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Perceived benefits and realised opportunities of studying in China: Insights from post-graduation mobility of international students who studied in China

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Abstract:

Focusing on the increasing large number of international students enrolling in degree programs in Chinese universities, this study examines impact of Chinese higher education on international graduates' career prospects and academic attainment. A leading municipal university in Beijing was selected as a case university, and qualitative research approach was adopted. By analysing interview data from 235 international students who graduated from this university in four years (2020 to 2023), the study found that international students' mobile options upon graduation have expanded substantially. Graduates were offered employment opportunities both in China and at Chinese enterprises overseas. Moreover, staying in China to pursue higher academic qualifications has become a trend among international graduates. The study also highlighted major benefits of studying in China, including an increasingly friendly policy environment for foreigners to work in China, job opportunities created by Chinese enterprises in students' home countries, improved Chinese higher education quality, learning of the Chinese language and exposure to a fast-growing economy. In order to realise such opportunities and maximise perceived benefits, international students are advised to fully utilise their agency to develop careeroriented skills, while Chinese higher education institutions are urged to provide better career development support and services to their international students.

1. Introduction

Higher education is a critical process in the formation of human capital. Against the background of internationalisation of higher education, there has been an increasingly strong link between study abroad and career prospects. In recent years, China has emerged as Asia's largest destination country for international students and a major study-abroad hub in the world (Xinhua, 2017; ICEF Monitor, 2021). In the 2020-2021 academic year, international students from 195 countries and regions registered to study in Chinese campuses and 76% enrolled in degree programs (Ministry of Education, 2022).

Study abroad can mean very differently to different groups of students. Historically, students have moved from developing countries to a few leading developed countries and also between Western countries. In existing literature less is understood about south-to-south student mobility. As international student mobility becomes more decentralised, there is an increased need to research the newly emerged but less studied host countries like China in order to establish a comprehensive picture of their current mobility scenarios.

Chinese higher education is especially attractive to students from less developed regions and countries. In 2019, more than half (54.1%) of international students studying in China were from 'Belt and Road countries' (for a detailed country list, see Note 1, Ministry of Education, 2020). Unlike Western students who engage in short-term exchange programs in a foreign country and hope to have a taste of a different culture, or Asian middle-class students who seek overseas credentials in leading Western countries and hope to acquire work experience in the host country labour market, students from less developed regions and enrolled in degree programs

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3006-9599 © The Author(s) 2024. Received October 20, 2021; revised November 7, 2021; accepted November 8, 2021; available online November 10, 2021. in Chinese universities are more for the purpose of obtaining a higher education qualification and better career development prospects (Ma, 2017; Li, 2023; Li & Wu, 2023; Liang & Wang, 2023). It is recognised that, for some students from socio-economically disadvantaged backgrounds, quality higher education would not be possible had they remained in their home countries.

However, research regarding this group of students is scarce, and little is known about their mobile outcomes upon graduation. For example, how many students left China upon graduation, and how many stayed? For those who left, did they return to their home countries, and what jobs did they find? For those who stayed, did they find employment in China, or apply for another study program? In this paper, based on empirical data collected from open-ended, in-depth interviews, we aim to explore the impact of Chinese higher education on international students' career development, with specific references to their initial employment outcome, academic attainments, intercultural adaptability, global competence, and overall personal growth.

In this paper, the positive impacts of Chinese higher education on international students' future development are termed as benefits/opportunities of study in China, and are examined by addressing the following research questions:

- 1) What are the benefits of studying in China, as perceived by international degree students?
- 2) What career development and academic attainment opportunities does Chinese higher education offer to its international graduates?
- 3) How can individual students and institutions do better to maximise benefits and opportunities of study in China?

The study also intends to investigate the challenges international students encountered when searching for employment, in order to develop recommendations for Chinese universities support systems for international students. We believe these findings will provide higher education institutions with valuable insights that can be used to support and encourage prospective students to seamlessly study in China.

2. Research background

Recent years have witnessed a high level of enthusiasm for China to participate in the global competition for talents. Attracting, cultivating, and retaining high-quality foreign graduates are seen as an important means of accessing international talents and external intelligence. The higher education sector and related government departments are making joint efforts to pave the way for foreign young people to receive quality higher education in China and to work in China, or at Chinese enterprises overseas.

Firstly, the higher education sector has set new goals for better training of international students. In 2018, the Ministry of Education of the People's Republic of China issued a national quality standard policy for developing higher education for international students (Ministry of Education, 2018). According to the standards, international graduates are required to achieve the same level of academic merits as their Chinese counterparts. They must also gain certain knowledge and understanding of Chinese society and Chinese culture, develop intercultural abilities, attain a certain level of Chinese language proficiency, and become globally competent in utilising knowledge and skills obtained from school in the real world. Thus, academic attainments, familiarity with the Chinese language, culture and society, development of cross cultural and global competency have become important elements of what is considered a qualified international graduate from Chinese higher education institutions.

