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An Empirical Analysis on the Risk Reduction Effect of Chinese Enterprises Cross-Border Acquisitions by International Students in China

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Abstract

International students are becoming increasingly significant in the economy and society due to globalization. This paper uses the data of cross-border M&A of Chinese enterprises from 2003 to 2019 and the data of global international students in China to investigate the impact of international students in China on overseas M&A of Chinese enterprises. Our analysis shows that non-degree program students in China have a more significant impact on Chinese enterprises' overseas M&A than degree program students. Overseas students in China promote the development of Chinese enterprises' overseas M&A but also encourage Chinese enterprises to carry out M&A in the target country by lowering the target country's national risk. The results of the heterogeneity analysis show that there are differences in market types and purposes for studying in China.

Keywords

International Students in China, Country Risk, Cross-Border M&A

1. Introduction

Educational globalization is a relatively new aspect of the economic globalization process. The flow rate of international students increases year by year as economic globalization accelerates, and the trend of educational globalization is unstoppable.

This makes the competition of education service trade in the international market more intense. Previously, international students primarily came from developing countries to industrialized ones, which had created a well-developed educational system. However, with the continued development of emerging nations'

economies, the flow of international students has shifted dramatically in recent years. Educational exchanges have occurred between developing countries and even between affluent countries and developing countries.

Therefore, as a fast emerging economy as mentioned by the National Statistical Society of China in 2019 and the second largest economy in the world (World Economic Outlook report, IMF 2019), China has become one of the biggest destinations for international students. Currently, science and technology play an influential role in the rapid development of economic globalization. Mastering sophisticated technology and attracting top personnel are critical for economic progress, resulting in increasingly challenging rivalry for top talent on the global market. The tendency of educational globalization today, influenced by social capital theory and human capital theory, is full of limitless potential and difficulties, and international rivalry is intense.

Educational exchange initiatives must be viewed as strategic resources by countries worldwide to attain economic success, attain the upper hand in international competitiveness, and strengthen their soft power. As a result, with the escalation of international political and economic competition and the globe facing a "great change not seen in a century," world governments place a premium on raising educational standards and cultivating top labor potential. Through ideological exchange, language, and cultural interaction, educational exchanges help promote mutual understanding between peoples, inevitably alleviating the obstacles caused by informal trade barriers to international economic cooperation and ultimately achieving the objective of maximizing the benefits of international investment. In bilateral economic and trade cooperation, educational exchanges are pretty significant. The Chinese government is grappling with maximizing the economic concessions of international students in China and encouraging Chinese businesses to better "enter" the international market.

With the Chinese government's "going global" enterprise plan in place since 2000, cross-border M&A abroad has become not only an essential tool for China to grow the global economy but also the primary mode of bilateral economic contact between China and other nations. According to ThomsonOne and the merger market data from 2016 to 2020, the foreign M&A volume of Chinese firms reached US $234.02 billion in 2016 and US $142.24 billion in 2017, a decline of US $91.78 billion from 2016. Chinese companies spent $107.03 billion and $86.22 billion on cross-border mergers and acquisitions in 2018 and 2019, respectively. From 2016 to 2019, there has been a decrease in the quantity of cross-border M&A of Chinese companies. The reason is that there is an increasing number of failed M&A cases involving Chinese enterprises, the reasons for M&A transaction frustration are complex, and the host country's political risk, economic risk, social risk, country risk, and other factors have become more prominent factors impeding M&A transaction completion. With the advent of "anti-globalism" and trade protectionism, cross-border M&A evaluations conducted by governments around the world against developing market countries represented by China are becoming

more demanding, and Chinese companies' overseas M&A is experiencing significant obstacles (Figure 1).

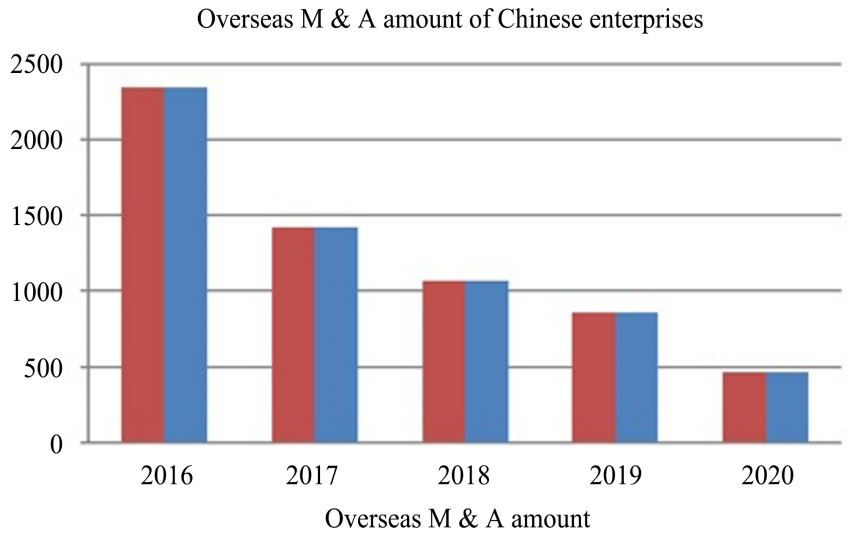

Figure 1. Overseas M&A amount of Chinese enterprises from 2016 to 2020 (USD billion USD). **Data source:** ThomsonOne, merger market 2016-2020.

Economic globalization and China's overall strength, such as its economy and worldwide standing, have resulted in significant growth and prospects for Chinese companies engaging in cross-border M&A in the international market. However, the world's vast ethnic, linguistic, and cultural divides have exacerbated investment risks. At the same time, they have increased the investment pressure on Chinese firms, failing many Chinese firms in cross-border mergers and acquisitions outside of China. Attracting and exporting overseas students is one of the essential strategies to reduce investment risk. In recent years, China has continued to develop new regulations to recruit international students and has viewed international student education projects as an essential method to rejuvenate the country, promote culture, and win the global economy's initiative. The 14th five-year plan and the long-term aim for 2035 emphasize the need to cultivate, introduce, and holistically utilize skills and implement a more open talent policy. International students can be used to compensate for market failures, cultural differences, and non-tariff obstacles such as information asymmetry and foster all types of abilities required in the international market. According to the Ministry of Education's summary data on international students in China from 1999 to 2019, the overall number of international students in China in 1999 was just 44,711; He studied in 356 universities and institutions in China, representing 164 countries and regions throughout the world. 11,479 of the 44,711 international students in China have academic degrees, accounting for 25.7% of the overall number of international students in China; 33,232 non-academic students made up 74.3% of the total number of international students in China. 52,150 in the year 2000; with an annual growth rate of 18.73%, Chinese students studying abroad reached 492,185 in 2018.

In 2019, the number of African students studying in China totaled 397,635, a reduction of 94,550 from the previous year, with an annual growth rate of 15.13%. The COVID-19 epidemic at the end of 2019 may impact this. As can be seen, the gradual deepening of economic and trade cooperation between China and other countries in the world and the continuous rise in the number of international students necessitates a more in-depth examination of the impact of educational exchanges and cooperation on Chinese companies' overseas M&A (Figure 2).

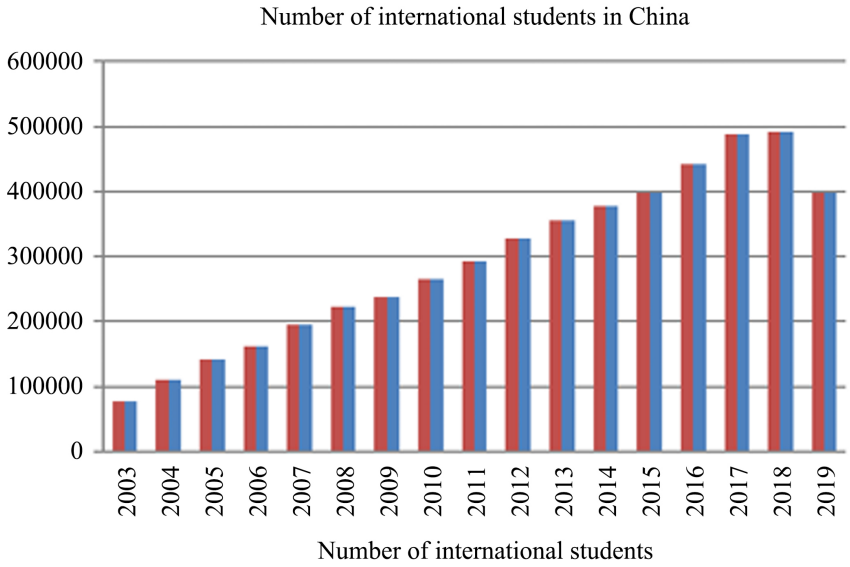

Figure 2. Number of international students in China from 2003 to 2019 (unit: person). **Data source:** concise statistics of international students in China on the website of the Ministry of Education of China.

