

**Modelling Analysis of Australian International Education Market for
Mainland Chinese Students**

A Dissertation submitted by

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ABSTRACT

There has been a worldwide trend towards international study. The dominant stream of international students is from developing countries to Western developed countries. China is among the largest sources for international students, and this trend will become more significant in the near future (Liu et al. 2007). The top four destination countries for Chinese students are America, Great Britain, Australia and Canada. The Australian international education sector has undergone changes in recent years. After continuous growth of international students' enrolments in Australia for several years, enrolments started to decrease from 2010. As China is the largest international student market for Australia, therefore, it is necessary to conduct deep research to find the reasons for the decline of mainland Chinese students choosing Australia as their study abroad destination since 2010.

Few studies have clearly explained the reasons why there is a trend for the decline of mainland Chinese students study in Australia after the growth of many years. The existing literature studied some variables that can affect mainland Chinese students' decision to study in Australia. However, these factors are not comprehensive and systematic. They cannot help us to find the answers for the enrolment decline of mainland Chinese students in Australia and why Chinese students choose different countries as their study abroad destinations.

The research problem addressed in this thesis is this:

No consensus has been reached as to which variables play decisive roles in making mainland Chinese students choose Australia as their destination of foreign education. How do these variables influence those students' choice?

To provide an answer to this research problem, the researcher reviewed the literature regarding international students' decision making process to study abroad and considered findings relating to which push and pull factors influenced international students' choice. College choice model, push pull framework, utility theory and theory of reasoned action relevant to this research were discussed. A number of influential demographic, psychographic and influencing variables relevant to these theories were

identified and used to develop primary hypotheses depicting the influence of these factors on Chinese students' intentions to choose their study abroad destination.

Next, the methodology which applied in this research was presented and justified. The discussion began with the research paradigms and then justified the selection of the mixed research method. The research design was discussed and the convergent research design was selected for this research. Methodology of individual interviews and the reported findings of the interviews were discussed to gain a good general picture regarding Chinese students' decision to choose their study abroad destination. Methodology of the survey research was discussed to find different variables influencing Chinese students to choose the study abroad destination.

The advantage of mixed research method over the other research methods is that the mixed research method can enhance the understanding of the research questions, to mitigate the weakness of the other methods to be used in this study, to obtain a comprehensive understanding for research questions, to help us to answer different research questions, to explain the findings from each method by another method, to help us to better understand the unexpected results and to increase the credibility of this research

In summary, the findings of this research have satisfied the research problem proposed by firstly identifying key push pull factors that could have an impact on Chinese students' intention to study abroad and secondly determining how these factors influence Chinese students to choose a particular English-speaking country as their study abroad hosts country. In general, demographics tended not to have a relationship with psychographics and influencing factors. In addition, none of the demographics were considered to influence Chinese students' intention to study abroad and choose their destination country.

The main contribution of this research is that this research will integrate quantitative and qualitative research methods to analyse factors influencing mainland Chinese students' choice of Australia as their overseas study destination rather than other main English-speaking countries, for instance, America, Great Britain and Canada. It will help Australian education to find the key points to win the competition of enrolling Chinese international students.

Another contribution of this research is to combine overseas-based and China-based research to further identify and analyse the process of Chinese students study abroad. Previous researchers have identified some push and pull factors that influence Chinese students' overseas study destination choice. Nevertheless, scholars hold different viewpoints on those factors. Those findings may be limited because most research work published in the English literature was carried out by overseas researchers rather than Chinese domestic researchers who may have deeper insights into Chinese students' needs and wants. Due to the language barrier and cultural differences, those overseas-based researchers may not be able to fully understand the Chinese changing cultural, social and economic environments' impact on potential Chinese students' motivation to pursue higher degree studies overseas, because they do not have access to much of the Chinese research literature which is more relevant to Chinese students' realities. Most Chinese researchers have not had overseas experience and due to the language barrier cannot fully analyse the variables.

The results of this research also provide practical contribution to destination countries:

- To be successful in implementing an attractive marketing policy, the potential host country and its education department should be able to identify Chinese students real needs and wants and in turn, to develop appropriate marketing policy to persuade Chinese students to choose that country as their study abroad destination.
- This research has provided information specifically about push pull factors that could influence Chinese students' intention to choose their study abroad destination through attractive marketing policy. The different English-speaking country tends to address the different points. The different elements have been identified to be influential in explaining Chinese students' intention to study in Australia, America, Canada and Great Britain.

This research also suggests future research to extend the knowledge relevant to this research area:

- Future research could study the other key factors.
- To determine whether the findings of this research can be generalized, additional research may be conducted to investigate if similar patterns can be repeated in other research context.

- Future studies may repeat this research project with the use of other probability sampling techniques.
- Future studies also can refine the measurement scales used in this research by using multi-items (at least 4 items) for each construct.
- Future research can use a more complex data analysis technique to examine the relationship between push pull variables and the dependent variables of Chinese students' intention to study abroad.

Certification of the Dissertation

I certify that the ideas, research works, analyses, results, and conclusions contained in this thesis are entirely my own effort, except where otherwise acknowledged. I also certify that the work is original and has not been previously submitted for any other reward, except where otherwise acknowledged.



19/11/2015

Signature of Candidate

Date

Endorsement



19.11.2015

Signature of Supervisor/s

Date



24/11/15

Signature of Supervisor/s

Date



25/11/15

Signature of Supervisor/s

Date

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Table of Contents

ABSTRACT	I
CERTIFICATION OF THE DISSERTATION	V
ACKNOWLEDGEMENT	VI
CHAPTER 1 INTRODUCTION	1
1.1 BACKGROUND TO THE RESEARCH	1
1.2 MOTIVATION AND CONTRIBUTION	6
1.3 RESEARCH PROBLEMS AND OBJECTIVES	7
1.3.1 Research problems	7
1.3.2 Research objectives	8
1.4 JUSTIFICATION FOR THE RESEARCH	9
1.5 METHODOLOGY	10
1.6 DELIMITATIONS OF SCOPE	11
1.7 OUTLINE OF THESIS	11
1.8 SUMMARY	12
CHAPTER 2 LITERATURE REVIEW	14
2.1 INTRODUCTION	14
2.2 STUDENT COLLEGE CHOICE MODEL IN INTERNATIONAL EDUCATION	14
2.2.1 International higher education market	15
2.2.2 Studies for the student making decision process	16
2.2.3 Factors influence student destination choice	19
2.3 THEORY FOUNDATION	21
2.3.1 The push pull framework	21
2.3.2 Utility theory	31
2.3.3 The theory of reasoned action	32
2.4 KEY FACTORS INFLUENCING CHINESE STUDENTS' OVERSEAS STUDY DESTINATION CHOICES	33
2.5 MODEL CONCEPTUALISATION BASED ON PREVIOUS LITERATURE	45
2.6 SUMMARY	47
CHAPTER 3 RESEARCH METHODOLOGY	48
3.1 INTRODUCTION	48
3.2 RESEARCH PARADIGM	49
3.2.1 Justification for Combining Qualitative and Quantitative Research	50
3.2.2 Procedure of Designing a Mixed Methods Study	52
3.3 RESEARCH DESIGN	55
3.3.1 The major mixed methods design	55
3.3.2 Choosing the convergent parallel design	57