Secondly, new policies and initiatives related to foreigners working in China have been introduced. In 2017, under the guiding philosophy of attracting and utilising global talents, China began to fully implement the Work Permit System for Foreigners nationwide. According to the system, highly qualified talents are encouraged to work in China. Foreigners under the age of 40 who conduct postdoctoral research in universities in China are considered high-end talents and are eligible to apply for the Talent visa (R-visa), which has a validity period of 5 to 10 years and allowing multiple entries to China. The spouses and underage children of the R-visa holders are also eligible for visas with the same validity period and multiple entries (State Administration of Foreign Experts Affairs et al., 2017).

In the same year, a new initiative named Notice on Allowing the Employment of Outstanding Foreign Graduates in China was announced (Ministry of Human Resources and Social Security, Ministry of Education & Ministry of Foreign Affairs, 2017). According to this new initiative, international graduates with a Master degree or higher can work in China without requirement of previous working experience.

In line with the national policies, major international student destination cities in China have also announced their own initiatives to attract talented foreign graduates. For example, in 2024, Beijing Overseas Talents Center and the Exit-Entry Administration Department of Beijing Municipal Public Security Bureau launched 10 new initiatives facilitating international students' internship, employment, entrepreneurship and life integration in China (Beijing Overseas Talents Center, 2024). According to these initiatives, graduates with doctoral degrees are encouraged to conduct scientific research at Beijing postdoctoral research institutions. Foreign postdoctorate researchers working at these research institutions may apply for private affairs or work-related residence permits. Qualified foreign PhD holders may apply for permanent residency in China. Similarly, foreign graduates who have obtained a bachelor degree or above from the world's top 500 universities or domestic "Double First-Class" (world first-class universities and world first-class disciplines) universities in the past two years, with major matching available positions can be given work permits with a maximum validity of three years for the first time.

In addition to work permits after graduation, international students are allowed to conduct internships and part-time jobs during their studies in China. During academic term, they are permitted to work up to 8 hours per week, and no more than 40 hours per month. These permitted hours can be doubled during vacation period (Ministry of Education, 2021). As for internships, international students may apply for study resi-

dence permits with annotations for "Off-campus internship" allowing them to engage in off-campus internship activities.

Thirdly, Chinese enterprises overseas have become popular employers among international graduates. With Chinese enterprises making extensive investments in Africa (Li, 2023; Cui et al., 2023; Xu & Xu, 2023) and Asia (Shi & Jiang, 2023; Li & Zhuang, 2023), more jobs have been created for the local population. International graduates returning from China, who are proficient in Chinese, familiar with Chinese culture, and understand Chinese business contexts are considered promising employee candidates for local Chinese employers. In response to feedback from Chinese enterprises investing in Africa who need local staff and local young graduates who need jobs, China has launched a new initiative to enhance education and human resource cooperation with its African partners. On the 8th Ministerial Conference of the Forum on China-Africa Cooperation, China and its African partner countries jointly issued the Forum on China-Africa Cooperation Dakar Action Plan (2022-2024) which announced specific measures to help African students get employed, and Chinese enterprises in Africa are encouraged to provide no less than 800,000 employment positions for locals (Ministry of Foreign Affairs, 2021). Thus, working for local Chinese companies has become a trendy option for graduates who have studied in China.

3. Theoretical framework

This study adopts human capital theory and the notion of agency in an attempt to conceptualise findings from interview data of international graduates' post-study mobility outcomes.

Human capital theory (Schultz, 1961) is utilised to understand the benefits of studying in China regarding international graduates' employment outcomes and career development. Over 60 years ago, agricultural economist Theodore W. Schultz identified the relationship between the investment made to increase one's productivity by improving skills and knowledge and the increase in one's earnings and national income. He proposed the notion of human capital and identified five major types of activities as important investments, including health facilities and services, on-the-job training, formally organised education, study programs offered by firms, and internal migration for better job opportunities. These important investments were shown to improve human capabilities and productivity. In this study, we argue that in the age of knowledge economy, increased education input will lead to greater productivity. Thus, a more prosperous career future can be expected from the perspective of students.

Additionally, this study adopts the concept of agency (Emirbayer & Mische, 1998) in an attempt to explain variations in international graduates' post-study mobility outcomes. Agency, as a working mechanism, assists students in utilising their tangible and intangible identity capital resources (Côté, 2016) to make the most appropriate strategic choices. In our study, although all sample students were from one same case university, outcomes varied. Some graduates managed to get their desired jobs, some successfully enrolled in another study program, while some were not engaged in any employment, education or training. There is a growing recognition from both employees and employers that, although government departments and universities play a role in enhancing graduates' employability, students themselves are primarily responsible for a successful education-to-employment transition (Van, 2003; McQuaid & Lindsay, 2005).