2. Literature Review

The literature most directly related to this research focuses on the interaction between international students, the overseas immigration network, a shared language, country risk, and international direct investment.

Furthermore, domestic academic research consistently demonstrates the positive impact of overseas students on foreign direct investment. For example, Cohen et al. (2008) studied the investing decisions of adults who chose to invest in former college students or anonymous partners and discovered that former college students are more popular and trustworthy. Through educational exchanges and cultural communication skills, Wang (2017) believes that China should make good use of the value of overseas students to expand the development of foreign direct investment (FDI) and foreign commerce. Empirical research has concentrated on China's One Belt, One Road, including Yue's (2018) research on the relationship between China's abroad education and China's direct investment in the "One Belt" along the route (2006-2015). China's foreign direct investment has been expanded to other countries along the line as part of the "One Belt, One Road" initiative. The larger the study's scope in China, the better the promotion. In 2014,

Zhang Wenjun, Ren Rongming, and other scholars investigated the relationship between worldwide talent flow and China's OFDI. According to the survey, China's high-tech countries' talent movement will help the country's foreign direct investment grow. Zhu (2019) used empirical research methodologies such as generalized least squares (FGLS) and panel corrected standard error to investigate the relationship between international student education in China and China OFDI (PCSE). The study discovered that the Chinese government's scholarship program did not encourage China's foreign direct investment. The number of international students in China, on the other hand, can help China's OFDI, and there are regional variances in this promotion.

Second, a significant study has been undertaken from the overseas Chinese network and immigration perspective. For example, Anwar and Mughal (2013) used Indian immigration data as a research sample and discovered that abroad immigrants encouraged India's direct investment in industrialized countries. According to Buch et al. (2006), the number of immigrants affects the size of foreign direct investment. Kugler and Rapoport (2007) reveal that immigration can help foreign direct investment grow (OFDI). Baghdadi and Cheptea (2010) found that ethnic networks can help spread business information in the host country, which can help boost bilateral investment between the host country and the immigrants' home country.

De Simone & Manchin (2012) used immigration data from EU countries as a research sample and discovered that immigration and OFDI had an evident complementarity. Gao (2003) found a favorable relationship between the development of overseas Chinese networks and China's foreign direct investment through a gravity model. Murat (2014) discovered that educational networks such as the number of international students and foreign alumni organizations had a significant impact on foreign direct investment in the UK and the US using empirical research methodologies such as OLS, LDV model, and GMM estimate.

The importance of a common language and cross-cultural communication in attracting foreign direct investment cannot be overstated. Melitz (2008) discovered that common language is more influential in attracting foreign direct investment than foreign trade. From the perspective of language intensity, Oh et al. (2011) says that language and cultural familiarity are beneficial in promoting foreign direct investment.

Finally, one of the significant research areas for economists is the impact of country risk on the location choice of firms' foreign direct investment. According to Kennedy (1984), political unrest in the host country contributes to increased investment risk for multinational corporations. Ramasamy et al. (2012) used Poisson statistical data to analyze Chinese enterprises' overseas investments. They uncovered that state-owned enterprises prefer to invest in countries or regions with high political risk. On the other hand, private enterprises pay more attention to avoiding foreseeable political risks, and their foreign direct investment strategy is more market-oriented and rational. According to Henisz (2010), the host coun-

try's political risk will influence the country's ability to attract other multinational firms to make foreign direct investments to a degree. International terrorism, according to Mancuso et al. (2010), harms the development of foreign direct investment. According to Khanna et al. (2006), the host country's imperfect economic and political system has become an advantage for developing countries' foreign direct investment as a result of adapting to the business environment, which includes corruption, excessive administrative control, and poor property rights protection in the home country. Barbopoulos et al. (2014) examined the wealth of 306 British companies' foreign direct investments in 75 emerging market countries and discovered that these persons are often more inclined to invest in countries with significant political risk and corruption. At the same time, physical assets will provide superior returns in emerging market countries with high levels of corruption. According to Bekaert et al. (2016), every one percentage point rise in political risk causes a steep decline in foreign direct investment of 12 percentage points. Political risk is defined by Howell (2011) and other scholars as political events, decision-making, and social events that influence the economic environment. These risks will impact investors' investment returns and may result in losses. Indirect investment in developing countries and more closed countries, according to Simon (1984), is more likely to encounter political dangers. According to Robock (1971), the unpredictability and variability caused by political changes in the invested country significantly make an impression on investors' earnings or other objectives. The political risks encountered by foreign-invested firms, according to Boddewyn (1979), are the host country's constraints on the investment activities of foreign-invested enterprises for the sake of preserving national interests and safeguarding sovereignty. Kiymaz (2013) investigated cross-border mergers and acquisitions in the gold glass business in the United States. The findings reveal that national risks, such as political, economic, and financial concerns, might account for the wealth effect of M&A firms.

The existing literature has studied the relationship between international students, overseas migration networks, common language, country risk and foreign direct investment, and has achieved some research results. **Table 1** below lists the representative research results.

Table 1. Classic literature about relation between students' immigration and Host country's development.

Main points	Representative literature researcher	Method	Conclusion
The relationship between foreign students and foreign direct investment.	Zhang and Ren (2014)	IV-GMM	The study found that the flow of talents in China's high-tech countries will promote the development of China's foreign direct investment.
	Wang (2017)	IV-GMM.	Believes that China should make good use of the value of overseas students to expand the development of foreign direct investment (FDI) and foreign commerce.

Continued

	Yue (2018)	Gravity model.	The study found that the educational exchange activities of overseas students in China have expanded China's direct investment in countries along the Belt and Road, and the larger the scale of overseas students in China, the greater the promotion effect.
	Zhu (2019)	Generalized Least Squares (FGLS) and Panel Correction Standard Error (PCSE).	The study discovered that the Chinese government's scholarship program did not encourage China's foreign direct investment. The number of international students in China, on the other hand, can help China's OFDI, and there are regional variances in this promotion.
Overseas Chinese Network, Immigration and Foreign Direct Investment relationships.	Buch et al. (2006)	Empirical model.	The number of immigrants affects the size of foreign direct investment.
	Kugler and Rapoport (2007)	Empirical model.	Reveal that immigration can help foreign direct investment grow (OFDI).
	Gao (2003)	Gravity model.	Found a favorable relationship between the development of overseas Chinese networks and China's foreign direct investment through a gravity model.
	Murat (2014)	OLS, LDV model, and GMM estimate.	Discovered that educational networks such as the number of international students and foreign alumni organizations had a significant impact on foreign direct investment in the UK and the US using empirical research methodologies such as OLS, LDV model, and GMM estimate.
The relationship between common language, overseas cultural communication and foreign direct investment.	Melitz (2008)	Empirical model.	Discovered that common language is more influential in attracting foreign direct investment than foreign trade. From the perspective of language intensity.
	Oh et al. (2011)	Empirical model.	Says that language and cultural familiarity is beneficial in promoting foreign direct investment.
The impact of country risk on the location choice of firms' foreign direct investment.	Ramasamy et al. (2012)	Poisson regression model.	They uncovered state-owned enterprises prefer to invest in countries or regions with high political risk. On the other hand, private enterprises pay more attention to avoiding foreseeable political risks, and their foreign direct investment strategy is more market-oriented and rational.
	Kiymaz (2013)	Empirical model.	The findings reveal that national risks, such as political, economic, and financial concerns, might account for the wealth effect of M&A firms.
	Barbopoulos (2014)	Survey research.	Discovered that these persons are often more inclined to invest in countries with significant political risk and corruption. At the same time, physical assets will provide superior returns in emerging market countries with high levels of corruption.
	Bekaert et al. (2016)	Empirical model.	Every one percentage point rise in political risk causes a steep decline in foreign direct investment of 12 percentage points.