3.4 SUMMARY	58
CHAPTER 4 QUALITATIVE RESEARCH.....	59
4.1 INTRODUCTION	59
4.2 DATA COLLECTION.....	60
4.2.1 Sampling methods and strategies.....	60
4.2.2 Data collection methods.....	63
4.2.3 Data collection Procedures	69
4.3 DATA ADMINISTRATION AND ETHICS	77
4.4 ANALYSIS OF FINDINGS.....	77
4.4.1 Overview of the interview	80
4.4.2 Findings of interviews	80
4.5 SUMMARY	87
CHAPTER 5 QUANTITATIVE RESEARCH METHOD DESIGN	88
5.1 INTRODUCTION	88
5.2 RESEARCH DESIGN.....	89
5.3 DATA COLLECTION METHODS	91
5.4 SAMPLE DESIGN	93
5.5 RELIABILITY AND VALIDITY	96
5.6 QUESTIONNAIRE DESIGN PROCESS	97
5.7 SURVEY ADMINISTRATION.....	104
5.7.1 Non-response error	104
5.7.2 Strategies to increase response rate	104
5.8 PRE-TEST	105
5.9 LIMITATIONS	105
5.10 ETHICAL CONSIDERATION.....	106
5.11 SUMMARY	107
CHAPTER 6 QUANTITATIVE DATA ANALYSIS.....	108
6.1 OVERVIEW.....	108
6.2 ANALYSIS RESPONDENTS.....	109
6.2.1 Profile of respondents	109
6.2.2 Sample Size	110
6.3 DATA PREPARATION	111
6.3.1 Data cleaning and screening strategies	111
6.3.2 Assessment of missing data, outliers and normality.....	112
6.4 DESCRIPTIVE ANALYSIS	116
6.5 ASSESSMENT OF THE MEASUREMENT QUALITY	117
6.5.1 Exploratory factor analysis with all 36 items included.....	118
6.5.2 Confirmatory factor analysis for each construct.....	129

6.5.3 Data reduction methods	134
6.6 HYPOTHESIS TESTING AND ASSUMPTIONS OF REGRESSION MODELS	137
6.6.1 Key assumptions of the regression models.....	137
6.6.2 Results of the tests of the proposed hypotheses.....	138
6.7 SUMMARY	164
CHAPTER 7 CONCLUSION AND IMPLICATION	165
7.1 INTRODUCTION	165
7.2 CONCLUSIONS OF THE RESEARCH FINDINGS.....	167
7.2.1 Conclusions of the relationship between demographic and psychographic and influencing variables.....	171
7.2.2 Conclusions of the relationship between psychographic and influencing variables and Chinese students' choice decision (Hypothesis H4A to H4B for each country)	171
7.2.3 Explanation for conclusions	173
7.3 CONCLUSIONS IN RELATION TO THE RESEARCH PROBLEM AND RESEARCH OBJECTIVES	174
7.4 CONTRIBUTIONS TO THEORY, METHODOLOGY AND PRACTICE	175
7.4.1 Theoretical contributions	175
7.4.2 Methodological contributions.....	177
7.4.3 Practical contributions	178
REFERENCES.....	183
APPENDIX 1: IN-DEPTH INTERVIEW INFORMATION SHEET AND CONSENT FORM (ENGLISH VERSION)	199
APPENDIX 2: COVER LETTER TO PROSPECTIVE RESPONDENTS FOR MAIL SURVEY RESEARCH (ENGLISH VERSION).....	202
APPENDIX 3: IN-DEPTH INTERVIEW GUIDE (ENGLISH VERSION)	203
APPENDIX 4: SURVEY CONSENT FORM WITH QUESTIONNAIRE (ENGLISH VERSION)	207
APPENDIX 5 TABLE 6.3B-6.3D	218
APPENDIX 7: TABLE 6.4B-6.4D	221
APPENDIX 8: TABLE 6.5B-6.5D	224

Chapter 1 Introduction

1.1 Background to the research

There has been a worldwide trend towards international study. Over the past three decades, the number of students enrolled outside their country of citizenship has risen dramatically, from 0.8 million worldwide in 1975 to 3.7 million in 2009, more than fourfold increase (OECD 2011). Researchers predict that the number of international students might rise approximately to 7 million by year 2020 (Altbach et al. 2009).

The flow of international students has significant economic and academic implications for the host countries. These students will generate income for the host countries by spending on goods and services, such as accommodation, tuition fees, tourism, food, and entertainment and so on. They also generate more job positions for the host country. In Australia, enrolling every two international students will create one job position (MacLeod 2011; Phillimore & Koshy 2010). Education related travel has become the third largest export industry in Australia, and it is almost 50% more than the tourism-related travel. The international higher education market has become one of the most significant economic sectors of the Australian economy. In the United States, international education and training constitutes the fifth largest category of exports. Similarly, in New Zealand the international education sector is also identified as an industry (Asgarkhani & Wan 2008). The international education industry is increasingly regarded as a component of international service trade. The mobility of students has facilitated the growth of this trade.

The dominant stream of international students is from developing countries to western developed countries. China is among the largest sources for international students, and this trend will become more significant in the near future (Liu et al. 2007). More than 100 years have passed since China started to send its students and scholars to study overseas (Hui 2005). From 860 in 1978, there are currently more than 3 million Chinese students studying abroad according to the latest Australian Ministry of Education figures released on 10 February 2012 (*Chinese Students Abroad - 2011 Figures Released* 2012). In different stages of Chinese history, the motivations and purposes of studying abroad for mainland Chinese students has varied. Table 1.1 shows an overview of the flow of Chinese overseas students since the first Chinese student came to America in 1847:

At the early stage of Chinese students studying abroad, most students were sponsored by the Chinese government or were supported by the scholarships from the foreign universities. After entering the 21st century, the growth of Chinese students studying overseas sped up thanks to China's rapid economic development and the attendant increase of family income, a significant fact as Chinese students depend upon parental financing of their overseas education.

Table 1.1 The history of Chinese students studying overseas

Stage	Purpose	Scale
Late Qing Dynasty	Eager to learn the Western culture and technology	Small Scale
Republic Period	Strengthen China and to develop its own modernization Western education broadened Chinese vision Accelerated the process of China to accept modern culture Brought modern concepts back to China and aroused Chinese people to establish a republic	About 100,000 (Wang 1994)
Before 1978	Went to former Soviet Union to study the theories of Marxism and Leninism Learning the experience of revolution Went to socialist countries for culture and communication	Students population declined due to the Chinese Culture Revolution
After 1978	Enhancing national science and technology level.	Student population boomed, around 700,000 from 1978-2003 (Yao 2004)

Source: developed for this paper from Yao (2004), Wang (1994).

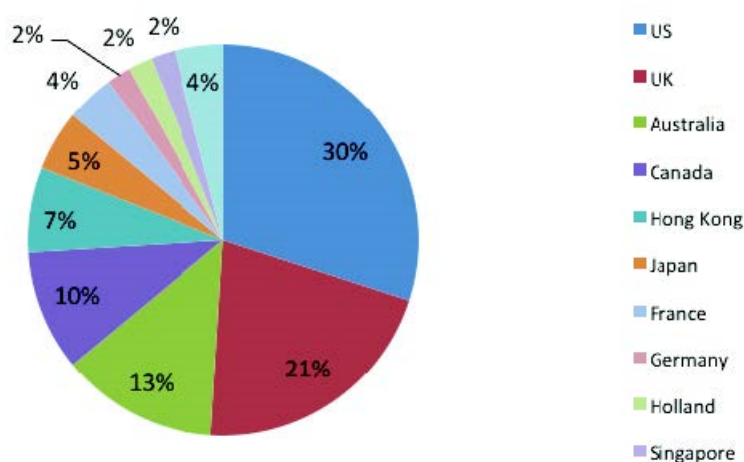
Due to the one-child policy that was instituted in mainland China after 1978, the overwhelming majority of Chinese family can only have one child. Most parents try their best to provide the best possible education opportunity for their children. In 2001, a survey conducted by China's National Statistical Bureau showed that more than 60% of Chinese families invest one-third of their income in their children's education (Mazzarol et al. 2001). "A family's spending on their children's education is second only to their food expenses" (Zhang 2001). Mainland Chinese students and their parents envisage that access to a good education will largely guarantee a decent job and bright future (Francis & Archer 2005). A graduate with a degree from overseas is thought to have better knowledge, to be more employable and competitive in the job market and more easily to obtain a relative high income (Gareth 2005). The experience from the overseas returnees reaffirms these advantages in mainland China in the past three decades.

At present, the Chinese students studying abroad are scattered over one hundred countries and regions for their tertiary education. Before the economic reforms, most Chinese students chose to study abroad in the socialist countries. With the implementation of the opening policy and the enhanced living quality in mainland China, more and more students considered the Western developed countries as their overseas education destinations. Overall, more than 90 per cent of Chinese students

studying overseas are in the America, Australia, Japan, Great Britain, South Korea, Canada, Singapore, France, Germany and Russia (*Surge in Overseas Students* 2011). As of 2011, the top four destination countries for Chinese students are America, Great Britain, Australia and Canada (EiC 2011). The distribution of Chinese overseas students studying in different countries is presented in Figure 1.2.