By applying human capital theory and using the concept of agency to explain school-work transition, this paper considers study abroad benefits as positive factors that would contribute to enhancing students' human capital, making them competitive job-seekers. Furthermore, this study tries to find specific skills that international students develop during their study in China, and how China-related human capital has benefited them in terms of increased returns in the labour market and personal achievements in academic advancement and career readiness.

4. Literature review

In the higher education sector, it has been argued that the attractiveness of a higher education system or a particular institution is closely associated with its graduates' career success (Cai, 2012; Teichler, 2008), and this is especially true within the international higher education context. International study experiences are believed to have positive impacts on enhancing graduate employability and broadening career prospects. These benefits include a global-oriented career, continued use of foreign language (Wallace, 1999; Bracht et al., 2006; Norris & Gillespie, 2009), development of cross-cultural understanding skills, and opportunities for networking and gaining wider perspectives (Crossman & Clarke, 2010).

From the perspective of employers, skills and capabilities that have been developed during study abroad, such as better foreign language proficiency, stronger intercultural communication skills, and improved understanding of other cultures are highly valued in the multinational business context. Such global awareness and competence help graduates adapt better to a multinational working environment, and enable companies to do global business more efficiently (Morris-Lange & Brands, 2015). Wiers-Jenssen (2008) found that in the domestic labour market, graduates with study-abroad experiences hold jobs with more international assignments than non-mobile students.

From the perspective of mobile students, studying abroad (especially for the entire degree program) has increasingly been considered a strategic career move (Nilsson, 2015). In other words, being employable is a driver for mobility (Nilsson & Ripmeester, 2016). Students expect their study abroad experience will yield higher returns for the money and time invested in the form of better career development (Xiong & Mok, 2020).

Evidence from China suggests that studying in China can offer numerous benefits to students in areas ranging from academic attainment to learning a new language and better understanding of a different culture. Students who have spent a few years in Chinese universities report that firsthand experience of a fast-growing economy, development in Chinese language proficiency, attaining international qualifications, and increased cross-cultural awareness are significant benefits of studying in China (English, Allison & Ma, 2016; Ahmad & Mahsood, 2018).

The fast-growing economic influence of China makes it an increasingly attractive study-abroad destination for students from both developing and developed regions in the world. Ahmad & Mahsood (2018) found students from Asia and Africa are drawn to study in China due to its economic status, and are keen to learn about the local language and culture. English, Allison & Ma (2016) believed that one of the most compelling benefits of studying in China is the firsthand experience of a fast-growing economy. In their study, American students have also emphasised the necessity of learning the Chinese language and understanding the culture if they plan to pursue a China-oriented career.

A study-in-China experience adds career capital (Inkson & Arthur, 2001) to graduates. For example, in Africa or Asia, Chinese enterprises have been making big investments and these enterprises are looking for individuals who can speak Chinese, understand China, who can help with external communication and maintain good relationships with the local community (Li, 2022; Li, 2023). In this context, students who have studied in China are considered potential candidates for such positions.

5. Methodology

In order to provide an understanding of the research questions raised in the Introduction section, this study analysed qualitative data obtained from semi-structured interviews. One university in Beijing was selected as the case university, and its 235 international alumni who graduated between 2020 and 2023 were recruited as interviewees. As the nation's capital, Beijing has become one of the most influential destination cities for international students in China. As a member of the "211 Project" universities (See Note 2), the selected case university is a key multidisciplinary university with particular strength in technology, offering various programs from science, engineering, economics, management, humanities, education, to law and arts. Its Civil Engineering program was selected as the First-class Construction Discipline by the Ministry of Education, People's Republic of China (Ministry of Education, 2017), making the university standout among all the municipal universities in Beijing in Engineering education. Since admitting its first international student in 1990, nearly 5000 international students from 102 countries have studied at this university.

The researcher tried to contact each international student who graduated in year 2020, 2021, 2022 and 2023 respectively. The recruiting process lasted from July 2020, when the first group of students in this batch graduated to January 2024, when the latest group of students graduated. Consequently, 235 international graduates were successfully approached and agreed to participate in this research on a completely voluntary basis.

The 235 participants consisted of 57.0% Bachelors (N = 134), 18.7% Masters (N = 44) and 24.3% (N = 57) Doctorate holders. Of these, 30.2% (n = 71) of participants were from

African countries while 58.3% (n = 137) were from Belt and Road countries1. There were n = 167 (71.1%) male and n = 68 (28.9%) female participants. Due to the university's strength in science and technology, 78.7% (n = 185) of participants majored in STEM fields.

