0.094 ($p \leq 0.001$), which means that the independent variables explain an additional 9.4 per cent of the variance in entrepreneurial intention (ENI-after) after the effects of the demographic variables and ENI-before are statistically controlled for.

Table 35. Regression Analysis (External environmental factors)

Variables	DV: Entrepreneurial Intention (ENI-After)	
Control variables	**Model 1**	**Model 2**
Gender	0.055	0.007
Age	0.006	−0.007
Educational Programme	0.072	0.029
Finance source	0.206*	0.152*
Studying Years in Hungary	0.229*	0.197*
Working Years in Hungary	−0.021	−0.032
Entrepreneurial Experience	−0.019	−0.007
Family Business Background	−0.059	−0.075
Entrepreneurial Intention **(**ENI-Before**)**	0.599*	0.469*
Independent variables		
Multiple Network Construction (MNC)		0.036
Overseas Entrepreneurial Perception (OEP)		0.186*
Multicultural Cognition (MC)		0.229*
R^2	0.502	0.595
Overall F	51.162*	55.693*
R^2 change	0.502*	0.094*

* $p \leq 0.001$. Note: DV: Dependent variables.

Source: Author's own construction

For specifically evaluating how well each of the variables relates, model 2 in Table 35 exhibits that finance source ($\beta = 0.152$, $p \leq 0.001$), years of studying in Hungary ($\beta = 0.197$, $p \leq 0.001$) and ENI-before ($\beta = 0.469$, $p \leq 0.001$) belonging to control variables have a significant impact on the entrepreneurial intentions (ENI-after) of international students. The independent variables of OEP and MC have a unique statistically significant impact on ENI-after ($p \leq 0.001$), while MNC does not have an impact on it ($\beta = 0.036$, $p > 0.05$). In detail, multicultural cognition (MC) has a greater impact ($\beta = 0.229$), followed by overseas entrepreneurial perception (OEP) ($\beta = 0.186$).

4.2.6 Hypothesis Test for Internal Self-efficacy Factors

For internal self-efficacy factors, whether the four dimensions of entrepreneurial self-efficacy (OMC, RCC, RTC and IOIC) and demographic variables affect the formation of entrepreneurial intentions of international students in Hungary is evaluated.

Hierarchical Multiple Regression Analysis

To test the hypothesis, hierarchical multiple regression is implemented to evaluate which dimensions of entrepreneurial self-efficacy and demographic variables can affect entrepreneurial intentions (ENI), as well as the magnitude of the factors affecting.

Here, before conducting these analyses, the necessary assumptions are tested as follows: the sample size (467) meets the formula given by PALLANT, (2011), TABACHNICK and FIDELL (2007): N > 50 + 8 m (m = number of independent variables), which should be greater than 146; the correlation matrix shows that the correlation coefficient less than 0.8 indicates that there is no multicollinearity (SHRESTHA, 2020) (Table 36); the normal P-p plot test presents a reasonably straight diagonal line from bottom left to top right, which suggests no major deviations from normality; and the scatterplot detects that there is no outlier due to no standardized residual being more than 3.3 or less than −3.3 (PALLANT, 2011; TABACHNICK & FIDELL, 2007). Here, the specific predictor variables tested included four dimensions of entrepreneurial self-efficacy (OMC, RCC, RTC, and IOIC) and demographic variables (age, gender, financing source, studying years in Hungary, working years in Hungary, entrepreneurial experience, and family business background).

Table 36. Pearson Correlation Matrix (Internal self-efficacy factors)

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Age	1												
2. Gender	−0.218**	1											
3. Educational programme	0.542**	−0.154**	1										
4. Financing source	0.049	−0.016	0.055	1									
5. Studying years in Hungary	−0.024	−0.065	−0.065	−0.128**	1								
6. Working years in Hungary	0.024	−0.092*	0.099*	−0.062	0.341**	1							
7. Entrepreneurial experience	0.296**	−0.104 *	0.138**	0.115*	−0.084	0.002	1						
8. Family business background	−0.145**	−0.035	−0.078	0.019	0.004	0.075	−0.256**	1					
9. ENI	0.115*	−0.004	0.004	0.301**	0.206**	−0.013	0.235**	−0.175**	1				
10. OMC	0.183**	−0.060	0.103*	0.242**	−0.017	0.064	0.187**	−0.024	0.413**	1			
11. RCC	0.114*	0.031	0.121**	0.233**	−0.070	−0.081	0.139**	0.016	0.333**	0.520**	1		
12. RTC	0.095*	−0.099*	−0.122**	0.187**	0.078	−0.164**	0.229**	−0.050	0.421**	0.348**	0.559**	1	
13. IOIC	0.160**	0.055	0.084	0.276**	0.049	−0.021	0.222**	−0.044	0.457**	0.514**	0.668**	0.622**	1

Note: ENI: Entrepreneurial Intention; OMC: Operation and Management Capacity; RCC: Relationship Coordination Capacity; RTC: Risk Tolerance Capacity; IOIC: Innovation and Opportunity Identification Capacity; (**$p < 0.01$, * $p < 0.05$).

Source: Author's own construction

As can be observed in Table 37 and Figure 32, the entered variables are in the following sequence: entrepreneurial self-efficacy (OMC, RCC, RTC, and IOIC), age, gender, educational programme, financing source, studying years in Hungary, working years in Hungary, entrepreneurial experience and family business background. From Model 1, the four dimensions of self-efficacy (OMC, RCC, RTC, and IOIC) are entered to measure their impacts as predictors. The results disclose that 28.4 per cent of the variance in ENI can be explained by entrepreneurial self-efficacy factors. By entering age into Model 2, gender into Model 3 and educational programme into Model 4, the total variance has no change in these three variables, R^2 change = 0, $p > 0.05$.

Model 5 shows that 31.1 per cent of the total variance can be explained by adding finance sourcing ($p < 0.001$). It explains an additional 2.7 per cent of the variance in ENI, R^2 change = 0.027, $p < 0.001$. In Model 6, studying years in Hungary are entered, and the R^2 value increases from 31.1 per cent to 35.2 per cent, $p < 0.001$. An additional 4.1 per cent of the variance in ENI is explained ($p < 0.001$). However, working years in Hungary entered into Model 7 do not significantly contribute to the variance in ENI, R^2 change = 0.003, $p > 0.05$. Moreover, when entrepreneurial experience is entered in Model 8, an additional 1.3 per cent of the variance in ENI is explained ($p < 0.01$). Lastly, family business background is added to Model 9, and the total variance explained as a whole is 38.3 per cent ($p < 0.001$). This variable explains an additional 1.6 per cent of the variance in ENI, R^2 change = 0.016, $p < 0.001$.

Table 37. Hierarchical Multiple Regression Analysis (Internal self-efficacy factors)

	Standard Coefficient β	T Value	*p* Value	R^2	R^2 Change	F Change	Sig F Change
Model 1							
(Constant)		3.348	***	0.284	0.284	45.836	***
OMC	0.234	4.504	***				
RCC	−0.093	−1.639	0.102				
RTC	0.242	4.058	***				
IOIC	0.256	5.360	***				
Model 2							
(Constant)		3.023	**	0.284	0.000	0.210	0.647
OMC	0.240	4.009	***				
RCC	−0.093	−1.627	0.104				
RTC	0.234	4.502	***				
IOIC	0.253	5.261	***				
Age	0.018	0.458	0.647				
Model 3							
(Constant)		2.115	*	0.284	0.000	0.553	0.458
OMC	0.241	4.560	***				
RCC	−0.095	−1.669	0.096				
RTC	0.233	3.840	***				
IOIC	0.256	5.302	***				
Age	0.025	0.613	0.540				
Gender	0.031	0.744	0.458				
Model 4							
(Constant)		1.847	0.065	0.284	0.000	0.102	0.749
OMC	0.236	4.232	***				
RCC	−0.092	−1.582	0.114				
RTC	0.235	3.849	***				
IOIC	0.256	5.280	***				
Age	0.034	0.689	0.491				
Gender	0.029	0.705	0.481				
Educational programme	−0.016	−0.320	0.749				
Model 5							
(Constant)		0.900	0.369	0.311	0.027	16.814	***
OMC	0.233	4.255	***				
RCC	−0.098	−1.725	0.085				
RTC	0.205	3.394	***				
IOIC	0.235	4.906	***				