China and Australia have a long trading history, which can be traced back to the end of the nineteenth century when Australia started to export minerals to China. In 1972, China and Australia established diplomatic relations. In that year, bilateral trade volume was just A\$72 million (Yu & Xiong 2010). However, since the beginning of the 1990s, economic exchanges and cooperation between the two countries have strengthened extensively in the fields of education, tourism, agriculture, forestry and animal husbandry, energy, mining, environmental protection, transport, and as urban regeneration.

Figure 1.2 The distribution of Chinese overseas students in 2013



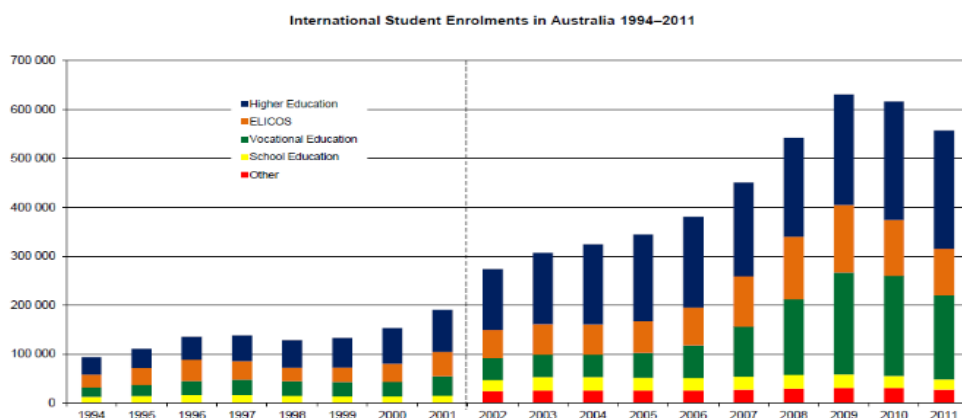
Source: China Education Online (2013).

Now China has become Australia's largest export market. Australia's total trade with China in 2010 achieved AU\$105 billion, increased 24 per cent from 2009. It was the first time that Australia's two-way trade with a single nation had topped the \$100 billion level (Department of Foreign and Affairs and Trade 2011). Exports to China account for 23.7 per cent (\$70.5 billion) of total exports in the 2010-11 financial years (1 July-30 June following year). The service exports to China reached \$5.7 billion in the same year, accounting for 11.2 per cent of Australian total service exports, 50.6 billion (Australian Bureau of Statistics 2011). "At the end of 2011, more than 97,000 Chinese students were enrolled in tertiary education courses in Australia, accounting for around 40 per cent of international enrolments in higher education" (Griffith University 2012).

Australia is globally recognised as having one of the most developed and innovative education and training systems in the world. Australia ranks second out of 191 countries and territories in both the United Nation's Human Development Index and the United Nations Education Index. In the 2010 QS World University Rankings, 13

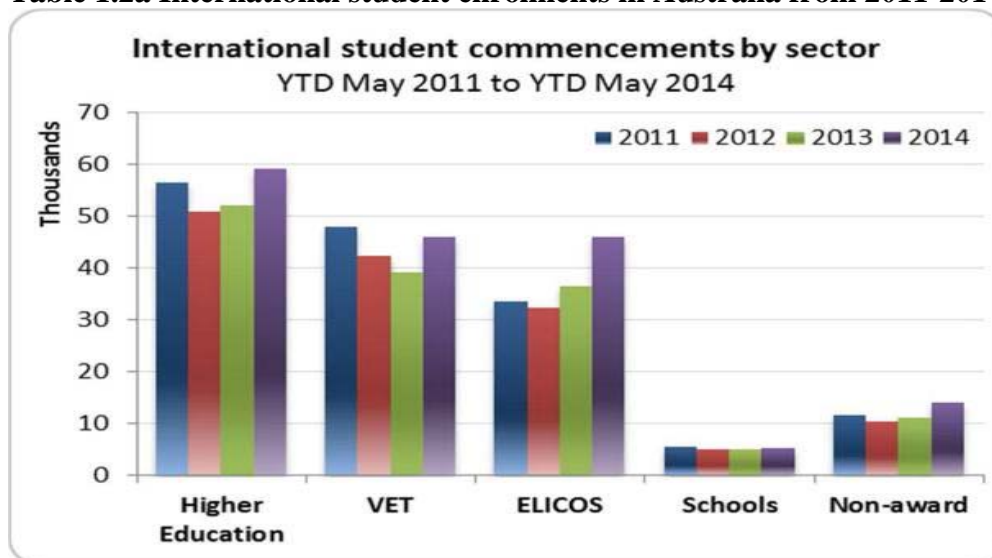
per cent of Australia’s universities were ranked in the Top 50 and 67 per cent in the Top 500 in the world (Consulate-General). Their performance is consistently better than universities in many developed countries with higher population than Australia. “Education services (16.3 billion) are Australia’s largest services export industry ahead of personal travel services (\$11.9 billion) and technical, trade-related and other business services (\$3.7 billion) in 2010- 2011 financial year” (Australian Education International 2011). Australian international education sector has undergone changes in recent years. After the continuous growth of international students enrolments in Australia for several years, the enrolments started to decrease from 2010 (See Table 1.2). The data from Australian Education International in November 2011 show that “international education activity contributed \$16.3 billion in export income to the Australian economy in 2010-11” (Australian Education International 2011), representing a 12.0% decline from the \$18.6 billion recorded for the 2009-10 financial year (See Table 1.3). This change also leads to the income declining from the education related services (See Table 1.4). This change “was driven by the adjustments of Australia’s migration policy, the increased value of the Australian dollar against other currencies, and intense competition from Australia’s education export competitors”, such as Canada, the Great Britain and the US (*Strategic Review of the Student Visa Program 2011*). In 2014, the students’ enrolment in Australia start to recovering increase (See Table 1.2a). This change also leads to the income increasing from the education related services (See Table 1.4a).

Table 1.2 International student enrolments in Australia from 1994-2011



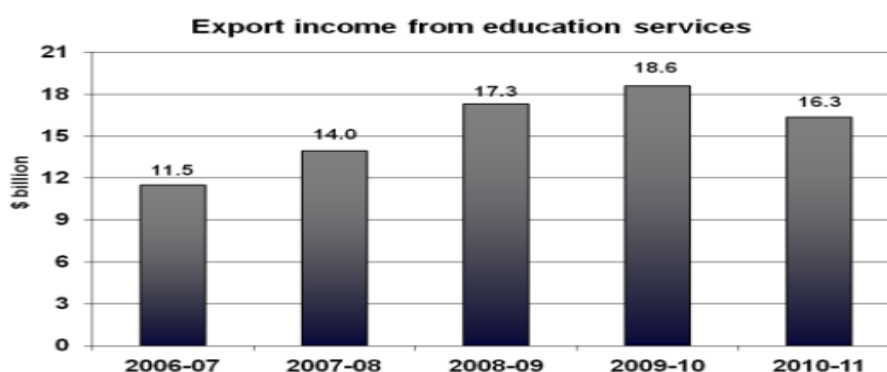
Source: Australian Education International, Australian Government, 2012

Table 1.2a International student enrolments in Australia from 2011-2014



Source: Tertiary Sector News & Views (2014).