Source: According to relevant literature.

To summarize, the existing literature has been on the international students, the network of overseas immigrants, common language, country risk, and the relationship between foreign direct investments, and achieved some research results, providing an excellent theoretical basis for this paper. Compared with previous studies, the main innovations of this paper are as follows: First, there is a minor research literature on the relationship between overseas students in China and overseas M&A of Chinese enterprises from the existing research literature. Therefore, this paper examines the impact of international students on Chinese enterprises' overseas cross-border M&A from the perspective of international students, taking the country risk as an intermediary variable. It is found that overseas M&A of Chinese enterprises will be influenced by international students in China, which effectively expands the existing research framework and provides a new theoretical framework for the study of the factors affecting China enterprises' overseas mergers and acquisitions. Secondly, this paper tries to use the heterogeneity analysis method to examine the impact of international students and Chinese enterprises' overseas M&A from the differences of market types of host countries and the differences in study purposes (academic or non-academic). Third, the research on the relationship between international students and Chinese enterprises' FDI mostly stays at the macro level, and there is no literature to identify the impact of international students on enterprises' investment behavior. Therefore, this paper uses the micro-data of firm-level FDI to identify the impact of international students on Chinese enterprises' overseas M&A through Logit regression.

The innovation of this paper is mainly reflected in: 1) Research perspective innovation. This study focuses on the relationship between international students and foreign direct investment; the existing research materials are not so systematic on this direct link. In recent years, China's overseas M&A cooperation and educational exchange cooperation have developed rapidly, but few studies have focused on the educational and economic impact of Chinese overseas students. Therefore, this research studies the impact of overseas students on Chinese enterprises' overseas M&A from the perspective of international students by collecting a large number of materials and the latest data. It will provide some practical guidance and innovative inspiration for the Chinese government to formulate policies to attract international students and for Chinese enterprises to choose the location of overseas mergers and acquisitions. 2) Innovation in research methods. This paper expands the length of the study, that is, it traces back to 2003 and extends to 2019. At the same time, it expands the scope of the study to 121 countries, so as to more comprehensively and accurately reflect the impact of overseas students on overseas mergers and acquisitions of Chinese enterprises and the direction of their impact. In the process of empirical regression, this paper also uses Probit regression, Logit regression and other methods to empirically study the impact of the neglected factor of overseas students on Chinese enterprises' overseas M&A, thus effectively expanding the traditional vision of John Dunning's investment

development path, and providing a new theoretical framework for Chinese enterprises' overseas M&A strategy of location selection. 3) Expansion of research content. In this study, we consider not only the scale of overseas students, but also the impact of different variables such as academic students and non-academic students on Chinese enterprises' overseas mergers and acquisitions. In addition, this paper comprehensively examines the impact of overseas students on overseas M&As of Chinese enterprises through the micro data of cross-border M&As of Chinese enterprises. This paper also attempts to use the heterogeneity analysis method to make a more detailed study of the impact of overseas students on Chinese enterprises' overseas M&A from the perspectives of the host country market type, the purpose of studying abroad, and so on.

3. Theoretical Mechanism Analyses

When it comes to educational exchanges between China and the rest of the world, with the rise in the number of international students, the continued export of Chinese language and culture, and the gradual deepening of bilateral communication, Chinese companies will invest more in countries all over the world. With the rapid expansion of multi-level world politics and economic globalization, the number of international students has increased year after year, and the importance of educational exchanges in bilateral investment has grown. One of the most important variables influencing educational exchanges is government policies and practices. Educational exchanges are influenced not just by government programs but also by the general public. The constant deepening of its development improves the speed with which the Chinese language and culture are communicated. By lowering transaction costs, alleviating the problem of talent shortages, and lowering transaction risks, international students in China can help Chinese firms grow cross-border M&A.

Studying in China helps solve the problem of a talent shortage in the international investment market. A big part of the failure of Chinese companies' international M&A deals is due to a scarcity of talent in the host country. Most Chinese student unions have a strong cultural affinity with the country. International students in China often have a particular learning ability and creativity. They can improve the success rate of investment transactions by promoting communication between China and the host country through their accumulated Chinese language, cultural identity, and national conditions during the semester. Second, we can get relevant job skills, cultivate all types of talents required by Chinese firms worldwide, and cultivate more technical talents to increase labor force quality through educational exchanges and collaboration. China's avoidance of investment risks is aided by studying in China. The risk of overseas investment is frequently generated by firms' lack of knowledge about the host market. When Chinese investors enter the market of the host nation, they frequently confront numerous market uncertainties due to a lack of familiarity with the host country's market environment, a lack of understanding of local customs, and a lack of in-

vesting expertise. The signing of investment agreements between the two sides of the transaction is beneficial to avoid this risk to protect Chinese firms' interests. International students make up a significant portion of the high-tech talent movement. By facilitating bilateral investment agreements, international students in China can minimize the risk of Chinese investment in their host market.

Accordingly, this paper proposes:

Hypothesis: international students in China can promote the development of cross-border M&A of Chinese enterprises by reducing investment risk (Figure 3).

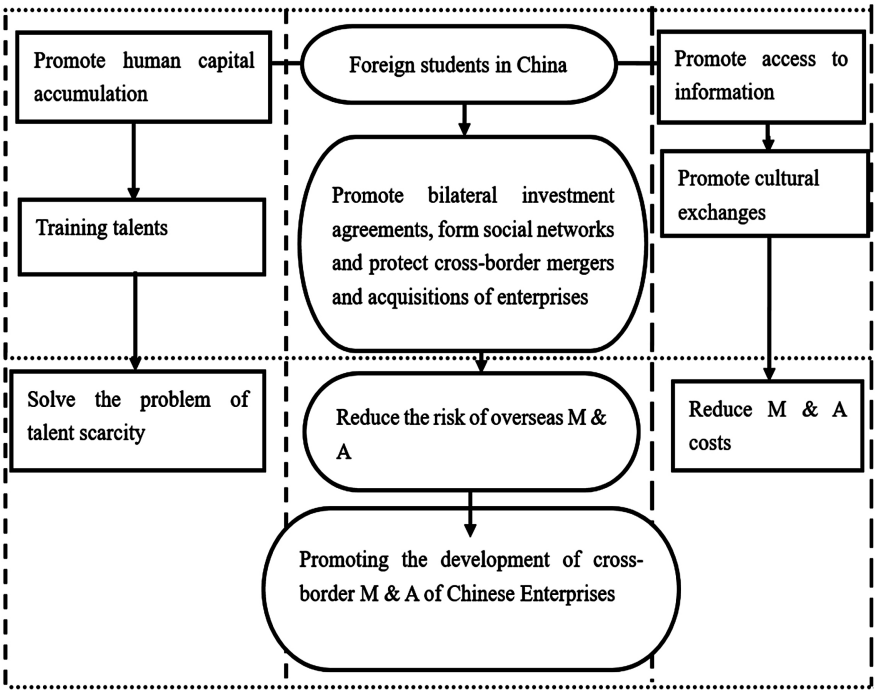

Figure 3. Mechanism paths for overseas students to promote the development of overseas M&A of Chinese enterprises.