As data collecting tool, in-depth, semi-structured interviews enabled the researcher to follow a basic interviewing guide with a list of questions, while also providing the flexibility to explore, clarify or probe further (Patton, 2002). This approach enabled researcher to collect rich, unanticipated and illuminating information through co-constructed conversations. Both online and offline (face-to-face) interviews were conducted. Online interviews were conducted when offline meeting was not possible to arrange due to distance. Using a mobile phone or a computer, the interviewer and interviewee typed word messages with the help of a chatting tool named WeChat, which is the most popular messaging App in China. It is also widely used in education context, therefore international students and recent graduates from Chinese universities use this App daily.

The interview questions focused on participants' mobility outcomes upon graduation. Questions include, for instance, whether they have left or stayed in China, whether they have found a job (and location of the job), or if they have enrolled in a higher degree/non-degree program in or outside of China. The interviewer also explored factors that helped or constrained the realisation of their plans, and their overall evaluation of their experiences studying in China.

Regarding the language used for interviews, participants were given the option of conducting interviews either in Mandarin Chinese or English, to ensure their expression of thoughts were not hindered by lack of language proficiency. Some interviews were started by using Chinese because the interviewer knew that the interviewees were students of programs taught in Chinese and therefore should have a certain level of Chinese proficiency. However, as the interaction progressed and the expression of thoughts was getting complicated, the conversation naturally shifted to use of English.

Interview data was transcribed and analysed according to the principles of grounded theory (Strauss & Corbin, 1990). Three types of coding: open coding, axial coding, and selective coding were applied as technical tools for data analysis. Through open coding, four types of post-graduation mobility were identified: leaving China, staying in China and working, staying in China and studying, and leaving China and working for Chinese employers overseas. Axial coding was used to elicit the benefits of study in China from post-graduation mobile variations. Finally, selective coding further extracted these benefits into positive impacts of study in China on international graduates' employability enhancement and career prospects broadening.

6. Major findings

6.1 Expanded mobility options on completing studies in China

Using statistics generated from the interview data, this section reports the overall mobility trends among international

		with a doctor degree $(n = 25)$
	employed in China	with a master degree $(n = 3)$
Stayed in China upon graduation $(n = 72, 30.6\%)$	(n = 29)	with a bachelor degree $(n = 1)$
	enrolled in another program in China $(n = 43)$	degree program $(n = 40)$
		Chinese language program $(n = 3)$
		employed by local Chinese enterprises $(n = 25)$
	went back to home countries	employed locally by non-Chinese enterprises $(n = 82)$
Left China upon graduation	(n = 156)	not employed $(n = 49)$
(n = 163, 69.4%)	moved to a third country $(n = 7)$	in search of employment $(n = 5)$
		enrolled in another degree program $(n = 2)$

Table 1. Outcomes of mobility upon graduation of international students studied in China (n = 235).

students upon completion of studies in China (see Table 1).

6.1.1 A majority of graduates left China

When considering the mobility outcomes of Chinese educated international students, interview data revealed that the majority of graduates (69.4%, n = 163) left China, while 30.6% (n = 72) stayed.

Among those who left China, most (n = 156) went back to their home countries, while a few (n = 7) moved to a third country. Of the 156 students who went back home, five managed to move back to China for another degree program one or two years after leaving.

6.1.2 A growing number of graduates stayed in China

For the 72 graduates who stayed in China, 29 found employment, or started own businesses as a young entrepreneur. Remaining 43 graduates pursued further academic development, either by enrolling in a degree program beyond the bachelor's qualifications (n = 40) or a non-degree Chinese language training program (n = 3) at a Chinese university.

Although the staying rate (30.6%) is not high, it has been growing due to introduction of supportive policies for foreigner working in China in recent years. It is also noticeable that a growing number of international undergraduates are keen on applying for another degree program in China, and many choosing to stay at the same university for a master, even a doctoral degree.

6.1.3 Employment opportunities realised in China

For the 29 graduates who found employment in China, 25 held a doctoral degree. Among these 25 doctoral graduates, 9 obtained a post-doctoral position in Chinese universities or research institutions; 6 found teaching positions at Chinese universities and became university faculty members; 4 were employed by international schools in China. 3 graduates with a master degree managed to stay in China via dependent visa. 1 graduate with bachelor degree was the only case to obtain a work visa through entrepreneurship.

6.1.4 A growing number of graduates stayed in China

For graduates who found employment outside of China, a significant number of graduates (n = 25) were hired locally by Chinese companies in their home country, while 82 graduates found jobs with non-Chinese company in their home countries, among them a certain percentage of positions are with an Chinese dimension. 7 graduates moved to a third country in pursuit of career or academic development.

6.2 Perceived benefits of studying in China

It can be observed from the above after-graduation mobility outcomes that international students have benefited from studying in China in several ways. This is in line with findings in reviewed literature and the assumptions of the two theories that guided this study.