Table 1.3 The change of export income from international education services



Source: Australian Education International, Australian Government, 2012

Table 1.4 The change of Australia's education-related services' exports (2008-2011)

Australia's Exports of Education Services			A\$ million		% change
	2008-09	2009-10	2010-11	% share of 2010-11	2009-10 to 2010-11
Education related travel services	16,725	17,995	15,753	96.4%	-12.5%
China	3,773	4,292	4,103	25.1%	-4.4%
India	2,855	3,066	2,012	12.3%	-34.4%
Republic of Korea	1,117	1,075	898	5.5%	-16.5%
Vietnam	594	777	773	4.7%	-0.5%
Malaysia	814	843	770	4.7%	-8.7%
Thailand	672	710	607	3.7%	-14.5%
Indonesia	555	583	559	3.4%	-4.1%
Nepal	511	606	454	2.8%	-25.1%
Hong Kong	560	543	448	2.7%	-17.5%
Saudi Arabia	288	354	337	2.1%	-4.8%
Other countries	4,986	5,146	4,792	29.3%	-6.9%
Other educational services^(e)	560	555	559	3.4%	0.7%
Education consultancy services	148	95	77	0.5%	-18.9%
Correspondence courses	25	22	23	0.1%	4.5%
Services through educational institutions	226	263	263	1.6%	0.0%
Other education services	161	175	196	1.2%	12.0%
Royalties on education services	27	26	36	0.2%	38.5%
Total education related services exports	17,312	18,576	16,348	100.0%	-12.0%

Source: Australian Bureau of Statistics , 2011

**Table 1.4a The change of Australia's education-related services' exports
(2012-2014)**

Australia's total exports of education-related services					
	<i>A\$ million</i>			<i>% share</i>	<i>% change</i>
	<i>2012</i>	<i>2013</i>	<i>2014</i>	<i>of 2014</i>	<i>from 2013</i>
<i>Education-related personal travel</i>	14,525	15,010	17,037	96.7%	13.5%
China	3,939	4,039	4,408	25.0%	9.1%
India	1,428	1,293	1,805	10.2%	39.6%
Vietnam	753	863	1,016	5.8%	17.7%
Republic of Korea	739	742	759	4.3%	2.3%
Malaysia	703	700	720	4.1%	2.9%
Thailand	500	530	628	3.6%	18.5%
Nepal	470	458	585	3.3%	27.7%
Indonesia	535	538	561	3.2%	4.3%
Pakistan	322	398	481	2.7%	20.9%
Brazil	301	364	471	2.7%	29.4%
<i>Other countries</i>	<i>4,835</i>	<i>5,085</i>	<i>5,603</i>	<i>31.8%</i>	<i>10.2%</i>
<i>Other educational services^(e)</i>	526	478	558	3.2%	16.7%
Education consultancy services	142	145	140	0.8%	-3.4%
Correspondence courses	27	13	9	0.1%	-30.8%
Services through educational institutions	226	208	334	1.9%	60.6%
Other education services	131	112	75	0.4%	-33.0%
<i>Royalties on education services</i>	25	33	31	0.2%	-6.1%
Total education-related services exports	15,076	15,521	17,626	100.0%	13.6%

Source: Department of Education and Training, Australian Government, 2015

As China is the largest international students market for Australia, therefore, it is necessary to conduct in-depth research to find the reasons for the enrolment fluctuation of mainland Chinese students choosing Australia as their study abroad destination. This research will identify which variables play a decisive role for Chinese students choosing Australia instead of other choices as their study abroad destination. Based on the analysis, this research will try to propose some marketing policy suggestions for Australia education sector and policy makers who face the enrolment challenge from the mainland Chinese international students.

1.2 Motivation and Contribution

This study is initially motivated by the intention to understand the main reasons for the enrolment fluctuation of mainland Chinese international students in Australia since 1994. In the last decade, the mainland Chinese students continuously increased and gradually became the largest international students' source in Australia's international education sector. Few studies have clearly explained the reasons why mainland Chinese students choose Australia as their study abroad destination rather than other English-speaking countries. The existing literature studied some variables that can affect mainland Chinese students' decision to study in Australia. However, these factors are not comprehensive and systematic. They cannot help us to find the answers for the declining enrolment of mainland Chinese students in Australia.

Another motivation for this study is to understand why Chinese students choose to study in a particular country. Understanding the decision making process of Chinese students can facilitate the relevant education providers to expand their enrolment or reduce the fiscal expenditure based on the influencing factors. This research will highlight suggestions for policy makers to improve the enrolment of mainland Chinese students and boost the tourism market through the expanding of mainland Chinese international students' market.

The main contribution of this research is that this research will integrate quantitative and qualitative research methods to analyse factors influencing mainland Chinese students' choice of Australia as their overseas study destination rather than other main English-speaking countries, for instance, America, the Great Britain and Canada. It will help Australian education to find the key points to influence Chinese international students' study abroad decision.

Another contribution of this research is to examine and combine research of overseas-based (not China) and China-based research to further identify and analyse the process of Chinese students study abroad. Previous research has identified some push and pull factors that influence Chinese students' overseas study destination choice. Nevertheless, scholars hold different viewpoints on those factors. Scholars have argued that future immigration possibility, universities' reputation or ranking in host country and expenditure of study abroad in destination countries are pertinent factors influencing the direction of the Chinese students' flow (Li & Bray 2007; Lim et al. 2011; Lu et al. 2009; Yang 2007b). Nevertheless, those findings may be limited because most research work published in the English literature was carried out by overseas researchers rather than Chinese domestic researchers who may have deeper insights into Chinese students' needs and wants. Due to the language barrier and cultural differences, those overseas-based researchers may not be able to fully understand the Chinese changing cultural, social and economic environments' impact on potential Chinese students' motivation to pursue higher degree studies overseas, because they do not have access to much of the Chinese research literature which is more relevant to Chinese students' realities. At the same time most Chinese researchers have never had overseas experience due to the language barrier. As the researcher of this project knows both English and Mandarin, this research will be able to further analyse the research questions using both overseas-based and China-based research.

1.2 Research problems and objectives

1.3.1 Research problems

The purpose of this research is to investigate relevant variables which influence Chinese students to choose Australia as their study abroad destination rather than other English-speaking countries. The research problem addressed in this thesis is this:

No consensus has been reached as to which variables play decisive roles in making mainland Chinese students choose Australia as their destination of foreign education. How do these variables influence those students' choice?

From the above research problem, following research objectives will then be addressed:

- Identify key push and pull variables that influence Chinese students' intention to study in Australia rather than other English-speaking countries;
- Determine how these variables impact Chinese students' intention to study in Australia.

Mainland China is the most important education export market for Australia. There are many variables that influence mainland Chinese students' choice. Yang (2007b) argued that the most important factors attracting mainland Chinese students to study

in Australia are future migration opportunities after graduation, high quality of education, competitive lower tuition fees and cost of living. Today mainland Chinese students face many choices when they decide to study abroad. English countries such as the America, Canada, New Zealand and Great Britain can also provide quality tertiary education. While Australia tightened its students' visa requirements, other competing countries relaxed their visa requirement to attract more Chinese students to study with their university (Becker & Kolster 2012). The cost of studying in some countries such as New Zealand is lower than Australia. Singapore and Hong Kong have some of the top ranked universities in the world, and they also have strong cultural ties with China. They are becoming increasingly attractive for Chinese students who wish to study abroad.

Some studies clearly show that the variation of the education cost will force many students to either withdrew or temporarily withhold their decision to study abroad (Ali & Hseih 2009; Ali et al. 2006). A substantial change in exchange rate will result in considerable change in education cost. Abbott and Ali (2009, p15) claimed that "students from some countries such as the United States and Japan are more likely to be affected by changes in exchange rates than students from countries such as India and China". However, Xiao (2010) argued that even high and middle-income Chinese families need to save money for many years or decades to support their children's expensive overseas education and the variations on the exchange rate will undoubtedly influence the decision from parents. Guo (2008) supported this view that the exchange rate will affect the students' decision as to whether to come to study in Australia or continue to undertake further studies in Australia, especially when they are studying in such expensive big cities as Sydney and Melbourne.

In short, the research problem is that the literature, without agreement and from multiple points of view, discusses factors which influence Chinese students to study abroad in the main English-speaking countries.

1.3.2 Research objectives

In order to gain a more detailed understanding of the theoretical constructs involved in this research, we begin with a review of the literature (Chapter 2), which will explore push pull variables identified in previous studies. The literature also provides a discussion of the key consumer behaviour theories most relevant to this research topic, namely utility theory (Fishburn 1970), and the theory of reasoned action (Hale et al. 2002). Based on these theories and the review of the literature, Chapter 2 will develop preliminary hypotheses depicting the influence of push pull variables on Chinese student's choice of study abroad destination.