4. Empirical Research Designs

4.1. Sample Selection and Data Source

As the primary data of cross-border M&A of Chinese firms, this article uses the data of 3626 cross-border M&A of Chinese enterprises released by Thomson Reuters from 1998 to 2019. The M&A data reveal Chinese firms' and M&A target enterprises' industry, M&A events, M&A magnitude, and other information. The 112 M&A data before 2003 are removed because the sample period for this article is 2003-2019. The sample period selected in this paper is between 2003 and 2019, because: first, the explanatory variables, explained variables, control variables and other relevant data of some countries before 2003 were obviously abnormal and seriously missing, so the data before 2003 were eliminated. Second, overseas M&A is one of the modes of foreign direct investment cooperation. The Ministry of Commerce of China began to collect the data of Chinese enterprises' foreign direct

investment only in 2003, so it is reasonable to set the number of years of foreign direct investment in 2003. Third, the reason for the research period to 2019 is that in early 2020, with the outbreak of the novel coronavirus, countries announced a ban on entry, the global population mobility was severely hit, and international students, as the main explanatory variable of this article, were also severely restricted. Therefore, the data after 2019 cannot accurately reflect the real situation of the number of foreign students in China, so the data after 2019 are not included.

This study adds the M&A data of 121 target nations, including African countries, to the research sample to increase the sample size. The following M&A data from the sample period were checked and eliminated: 1) Hong Kong, Macao, and Taiwan M&A data were omitted; 2) apparent aberrant data and severely missing data were discarded. Then, according to the year and country, match the M&A samples with the samples at the national level to produce 3231 samples. The information about studying in China comes from the Ministry of Education's website, which has provided succinct statistics on international students in China over the years. Political, economic, social, and China risk are the four secondary factors that make up country risk. The information was gathered from the World Bank's World Governance Index database (WGI), PRs Group's International Country Risk Guide (ICRs), the Global Terrorism Database (GTD), the Wall Street Journal, and the American Heritage Foundation. At the same time, this research uses data from the World Bank's World Development Database (WDI) to identify control variables at the national level.

4.2. Variable Selection and Description

4.2.1. Dependent Variable

The explained variable in this study is the virtual variable of whether the company has done M&A. The MAC value is one if the enterprise status is "finished," else it is 0. The transaction shares of M&A completed firms are used as the replacement variable in the ensuing robustness test.

4.2.2. Independent Variables

The number of international students in China is the primary explanatory variable in this study. This article evaluates the impact of different goals of studying abroad on overseas M&A of Chinese enterprises by quantifying the number of international students in 121 target countries over time, specifically the natural logarithm of the number of degree program and non-degree program students.

4.2.3. Measurement of Country Risk

Nation risk is the paper's intermediary variable, calculated using the country risk index system. Zhao (2021)'s approach of measuring country risk is used, and 40 variables are chosen from the four aspects of political risk (p-risk), economic risk (e-risk), social risk (s-risk), and China risk (c-risk). **Table 2** is the evaluation table of the country's risk index system.

Table 2. Evaluation of country risk index system.

Secondary indicators	Tertiary indicators	Variable description
Political risk	Political situation	It is measured by the political stability score in the global national governance database. The greater the value, the more stable the politics are.
	External conflict	The external conflict index score in ICRG is used for measurement. The larger the value, the smaller the external conflict.
	Terrorist activities	Measured by the number of terrorist events in the GTD database, the greater the value, the higher the risk of the host country.
	Military intervention in politics	The higher the score, the lighter the degree of intervention and the lower the risk.
	Religious interference in politics	The higher the score, the lighter the intervention, and the lower the risk.
	Ethnic contradiction	The score of the ethnic contradiction index in the ICRG database is selected to quantify. The higher the value, the more harmonious ethnic relations and the lower the risk.
	Government stability	Select the government stability score in the ICRG database. The higher the score, the more stable the government and the lower the risk
	Government credibility	Select the government credibility score in the annual economic freedom index report (IEF). The higher the score, the higher the government credibility and the lower the risk.
	government performance	Select the government efficiency score in the WGI database. The higher the score, the higher the government efficiency and the lower the risk.
	Regulatory quality	Select the regulatory quality score in the WGI database. The higher the score, the higher the regulatory quality and the lower the risk.
	Corruption control	The higher the corruption control scores in the WGI database, the better the corruption control and the lower the risk.
	Democratic Accountability	The higher the score of democratic accountability in the WGI database, the more competent the government is and the lower the risk.
economic risks	economic growth	The annual GDP growth rate in the WDI database. The higher the value, the lower the risk.

Continued

	economic fluctuation	The 5-year volatility of GDP growth in the WDI database. The higher the value, the more unstable the economy and the higher the risk
	Monetary freedom	Select the monetary freedom score in EF. The higher the score, the higher the monetary freedom and the lower the risk.
	Financial freedom	Select the score of financial freedom in EF. The higher the score, the higher the financial freedom and the lower the risk.
	Trade freedom	Select the score of trade freedom in EF. The higher the score, the higher the trade freedom and the lower the risk.
	Trade openness	The weighted average of total imports and exports of goods and services of host countries in WDI database.
	Terms of trade	The ratio of export price index to import price index in the WDI database during the statistical period.
	Tax burden	Tax burden index in IEDF.
	Investment openness	The weighted average of host foreign direct investment and foreign direct investment in the WDI database.
	Investment freedom	The higher the score of investment freedom in IEF, the higher the investment freedom and the lower the risk.
	Investment facilitation	The higher the score of investment facilitation in ICRG, the higher the facilitation level and the lower the risk.
	Commercial freedom	The higher the score of business freedom in IEF, the higher the degree of investment freedom and the lower the risk.
Social risk	Social environment	The score of the social environment in the ICPG database. The higher the score, the friendlier the social environment and the lower the risk.
	Social security	The higher the international murder rate per 100,000 people in the WDI database, the higher the risk.
	Degree of rule of law	In the WGI database, the higher the score, the higher the degree of the rule of law the lower the risk.
	Property rights protection	The higher the property right protection index scores in IEF, the lower the risk.
	internal conflict	The higher the internal conflict index score in ICRG, the lower the level of internal conflict, the lower the risk.

Continued

	Labor freedom	The higher the score of labor freedom in IEF, the lower the risk.
	Unemployment	Unemployment rate in WDI database.
	Cost of living	Inflation rate reflected by the consumer price index in the WDI database.
	Difference between rich and poor	Gini coefficient in the WDI database. The greater the value, the more significant the gap between rich and poor, the higher the risk.
	Social informatization	Number of Internet servers per 1 million people in WDI database.
Risk to China	Political relations	Time of establishment of diplomatic relations between China and the host country.
	Trade relations	UNC database bilateral import and export flows between China and the host country.
	Investment relationship	Years of bilateral investment agreements between China and the host country.
	Tax relations	Years for China to sign double taxation agreement with host country.
	humanity cultural exchanges	Interaction between the number of sister cities concluded between the host country and China and the international migration rate.
	Reciprocal visa cooperation	Time of signing reciprocal visa between China and host country.

This paper uses the entropy method to measure the country's risk. The specific measurement method can be divided into the following steps:

1) Normalization

In order to avoid the influence of dimension, firstly, each index is standardized. In this paper, the standardized method linearly transforms the original data to map the results in this range [0, 1]. The standardized formulas for positive and negative indicators are as follows:

$$U_{ij} = \frac{X_{ij} - \min\left[X_j\right]}{\max\left[X_j\right] - \min\left[X_j\right]} * 0.99 + 0.01 \tag{1-1}$$

$$U_{ij} = \frac{\max\left[X_j\right] - X_{ij}}{\max\left[X_j\right] - \min\left[X_j\right]} * 0.99 + 0.01 \tag{1-2}$$

Equation (1-2) is the standardization of positive indicators, and (1-3) is the standardization of negative indicators. Where, X_{ij} the *i*-th sample original value of the *j*-th index, $\min\left[X_j\right]$ is the minimum value of the *j*-th index original data, and $\max\left[X_j\right]$ is the maximum value of the *j*-th index original data. The positive direction index of this paper is that the higher the index, the lower the risk.

2) Determination of weight

In Equation (1-1) w_{ij} is the index weight obtained by entropy method, and the specific calculation steps are as follows:

a) Calculate the information entropy of the index: $P_{ij} = \frac{U_{ij}}{\sum_{i=1}^{n} U_{ij}}$ (1-3)

b) Calculate the effect value of J indicators: $E_j = -K\sum_{i=1}^{m} P_{ij} \ln P_{ij}$ (1-4)

c) Calculate index weight: $W_j = \frac{1-E_j}{\sum_{j=1}^{p}\left(1-E_j\right)}$ (1-5)

where (1-5), $k = 1/\ln(n)$, n is the number of samples and P is the number of indicators.