Age	0.039	0.816	0.413				
Gender	0.033	0.795	0.427				
Educational programme	−0.022	−0.459	0.646				
Financial source	0.167	4.100	***				
Model 6							
(Constant)		−0.973	0.331	0.352	0.041	29.266	***
OMC	0.211	3.969	***				
RCC	−0.057	−1.017	0.310				
RTC	0.170	2.878	**				
IOIC	0.234	5.036	***				
Age	0.046	0.981	0.327				
Gender	0.048	1.192	0.234				
Educational programme	−0.016	−0.344	0.731				
Financial source	0.198	4.952	***				
Studying years in Hungary	0.210	5.410	***				
Model 7							
(Constant)		−0.685	0.494	0.355	0.003	2.044	0.153
OMC	0.196	3.598	***				
RCC	−0.059	−1.057	0.291				
RTC	0.175	2.969	**				
IOIC	0.242	5.176	***				
Age	0.043	0.930	0.353				
Gender	0.042	1.058	0.290				
Educational programme	−0.011	−0.240	0.810				
Financial source	0.196	4.926	***				
Studying years in Hungary	0.231	5.570	***				
Working years in Hungary	−0.060	−1.430	0.153				
Model 8							
(Constant)		−0.724	0.469	0.368	0.013	9.184	**
OMC	0.172	3.167	**				
RCC	−0.046	−0.824	0.411				
RTC	0.162	2.770	**				
IOIC	0.235	5.050	***				
Age	0.013	0.273	0.785				
Gender	0.046	1.166	0.244				
Educational programme	−0.012	−0.252	0.801				
Financial Source	0.192	4.853	***				
Studying years in Hungary	0.246	5.940	***				
Working years in Hungary	−0.067	−1.609	0.108				
Entrepreneurial Experience	0.123	3.031	**				
Model 9							
(Constant)		0.966	0.335	0.383	0.016	11.430	***
OMC	0.169	3.139	**				
RCC	−0.034	−0.610	0.542				
RTC	0.160	2.765	**				
IOIC	0.233	5.070	***				
Age	0.003	0.063	0.950				
Gender	0.035	0.901	0.368				
Educational programme	−0.017	−0.371	0.711				
Finance Source	0.198	5.047	***				
Studying years in Hungary	0.240	5.862	***				
Working years in Hungary	−0.054	−1.317	0.188				
Entrepreneurial Experience	0.091	2.202	*				
Family Business Background	−0.131	−3.381	***				

Note: ENI: Entrepreneurial Intention; OMC: Operation and Management Capacity; RCC: Relationship Coordination Capacity; RTC: Risk Tolerance Capacity; IOIC: Innovation and Opportunity Identification Capacity; (***$p < 0.001$, **$p < 0.01$, * $p < 0.05$).

Source: Author's own construction

As seen from the final model (Model 9), IOIC has the greatest positive impact on ENI (β = 0.233, $p < 0.001$), followed by OMC (β = 0.169, $p < 0.01$). Then, RTC shows a marginally significant effect on ENI (β = 0.160, $p < 0.01$). Whereas, RCC does not meet the significance level, thus indicating no statistically significant effect on ENI (β = −0.034, $p > 0.05$). For demographic variables, studying years in Hungary (β = 0.240, $p < 0.001$), finance source (β = 0.198, $p < 0.001$), entrepreneurial experience (β = 0.091, $p < 0.05$) and family business background (β = −0.131, $p < 0.001$) proved to have a statistically significant impact on ENI. Meanwhile, age, gender, educational programme and working years in Hungary have no impact on ENI ($p > 0.05$).

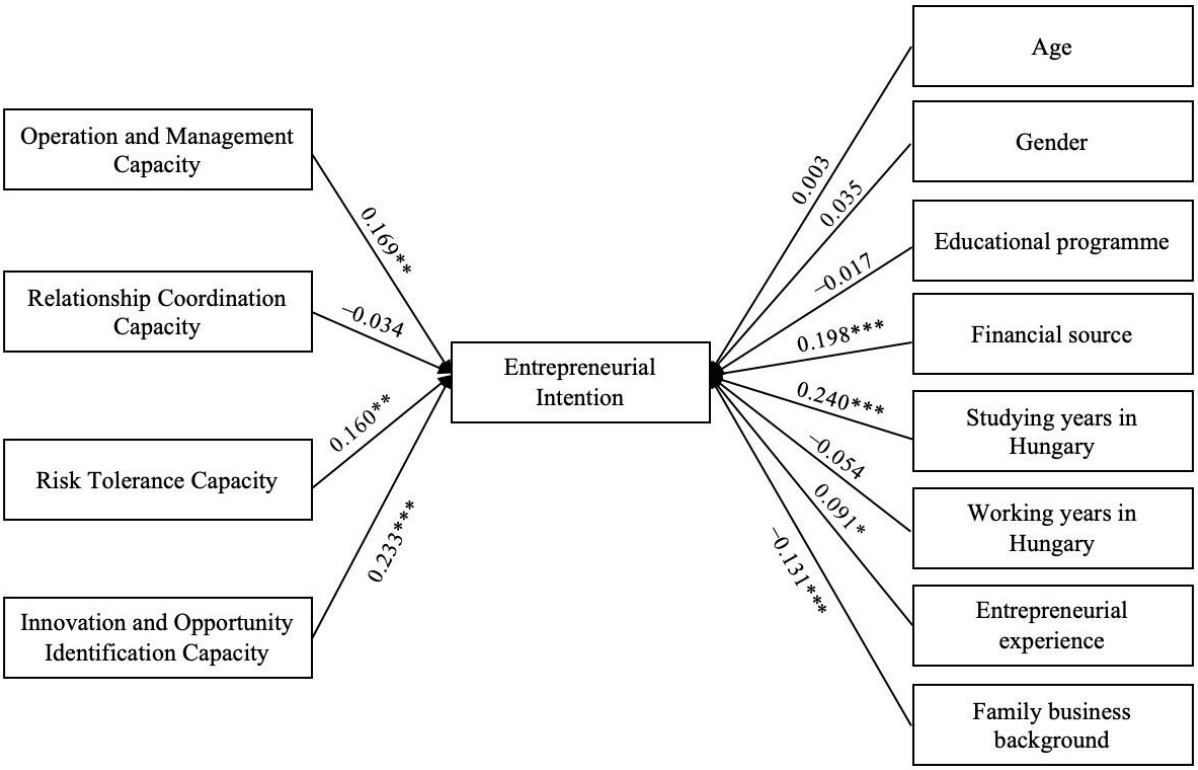

Figure 32. Hierarchical Regression Analysis of Research Model (Internal self-efficacy factors)

(Note: *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$).

Source: Author's own construction

Independent-Samples t-Test and One-way between-groups ANOVA

Here, the independent samples t-test and the one-way between-groups ANOVA are performed to further detect the specific difference in demographic variables related to entrepreneurial intentions (ENI). The independent sample t-test is used to compare the mean score of two different groups of people on the same continuous variable (PALLANT, 2011), which is suitable for the variables

of finance source and family business backgrounds. Accordingly, the one-way between-groups ANOVA is used when there is an independent variable with three or more levels (groups) and a dependent continuous variable (PALLANT, 2011). Here, the variables of study years in Hungary and entrepreneurial experience apply to this tool.

The outputs shown in Table 38 display significant mean differences for finance source ($p < 0.001$) and family business background ($p < 0.05$). Specifically, international students who study in Hungary at their own expense (M = 3.45) have significantly higher mean scores of ENI than those who depend on scholarships (M = 2.83). The mean values of ENI for international students with a family business background (M = 3.56) are higher than those without a family business background (M = 3.14).