In more detail, the concepts hypothesized to influence Chinese students' intention to choose their study abroad destination include demographic factors, psychographic factors and general influencing factors. Demographic factors are age and gender. Psychographic and general influencing factors consists of destination country factors, domestic country factors, finance concern, university factors, requirement factors, students' personal factors, other influencing factors and potential benefit factors. Table 1.7 summarises the hypotheses.

Table 1.7 Summary of hypothesis statements

H1A Female students consider other influencing factors more than male students
H1B Age will negatively influence other influencing factors
H2A Expected cost will positively influence finance concern
H2B Age will positively influence finance concern
H3 Age will negatively influence benefits factors.
H4 for Australia A: Destination country factors will positively influence the intention to study in Australia B: Finance concern will positively influence the intention to study in Australia C: Domestic factors will negatively influence the intention to study in Australia D: University factors will positively influence the intention to study in Australia E: Requirements will positively influence the intention to study in Australia F: Students' personal factors will positively influence the intention to study in Australia G: Benefits factors will positively influence the intention to study in Australia H: Other influencing factors will positively influence the intention to study in Australia
H4 for America A: Destination country factors will positively influence the intention to study in America B: Finance concern will positively influence the intention to study in America C: Domestic factors will negatively influence the intention to study in America D: University factors will positively influence the intention to study in America E: Requirements will positively influence the intention to study in America F: Students' personal will positively influence the intention to study in America G: Benefits factors will positively influence the intention to study in America H: Other influencing factors will positively influence the intention to study in America
H4 for Canada A: Destination country factors will positively influence the intention to study in Canada B: Finance concern will positively influence the intention to study in Canada C: Domestic factors will negatively influence the intention to study in Canada D: University factors will positively influence the intention to study in Canada E: Requirements will positively influence the intention to study in Canada F: Students' personal will positively influence the intention to study in Canada G: Benefits factors will positively influence the intention to study in Canada H: Other influencing factors will positively influence the intention to study in Canada
H4 for Great Britain A: Destination country factors will positively influence the intention to study in Great Britain B: Finance concern will positively influence the intention to study in Great Britain C: Domestic factors will negatively influence the intention to study in Great Britain D: University factors will positively influence the intention to study in Great Britain E: Requirements will positively influence the intention to study in Great Britain F: Students' personal will positively influence the intention to study in Great Britain G: Benefits factors will positively influence the intention to study in Great Britain H: Other influencing factors will positively influence the intention to study in Great Britain

Source: developed for this research

1.4 Justification for the research

Touted as a green industry, international education can bring substantial benefits for a country's local economy by boosting job market and increasing income of local people. Hence, attracting international students, especially mainland Chinese students, is becoming a very important issue for the governments and policy makers of many

countries. Prior research studies have analysed the surging international students flow. Nevertheless, it is still not clear what drives mainland Chinese students to choose to study in those English-speaking countries and how to increase the enrolment of mainland Chinese students in their countries when competing with their counterparts. An overview of the literature can identify factors which influence international students to study abroad, especially for the Asian students. However, not all of these factors have the same effect on mainland Chinese students' choice. Mainland China has fast economic growth, different and unique history, different social culture and education system from most other Asian countries. This motivates a further study on examining what factors influence mainland Chinese students in their choices, where a framework is needed to analyse the complex effects of these factors and to help us attain an in-depth understanding of why mainland Chinese students want to take their tertiary education in a Western country and how they choose their destination country. This research is the first comprehensively in-depth study to integrate push pull factors to identify the mainland Chinese students' decision process to study abroad. The education sectors of main English-speaking countries can benefit from this research to enlarge the enrolment of the mainland Chinese students.

1.5 Methodology

The mixed research methods have been chosen in this research to help us solve research problems and answer research questions. The mixed research methods design provides sound frameworks for collecting, analysing, interpreting and reporting quantitative and qualitative data to best address specific types of research purpose (Creswell & Clark 2011). This research chooses to use the methodology of convergent design, in which data collection and data analysis of qualitative and quantitative research are conducted at the same stage. Both qualitative and quantitative methods are equally emphasized. Each is independent during the initial analysis. Then the analyst mixes and synthesizes the findings to yield an overall interpretation.

The primary data will be collected through semi-structured interviews using open-ended questions via face-to-face interviews. Face-to-face interviews have the highest response rate of all interview types. The interview questions for this study will be prepared in advance and will reflect the existing literature.

The design of this research is to interview Chinese students before they start their study abroad journey in mainland China. A total of 30 pilot questionnaires will be handed out prior to the formal interview. This study will conduct 30 semi-structured interviews for mainland Chinese students, who come from various provinces of China. These students will be questioned about their motivations and needs regarding their study abroad program. The purpose of the interview is to identify the crucial factors influencing a mainland Chinese student's choices in studying abroad.

The survey method is conducted at the same phase. This survey studies a self-administered questionnaire with the mixture of pre-coded and open-ended questions. A total of 600 questionnaires will be distributed during a 10 week period. The students will be selected with the help of Students Affairs officers in mainland Chinese universities. The questionnaire will be translated into Chinese for the survey. A pilot survey will be performed before the full-scale survey is carried out. The motivational items will be based on a comprehensive literature review and some additional

motivations drawn from conversations with randomly selected mainland Chinese students. This survey will contain three parts: the push motivational factors to study in the main four English speaking countries, the pull motivational factors of study in the main four English speaking countries and the demographic information. A 5-point Likert-type scale will be used to measure the importance of each motivational item, with 1 being not at all important and 5 very important.

1.6 Delimitations of scope

Three delimitations of this research have been defined. The first delimitation is related to the major objective of this research. While Chinese students are a broad definition, the students from mainland China, Hong Kong, Macau and Taiwan constitute Chinese students in majority Chinese political districts. In this research, we only focus on the mainland Chinese students excluding the students from Hong Kong, Macau and Taiwan, because mainland China has a different political, economic, educational, social and historical background compared with these three other districts. Another reason to focus on mainland Chinese students is the great concentration of Chinese people in China. The population of mainland China is far more than the summation of Hong Kong, Macau and Taiwan. According to the 2010 Chinese population census, mainland China had around 1.3 billion people, Taiwan had around 23 million, Hong Kong had around 7 million and Macau had around a half million. Accordingly, this research only focuses on analysing mainland Chinese students' behaviour.

The second delimitation is related to the context of the research objectives. This research is specific to the self-financed students from mainland China. These students make up the largest group of total mainland Chinese international students. Upon entering the 21st century, Chinese family income in mainland China had risen sufficiently to lead a dramatic rise in the rate of self-supported students. According to the report from the Chinese Ministry of Education, among all the mainland Chinese international students, 93% is self-financed, whilst the Chinese government sponsors only 7% (Xi 2006). Those self-supported students represent the overwhelming majority of the students and the Chinese income source for the destination countries.

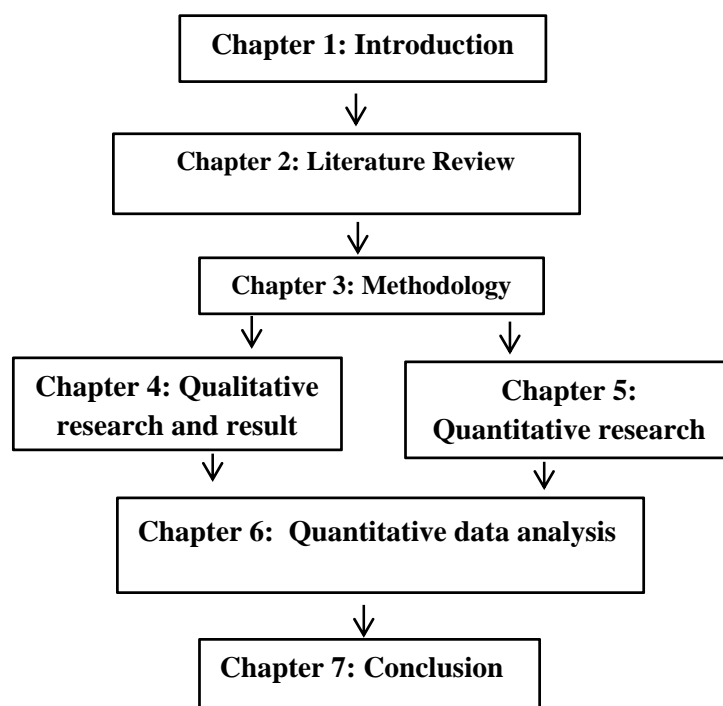
Finally, the destination countries for mainland Chinese students studying overseas are concentrated in the four main English-speaking countries: Australia, America, Great Britain and Canada. These four countries attracted 75% of total mainland Chinese students who study abroad (EiC 2011), and they compete with each other to enrol mainland Chinese students. The major task of this research aims to analyse the Australian international education market for mainland Chinese students. As the international students' market is an integrated market, the change of pull factors within one country will lead to the enrolment change of students in other competing countries. Based on these considerations, Australia, America, Great Britain and Canada are selected as the major destination countries for this research.