3) Calculation of country risk score

After the weight of each index is obtained, the comprehensive national risk score is calculated by linear weighting in Formula (1-6). The specific measurement formula is as follows:

$$U_i = \sum_{j=1}^{p} w_{ij} U_{ij}, \sum_{j=1}^{p} w_{ij} = 1 \quad (1\text{-}6)$$

where, U_i represents the comprehensive score of system i, P is the number of indicators in system i, w_{ij} is the weight of the j-th index in system i calculated by entropy method. U_{ij} is the value of j indicators in system i. The higher the country risk value calculated according to Formula (1-6), the lower the country risk. Table 3 reports the descriptive statistical analysis results of each dimension's country risk and risk scores.

Table 3. Descriptive analysis results of country risk.

Variables	Obs	Mean	Std.Dev.	Min	Max	Skew.	Kurt.
Risk	3231	71.803	15.993	32	92	−1.128	3.328
Prisk	3231	74.925	17.674	23	99	−1.429	4.171
Erisk	3231	68.868	13.641	34	98	−0.575	2.997
Srisk	3231	80.621	15.966	33	99	−1.262	3.479
Crisk	3231	75.76	18.204	26	99	−0.613	2.536

4.2.4. Control Variables

This report uses control variables from the national and enterprise M&A levels to reduce the impact of other factors on the investigation. This article considers trade openness, the host country's economic development level, and resource endowment at the national level. The proportion of the host country's total import and export in GDP determines the degree of trade openness. The GDP of the host country is divided by the geographical distance to evaluate the level of economic development of the host country. The proportion of the host country's mineral resource exports in overall exports estimates resource endowment. This study em-

ploys Chen and Guo's (2018) technique to determine relevant M&A at the enterprise level, whether the first two SIC codes of both M&A parties' primary enterprises are the same. In such a situation, the same value is 1; otherwise, it is 0. Whether the target enterprise is in a sensitive industry, such as strategic natural resources, national defense, finance, or telecommunications, hire a consulting firm. The value of the target consultant is 1; otherwise, it is 0.

4.3. Model Design

Based on Chen and Guo (2018), this paper constructs the following basic measurement model:

$$MAC_{ivt} = \alpha_0 + \alpha_1 Stu_{vt} + cX_{ivt} + Ind\_dummy + Year\_dummy + \varepsilon_{it} \quad (1)$$

where MAC_{ict} is a dummy variable indicating whether Chinese enterprise i has successfully acquired a company in country v at time t. Stu_{vt} refers to the number of international students from country v in period t, respectively, degree program and non-degree program students. X_{ivt} is the control variable, including national level and enterprise M&A level. Since the main object of this paper is Chinese enterprises, this paper uses the previous practices for reference to control the industry and annual effects, Ind_dummy indicates the industry dummy variable, $Year\_dummy$ and represents the annual dummy variable. ε_{it} is a random perturbation term. It should be noted that since the explained variable in this paper is 0/1 dummy variable, the OLS estimation is biased. Therefore, the benchmark model uses the logit model for parameter estimation.

In order to further explore the impact mechanism of studying in China on Chinese enterprises' cross-border M&A, this paper draws lessons from the practice of Sun (2021) and constructs the following measurement model to investigate whether a country risk is the mechanism of studying in China affecting Chinese cross-border M&A.

$$Risk_{vt} = \beta_0 + \beta_1 Stu_{vt} + cX_{ivt} + Ind\_dummy + Year\_dummy + \varepsilon_{it} \quad (2)$$

$$MAC_{ivt} = \gamma_0 + \gamma_1 Risk_{vt} + cX_{ivt} + Ind\_dummy + Year\_dummy + \varepsilon_{it} \quad (3)$$

$Risk_{vt}$ is a country risk, and the meaning of other variables is consistent with the benchmark model, so it will not be repeated. If in models (2) and (3) β_1 and γ_1 the coefficients are significantly positive, which indicates that education in China can improve the success probability of cross-border M&A of Chinese enterprises by reducing the country risk of the host country and investment risk. Table 4 reports the measurement of the variables in this paper.

Table 4. Selection of variables.

Variable	Code	Variable description
Cross border M&A	MAC	When the enterprise status is "completed", the MAC value is 1, otherwise, it is 0.

Continued

Scale of forgein studying in China	Stu_d	Natural logarithm of the number of international students with academic qualifications in the target country.
	Stu_nd	Natural logarithm of the number of non-degree program students from the target country.
country risk	Risk	The index system is constructed.
Economic development level	GDP	GDP/geographical distance of the target country and natural logarithm processing.
Open level	Open	Total import and export/GDP
Resource endowment	RES	Export of ore resources/total export
Is there a related M&A	REL	The four-digit SIC industry code of the enterprise's main business is the standard. The first two digits are the same. The value is 1, otherwise, it is 0.
Is it a sensitive industry	SEN	The target enterprise belongs to four sensitive industries. The value is 1, otherwise, it is 0.
Whether to employ a consulting agency	CAG	The value of hiring target consultant is 1, otherwise it is 0

5. Analysis of Empirical Results

5.1. Descriptive Statistical Analysis

Before modeling, the essential characteristics of the variables in this paper are statistically analyzed. Table 5 reports the statistical information of the variables in this paper, such as mean, maximum and minimum, standard error, skewness, and kurtosis. To avoid extreme values' influence on the study, the continuous variables in this paper are reduced by 1% and 99%, and the processed data are used in the subsequent analysis. The average MAC is 0.644, indicating that 64.4% of enterprises have completed M&A. Stu_d The mean value of D is 4.646, Stu_nd the average value is 4.304, indicating that the scale of degree program students in China is larger than that of non-degree program students. The significant difference between the maximum and minimum values indicates great differences in studying in China in the target country. The average risk value is 71.803, which indicates that the overall risk of the target country is low, but the maximum and minimum value indicates that the risk of the target country is quite different. The skewness is less than 0, and the kurtosis is greater than 3, revealing that the risk of the target country does not obey the normal distribution. Likewise, the statistical characteristics of control variables can be analyzed accordingly. The average value of REL is 0.367, demonstrating that 36.7% of M&A are related to M&A. The mean value of SEN is 0.152, meaning that 15.2% of the target enterprises are four sensitive industries, and the mean value of CAG is 0.222, indicating that 22.2% of the enterprises employ consulting institutions.

Table 5. Results of descriptive analysis.

Variables	Obs.	Mean	Std.	Min	Max	Skew.	Kurt.
MAC	3231	0.644	0.479	0	1	−0.6	1.36
Stu_d	3231	4.646	1.648	0	7.764	−0.692	3.399
Stu_nd	3231	4.304	1.8	0	7.088	−0.53	2.545
Risk	3231	71.803	15.993	32	92	−1.128	3.328
Open	3231	78.872	81.476	24.328	401.524	2.667	9.636
GDP	3230	9.933	1.635	5.059	12.346	−0.527	3.203
Res	3231	8.379	11.479	0.723	54.435	2.002	6.055
REL	3231	0.367	0.482	0	1	0.553	1.306
SEN	3231	0.152	0.359	0	1	1.936	4.747
CAG	3231	0.222	0.416	0	1	1.338	2.791

5.2. Correlation Analysis and Collinearity Diagnosis

Table 6 reports the test results of correlation analysis between variables (taking non-degree program students in China as an example). The results show that at the 5% significance level, there is a significant positive correlation between the scale of international students in China and MAC. There is a significant positive correlation between country risk and MAC, indicating that the lower the country risk is, the lower the investment risk is, which increases the cross-border M&A of Chinese enterprises. There is a significant positive correlation between the scale of studying in China and the country risk, indicating that the cultural exchange between China and the target country can alleviate the country risk of the host country. It is not difficult to find that most control variables have a significant correlation with M&A, which shows that the selection of control variables is reasonable. Table 6 also reports the correlation test results among other variables. It is noted that some variables show high correlation. Therefore, there may be some collinearity problems, and further multicollinearity diagnosis is needed.