6.2.1 Jobs offered by Chinese employers in students' home countries

The first perceived benefit is the job opportunities created by Chinese investors in student's home country. Chinese enterprises investing in Africa and Southeast Asia are looking for local employees who can demonstrate a range of China-related knowledge and skills. With adequate Chinese proficiency, international graduates find themselves in a favourable position to meet Chinese employers' expectations. One Congolese postgraduate's job-hunting experience illustrates this point:

"I now work at a Chinese state-owned enterprise. An old classmate introduced me to this enterprise that wants to find a responsible Congolese welder who can speak Chinese. That's how I got this job."

In addition to Chinese state-owned enterprises, in this study, Huawei is found to be a popular Chinese employer in Africa. With help from a graduate student who was employed by Huawei, the researcher managed to contact a Chinese manager at a Huawei branch office in West Africa. The manager explained the company's need for local staff and outlined the selection criteria for desired employees:

"We hire graduates who have studied in China. They graduated with various backgrounds including economics, international trade, electronic control, and enterprise management. We need them to assist the company in selling products and services, and expand business through frontline operations. Their language ability is very important. Local employees, such as product managers, need to have good communication skills, output solutions, be proficient in Chinese, English, and French, and be able to withstand pressure."

In order to maintain good relationships with local government and communities, overseas Chinese companies prefer to hire locals to help handle external communication issues. A Mozambican undergraduate was employed by a Chinese company after he returned home from China. He could speak a few languages including Portuguese, English, Chinese and the local language, and he understood very well how things operate locally. His multi-language abilities, intercultural skills and adaptability to work in a culturally diverse team were key factors in securing the job for him. As he remarked:

"I work for a Chinese company, and I am Community Liaison Officer, assisting the community and social affairs team of the project, establishing communication with community leaders, and providing translations from local languages to Portuguese, English, and Chinese at community meetings; I also receive opinions, questions, answers, suggestions, and complaints from community members and workers, and I stay in touch with all parties involved in resolving these issues."

From the above cases it can be seen that Chinese proficiency has greatly increased students' human capital, not only for employment, but also for academic development and adaptation into Chinese culture and society, which will be shown in the next section.

6.2.2 The ability to speak Chinese as a paving stone

Being able to speak Chinese is not only essential when graduates wish to live and work in China, but also favourable if they wish to start a career with a local Chinese company in their home country.

Language learning is closely linked to developing cultural insights on a deeper level. Living in China for 4, 5 or more years and getting immersed into the Chinese cultural context has equipped students with a China-oriented way of thinking. The firsthand and comprehensive exposure to local economy dynamics of fast-developing China thus profoundly changed the mindset of young people from both developed and less developed regions of the world. This psychological growth was illustrated by one interviewee. When asked by the researcher about his plans after graduation, this young student expressed his willingness to work in Beijing:

"I'd love to work in Beijing. I have begun to practice using Chinese since I started my undergraduate studies in Beijing. I like this city, and I am aware that I can learn more things, things that will be useful for my life back to my home country."

Foreign young people who have lived Chinese urban life for a substantial period tend to have high evaluations of its convenience, economic vitality, expected higher income, social security and stability. These reasons also contribute to their desire to stay and work in China. When asked about their post-graduation plans with three options namely getting employed in China; getting employed back in home country; and continuing to do a master degree in China, a Kenyan student confirmed his choice:

"I would prefer getting employed in China. Because it feels very safe and convenient living in China, and the income should be higher than in my country."

6.2.3 Friendlier policy environment for foreigners working in China

A third benefit is the recent policies that allow foreign graduates to work in China with a work visa and policies that allow students with study visas to take on part-time jobs or internships while they are studying in China.

In this study, we found that it has become a trend for doctoral degree holders to work as a post-doctorate at Chinese universities or research institutions. Current policies and measures give priority to higher degree holders, especially those with doctorates, to apply for work permits in China. Foreign talents under the age of 40 who engage in postdoctoral research at high-level universities abroad or domestic universities in China are eligible to apply for Talent visa (R-visa).

In this study there are 9 doctoral graduates who found employment and work in post-doctoral positions in China. One doctoral graduate reported that he has received two postdoctoral offers and finally made his decision after carefully considering the salary:

"Now I have a Z visa in Dalian. I was eligible for an R visa by TongJi University in Shanghai. But the salary was lower than Dalian. So I chose Dalian."

Our data did not show extensive evidence of international students engaging in off-campus internships during their studies in China. This might be because off-campus internships are not mandatory. There is only one undergraduate student reported that he used to engage in a six-month internship at BMW. He shared his motivation:

"The university did not ask me to engage in off-campus internships. But I think it good to have some working experience while studying. BMW is a famous company, and and I did an internship at BMW for six months."

The above case shows that studying abroad in big, international cities like Beijing, gives international students access to internship opportunities at multinational companies, or embassies, or branch offices of international organizations. The fact that not many international students made good use of such privileges sheds light on the importance of individual agency.