Table 38. Independent-Samples T-test for Entrepreneurship

Variables	*N*	*Mean*	*SD*	*Mean Diff*	*F value*	*t*	*df*	*p*
Finance source								
Self-financed	160	3.45	0.949	0.62	1.817	−6.809	465	**
Scholarship	307	2.83	0.907					
Family business background								
Yes	103	3.56	1.207	0.42	23.875	3.241	134,546	*
No	364	3.14	0.885					

Note. N = 467, ** $p < 0.001$; * $p < 0.05$. M = Mean; SD = Standard Deviation.
Source: Author's own construction

Additionally, there is a statistically significant difference at the $p< 0.001$ level in ENI scores for the three groups' years of students studying in Hungary and the four groups' years of students with entrepreneurial experience. From Table 39, the more years international students' study in Hungary, the higher the mean score of their ENI. International students with less than 1 year of entrepreneurial experience have the highest mean score on the ENI, followed by those with more than 2 years of entrepreneurial experience. However, international students with no entrepreneurial experience have the lowest mean score on ENI.

Table 39. One-Way Between-Groups ANOVA for Entrepreneurship

Variables	*N*	*Mean*	*SD*	*F value*	*df*	*p*	*Mean Diff*
Studying years in Hungary							
Less than 1 year=1	184	3.01	1.044				
2-3 years=2	205	3.31	0.907	10.297	2,464	**	3 > 2 > 1
More than 4 years=3	78	3.57	0.888				
Entrepreneurial experience							
No experience=1	344	3.06	0.945				
Less than 1 year=2	63	3.84	0.775	16.005	3,463	**	2 > 3, 4 > 1
2-3 years=3	24	3.61	1.010				
More than 4 years=4	36	3.61	1.040				

Note. N = 467, ** $p < 0.001$; * $p < 0.05$. M = Mean; SD = Standard Deviation.
Source: Author's own construction

4.2.7 Discussion of Entrepreneurial Intentions

The research on the entrepreneurial intentions of international students in Hungary is mainly carried out based on external environmental factors and internal self-efficacy factors. Firstly, the author examines whether the entrepreneurial intentions of international students have changed after coming to Hungary and explores whether the external environment factors (MNC, OEP and MC) impact their entrepreneurial intentions. Secondly, the effects of internal self-efficacy (OMC, RCC, RTC and IOIC) and demographic variables on their entrepreneurial intentions are further tested. To achieve these two research goals, the author puts forward main 5 related hypotheses. This study makes empirical tests and finds that the sample data support most hypotheses; only two sub-hypotheses are not supported, as shown in Table 40.

Table 40. Hypothesis Test Results for Entrepreneurship

Hypotheses	Sig.	Result	The techniques used in the study
H5	p (ENI1, ENI3, ENI4, ENI5 and ENI6) < 0.05	Confirmed	T-test
H6a	MNC_β = 0.036, p > 0.05	Not confirmed	Multiple regression
H6b	OEP_β = 0.186, p < 0.05	Confirmed	Multiple regression
H6c	MC_β = 0.229, p < 0.05	Confirmed	Multiple regression
H7a	OMC_ β = 0.169, p < 0.05	Confirmed	Multiple regression
H7b	RCC_ β = −0.034, p > 0.05	Not Confirmed	Multiple regression
H7c	RTC_ β = 0.160, p < 0.05	Confirmed	Multiple regression
H7d	IOIC_ β = 0.233, p < 0.05	Confirmed	Multiple regression
H8	DV_four-eighth, p < 0.05	Confirmed	Multiple regression
H9	MD, p < 0.05	Confirmed	T-test and ANOVA

Note. DV= Demographic variables; MD= Mean difference.
Source: Author's own construction

External Environmental Factors

This study has examined whether the experience of studying in Hungary has an impact on entrepreneurial intentions (ENI-after). The potential environmental factors checked include multiple network construction (MNC), overseas entrepreneurial perception (OEP) and multicultural cognition (MC).

The paired samples *t*-test in the SPSS software has detected that only the *p*-value of ENI2 is greater than 0.05, and the *p*-values of the rest of ENI1, ENI3, EI4 and ENI5 meet the 5% significance level before and after coming to Hungary. Five of the six items in entrepreneurial intentions (ENI) have undergone significant changes after studying in Hungary. The author considers that there is a great difference in entrepreneurial intentions of international students before and after coming to Hungary, and H5 is confirmed. Likewise, MAO and YE's (2021) research on returned Chinese

international students also shows that studying abroad has an essential influence on their entrepreneurial intentions. That is because the existing international academic education experience can well overcome the obstacles to forming international entrepreneurial intentions (SOMMER, 2013).

Through a specific analysis of the items for entrepreneurial intentions, the author notices that the mean value of all items is near three, which infers that most of the international students studying in Hungary prefer self-employment. TEHSEEN and HAIDER (2021) believe that entrepreneurship has always been an attractive career choice for students. As previously explained, the intentions "I hope to gain wealth and a sense of achievement through entrepreneurship" and "I plan to start a business in the future" are the most recognized by international students. However, the idea of starting a business in the future has not changed before and after coming to study in Hungary, indicating that existing entrepreneurial plans also play a prominent role in the entrepreneurial awareness of international students.

Furthermore, the most obvious change in entrepreneurial intentions after coming to Hungary is to take practical actions, that is, "I spend time learning entrepreneurial knowledge and other people's entrepreneurial experience", and "I have been looking for entrepreneurial projects and opportunities". LIU, WRIGHT, et al. (2010) agree that studying or working abroad makes people enter a completely different knowledge environment from their home country and provides them with opportunities to acquire advanced knowledge and new ideas.

Afterwards, a hierarchical multiple regression analysis explores the relationship between entrepreneurial intentions (ENI-after) and potential environmental factors after coming to study in Hungary under the control of demographic variables and ENI-before. The result reflects that MC and OEP meet the criteria of significant level ($p < 0.05$). Thus, H6b and H6c are confirmed. The *p*-value of MNC does not meet the same significance level ($p > 0.05$), and H6a is not confirmed.

In addition, for personal characteristics, finance source ($\beta = 0.152$, $p < 0.05$) and studying years in Hungary ($\beta = 0.197$, $p < 0.05$) uniquely affect international students' entrepreneurial intentions (ENI-after). This conclusion aligns with the view that KEAT et al. (2011) have emphasized, which is that entrepreneurial intentions are affected not only by personality traits but also by environmental factors. The personality characteristics of entrepreneurs are regarded as the assistance or support to their behavior, but the determinants of entrepreneurs' behavior are determined by the surrounding environment (HAASE & LAUTENSCHLAGER, 2011). However, ENI-before is a highly influential variable that cannot be ignored ($\beta = 0.469$, $p < 0.05$).

Given that, although two environmental factors (MC and OEP) have an impact on international students' entrepreneurial intentions (ENI-after), the proportion is not high (9.4%). More specifically, multicultural cognition (MC) has a greater impact ($\beta = 0.229$). Multicultural cognitive ability is regarded as a priority for international students to strengthen because this can not only quickly alleviate cultural conflicts but also accelerate the integration of international students into the new environment. Especially before the establishment of multi networks, understanding the cultural background of the host country is more conducive to promoting entrepreneurial cooperation.

As HARRIS et al. (2011) point out, the factors that affect entrepreneurial intentions vary from culture to culture, and national characteristics and cultural attitudes are important factors that affect entrepreneurial intentions. In addition, understanding cultural background can promote the exchange of entrepreneurial information and effective information communication. PINTO's (2020) research also shows that the experience of studying abroad has a positive impact on becoming an entrepreneur, working abroad and improving the ability to communicate with foreigners.

Meanwhile, overseas entrepreneurial perception (OEP) has an obvious influence on entrepreneurial intentions (ENI-after) ($\beta = 0.186$). It mainly focuses on the entrepreneurial policies, education, knowledge, opportunities and atmosphere perceived by international students after coming to study in Hungary. When society supports entrepreneurship, individuals are more likely to make such a choice because they feel that the environment around them approves their decision to become an entrepreneur, such as political and economic factors, as well as the perception of opportunities and resources (FERNANDES et al., 2018; LINAN, 2008). OZARALLI and RIVENBURGH (2016) also propose that experience, education, and the economic and political environment before entrepreneurial behavior are important determinants of entrepreneurship. Entrepreneurs can also further improve their business performance by expanding their insight into entrepreneurial activities and obtaining adequate government support (YU et al., 2021).