Table 6. Correlation coefficient matrix.

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
(1) MAC	1.000								
(2) Stu_nd	0.065*	1.000							
(3) Risk	0.058*	0.610*	1.000						
(4) Open	−0.018	−0.583*	−0.524*	1.000					
(5) GDP	0.058*	0.790*	0.384*	−0.431*	1.000				
(6) Res	−0.057*	−0.209*	0.129*	−0.199*	−0.381*	1.000			
(7) REL	0.012	0.035*	0.030	−0.072*	0.035*	−0.017	1.000		
(8) SEN	−0.093*	−0.142*	0.047*	−0.095*	−0.251*	0.470*	−0.051*	1.000	
(9) CAG	0.142*	0.085*	0.091*	−0.068*	0.059*	−0.007	0.005	0.006	1.000

* shows significance at the 0.05 level.

In this paper, Chinese non-degree program students represent the independent variables, and the variance expansion factor (VIF) method is used to diagnose the multicollinearity between variables. The diagnostic results in Table 7 show that the VIF values of all variables are less than 10, indicating that there is no severe multicollinearity.

Table 7. Multicollinearity diagnosis results.

Variable	VIF
Stu_nd	4.13
GDP	3.15
Open	1.89
Risk	1.86
Res	1.73
SEN	1.3
CAG	1.01
REL	1.01

5.3. Benchmark Regression Results

This paper investigates the impact of studying in China on cross-border M&A of Chinese enterprises by logit regression of model (1). Table 8 reports Equation (1), Equation (3) that only considers the national level as the control variable, and Equation (2) and Equation (4) that further consider the influence of the control variables at the level of enterprise M&A. All four equations control the annual fixed effect, industry fixed effect and national fixed effect. In Equations (1) and (3) Stu_d, Stu_nd, the coefficient is positive at the significance level of 5% and 10%, indicating that studying in China positively impacts the cross-border M&A of Chinese enterprises. From the perspective of control variables at the national level, the openness of the host country and cross-border M&A shows a reverse change relationship, and the resource endowment of the host country will attract cross-border M&A of Chinese enterprises, and the difference in the economic development level of the host country is no longer a factor hindering cross-border M&A of Chinese enterprises. *Stu* in Equations (2) and (4) Stu_d, Stu_nd The coefficient is still positive, and it is noted that the LR Chi^2 of Equation (1), (3) and Equation (2), (4) is relatively higher than that of Equation (1), (3), indicating that the impact model of further controlling enterprise M&A is far reasonable. Therefore, the later research is based on Equations (2) and (4). From the results, the success rate of cross-border M&A of Chinese enterprises in sensitive industries is lower than that in non-sensitive industries. Hiring consulting institutions will increase the success probability of cross-border M&A. However, there is no significant correlation between M&A and related M&A. Through comparison; one can stipulate that compared with degree program students, non-degree program stu-

dents in China have a more significant impact on overseas M&A of Chinese enterprises. The reason is: that the degree program students only value the academic qualifications of Chinese colleges and universities, and the technical content is relatively high; In addition, international students with academic qualifications in China include junior college students, undergraduates, graduates and postgraduates, and master students and doctoral students can choose to study in English, which is not conducive to learning Chinese well and improving Chinese level. From the perspective of a non-degree program, students purely appreciate Chinese culture and have higher recognition of culture. In addition, non-degree program students, including language students, ordinary refresher students, advanced refresher students, researchers, and short-term students, who have a relatively high Chinese level, can play an essential role in M&A negotiations between Chinese enterprises and host countries.

Table 8. Benchmark regression: study in China and cross-border M&A of Chinese Enterprises.

	(1)	(2)	(3)	(4)
	MAC	MAC	MAC	MAC
Stu_d	0.234**	0.212*		
	(2.053)	(1.734)		
Stu_nd			0.180*	0.169**
			(1.773)	(2.174)
Open	−0.013**	−0.014***	−0.011**	−0.013***
	(−2.441)	(−3.393)	(−2.230)	(−2.996)
GDP	−0.473	−0.494	−0.384	−0.407
	(−1.162)	(−0.892)	(−0.940)	(−0.740)
Res	0.044*	0.054**	0.043*	0.053**
	(1.703)	(2.059)	(1.667)	(2.021)
REL		0.148		0.149
		(1.206)		(1.218)
SEN		−0.637***		−0.654***
		(−4.293)		(−4.421)
CAG		0.867***		0.865***
		(5.622)		(5.542)
_cons	6.455*	6.702	4.885	5.255
	(1.763)	(1.507)	(1.333)	(1.153)
Obs.	2938	2938	2938	2938
Pseudo R^2	0.120	0.139	0.120	0.138

Z-values are in parenthesis, ***$p < 0.01$, **$p < 0.05$, *$p < 0.1$.

5.4. Mechanism Inspection

In order to investigate that studying in China can reduce the country risk of the host country, reduce the investment risk of Chinese enterprises, and then improve the possibility of successful cross-border M&A of Chinese enterprises, this paper further estimates models (2) and (3) based on model (1). To further examine how studying in China affects the country risk of the host country and the cross-border M&A of Chinese enterprises, this paper uses the method of stepwise regression to test the mechanism of the risk indicators of the four dimensions of country risk. Table 9 reports model (2) regression results: the impact of studying in China on country risk. Since country risk is a continuous variable, model (2) uses OLS regression to control annual fixed effect and country fixed effect. Table 8 shows that in Equations (1) and (6), Stu_d and Stu_nd, the coefficients are positive at the significance level of 1%, indicating that the scale of studying in China reduces the country risk of the host country. From the four-dimensional risk indicators, the scale of degree program students increases the political and social risks of the host country, and the scale of non-degree program students reduces the social risks and risks to China of the host country but strengthens the economic risks. From the perspective of control variables, the degree of trade openness, the level of economic development, and national risks show a reverse change relationship, this is reflected explicitly in lowering social risks and risks to China. At the same time, resource endowment increases national risks, which is reflected explicitly in increasing political risks, economic risks, and risks to China. Related M&A reduces the economic risk of the host country, and M&A in sensitive industries reduces the national risk of the host country.

Table 9. Impact of studying in China on country risk.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	Risk	Prisk	Erisk	Srisk	Crisk	Risk	Prisk	Erisk	Srisk	Crisk
Stu_d	0.409***	−1.562***	−0.544	−0.523***	0.156					
	(3.687)	(−7.371)	(−1.560)	(−4.004)	(0.596)					
Stu_nd						0.624***	−2.091***	−0.904**	0.799***	0.683***
						(5.469)	(−9.384)	(−2.037)	(6.399)	(3.089)
Open	0.021***	−0.029**	−0.117***	0.025***	−0.039***	0.020***	−0.029**	−0.115***	0.009	−0.044***
	(2.956)	(−2.218)	(−3.508)	(4.116)	(−3.592)	(2.825)	(−2.367)	(−3.562)	(1.643)	(−4.138)
GDP	2.017***	−0.193	1.196	3.923***	−2.815***	2.418***	−1.570**	0.622	4.260***	−2.425**
	(4.766)	(−0.253)	(0.839)	(7.006)	(−2.697)	(5.721)	(−2.221)	(0.473)	(7.614)	(−2.277)
Res	−0.260***	−0.325***	−0.188**	0.178***	−0.361***	−0.272***	−0.289***	−0.169**	0.135***	−0.381***
	(−9.657)	(−5.961)	(−2.373)	(4.263)	(−6.930)	(−9.874)	(−5.444)	(−2.229)	(3.248)	(−7.175)
REL	−0.036	−0.079	0.469*	−0.083	−0.032	−0.039	−0.071	0.473*	−0.097	−0.038
	(−0.371)	(−0.559)	(1.890)	(−0.766)	(−0.220)	(−0.399)	(−0.516)	(1.917)	(−0.899)	(−0.261)

Continued

SEN	0.633***	0.256	−0.193	0.352**	0.952***	0.567***	0.489**	−0.100	0.334**	0.898***
	(3.475)	(1.049)	(−0.509)	(2.120)	(3.420)	(3.118)	(1.986)	(−0.261)	(2.066)	(3.205)
Cag	−0.082	0.050	0.601**	−0.158	−0.234	−0.096	0.097	0.622**	−0.184	−0.252
	(−0.753)	(0.317)	(2.242)	(−1.368)	(−1.236)	(−0.883)	(0.623)	(2.326)	(−1.598)	(−1.327)
_cons	50.475***	89.308***	70.128***	40.794***	109.322***	45.862***	104.456***	76.894***	33.175***	103.793***
	(11.500)	(11.409)	(4.701)	(7.184)	(10.426)	(10.372)	(14.409)	(5.454)	(5.747)	(9.649)
National fixed	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Annual fixed	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Obs.	3212	3212	3212	3212	3212	3212	3212	3212	3212	3212
R^2	0.975	0.954	0.750	0.969	0.946	0.975	0.956	0.751	0.969	0.946

T-values are in parenthesis. ***$p < 0.01$, **$p < 0.05$, *$p < 0.1$.