6.2.4 Recognised Chinese higher education quality

Last but not least, China's higher education quality has become an important contributor to international graduates' career development. 40 participants (17.0%) have enrolled in a higher level degree program, with 32 undergraduates pursuing master's degree and 8 postgraduates pursuing doctoral degree.

When choosing institution for their next degree, 40 students decided to continue their studies in Chinese universities. This shows that a significant proportion of graduates were satisfied with the quality of higher education in China.

Furthermore, excellent international graduates from this case university found opportunities in other top universities in

China. A student from Mali was awarded the honorary degree certificate and the title of "Outstanding Graduate" by the case university, due to his good academic performance. He studied civil engineering for his undergraduate degree, one of the best majors in the case university. Upon graduation, he decided to continue to study in China in the same field, but at a more prestigious university. When asked about the destination for postgraduate study, the student replied:

"I applied to three universities, among which two universities, TongJi University and Southeast University, are categorised as A+ in their Civil Engineering program in the national discipline ranking."

In a follow-up conversation between the researcher and the student, it was confirmed that this student had been admitted to the Civil Engineering major at TongJi University, one of the top STEM universities in China with a strong emphasis on civil engineering. This student had impressed the researcher early on. In 2018, during his first semester of undergraduate study, the student joined a Chinese language course taught by the researcher. The student's Chinese was excellent, which helped establish a solid foundation for him to learn all the courses taught in Chinese language, and contributed greatly to his academic growth. The fact that this student developed a good understanding of the Chinese university ranking system and successfully enrolled in his target university indicates that the quality of Chinese higher education was recognised by international students.

This finding is consistent with Ahmad & Mahsood (2018), which found the rise of Chinese higher education institutions in global rankings is a pull factor for international students. Participants of the current study graduated from a recognised university with a strong STEM background and benefited from strong academic disciplines of the university (Civil Engineering and Computer Science, to be more specific). Such STEM education not only has prepared graduates with skills and knowledge favourable for immediate employment in infrastructure construction projects carried out within the Belt and Road countries, but also contributed to the long term skill enhancement of youth population in less developed countries.

6.3 Major challenges to a successful school-work transition

Apart from benefits, our findings have also identified certain challenges and difficulties experienced by international graduates, at macro, meso and micro levels.

At the macro level, a foreign-graduate-friendly domestic labour market is yet to emerge. Although new policies have been incrementally created for an open employment environment for foreign talents, there are limited job vacancies available to international graduates. Additionally, employers often show low willingness to assist with work permit application. As a result, actual employment rate for foreign graduates working in China is not high, with the lowest rate goes to bachelor degree holders, who typically have no choice but leave the country when their study visa expires. As one undergraduate responded:

"I've found a company, but they told me that I need

two years of work experience to apply for a work visa. The question is, where can I get work experience after just graduating? Besides, I have been interning there for almost 11 months. The study visa is also about to expire... So, I have to leave, because I don't want to get into troubles."

Such perception was shared by other students too. As one undergraduate student commented:

"Until now, a work visa has been a tricky issue for me. The company where I work as a translator is satisfied with my job but can't give me a work visa. The staff told me that it would be a hassle for the company to apply for a work visa for me."

At the meso level, helping international graduates gain career development has yet to become an integrated part of student service in most Chinese higher education institutions. While most institutions put great efforts in helping domestic graduates with job hunting, they offer inadequate assistance to international students. Participants from this study sensed a lack of support from their host institution. For instance, a graduate with a master degree is allowed by the current policy to apply for a working visa if employed. When asked whether the student was informed about this policy by her university, she gave a negative answer:

"Not really, there was a huge information gap in everything. So we didn't really know about the visa rules. I just know that I can't work while having a student visa."

At the micro level, students' individual initiative also plays an important role in the realisation of their aspirations. Graduates with low level Chinese may find themselves less competitive when looking for a job in China. A postgraduate with a Master degree in Software Engineering was in a dilemma when choose working location between China and his home country.

"I don't speak Chinese, and if I work in a Chinese company, I have a language barrier that can affect my communication with my colleagues and the progress of the project. If I go back to my home country to work, my major, software engineering, is not valued in my country."

However, a certain number of graduates (n = 49) were unsuccessful in finding a job or applying for further study at the time of the interview. Some of these students were undergoing training, some were applying for another degree program in China and wish to return to China, some students, especially girls, were taking on greater family responsibilities.

7. Discussion

7.1 Maximizing opportunities and benefits by utilising agency

Variations of mobility upon graduation shown in this study have highlighted the importance of agency. Evidence from our data indicates that self-driven students and students with initiative are more likely to develop a career plan at an earlier stage in their studies in China. This awareness of future development and a sense of self-responsibility motivated individual students to constantly investing time and energy into their course work, learning Chinese, developing soft skills, and building a network that will assist their career development after graduation. Conversely, a lack of such qualities may result in poor academic performance, lower chances of receiving a good scholarship for higher degree programs, less informed of potential job offers and less overall satisfaction with their study abroad experiences.