1.7 Outline of thesis

This thesis consists of seven chapters, as outlined in figure 1.4. Chapter 1 provides the background, motivation and contribution, research problem and research questions, justification for the research, methodology and delimitations of the scope for this

research. Chapter 2 reviews the existing literature on the flow of international students, the push pull theory, utility theory and consumer's reasoned action theory. Chapter 3 describes research methodology adopted for this research and the methods employed to address the research propositions and the research questions. Chapter 4 describes qualitative research. It focuses on in-depth interviews for mainland Chinese students. Chapter 5 develops a structured questionnaire for quantitative field research and then collects survey data with substantial samples from a few Chinese universities. Subsequently, Chapter 6 analyses the survey data using multi regression model. The final chapter of the thesis summarises the findings and conclusions for the thesis.

Figure 1.4 Outline of the thesis

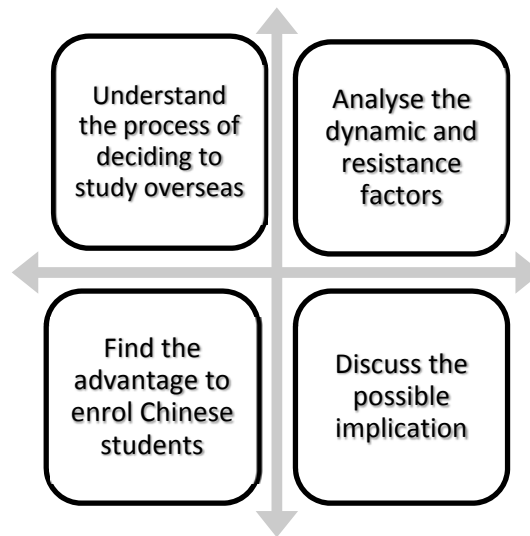


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1.8 Summary

In conclusion, this study seeks to explain why and how mainland Chinese students choose to pursue their higher education in the different main English-speaking countries, especially in Australia. This study will assess the dynamics and resistance of the factors which influence those students' choice and to describe the possible implications for the universities and countries which offer international education for mainland Chinese students.

Figure 1.5 Four aims of this study



Source: developed for this research

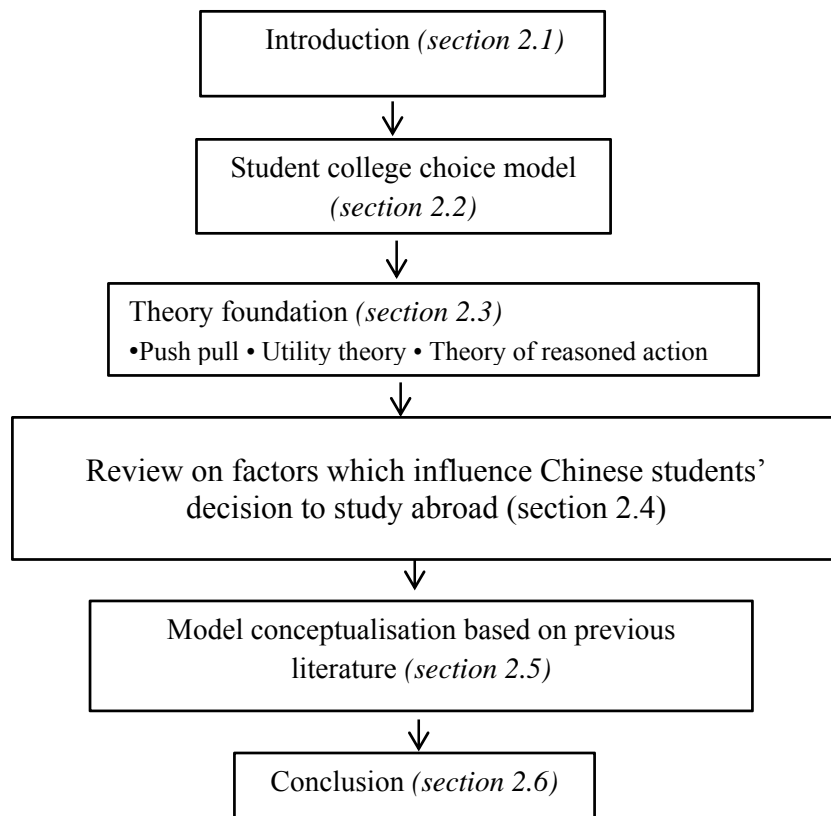
This chapter introduces the background and research problem, justifies the motivation and contribution of this research, proposes the research questions and explains the methodology used in this thesis. On these bases, the next chapter of this thesis conducts an in-depth study of the pertinent literature.

Chapter 2 Literature Review

2.1 Introduction

This chapter aims to provide a context for understanding the research issues and will develop elements of a research model in relation to the influential variables which have impacted Chinese students' intention to study overseas. This is organised into six sections as illustrated in Figure 2.1. Section 2.2 overviews the student college choice model. Section 2.3 reviews the foundational theory for the decision process of international students to study abroad. Section 2.4 identifies differences between overseas-based and China-based research outcomes in order to develop a more comprehensive view of factors that may impact mainland Chinese students' overseas destination choice. Section 2.5 develops a conceptualisation model based on previous literature. Finally, the last section (section 2.6) provides a conclusion of this chapter.

Figure 2.1 Outline of chapter 2



Source: developed for this research

2.2 Student college choice model in international education

The competition for enrolling international students is increasingly intense. The student college choice theory in international education serves as one of the background theories for this research, because it provides the framework in which the different variables work. The discussion is organised into two subsections. Section

2.2.1 reviews studies in the international higher education market. In turn, the students' choice theory will be discussed in section 2.2.2.

2.2.1 International higher education market

The development of higher education market has attracted growing attention. Many governments of developed countries, such as America, Australia and New Zealand, define higher education as an economic sector of the countries' economy (Asgarkhani & Wan 2008; Phillimore & Koshy 2010). In doing this, countries have transformed higher education to a service trade. Students' mobility is regarded more as a trade than as aid now (Li & Bray 2007). The marketing of higher education has revealed that the higher education serves both public and private purposes, as individuals can obtain the benefits by participating in this process. This research is conducted to improve our understanding of students' behaviour in the existing higher education service market and focusses on the international segment of the student market.

In the first decade of the 21st century, tertiary education in some Western countries faced a financial crisis. The growth of tertiary education has driven the cost up significantly. The overall cost pressure is growing faster than most countries' public revenue streams are growing (Altbach et al. 2009). Funding shortages due to massification of higher education indicated that the institutions are increasingly responsible to generate the revenues by themselves. In addition, the current global economic crisis aggravates this financial pressure for the tertiary education sector globally. In most countries, the government subsidy for tertiary education has decreased (Codd 2001; Greenaway & Haynes 2003; Marginson & Wende van der 2007). For example, in the United States, government subsidy for some public universities only account for 20 per cent of that university's total budget. This compels universities to obtain revenues from other sources (Altbach et al. 2009). Confronted with this challenging situation, universities in most developed countries have to seek revenue from a non-government source (Meek & Wood 1997). Attracting international students to study in their countries became one of the new sources for the new funding (Baldwin & James 2000). Western developed countries welcomed this international higher education market, because this market provides a source of cash and can bring benefits for both the destination countries and universities.