Furthermore, the result on multiple network construction (MNC) denotes that there is no impact on the change of international students' entrepreneurial intentions (ENI-after) ($\beta = 0.036$). It can be inferred that the impact of establishing relations with relevant organizations or individuals in Hungary on the formation of entrepreneurial intentions is not ideal. From previous research, multiple network construction (MNC) can be regarded as "social capital" that overseas experience brings to international students. Returnees may maintain social relations in the host country after returning, which enables them to continue to update their technology (JONKERS & TIJSSEN,

2008; LAI & VONORTAS, 2020). In addition, establishing links with the host country and becoming trading partners is most likely to promote the formation of entrepreneurship. In this sense, the international students in Hungary have not been fully awakened by this factor and need to be improved.

Internal Self-Efficacy Factors

Besides external environmental factors, the study also explores whether the four capabilities from entrepreneurial self-efficacy of international students impact their entrepreneurial intentions and to what extent. In addition, in the context of Hungary, the author sought to investigate whether demographic characteristics are related to their entrepreneurial intentions. The results obtained from the empirical analysis illustrate that OMC, RTC, and IOIC of entrepreneurial self-efficacy owned by international students have an impact on entrepreneurial intentions ($p < 0.05$). Hence, H7a, H7c, and H7d are supported, respectively. RCC has no significant effect on entrepreneurial intention ($\beta = -0.034$, $p > 0.05$). Thus, H7b is rejected.

Furthermore, source of funding, studying years in Hungary, entrepreneurial experience, and family business background from demographic variables are associated with their entrepreneurial intentions ($p < 0.05$), while gender, age and working years in Hungary of international students in the context of Hungary do not present a statistically significant relationship with entrepreneurial intentions ($p > 0.05$). Since four-eighth of the demographic variables tested represent statistically significant relationships with entrepreneurial intentions (ENI) ($p < 0.05$), H8 is supported. In addition, based on the relationship between these four demographic variables and ENI, the independent-samples *t*-test and one-way between-groups ANOVA find significant differences in these four demographic variables among international students in Hungary on their entrepreneurial intentions (ENI). Therefore, H9 is also supported.

In more detail, the capability of innovation and opportunity identification (IOIC) in entrepreneurial self-efficacy has the greatest impact on entrepreneurial intentions ($\beta = 0.233$). This finding is in accord with recent studies by HASSAN et al. (2020) and LOAN et al. (2021), who find that opportunity identification has a significant positive impact on university students' entrepreneurial intentions. Following this line of results, the noticeably high entrepreneurial intentions of international students in Hungary come from exploring innovation and opportunities. The experience of studying abroad enables international students to discover the cultural and economic

differences between their own countries and Hungary, thus setting the first scene for fruitful opportunities for business cooperation between the two countries.

In addition, the importance of innovation and opportunity identification to entrepreneurship is unanimously supported by the existing literature. BALUKU et al. (2018) elucidate that entrepreneurial innovation has become the driving force for highly active individuals to engage in entrepreneurial activities. The business opportunity is the first condition for establishing a start-up (SCHMITT et al., 2018). The capability to identify opportunities increases the chances of becoming an entrepreneur since it is a capability that needs to be demonstrated before starting a business (BARON & ENSLEY, 2006).

Subsequently, operation and management capability (OMC) show a considerable impact on the entrepreneurial intentions of international students in Hungary ($\beta = 0.169$). This finding is basically in line with our expectations since operation and management capability would greatly affect the successful operation and development of start-up enterprises and become an indispensable capability that entrepreneurs need to master most after seizing the entrepreneurial opportunity. As OLSON (1987) mentions, while management capabilities are critical when enterprises enter the stage of rapid growth, the early stages of start-ups focus more on the creation and development of products and services than on highly developed management. Moreover, acquiring this ability requires learning professional management knowledge, operational training, and accumulating practical experience. Accordingly, LINDER et al. (2020)propose that accumulating entrepreneurial experience and guidance from parents' entrepreneurial experience can directly improve personal management experience and industry experience.

Risk tolerance capability (RTC) from the results indicates an acceptable impact on the entrepreneurial intentions of international students in Hungary ($\beta = 0.160$). That is congruent with a prior study by CHIEN-CHI et al. (2020) that find that risk tolerance effectiveness is positively and significantly correlated with entrepreneurial intention. Due to the great differences in culture, education and personal experience of international students, there will be greater subjectivity in assessing risks and uncertainties. As LIU and ALMOR (2016) point out, different types of entrepreneurs deal with the uncertainties and risks in the entrepreneurial process differently. Nevertheless, individuals with high-risk tolerance certainly progress in entrepreneurship since they attach less importance to the risk and instead focus more time, energy, and resources on entrepreneurship (DE CAROLIS et al., 2009).

The self-perceived relationship coordination capability (RCC) of international students in Hungary has no statistically significant impact on their entrepreneurial intentions ($\beta = -0.034$, $p > 0.05$). This finding is contrary to expectations and inconsistent with major studies on the importance of social networks and relationship capital to entrepreneurship. However, it is in accord with the multiple network construction in environmental factors studied above that have no impact on the formation of the entrepreneurial intentions of international students in Hungary. The new insights infer student in Hungary lack not only the construction of interpersonal networks brought about by the environment but also their capability to coordinate interpersonal relationships in the entrepreneurial domain. That may be due to the fact that the attention of foreign students in interpersonal relationships is influenced by cultural diversity and cultural understanding in Hungary (YERKEN et al., 2022). Therefore, there is no doubt that interpersonal networks should become a noteworthy factor for international students to strengthen.

Regarding demographic characteristics associated with the entrepreneurial intentions of international students in Hungary, a few of the tested demographic variables show a statistically relevant influence. This corroborates with the extant entrepreneurship literature by GEORGE et al. (2016), MUSTAFA et al. (2016) and SCHRÖDER et al. (2021), who provide robust support for the notion that personal characteristics have an immense impact on entrepreneurial intention.

Based on specific results, international students with entrepreneurial experience and family business backgrounds in Hungary display higher entrepreneurial intentions. Previous researchers have widely studied and confirmed the positive impact of entrepreneurial experience and family business background on entrepreneurship (DAVEY et al., 2011; GUBIK, 2021; LINAN, 2008; MCGEE & PETERSON, 2019; SAHBAN et al., 2016; ZAMPETAKIS et al., 2009; ZHAO et al., 2005). On the one hand, as ZHENG et al. (2019) point out, rich entrepreneurial experience enhances entrepreneurs' understanding of their future needs and strategic vision, thus reducing the uncertainty of entrepreneurship. On the other hand, family relationships provide new entrepreneurs with business network relationships and rich resources (SAHBAN et al., 2016). In addition, international students who study in Hungary at their own expense show higher entrepreneurial intentions than those who have won scholarships. Students who study abroad at their own expense tend to have relatively superior family financial status, which increases the possibility of capital support for new ventures.

Moreover, the longer international students' study in Hungary, the stronger their intentions to start a business. That may be because the longer they study and live in Hungary, the more time and opportunities they have to seek entrepreneurial cooperation. However, no significant differences

are found between ages, genders, educational programmes and working years in Hungary. In particular, the gender of international students in the context of Hungary does not detect results consistent with most of the literature (DABIC et al., 2012; DAIM et al., 2016; WEN et al., 2020).

V. CONCLUSION AND RECOMMENDATIONS

5.1 Conclusion

With the global development of regional mobility in education, Hungary has gradually become a priority country for overseas students to pursue tertiary education. More and more international students, including paid and scholarship-funded students, have come to study in Hungary in recent decades. Most of them are studying at higher education institutions. Based on this, exploring their employment and entrepreneurial intentions is vital for universities and relevant policymakers.