Individual students are encouraged to navigate more and do more during their studies in China. For example, international students with study visas in China are now allowed to take part-time jobs and engage in internships. By joining Chinese companies and organizations, or multi-national companies in China, or international organizations in China, students are able to gain firsthand experience in the real working world, and with such experience, students could better understand their personal preferences, strength and weakness, and making informed adjustments and wiser mobility decisions. However, since it is not compulsory, only a very small number of international students engaged in part-time jobs or internships during their study program.

7.2 Strengthening career services for international students

The career success of graduates is an essential component of a higher education institution's attractiveness to its prospective students from both home and abroad. The employment-upon-graduation-challenge is a mutual concern for both individual students and their institutions. This study identified a lack of support from institutions for their international students in career development, either in the middle of their study journey, before their graduation, or after they left China (alumni work). The case university is not unique in this regard. Therefore we urge institutions in China that host international students to allocate career development resources to international students, just as they do for their domestic students.

In recent years, there have been some changes. Chinese Service Center for Scholarly Exchange (CSCSE), the administrative department under the direct leadership of the Ministry of Education, which provides services to international students studying in China, has organised 9 career fairs since 2016 targeting international students. In one recent job fair organised in Beijing in 2024, more than 30 wellknown Chinese enterprises including Huawei Technologies, China Minmetals Nonferrous Metals Co. Ltd., DiDi Global Inc., Sinopec Engineering Incorporation, National New Energy Vehicle Technology Innovation Centre etc. participated and offered jobs in IT, business administration, accounting, education and training, construction, engineering, health and other industries (CSCSE, 2024). However, more follow-up research is needed to investigate the effectiveness of such job fairs (Li & Wu, 2023).

8. Conclusions

By interviewing 235 international students who graduated from one Chinese university about their employment outcomes and academic choices, this study has discovered that international graduates have benefited from their studying experience in China in several ways, including increased jobs opportunities created by overseas Chinese enterprises at students' home countries, proficiency of Chinese language and culture, improved policies that allow foreign graduates to work in China, and the competitive quality of higher education. Meanwhile, graduates are found to face challenges at macro, meso and micro levels. In order to overcome these difficulties and make the best use of opportunities provided by studying in China, this study highlights the importance of students' utilising of their agency and the need for higher education institutions to incorporate career services and support into their education of international students.

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Conflict of interest

The authors declare no competing interest.

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References

- Ahmad, A. B., & Shah, M. (2018). International students' choice to study in China: an exploratory study. Tertiary Education and Management, 24(4), 325–337.
- Bracht, O., Engle, C., Janson, K., Over, A., Schomburg, H., & Teichler, U. (2006). The professional value of ERAS-MUS mobility. University of Kassel, Germany. International Centre for Higher Education Research (INCHER-Kassel).
- Cai, Y. Z. (2012). International graduates from Finland: Do they satisfy the needs of Finnish employers abroad? Journal of Research in International Education, 11(1), 19-31.
- CSCSE. (2024, May 22). 2024 Career fair for international students in China and Beijing-Tianjin-Hebei "Double Hundred" recruitment fair for global talents was successfully held in Beijing.
- Crossman, J. E., & Clark, M. (2010). International experience and graduate employability: stakeholder perceptions on the connection. Higher Education, 59(5), 599-613.
- Côté, J. E.(2002). The role of identity capital in the transition to adulthood: the individualization thesis examined. Journal of Youth Studies, 5(2), 117-134.