The international education market has witnessed tremendous increases of the number of international students. Over the past three decades from 1978-2009, the number of students enrolled outside their country of citizenship has risen more than four times and reached 3.7 million in 2009 (OECD 2011). Some have predicted that the number of international students might rise to 7 million by year 2020 (Altbach et al. 2009). The movement of students is mainly from developing countries to developed countries, and Asian students account for almost half of total international students. Four English-speaking countries, America, Great Britain, Australia and Canada host almost half of the total international students' enrolment (Kemp et al. 1998).

The Australian government pays considerable attention to the economic relationship with Asia; international education is one of the most important economic areas. In December 2011, the Australian government released the white paper, *Australian in the Asian Century*, which examines Australia's past and future relations with the Asian countries (*Australian in the Asian Century* 2012). This white paper stated that Asian

demand is most evident for Australian natural resources, education, tourism and agriculture. For the education sector, China is one of the major international students' source countries for Australia. The Australian government also declared that they continue to welcome large numbers of tourists from Asian countries. However, the government also realised that the high exchange rate is putting pressure on export and import-competing sectors, including the education sector. The white paper posed the question of how Australia could promote flexibility in responding to structural change in areas such as innovation, business adaptability, labour mobility, education and training and capital market efficiency.

In brief, international higher education is recognised as an economic sector in many Western countries. While this sector is still a less researched field in marketing studies, the students' decision process for studying overseas is relevant to this research because it sheds insight into students' behaviour in the higher education market. Thus the next section examines previous studies in the model of student college choice.

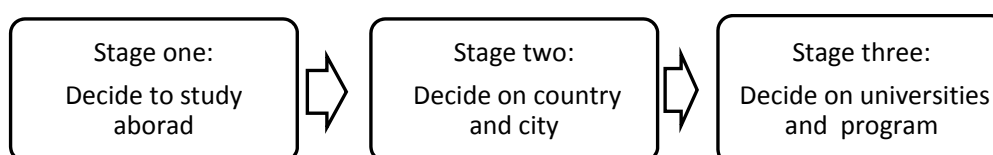
2.2.2 Studies for the student making decision process

Students face an array of choices when they make a decision to pursue their tertiary education in the Western developed countries. Those countries compete with each other for enrolling international students. The student decision process and student college choice are a developed area in higher education studies. In this subsection, we review these two research approaches individually.

Student decision making process

The high costs of studying abroad make it a complex decision involving substantial buyer deliberation. Generally students have to consider whether they will pursue their tertiary education overseas, and if so then which country, university and programs will be chosen. Overall, it appears that the decision-making process through which the international student moves involves at least three different stages (Cubillo et al. 2005; Mazzarol & Soutar 2002). Firstly, the student must decide to study abroad rather than at home country. This decision can be affected by a range of push factors within the student's home country. The next steps are to select a host country and city. In this stage, pull factors will play a significant role, making the host country more attractive than other competing countries. In the last stage, students decide which university and which courses to enrol (Mazzarol & Soutar 2002). This international perspective of student decision process is appropriate for this research and is illustrated as follows:

Figure 2.1 Students decision process of studying overseas



Source: developed for this research from Mazzarol & Soutar (2002).

The student decision process for international tertiary education as shown above lends itself to the push pull framework of analysis. That is, push and pull factors correspond to the three decisions making processes of choosing destination countries. Those push

and pull factors motivate and attract students from developing countries to continue their tertiary education in the Western developed countries. According to this specific division, students develop an intention to continue their further study overseas during the first stage. In this stage, push factors have much effect on their decision. Then in the second and third stage they collect the information and acquire the knowledge about the alternative destination countries and programs of possible tertiary institutions. Pull factors play a decisive role for those students' choices in these stages. After those three stages, students compare and evaluate all of the information and knowledge related to the destination countries and universities to reach their final decision (John et al. 1996). However, no previous studies have integrated the factors impacting mainland Chinese students' choice to focus on all three phases of this decision making process.

Modelling student college choice

Different schools of thought model student college choice in divergent ways. Economists based their models of student college choice on human capital theory (Becker 1975). The human capital theory is derived from the standard economic logic of optimisation and is validated by a great deal of empirical evidence. Returns to investment on education based on human capital theory have been studied since the late 1950s. The investment in education behaves in a more or less similar manner to investment in physical capital (Heckman 2005; Psacharopoulos & Patrinos 2004). The investment in human capital can raise the skills of those invested in. Numerous empirical studies indicate that people who are more educated and skilled will be more proficient in adapting to changes in technology and to working efficiently. They also are better at understanding new ideas and adopting newly developed technologies; they will have a comparative advantage in the job market.

The human capital theory includes three components: 1) early ability (acquired or innate), 2) qualifications and knowledge obtained from education and 3) skills or expertise from training on the job. People invest in human capital to gain a return in the future (Blundell et al. 1999). For example, when some people invest money in education to pay for tuition, they expect that their future income will increase. Some people spend money for training to master a skill; they wish that they can increase their productivity after the training. During the period of investing in human capital, such as training or studying overseas, the individual gives up current income in order to obtain a higher return in the future. The income in the competitive labour market reflects the marginal product of workers. The individual, who wishes to obtain a higher wage and invests in human capital, should become more productive than those peers who do not invest in human capital (Blundell et al. 1999). The investment in education can also bring non-monetary benefits. Kenkel (1990) found that more educated people have better knowledge about health and they are more healthy. They also have a better ability to manage their income and design their future. Human capital theory considers education as an investment impacting the future of individual students. The students with higher degrees become more productive and in turn earn higher incomes. This prospect for a brighter future motivates students to invest in tertiary education.

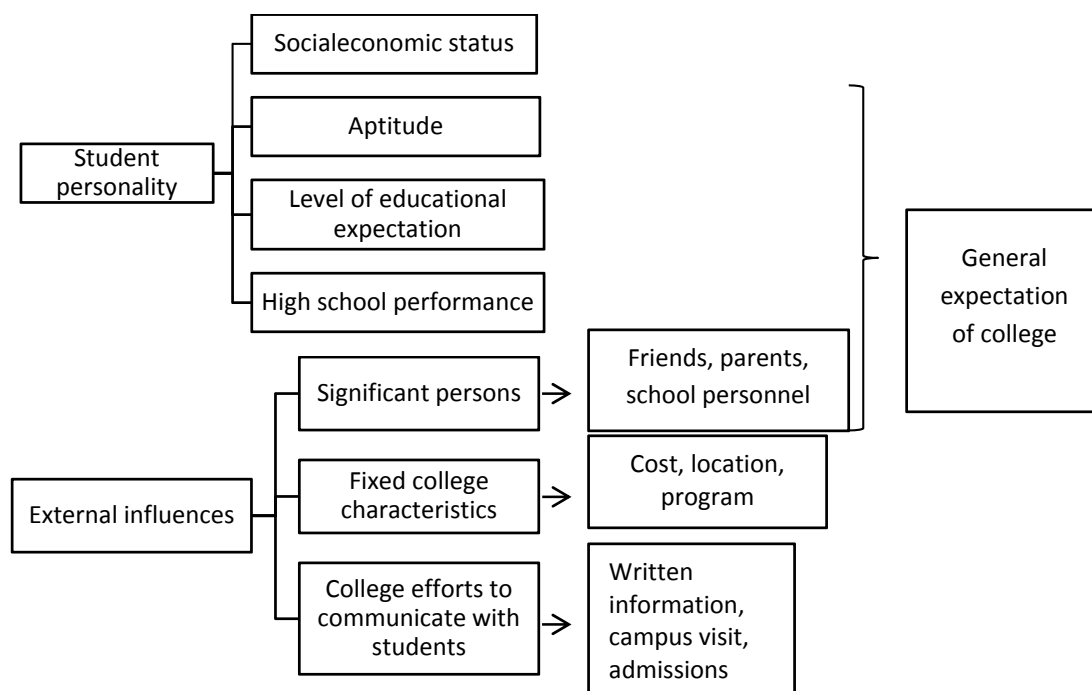
This literature proves the main reason for migration and travel. From the human capital point of view, migration is considered as an investment. The aim of migration is mainly for improving one's living condition. This also can be considered as motivating or pushing one to migrate. Looking at the other side we see factors pulling or attracting

people to move overseas: better amenities, environment, education or job opportunities (Sá et al. 2004). Students' choice to attend a university or college is part of this migration process. The movement of prospective students might be based on increasing their future income, finding a good job or improving their professional situation (Mazzarol & Soutar 2002). They also might look for a good political or climate environment or better amenities in the destination country (Chen 2007; Mpinganjira 2009).