On the one hand, the author finds out the influence of push-pull and personal thinking factors by choosing different employment directions and changing in their three employment intentions. On the other hand, this study explores the influence of external environmental factors and internal self-efficacy factors on their entrepreneurial intentions. This study uses a social media platform to send electronic questionnaires to international students and collects sample data from several universities in Hungary. Then, a T-test, multiple regression analysis and so on are conducted to test the hypotheses. The results find that a total of 5 sub-hypotheses of the 9 main hypotheses put forward in this study are not supported by the data and the following conclusions are drawn:

Firstly, some international students choose to stay and work in Hungary, while others choose to return to their home countries or work in other foreign countries after graduation. The author finds that returning to work in their home country is the choice of most international graduates in Hungary, followed by other foreign countries, while the willingness to stay in Hungary is relatively low. However, the intentions of international students to stay and work in Hungary have increased the most among these three employment intentions. That may be because, during their study in Hungary, the increasingly familiar environment of the host country and job internship experience prompted them to stay and work in Hungary. In addition, the intention to work in other foreign countries has also greatly increased. That further proves that overseas experience greatly impacts their career development and employment choices. What's more, under the control of demographic variables, the significant factors influencing international students' choice to stay employed in their home country include the pull factors of their home country, the push factor of Hungary or other foreign countries and personal thinking factors.

Among them, the main reasons are that international students desire to live in their country of birth, the familiar social environment at home gives them a sense of comfort and belonging, and finding a good job abroad will be limited by language and specialty. In addition, the significant factors affecting the employment of international students in Hungary and other foreign countries are personal thinking factors and the pull factor of Hungary and other foreign countries under the control of demographic variables. Personal thinking factors include those international students like the working environment and atmosphere in Hungary and that other foreign countries benefit international students to pursue better economic development and social security to increase their income. The pull factor is that gaining work experience in Hungary will help them find a good job back home, and the foreign countries' cultural and social environments are more attractive.

Secondly, the experience of studying abroad has not only broadened international students' horizons but also increased their entrepreneurial awareness to a certain extent, especially increasing the number of foreign companies or businesses set up by international students to trade and cooperate with the host country. In this context, the research on the change in entrepreneurial intentions brought about by studying abroad in Hungary deserves great concern and exploration. The output reveals that after coming to study in Hungary, the entrepreneurial intentions of international students have indeed improved. The behavior that has changed most is the more substantive action taken by international students in entrepreneurship. That includes taking the time to learn entrepreneurial knowledge and experience, and actively seeking entrepreneurial projects and opportunities. However, international students who have no initial desire for entrepreneurial activities will not engage in entrepreneurial activities in the future.

Moreover, multicultural cognition (MC) and overseas entrepreneurial perception (OEP) belonging to environmental factors make a significant impact on entrepreneurial intentions to a similar degree under the control of demographic variables and ENI-before. Multicultural cognitive is considered the most urgent need for international students to face and strengthen when they enter the overseas environment. That can not only quickly alleviate the cultural conflict but also accelerate the integration of international students into the new environment and promote the emergence of entrepreneurial awareness. Meanwhile, the perception of overseas entrepreneurship means that the entrepreneurial policies, education, knowledge, opportunities and atmosphere perceived by international students after studying in Hungary could increase their entrepreneurial intentions.

In addition, the impact of multiple network construction (MNC) on the entrepreneurial willingness of international students is not significant. That indicates that the impact of the relationship

established between international students and relevant organizations or individuals in Hungary on the formation of entrepreneurial intentions is not ideal and needs improvement.

Lastly, many researchers propose that entrepreneurial self-efficacy is one of the critical factors influencing individuals to make entrepreneurial decisions in the entrepreneurial domain. The findings indicate that innovation and opportunity identification capability (IOIC), operation and management capability (OMC) and risk tolerance capability (RTC) of entrepreneurial self-efficacy all have an impact on the entrepreneurial intentions (ENI) of international students in Hungary, which meets the basic capability requirements for entrepreneurship. Based on these results, international students with the ability to identify innovation and opportunities could help them identify cultural and economic differences between their own countries and Hungary, thus seeking business cooperation opportunities. What's more, the ability to operate and manage is regarded by international students as an essential and indispensable ability that affects the successful operation and development of start-ups. At the same time, international students also recognize the positive and significant impact of risk tolerance on entrepreneurship. Individuals with high-risk tolerance tend to be more willing to start entrepreneurial activities.

However, the capability of relationship coordination (RCC) has not achieved the desired results. It reveals that international students in Hungary are relatively lacking in interpersonal skills and cannot provide substantial and effective help with their willingness to start a venture. In addition, the demographic characteristics of international students are also an essential factor that cannot be ignored. Students with entrepreneurial experience, a family business background, studying abroad at their own expense, and longer years studying in Hungary are relatively more likely to have a higher entrepreneurial intention. Such groups need to be highly concerned and cultivated to promote entrepreneurial behavior.

5.2 Implications and Recommendations

This dissertation excavates the research on the employment and entrepreneurship of international students in Hungary from a more comprehensive point of view. Employment includes the choice of employment direction for international students and its potential reasons. Entrepreneurship includes an in-depth study of entrepreneurial willingness, self-perceived capabilities, and environmental factors, especially the key driving factors behind the intention formation of international students, which has important theoretical and practical significance for relevant policymakers and educational institutions.

International students are highly skilled foreign workers who account for almost all of the contribution of international workers to the host country's economy (ROWTHORN, 2008). The planning of international graduates to stay in the host country is not only to comply with the immigration policies of the host country but also to understand the more subtle rules and expectations of the local labour market, such as different cultural preferences and social fields (BLACKMORE et al., 2017). As the research on the present topic of international students in Hungary is still limited in literature, it is necessary to explore their current employment intentions and reasons. The finding could provide references for the employment choices of international students in Hungary and provide a database for the Hungarian government, universities and enterprises to learn more about foreign graduate students in Hungary from the perspective of sustainable development.

Moreover, entrepreneurship is generally regarded as essential to national innovation and economic growth. Different social environments and personal factors may produce different entrepreneurial intentions and behaviors. This study takes international students in Hungary as the research object. They need to quickly adapt to the new environment and change their mindset due to various cultural differences. This kind of cultural gap would accelerate their cross-cultural communication and understanding abilities. Thus, studying abroad helps them to perceive the trade gap between their own country and Hungary, which enables them to identify entrepreneurial opportunities and generate entrepreneurial intentions. In addition, the study on entrepreneurial self-efficacy of international students is meant to grasp the conception of their internal entrepreneurial capability, coupled with the influencing factors of the external environment, which could serve as a more comprehensive, effective, and deeper reference for entrepreneurial intentions in the context of Hungary.

As DONALDSON et al. (2021) mention, considering the expected differences in social location configuration among prospective forerunners, entrepreneurial support must correspond to the current development stage of an individual. Therefore, it is imperative to propose corresponding measures according to the current context of international students in Hungary. Some suggestions are as follows:

Firstly, international students in Hungary are more likely to return home for employment or to work in other countries after graduation. Hungarian enterprises that would like to improve the level of diversification need to provide more internship opportunities for international students to enhance their work experience. That will make them more willing to stay and work in Hungary.

Secondly, the reason for international students who expect to stay and work in Hungary or other foreign countries is that they are more likely to gain work experience in the short run and be conducive to returning home to find a better job. Therefore, universities must consider how to convey their support to future and current students, including student employment services and how to effectively support the transition of graduates from the student stage to the employment stage, especially post-study work visas.

Thirdly, the Hungarian government and tertiary education institutions need to attach importance to the entrepreneurial intentions of international students and promulgate policies to encourage them to cooperate with Hungarian organizations or individuals further to promote foreign trade cooperation between Hungary and third countries.

Fourth, most international students in Hungary are taught in English and do not understand Hungarian, so it is critical to strengthen the training of international students in Hungarian and create a platform suitable for international students to obtain entrepreneurial information.

Fifthly, due to the different cultural backgrounds of international students, providing targeted entrepreneurship-related education and training can stimulate their entrepreneurial awareness. More attention should be paid to stimulating students' entrepreneurial self-efficacy. It provides targeted cultivation of the four entrepreneurial capability dimensions and adopts the combination of entrepreneurship course teaching and external training to improve the connotation and effectiveness of entrepreneurship education.