Table 10 reports the logit regression results of the impact of country risk and four dimensions of risk on cross-border M&A of Chinese enterprises. The risk coefficient in Equation (1) is positive at the significance level of 10%, indicating that the lower the country's risk, the more favorable China's cross-border M&A would be. According to Equation (1) and Equation (6) in Table 9, Stu_d, Stu_nd the coefficient is significantly positive, which verifies that studying in China can reduce the country risk of the host country, reduce the investment risk of enterprises, and then improve the cross-border M&A of Chinese enterprises. Through the regression of the four dimensions of risk, it is evident that only the coefficient of risk in Equation (4) is significantly positive, indicating that the decline of social risk is conducive to the cross-border M&A of Chinese enterprises. The results of Equation (4) and Equation (9) in Table 9 show that only non-degree program students in China can improve the cross-border M&A of Chinese enterprises by reducing social risk.

Table 10. Country risk and cross-border M&A of Chinese Enterprises.

	(1)	(2)	(3)	(4)	(5)
	MAC	MAC	MAC	MAC	MAC
Risk	0.028*				
	(1.782)				
Prisk		−0.011			
		(−1.061)			
Erisk			0.004		
			(1.024)		

Continued

Srisk				0.029***	
				(2.900)	
Crisk					0.004
					(0.396)
Open	−0.012**	−0.011**	−0.010**	−0.011**	−0.010**
	(−2.419)	(−2.452)	(−2.247)	(−2.575)	(−2.454)
GDP	−0.556	−0.487	−0.491	−0.600	−0.469
	(−1.431)	(−1.332)	(−1.324)	(−1.594)	(−1.230)
RES	0.066**	0.054**	0.059**	0.053**	0.060**
	(2.517)	(2.189)	(2.429)	(2.202)	(2.424)
REL	0.147	0.152	0.147	0.152	0.150
	(1.516)	(1.569)	(1.521)	(1.547)	(1.550)
SEN	−0.665***	−0.647***	−0.651***	−0.660***	−0.655***
	(−4.699)	(−4.856)	(−4.868)	(−4.770)	(−4.843)
CAG	0.876***	0.869***	0.867***	0.874***	0.869***
	(5.479)	(5.361)	(5.345)	(5.410)	(5.352)
_cons	4.181	7.078**	5.589*	4.260	5.453
	(1.548)	(2.115)	(1.714)	(1.297)	(1.554)
Obs.	2938	2938	2938	2938	2938
Industry fixed	yes	yes	yes	yes	yes
Annual fixed	yes	yes	yes	yes	yes
National fixed	yes	yes	yes	yes	yes
Pseudo R^2	0.138	0.138	0.138	0.139	0.138

Z-values are in parenthesis. ***$p < 0.01$, **$p < 0.05$, *$p < 0.1$.

5.5. Robustness Test

To verify the model's robustness impact, this paper carries out robustness regression by changing the measurement of the study scale in China and changing the form of estimation method. At the same time, in order to consider the impact of endogeneity caused by the model setting error of the sample on the research, this paper also carries out a robustness test by reducing the systematic difference between the experimental group and the control group by propensity score matching (PSM), If the conclusion of robust regression is the same as that of the benchmark model, the robustness of the model is verified.

5.5.1. Test of Replacing Core Variables

In this paper, the sum of the number of degree and non-degree program interna-

tional students in China is used as an alternative variable for the scale of international students in China. At the same time, the per capita GDP of the host country is used to construct a robust regression, the probit model is used for robust estimation, and the annual fixed effect, fixed national effect, and industrial fixed effect are controlled again. Table 11 shows the regression results. Equation (1) the coefficient of *Stu* is positive at the significance level of 10%, which verifies the positive impact of the scale of studying in China on cross-border M&A of Chinese enterprises. The coefficient of *Stu* in Equation (2) is still significantly positive, indicating that studying in China reduces the national risk of the target country. The reason is that by learning the concept of China's security state, international students in China have more publicity and less participation in political and social protests after returning home, and strengthened the political security and economic and trade partnership between the host country and China to reduce the national risk of the host country. The risk coefficient in Equation (3) is significantly positive, which verifies the mechanism of overseas students in China to improve the cross-border M&A of Chinese enterprises by reducing the risk to the host country. Based on the above analysis, the conclusion remains unchanged by changing the estimation method and measuring core variables.

Table 11. Probit regression results of replacing core variables.

	(1)	(2)	(3)
	MAC	Risk	MAC
Stu	0.167*	0.710***	
	(1.752)	(4.080)	
Risk			0.017*
			(1.753)
Open	−0.007**	0.026***	−0.007**
	(−2.282)	(3.796)	(−2.525)
PGDP	−0.400	2.513***	−0.316
	(−1.484)	(5.110)	(−1.314)
RES	0.038**	−0.251***	0.039**
	(2.377)	(−9.296)	(2.505)
REL	0.087	−0.035	0.088
	(1.256)	(−0.356)	(1.605)
SEN	−0.372***	0.566***	−0.378***
	(−3.575)	(3.119)	(−4.672)
CAG	0.507***	−0.078	0.509***
	(7.341)	(−0.718)	(5.601)
_cons	5.324*	42.147***	3.180
	(1.779)	(8.522)	(1.435)

Continued

Industry fixed	yes	no	yes
Annual fixed	yes	yes	yes
National fixed	yes	yes	yes
Obs.	2938	3214	2938
Pseudo R^2/R^2	0.138	0.975	0.138

T-values are in parenthesis. ***$p < 0.01$, **$p < 0.05$, *$p < 0.1$.

5.5.2. PSM Regression

The benchmark model verifies the positive impact of the scale of international students in China on cross-border M&A of Chinese enterprises. However, there may be common factors that ignore the impact of the scale of international students in China and cross-border M&A of Chinese enterprises in the benchmark model. However, these common factors are often unobservable, leading to the endogenous correlation between the disturbance term and the explanatory variable. Considering the model inaccuracy setting influence originated by ignoring common factors, this paper uses the PSM method to match the appropriate control group for the enterprises completing the M&A and then uses the matched samples for robust regression. Table 12 reports the balance test results under the nuclear matching method. The results show considerable differences in economic development level and resource endowment between the experimental and control groups, but there is no significant difference in the above variables after propensity score matching. At the same time, consequently, the matching of SEN and CAG at the enterprise level also eliminates the systematic differences to indicate that PSM is reasonable and crucial.

Table 12. Balance test results.