- Cui, J. X., Wang, H., & Xu, S.C. (2023). The motivation, pattern and path of the development of Chinese education in Africa in the new era- a case study of the development of Chinese education in Zambia. International and Comparative Education, 45(10),50-57+112. (in Chinese)
- Emirbayer, M., & Mische, A. (1998). What is agency? American Journal of Sociology,103(4), 962–1023.
- English, A. S., Allison, J., & Ma, J. H. (2016). Understanding western students: motivations and benefits for studying in China. Journal of Education and Training Studies, 4(8), 44-55.
- ICEF Monitor. (2021, April 21). China emerging as a major destination for African students.
- Inkson, K., & Arthur, M.B. (2001). How to be a successful career capitalist. Organizational Dynamics, 30(1), 48-61.
- Li, Y. (2022). Study on the coordination mechanism between employment promotion of international students in China and local human resource development of 'going global' enterprises. Chinese Vocational and Technical Education, 12, 63-70. (in Chinese)
- Li, Y. (2023, Apirl 10). On strengthening Chinese language and vocational education for African international students studying in China, Chinese Social Science Today, (in Chinese)
- Li, Y., & Wu, D. (2023). Expanding the opening-up of higher education to the outside world and strengthen the brand of "Study Abroad in China". International Talent, 3, 56-57. (in Chinese)
- Li, B.G., & Zhuang, Y.Y. (2023). Characteristics, advantages and experience inspirations of integrating Chinese into the national education system of ASEAN. Education Science, 39(2), 64-70. (in Chinese)
- Liang, Z., & Wang, N. (2023). An analysis of graduation decisions and willingness to stay in China among international students in the context of the belt and road initiative. Thinking, 49(6), 146-159. (in Chinese)
- Ma. J. (2017). Why and how international students choose Mainland China as a higher education study abroad destination. Higher Education, 74(4), 563-579.
- McQuaid, R.W., & Lindsay, C. (2005). The concept of employability. Urban Studies, 42(2), 197-219.
- Ministry of Education. (2017, September 20). Notice on publishing the list of world first class universities and first class discipline construction universities and disciplines.
- Ministry of Education. (2018, September 3). Notice of the ministry of education on issuing the quality standards for higher education of international students in China (trial).
- Ministry of Education. (2020, December 22). During the 13th Five Year Plan period, the structure of international students studying in China has been continuously optimised.
- Ministry of Education. (2021, January 12). Management measures for work-to-support study of international students in higher education institutions.
- Ministry of Education. (2022, September 20). Ministry of education: Registered international students in China come from 195 countries and regions, with 76

Ministry of Foreign Affairs. (2021, December 2). Forum on

China-Africa cooperation dakar action plan (2022-2024).

- Ministry of Human Resources and Social Security, Ministry of Education & Ministry of Foreign Affairs. (2017, January 6). Notice on allowing the employment of outstanding foreign graduates in China.
- Ministry of Public Security & Ministry of Foreign Affairs. (2004, August 15). Measures for the administration of examination and approval of foreigners' permanent residence in China.
- Morris-Lange, S., & Brands, F. (2015). Train and retain: Career support for international students in Canada, Germany, the Netherlands and Sweden. Berlin, Germany. SVR's Research Unit: Study.
- Nilsson, P. A. (2015). Expectations and experiences of inbound students: Perspectives from Sweden. Journal of International Students, 5(2), 161-174.
- Nilsson, P.A., & Ripmeester, N. (2016). International student expectations: Career opportunities and employability. Journal of International Students, 6(2), 614-631.
- Norris, E.M., & Gillespie, J. (2009). How study abroad shapes global careers: Evidence from the United States. Journal of Studies in International Education, 13(3), 382-397.
- Patton, M. (2002). Qualitative research and evaluation methods. Thousand Oaks, Ca. Sage Publications.
- Schultz, T.W. (1961). Investment in human capital. American Economic Review, 51(1), 1-17.
- State Administration of Foreign Experts Affairs, Ministry of Human Resources and Social Security, Ministry of Foreign Affairs, & Ministry of Public Security. (2017, March 18). Notice on comprehensively implementing the work permit system for foreigners in China.
- State Administration of Foreign Experts Affairs, Ministry of Foreign Affairs, & Ministry of Public Security. (2017, November 28). Implementing measures for the foreign talent visa system.
- Shi, L., & Jiang, H. L. (2023). Research on innovation of talent training model of "Chinese + cross-border e-commerce" to ASEAN in the context of "the Belt and Road". Social Sciences in Guangxi, (08), 68-76. (in Chinese)
- Strauss, A. L., & Corbin, J. M. (1990). Basics of qualitative research: Grounded theory procedures and techniques. Thousand Oaks, Ca. Sage Publications.
- Teichler, U. (2008). Higher education and the world of work: Conceptual frameworks, comparative perspectives, empirical findings. Rotterdam, Sense Publishers
- Van Buren, H.J. (2003). Boundaryless careers and employability obligations. Business Ethics Quarterly, 13(2), 131-149.
- Wallace, D.H. (1999). Academic study abroad: The long-term impact on alumni careers, volunteer activities, world and personal perspective [Doctoral dissertation, The Claremont Graduate University].
- Wiers-Jenssen, J. (2008). Does higher education attained abroad lead to international jobs? Journal of Studies in International Education, 12(2), 101-130.
- Xinhua New Media. (2017, October 22). Chen Baosheng: China has become the third largest destination for studying abroad in the world and the largest in Asia.

- Xiong, W.Y., & Mok, K.H. (2020). Critical reflections on mainland China and Taiwan overseas returnees' job searches and career development experiences in the rising trend of antiglobalisation. Higher Education Policy 33, 413–436.
- Xu, L.F., & Xu, L.H. (2023).Ways of cooperation between Chinese language education and vocational education in Africa, Chinese Vocational and Technical Education, (9),13-19. (in Chinese)