Lastly, international students lack the capability to coordinate relationships internally, while the external environment does not provide a good multi-network construction in the context of Hungary. Therefore, the biggest obstacle international students face in Hungary is constructing and maintaining relationship networks.

In this sense, it is necessary to provide entrepreneurial practice opportunities for international students, organize the network construction of entrepreneurs and create a good entrepreneurial atmosphere.

5.3 Limitation

This research presents some limitations due to international students coming from different cultural backgrounds, and their employment intentions and entrepreneurial intentions are also influenced by the environment and culture of their own countries. What's more, personal thinking factors have proven to have the greatest impact on employment direction. Interviews appear to be more effective in gathering diverse personal decisions. In addition, the direction of employment determined by contracts with sending countries needs to be considered.

Moreover, the sample comes from different universities in Hungary, and their entrepreneurial intentions could also be related to the educational environment provided by different universities in the host country. The number of sample data collected accounts for a small proportion of the total number of international students in Hungary. The geographical location of the research is mainly concentrated in the Hungarian capital, Budapest, and its surrounding cities. Therefore, the survey cannot ensure the geographical coverage and sufficient quantity of international students in major Hungarian cities.

Additionally, the proportion of the impact of the three environmental factors and four self-perceived capabilities on entrepreneurial intention is not high. The author will continue to explore other potential environmental factors that could cause the impact. Then, in addition to the influence of studying abroad, the cultural, social, and economic environment of their home country also needs to be further studied. Subsequent studies will overcome these limitations and explore more influencing factors to seek more accurate and scientific results.

VI. NEW SCIENTIFIC RESULTS

My research shows several novel scientific achievements and a deeper understanding of the group of international students in Hungary. In addition, more variables and constructs can be added to the research models for further research, including the analysis of international student groups in different countries. The study's main results have been summarized in the previous section, and the main achievements and recommendations are discussed. The following is a summary of the main novelty of this study:

1. **This study first comprehensively explores the choice of employment directions, changes, and specific reasons for international students in Hungary to return to their home country, stay in Hungary or migrate to other foreign countries. Meanwhile, this is the first study in the literature on the impact of external environment and internal self-efficacy brought about by overseas study experience on entrepreneurship among international students in Hungary**.

2. International students in Hungary are more likely to return to work in their home countries after graduation, followed by other foreign countries, while they are relatively less willing to stay and work in Hungary. Among them, the willingness of international students to stay and work in Hungary and the intention to work in other foreign countries has increased significantly. **It further proves that overseas experience greatly impacts on the career development and employment choices of international students in Hungary.**

3. The push factors did not significantly impact the choice of employment in Hungary and other foreign countries. **It means that international students choose to work abroad to consider the advantages and attractiveness of the foreign job market.**

4. **The entrepreneurial intention of international students in Hungary has indeed improved. They take more substantive actions toward entrepreneurship after coming to Hungary.** These include spending time learning entrepreneurial knowledge and experience, as well as actively looking for entrepreneurial projects and opportunities.

5. The multiple network constructions of environmental factors do not significantly impact the entrepreneurial intentions of international students in Hungary. Meanwhile, the relationship coordination capability among the internal self-efficacy factors did not achieve the desired effect. **It manifests that international students in Hungary lack the construction and maintenance of organizational and personal relationships, whether in terms of external environmental impact or internal self-efficacy capability and cannot provide substantial and effective help to their entrepreneurial intentions.**

6. The questionnaires developed by this study provide several new scientific results for the research. **They can be used as questionnaires for the future development of a multigroup analysis of different countries.**

VII. SUMMARY

With the fact that studying abroad has gradually become the priority choice for students to pursue higher education, the number of international students is undergoing dramatic growth. Meanwhile, the experience of studying abroad provides more options for international students to find jobs around the world and engage in international business and new entrepreneurial activities. However, the research on these domains brought about by studying abroad in Hungary has not been highly concerned and explored. Given that, this dissertation takes the group of international students as the research object, which expands the population that has not yet been surveyed and fills the gap in existing entrepreneurship research, mainly for local Hungarian students.

This study summarizes the international education background in Hungary, immigration theory, push-pull theory, the related model to entrepreneurial intentions and entrepreneurial self-efficacy, and the impact of external environmental factors, internal self-efficacy factors and demographic characteristics on entrepreneurship. The present study related to employment is conducted to test and shed light on whether overseas experience significantly influences career development, the three employment choices of international students in Hungary, and the specific factors/reasons.

Regarding entrepreneurship, this study explores whether the entrepreneurial intentions of international students has changed after coming to Hungary and what environmental factors will lead to the change of entrepreneurial intentions before and after coming to Hungary. Here, the environmental factors tested include multiple network construction (MNC), overseas entrepreneurial perception (OEP) and multicultural cognition (MC). Further, this study discusses the impact of the four capability dimensions of entrepreneurial self-efficacy on entrepreneurial intentions and its relationship with demographic characteristics in the context of Hungary. The four dimensions tested in this study include operation management capability (OMC), relationship coordination capability (RCC), risk tolerance capability (RTC) and innovation and opportunity identification capability (IOIC).

Quantitative research was conducted through online questionnaires to test the hypothesis put forward by the research goal, and the collected data were checked by SPSS software. The results of the present study show that international students in Hungary are more likely to return to work in their home countries after graduation, followed by other foreign countries, while they are relatively less willing to stay and work in Hungary. However, the willingness of international students to stay and work in Hungary and other foreign countries has greatly increased.

In addition, push-pull factors and personal thinking factors significantly impact international students' choice to work in their home country. A little difference is that pull factors and personal thinking factors have a significant impact on employment in Hungary or other foreign countries, while push factors have no impact on them. The results on employment can provide not only a reference for the employment choice of Hungarian students but also a database for the Hungarian government, universities, and enterprises to formulate relevant policies from the perspective of sustainable development.

Moreover, the output reveals that the entrepreneurial intentions of international students is strengthened, and the two environmental factors and three self-efficacy factors have some impact on the formation of their entrepreneurial intentions, whereas the proportion of the impact is not high. Additionally, the demographic characteristics of international students are proven to be associated with their entrepreneurial intentions in the context of Hungary. Furthermore, multiple network construction and relationship coordination capabilities do not achieve the desired results. To Strengthen the influence of these factors, the necessary support may enhance the construction and maintenance of networks for international students to develop trade activities and economic ties with Hungarian institutions or individuals to a certain extent. In sum, the study has important implications for entrepreneurs and those who contribute to promoting entrepreneurship, such as educators, support organizations and policymakers. Studying the entrepreneurial intentions of international students in Hungary is a significant and practical topic.

Appendix

Appendix 1: Reference

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Appendix 2: Questionnaires

Questionnaire 1-Employment Intentions

Investigation on the graduation intention of foreign students who are studying in Hungary

Dear ladies and gentlemen,

First of all, I would like to thank you for your valuable time to participate in this survey, this is an scientific questionnaire. The purpose of this questionnaire is to study the employment intention of students studying in Hungary and to further understand whether their employment intention has changed after coming to Hungary and the reasons for it. This questionnaire is anonymous and will not disclose your personal information.