Variable	Unmatched	Mean		% bias	% reduct bias	t-test	
	Matched	Treated	Control			t	$p > \|t\|$
Open	U	77.759	80.883	−3.8		−1.04	0.297
	M	77.741	78.856	−1.4	64.3	−0.44	0.659
PGDP	U	10.349	10.219	12.1		3.36	0.001
	M	10.357	10.403	−4.3	64.7	−1.53	0.126
RES	U	7.8947	9.2534	−11.6		−3.23	0.001
	M	7.7825	8.0034	−1.9	83.7	−0.66	0.511
SEN	U	0.1274	0.19722	−19		−5.31	0.000
	M	0.1253	0.11255	3.5	81.7	1.27	0.205
CAG	U	0.26587	0.14248	31		8.16	0.000
	M	0.26651	0.25196	3.7	88.2	1.07	0.285

From Table 13, one can witness the sample regression results after PSM. Equations (1) and (2) are logit regression results, and Equations (3) and (4) are probit regression results. In Equations (1) and (2) Stu_d and Stu_nd, The coefficients are significantly positive at the 10% significance level, consistent with the benchmark model. Similarly, Equations (3) and (4) also verify the positive impact of studying in China and cross-border M&A of Chinese enterprises. The results in Table 13 show that the relationship between studying in China and cross-border M&A of Chinese enterprises remains unchanged after considering the endogenous problems caused by model setting errors.

Table 13. Regression results of PSM samples.

	(1)	(2)	(3)	(4)
	MAC	MAC	MAC	MAC
Stu_d	0.199**		0.120**	
	(2.414)		(2.526)	
Stu_nd		0.175*		0.110**
		(1.957)		(2.043)
Open	−0.013***	−0.012**	−0.008***	−0.007***
	(−2.835)	(−2.518)	(−3.006)	(−2.677)
PGDP	−0.343	−0.281	−0.220	−0.175
	(−0.907)	(−0.768)	(−1.013)	(−0.831)
RES	0.043*	0.041*	0.025*	0.025*
	(1.730)	(1.752)	(1.794)	(1.851)
SEN	−0.661***	−0.679***	−0.380***	−0.391***
	(−5.084)	(−5.184)	(−4.903)	(−5.047)
CAG	0.870***	0.868***	0.507***	0.506***
	(5.274)	(5.278)	(5.454)	(5.449)
_cons	6.265	4.907	3.950	3.054
	(1.505)	(1.198)	(1.621)	(1.276)
Industry fixed	yes	yes	yes	yes
Annual fixed	yes	yes	yes	yes
National fixed	yes	yes	yes	yes
Obs.	2933	2933	2933	2933
Pseudo R^2	0.138	0.138	0.138	0.138

T-values are in parenthesis. ***$p < 0.01$, **$p < 0.05$, *$p < 0.1$.

5.6. Heterogeneity Analysis

In order to consider the impact of market type, this paper divides the host country into emerging market and developed country markets according to the market type and then carries out sub-sample regression. In this paper, Brazil, Chile, Colombia, Czech Republic, Egypt, Hungary, India, Indonesia, Poland, Russia, South Africa, Thailand, and Turkey listed in the 2009 Morgan Stanley emerging market index are emerging market countries. According to the results in Table 14, Equations (1) and (2) show that, at the significance level of 10%, the impact of degree program students in China on Chinese enterprises M&A in emerging market countries is more evident. In contrast, the impact of non-degree program students in China on Chinese enterprises' cross-border M&A does not have an impact on emerging markets. Equations (5)-(8) are the sub-sample regression of developed and developing countries. In the present research, the median of 50% of the per capita GDP of the host country is used as the division basis. The results show that the impact of degree program students in China on Chinese enterprises M&A in developed countries is more pronounced, while non-degree program students impact Chinese enterprises M&A in developing countries is more prominent than degree program students' impact. Based on the above analysis, it can be seen that there are differences in market types and purposes of studying in China.

Table 14. Sub-sample regression results by market type.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Emerging market	Non-emerging markets	Emerging market	Non-emerging markets	Developed country	Developing country	Developed country	Developing country
Stu_d	0.996*	0.138			0.566**	0.185		
	(1.878)	(1.296)			(2.394)	(1.543)		
Stu_nd			0.197	0.155			−0.033	0.282**
			(0.451)	(1.306)			(−0.334)	(2.009)
Open	−0.009	−0.013**	0.009	−0.012**	−0.014**	−0.015*	−0.009	−0.013
	(−0.258)	(−2.430)	(0.216)	(−2.245)	(−2.120)	(−1.746)	(−1.448)	(−1.572)
GDP	3.010	−0.734*	3.523*	−0.631	−0.323	−0.599	0.182	−0.414
	(1.292)	(−1.736)	(1.764)	(−1.574)	(−0.256)	(−0.895)	(0.154)	(−0.603)
Res	−0.304	0.073***	−0.309	0.072***	0.129***	0.014	0.131***	0.020
	(−1.055)	(3.323)	(−1.232)	(3.563)	(2.890)	(0.304)	(2.788)	(0.449)
REL	1.160**	0.108	1.044*	0.106	−0.007	0.394**	−0.018	0.385**
	(2.090)	(1.106)	(1.916)	(1.100)	(−0.082)	(2.140)	(−0.204)	(2.073)
SEN	0.539	−0.714***	0.522	−0.728***	−1.018***	−0.123	−1.016***	−0.169
	(0.879)	(−5.496)	(0.803)	(−5.494)	(−4.146)	(−0.598)	(−4.194)	(−0.834)
Cag	1.537**	0.796***	1.521**	0.796***	0.779***	1.070***	0.778***	1.059***
	(2.377)	(5.045)	(2.287)	(5.072)	(3.906)	(4.474)	(3.902)	(4.392)

Continued

_cons	−24.522	8.180**	−29.454**	6.913*	0.061	6.037	−3.078	4.016
	(−1.571)	(2.104)	(−1.990)	(1.870)	(0.006)	(1.310)	(−0.309)	(0.843)
Obs.	251	2579	251	2579	1436	1274	1436	1274
Industry fixed	yes	yes	yes	yes	yes	yes	yes	yes
Annual fixed	yes	yes	yes	yes	yes	yes	yes	yes
National fixed	yes	yes	yes	yes	yes	yes	yes	yes
Pseudo R^2	0.244	0.144	0.236	0.144	0.148	0.178	0.146	0.179

T-values are in parenthesis. ***$p < 0.01$, **$p < 0.05$, *$p < 0.1$.

6. Conclusion

This paper expands the traditional development vision of John Dunning's foreign direct investment, and brings the neglected factor of international talent flow into the study of the influencing factors of Chinese enterprises' overseas mergers and acquisitions. It finds that overseas students in China can promote the development of Chinese enterprises' overseas mergers and acquisitions by reducing national risks, providing a theoretical basis for the formulation of Chinese enterprises' overseas mergers and acquisitions policies; At the same time, this paper enriches the research methods in this field, effectively expands the existing research framework, and provides a new theoretical framework for follow-up scholars to study the influencing factors of overseas mergers and acquisitions of Chinese enterprises.

Based on the data samples of 3626 cross-border mergers and acquisitions of Chinese enterprises disclosed by Thomson Reuters from 2003 to 2019, with a cumulative sample size of 3231, this paper uses empirical research methods to analyze the impact of international students in China on cross-border overseas mergers and acquisitions of Chinese enterprises, and on this basis, discusses the intermediary effect of host country risk on the relationship between them. The empirical results show that: 1) compared with degree program students, non-degree program students in China have a more significant impact on overseas M&A of Chinese enterprises. 2) Overseas students in China promote the development of overseas M&A of Chinese enterprises and promote Chinese enterprises to carry out M&A in the target country by reducing the national risk of the target country. The results of the heterogeneity analysis show that there are differences between market types and purposes of studying in China.

The information and data obtained in this paper are still continuously updated. The research conclusions should be adjusted in time according to the development of education exchanges and cooperation between China and other countries in the world, as well as the changes in the international political and economic environment. The latest research results should be learned to further optimize the conclusions. In the future, it is necessary to further take the number of Chinese

students studying abroad as a control variable, micro data at the enterprise level, such as enterprise ownership, enterprise size, industrial distribution, parent subsidiary relationship and other heterogeneity characteristics, will be included in the empirical model research to further explore the relationship between overseas students studying in China and overseas mergers and acquisitions of Chinese enterprises. This will be an interesting question for future research.

Conflicts of Interest

The author declares no conflicts of interest regarding the publication of this paper.

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