Section 1 - Demographic characteristics

1. **Gender:**
(1) Male (2) Female
2. **Age:**
3. **Nationality:**
4. **Marital status:**
(1) Single (2) Married (3) Divorced/widowed
5. **Educational programme:**
(1) Preparatory Course (2) Bachelor (3) Master (4) PhD (5)Others
6. **What's your programme name?**
7. **Financing source:**
(1) Self-financed
(2) Scholarship
8. **How long have you been studying in Hungary?**
9. **How long have you worked in Hungary?**
Including internships and part-time jobs. (If you don't have any work experience in Hungary, please fill out 0.)
10. **What is your level of Hungarian knowledge?**
(1) I don’t speak Hungarian (2) A1/A2-Basic user (3) B1/B2- Independent user
(4) C1/C2-Proficient user

Section 2 – Employment Intention

What are your employment intentions before and after you come to study in Hungary? In order to find out if your employment intention has changed. The following are three types of graduation intentions before and after you come to study in Hungary. Please circle an appropriate number that best reflects your ideas using a five-point scale.
1 = Not at all 2 =A little 3 = Moderate 4 = Quite a bit 5 = Extremely

	Employment Intentions	Not at all 1 2 3 4 5 Extremely				
Before studying in Hungary	Being employed in home-country	1	2	3	4	5
	Staying employed in Hungary	1	2	3	4	5
	Being employed in other countries	1	2	3	4	5
After studying in Hungary	Being employed in home-country	1	2	3	4	5
	Staying employed in Hungary	1	2	3	4	5
	Being employed in other countries	1	2	3	4	5

Section 3 – The influencing factors of employment intentions

*** For someone who would like to be employed in home-country.**

If you would like to return to your country for employment after studying in Hungary, please fill in form A below.

1 = Strongly Disagree 2 =Disagree 3 = Moderate 4 = Agree 5 = Strongly Agree

A	**Being employed in Home-country**	Strongly Disagree 1 2 3 4 5 Strongly Agree				
1	After studying abroad, I will get more job opportunities when I return home.	1	2	3	4	5
2	I hope to live in my own country after graduating from studying in Hungary.	1	2	3	4	5
3	I have the responsibility of taking care of my family, so I need to go back to work in my own country	1	2	3	4	5
4	I go back to work in my own country to develop the family business.	1	2	3	4	5
5	I can't get used to eating habits or adapt to the natural climate of Hungary.	1	2	3	4	5
6	I feel lonely in foreign countries, I can't get my family's care and support.	1	2	3	4	5
7	The experience of studying abroad has increased my competitiveness to work in my own country.	1	2	3	4	5
8	My family expects me to return to my own country for employment.	1	2	3	4	5
9	Working in my own country gives me a sense of belonging.	1	2	3	4	5
10	When I go back to work in my own country, I can get more spiritual and life support from my family.	1	2	3	4	5
11	The choice of employment in my own country is diversified.	1	2	3	4	5
12	My country's economy is developing very well, and I can get a better salary when I return to work in my country.	1	2	3	4	5
13	Going back to work in my own country will save some unnecessary expenses.	1	2	3	4	5
14	The familiar social environment of my own country makes me very comfortable.	1	2	3	4	5
15	Due to the limitations of language and specialty, it is hard for me to find good jobs in Hungary.	1	2	3	4	5
16	Compared with my own country, Hungary's living costs are high.	1	2	3	4	5
17	It is difficult to apply for a work residence permit in Hungary.	1	2	3	4	5
18	The culture of Hungary is quite different from that of my own country.	1	2	3	4	5

19	There is racial discrimination in Hungary, and the locals are unfriendly to foreigners.	1	2	3	4	5
20	Before I came to study in Hungary, I signed an agreement with my country that I had to return home to work after graduation.	1	2	3	4	5

*** For someone who would like to be employed in Hungary.**

If you would like to stay in Hungary to work after graduation, please fill out form B below.

1 = Strongly Disagree 2 =Disagree 3 = Moderate 4 = Agree 5 = Strongly Agree

B	**Staying employed in Hungary**	Strongly Disagree 1	2	3	4	5 Strongly Agree
1	I mastered the Hungarian language, and I could easily find a good job.	1	2	3	4	5
2	I love Hungary's cultural and social environment very much. I would like to settle down in Hungary after graduation.	1	2	3	4	5
3	I like Hungary's working environment and working atmosphere.	1	2	3	4	5
4	I can find companies with cooperative projects with my own country here, which makes it easier for me to find a job.	1	2	3	4	5
5	I can start a business in Hungary and trade with my own country.	1	2	3	4	5
6	I hope to bring my family to Hungary so that my children can be educated in Europe.	1	2	3	4	5
7	Hungary has the conditions to realize my personal ambition.	1	2	3	4	5
8	The economic development of Hungary is better than that of my own country and I will get more income.	1	2	3	4	5
9	Living conditions and social security in Hungary are better.	1	2	3	4	5
10	It is easy to apply for a work residence permit in Hungary.	1	2	3	4	5
11	The choice of employment in Hungary is diversified.	1	2	3	4	5
12	Work experience in Hungary can help me find a better job when I return home country.	1	2	3	4	5
13	Hungary is a springboard for my stay in Europe. After working in Hungary I will go to other countries where economies are better developed, such as Western European countries.	1	2	3	4	5
14	My family and friends are in Hungary. I would like to stay and work here.	1	2	3	4	5
15	My family expects me to stay and work in Hungary.	1	2	3	4	5
16	The education level in Hungary is very good. I hope to work here so that I can continue my studies here.	1	2	3	4	5
17	My home-country is not conducive to the realization of my personal ambitions.	1	2	3	4	5
18	My country's economic development is not good, and there are few job opportunities.	1	2	3	4	5
19	Hungary has great cultural inclusiveness and locals are very friendly to foreigners.	1	2	3	4	5

* **For someone who would like to be employed in other foreign countries.**

If you want to work in other foreign countries, please fill out form C below.

1 = Strongly Disagree 2 =Disagree 3 = Moderate 4 = Agree 5 = Strongly Agree

C	**Being employed in other foreign countries**	Strongly Disagree 1	2	3	4	5 Strongly Agree
1	I have relatives and friends in other countries. I will go to them and work in other countries.	1	2	3	4	5
2	I would like to go to a country with a better business environment, which is conducive to venture activities for my career.	1	2	3	4	5
3	I would like to work in other countries with better economic development and social security so that I can get more income.	1	2	3	4	5
4	I don't fit into Hungary's cultural and social environment; I would like to go to other foreign countries I can adapt to.	1	2	3	4	5
5	I like other foreign countries' cultures and social environments, and I hope to settle down there.	1	2	3	4	5
6	I would like to work in other countries because I want to go to a new environment. This can broaden my horizons, let me feel other countries' humanities customs.	1	2	3	4	5
7	I would like to work in other countries because I want to study there to improve my educational background.	1	2	3	4	5
8	I have language barriers in Hungary, and I would like to go to other foreign countries without language barriers.	1	2	3	4	5
9	I don't like the working environment and working atmosphere in Hungary and my home country.	1	2	3	4	5
10	Other foreign conditions are more likely to realize my personal ambition.	1	2	3	4	5
11	My family supports me to work in other countries.	1	2	3	4	5
12	The choice of employment in other foreign countries is diversified.	1	2	3	4	5
13	Hungary and my country's employment environment is not very good; I am not easy to find good jobs in these two countries.	1	2	3	4	5
14	Working experience in other foreign countries can help me find a good job when I return home.	1	2	3	4	5
15	Working visas are easier to obtain in other foreign countries.	1	2	3	4	5
16	My country has traded with other foreign countries, and I am easier to find good jobs there.	1	2	3	4	5
17	Compared with Hungary and my home-country, other foreign countries would have lower costs to live.	1	2	3	4	5
18	Racial cultures are more inclusive in other foreign countries so that I won't be discriminated against by race.	1	2	3	4	5

Your response is all completed.

Sincerely thank you for your time and thoughtfulness!

Questionnaire 2-Entrepreneurial Intentions

Investigation on the entrepreneurship intentions of foreign students who are studying in Hungary

Dear Ladies and Gentlemen,

First of all, I would like to thank you for your valuable time to participate in this survey, this is a scientific questionnaire. The purpose of this questionnaire is to study the entrepreneurial intention and entrepreneurial self-efficacy of students studying in Hungary and to further understand whether their entrepreneurial intention has changed after coming to Hungary and what caused the change for it. In addition, what kind of entrepreneurship education do international students need? And how satisfied are you with the entrepreneurship education currently offered by Hungarian universities? This questionnaire is anonymous and will not disclose your personal information.

Section 1 - Demographic characteristics

11. Gender:
(2) Male (2) Female

12. Age:

13. Which country are you from:

14. Marital status:
(1) Single (2) Married (3)Divorced/widowed

15. Educational program:
(2) Preparatory Course (2) Exchange students (3) Bachelor (4) Master (5)PhD (6)Others

16. What's your studying field?
(1) Natural sciences (Mathematics, Computer and information sciences, Physical science, Chemical sciences, Earth and related environment sciences, Biological science, etc.)
(2) Engineering and Technology (Civil, Electrical, Electronic, information, Mechanical, Chemical, Materials, Environmental, Industrial, Nano-technology, etc.)
(3) Medical and Health sciences
(4) Agricultural sciences (Agriculture, Forestry, Fisheries, Animal, Veterinary, etc.)
(5) Social sciences (Psychology, Economic, Business, Education, Sociology, Low, Political, Media, Communications, etc.)
(6) Humanities (History, Archaeology, Languages, Literature, Philosophy, Ethics, Religion, Arts, etc.)

17. Financing source:

(1) Self-financed (2) Scholarship

18. How long have you been studying in Hungary?
(1) Less than 1 year (2) 2-3 years (3) More than 4 years

19. How long have you worked in Hungary?

(1) No experience (2) Less than 1 year (3) 2-3 years (4) More than 4 years

20. What is your level of Hungarian knowledge?
(1) I don't speak Hungarian (2) A1/A2-Basic user (3) B1/B2- Independent user
(4) C1/C2-Proficient user

21. Entrepreneurial experience:
(3) No experience (2) Less than 1 year (3) 2-3 years (4) More than 4 years

12. Do you have any family business background? If yes, what is that?
(1) Yes, _____ (2) No

Section 2 –Entrepreneurial Intentions
What is your entrepreneurial intention before and after you come to study in Hungary? In order to find out if your entrepreneurial intention has changed. The following are six items of entrepreneurial intention before and after you come to study in Hungary. Please circle an appropriate number that best reflects your ideas using a five-point scale.
1 = Not at all 2 =A little 3 = Moderate 4 = Quite a bit 5 = Extremely

Entrepreneurial Intention Items	**Studying in Hungary**	Not at all 1 2 3 4 5 Extremely				
I have a sense of entrepreneurship.	**Before**	1	2	3	4	5
	After	1	2	3	4	5
I plan to start a company in the future.	**Before**	1	2	3	4	5
	After	1	2	3	4	5
I have been looking for entrepreneurial projects and opportunities.	**Before**	1	2	3	4	5
	After	1	2	3	4	5
I spend time learning entrepreneurial knowledge and other people's entrepreneurial experience.	**Before**	1	2	3	4	5
	After	1	2	3	4	5
I have saved money or considered the source of funds for starting a company.	**Before**	1	2	3	4	5
	After	1	2	3	4	5
I hope to get wealth and sense of achievement through starting a business.	**Before**	1	2	3	4	5
	After	1	2	3	4	5

Section 3 – The influencing factors of entrepreneurial intentions
After coming to Hungary for studying, we would like to know what are the specific factors that affect the entrepreneurial intention of international students?
Please circle an appropriate number that best reflects your ideas using a five-point scale.
1 = Strongly Disagree 2 =Disagree 3 = Moderate 4 = Agree 5 = Strongly Agree

Influencing factors	**Items**	Strongly disagree 1 2 3 4 5 Strongly agree				
MC	I am well aware of the differences between the culture of my own country and that of Hungary.	1	2	3	4	5
	I can quickly adapt to Hungarian culture and life.	1	2	3	4	5
	I can understand and adjust the conflicts brought about by multiculturalism.	1	2	3	4	5
	I know how to communicate with Hungarians and students of different nationalities.	1	2	3	4	5

	I am very interested in the culture and customs of Hungarian and students with different cultural backgrounds, and often have cultural exchanges with them.	1	2	3	4	5
	I can change my behavior and cognition according to different cultural needs.	1	2	3	4	5
MNC	I have established contact with Hungarian universities.	1	2	3	4	5
	I have established contact with business partner in Hungary.	1	2	3	4	5
	I have established contact with potential clients in Hungary.	1	2	3	4	5
	I have established contact with relevant enterprises in Hungary.	1	2	3	4	5
	I have established contact with investors in Hungary.	1	2	3	4	5
OEP	The experience of studying in Hungary has expanded my entrepreneurial horizons and possibilities.	1	2	3	4	5
	Hungarian universities promote and encourage students to start a business, resulting in a strong entrepreneurial atmosphere.	1	2	3	4	5
	The experience of studying in Hungary made me find the opportunity to start a business.	1	2	3	4	5
	Hungarian universities provide students with education, resources and policy support for entrepreneurship.	1	2	3	4	5
	The background of studying abroad helps me to get preferential policies or financial support for entrepreneurship when return home country.	1	2	3	4	5
	Studying in Hungary has enhanced my foreign language skills needed for starting a business.	1	2	3	4	5

Section 4 – Entrepreneurial self-efficacy Test of International students in Hungary

This section is to test the entrepreneurial self-efficacy of international students in Hungary. Please circle an appropriate number that best reflects your ideas using a five-point scale.

1 = Strongly Disagree 2 =Disagree 3 = Moderate 4 = Agree 5 = Strongly Agree

Self-efficacy Factors	**Items**	Strongly disagree	1 2 3 4 5			Strongly agree
OMC	I am willing and able to make a clear plan for the future development of the enterprise.	1	2	3	4	5
	I have the knowledge and skills of operation and management.	1	2	3	4	5
	I can assign tasks well and lead my colleagues to complete the tasks successfully.	1	2	3	4	5
	I can analyze the financial data and prepare the operating budget.	1	2	3	4	5
	I have received entrepreneurship education and know how to start a business.	1	2	3	4	5
RCC	I can communicate with others effectively.	1	2	3	4	5
	I can maintain a long-term and good relationship with my colleagues and supervisors.	1	2	3	4	5
	I can consider problems from the point of view of others and be good at solving conflicts.	1	2	3	4	5
RTC	I tend to accept uncertainty and have less anxiety about it.	1	2	3	4	5
	I have the ability to identify risks and make reasonable plans to reduce the possibility of risks.	1	2	3	4	5

	I am not afraid of the risk of failure brought by starting a business.	1	2	3	4	5
	I have the courage to face failure and I can try again.	1	2	3	4	5
IOIC	I can always come up with some new and good ideas.	1	2	3	4	5
	I can easily accept and deal with the challenges of new things.	1	2	3	4	5
	I can identify the potential value of an innovation.	1	2	3	4	5
	I pay more attention to the news of entrepreneurship and innovation to help me find the possibility of starting a business.	1	2	3	4	5
	My strong foreign language capacity can help me to start a business.	1	2	3	4	5

Your response is all completed.

Sincerely thank you for your time and thoughtfulness!

Appendix 3: Cover Letter for Questionnaires

Anonymous Survey Consent (online)

Title: Investigation on the entrepreneurship intention of foreign students who are studying in Hungary

Investigator(s): Jingjing Wu, PhD student and Dr. habil. Ildikó RUDNÁK PhD. Doctoral School in Economic and Regional Sciences, Hungarian University of Agriculture and Life Sciences (MATE)

Purpose of Research: The purpose of this study is to study the entrepreneurial intention and entrepreneurial self-efficacy of international students studying in Hungary and to further understand whether their entrepreneurial intention has changed after coming to Hungary and what caused the change for it.

Procedures: This survey is conducted by filling out a questionnaire online. We provide a link to the questionnaire via email or social networking software. The questionnaire will take you 5 minutes to complete.

Safeguards: Your replies will be anonymous, so do not put your name anywhere on the form. There are no known risks involved with this study. Participation is completely voluntary and there will be no penalty or loss of benefits if you choose to not participate in this research study or to withdraw. If you choose not to participate you can ignore the link that you received. You may choose to not answer any question by simply leaving it blank. Returning the online survey indicates your consent for use of the answers you supply.

If you have any questions about the study, you may contact **Jingjing Wu** with email: jingjing.wu.jj@gmail.com

By completing this survey and returning it you are also confirming that you are **18** years of age or older.

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