Human capital theory is appropriate for this research, because it can explain the reason why Chinese students pursue their tertiary education abroad. There are other motivations to attract or motivate Chinese students to study overseas besides the monetary benefits. The students' college choice can also be influenced by irrational feeling or emotions (Hemsley-Brown 1999). Although it is appealing to integrate all the social, psychological and economic factors (Bredo et al. 1993), the empirical studies suggest that student's college choice is primarily based on their understanding of the destination countries (Cook & Zallocco 1983). In brief, student's college choice is a complex process. Within the international education market, students show their consumer behaviour during their decision making process (Hemsley-Brown 1999).

Sociologists have presented a conceptual model of student college choice to suggest that student college choice is influenced by a set of student personalities in combination with a series of external factors. This model suggests that to understand the student college choice, it is necessary to consider both background and characteristics of the students, students' family, and the characteristic of college (Chapman 1981). This sociological model of student college choice is shown as follows:

Figure 2.2 Sociological model of student college choice



Source: developed from Chapman (1981) for this research.

This model interprets student college choice using life pattern and individual trait. It shows what influences affect students' choice to be enrolled in the college. However, this model is not suitable for this research. The first reason is that it focuses on the domestic college choice and cannot accurately explain the procedure of international students' decision to study overseas. Secondly, this model is relevant to a wider age range of students, so it is limited in describing the influences which affect the traditional age students (Chapman 1981).

In summary, human capital theory is considered appropriate for this research, because it explains well the reasons for student destination choice.

2.2.3 Factors influence student destination choice

This section further reviews the literature in terms of which variables or attributes influence students' destination choice for their tertiary education. Some publications of student destination choice are focused on analysing the domestic students travel state to state. For instance, McHugh and Morgan (1984), Kyung (1996) and DesJardins et al. (1999) studied the American students' destination choice from one state to another state. Kjellström (1999), Sá et al. (2004), Florax et al. (2004) and Bruno (2008) focused on the European students' movement within Europe. Some studies have an international orientation which paid attention to students' movement between different countries. For example, Mazzarol et al. (1998; 1997), Mazzarol and Soutar (2002), O'Brien et al. (2007), Chen (2007), Mpiganjira (2009), Lawson (2011) and Iyanna and Abraham (2012) used various research designs to analyse the international students movement. Table 2.1 summarises variables and attributes that may influence students' destination choice identified in 9 multi-attribute studies noted in the table. Although these factors may not comprehensively expound all the possibilities of the influencing factors, they cover the major views of the prospective students. Discussion in this section first examines these items and then discusses the cognitive items that capture students' decision of possible destinations.

Table 2.1 Summary of variables and attributes that may influence students' destination choice

Reference	Attributes
Wilkins et al. (2012)	<ul style="list-style-type: none"> •Insufficient capacity in home country higher education •Low quality/ lack of choice in home country •Ineligibility to enter state/public higher education •Country-specific advantage •Convenience •Foreign universities have best reputation •Improved prospects in national/regional labor market •More familiar/comfortable with culture/life style in country
Lim et al. (2011)	<ul style="list-style-type: none"> •Agent recommendation •Lower cost •Comfortable climate •Recommendation of parents and relatives •Familiarity of the country •Perceived favorable study environment •Reputation, quality of academic staff •Course content •Program-related issue •Delivery of service •Management concern

Reference	Attributes
Wagner & Fard (2009)	<ul style="list-style-type: none"> •Education cost •Degree's content and structure •Wide range of course and specialist programs •Entry requirements
Abbott (2009)	<ul style="list-style-type: none"> •Exchange rate •The reputation of university
Mpinganjira (2009)	<ul style="list-style-type: none"> •Future career prospects •Worldwide recognized quality education •Experience of study overseas •Potential benefits related to study abroad
O'Brien et al. (2007)	<ul style="list-style-type: none"> •Program content •International reputation •Sufficient funding for research
Chen (2007)	<ul style="list-style-type: none"> •Political environment •Educational system •Social capital •Future career •Program offering •Visa /immigration possibility from third countries •Academic quality •Economic & political tie •Environment (safety/climate) •Culture/language •Geographic proximity •Location •Financial aid •Alumni/friends
Sánchez et.al. (2006)	<ul style="list-style-type: none"> •Search for a new experience •Improve a professional situation •Improve social situation •Search for liberty/ pleasure •Learn other language •Search for a new experience •Improve social situation •Search for liberty/ pleasure •Improve a professional situation
Zhou & Lawley (2003)	<ul style="list-style-type: none"> •Country image •Corporate image •Brand image
Mazzarol et al. (1998; 1997; 2002)	<ul style="list-style-type: none"> •Knowledge of host country •Personal recommendations •High cost in home country •Environment •Geographic proximity •Social links •Institutions reputation •Market profile •Range of course •Staff expertise •Alliance or coalitions •Perception that study abroad is better than locally •Students' ability to enter the local university •Desire to understand "West" •Intention to migrate in the future •Quality and reputation of the university •Quality of the academic staff •Alumni base

Source: developed for this research

In the scholarly literature on decision-making to study abroad the factors influencing students' intention and choice of studying abroad include socioeconomic status of students family, the high cost in home country, the intention to immigrate in the future,

search for liberty, social and cultural capital accumulation, internationalization of the living environment, social relations, the influence of university and professional interests and the bright future career prospects. Previous findings also indicate that the potential barriers in study abroad are funding, financial concerns, worry about the future after graduation overseas, fear of home sickness, fear of discrimination overseas, fear of travelling to unknown areas and anxieties about language difficulties (Salisbury et al. 2009). The factors for choice of a university are family influence, relatives and friends' recommendation, economic growth rate of a destination country, political stability in a destination country, the academic offerings of an institution, reputation and location of an institution.

Notwithstanding the considerable numbers of mainland Chinese students studying overseas, only a limited number of studies on Chinese students' decision making of studying abroad have been published. The relevant research of decision-making for studying abroad in China was primarily focused on the state policy making. The decision factors for studying abroad for Chinese students are reported in a few articles: the ability of the family to pay for overseas study, field of study, the students ability to enter the local university, the reputation of their prospective research, academic excellence of the relevant faculties, recruitment criteria, employment perspective and starting salary (Yan 2010). This kind of research usually focuses on a specific Chinese sponsorship program to find out the influencing factors for the mainland Chinese students in a limited group. The majority of the existing research conducted by Chinese scholars was limited to qualitative studies. In-depth research on decision making to study abroad for college students has not been reported in China.

2.3 Theory foundation

Dominant theories most commonly adopted by studies in this literature include push pull theory, utility theory and theory of reasoned action.

2.3.1 The push pull framework

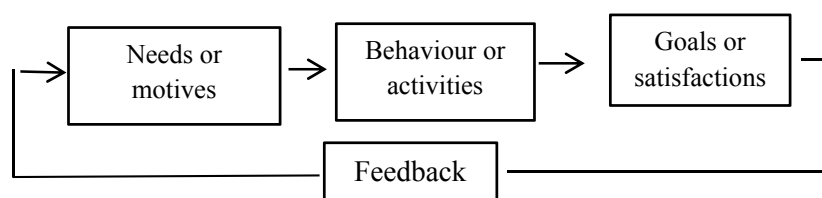
In order to examine the factors that affect the students' decision to study overseas, it is first necessary to identify an appropriate theoretical framework that can explain the range of factors relevant to students' decision making process. This section includes two parts. The first part overviews the push pull motivational framework and the reviews the prior research conducted to examine the push and pull factors. In turn, the second part follows with reviews of the study of push pull model in international education. The final part summarise issues in push pull model research.

The overview of the push pull motivational framework

The push pull frame work has been widely used in various research areas for a long time. The term 'push pull factors' has been used in business approximately one hundred years ago since the geographer Ernst Ravenstein reported his "Laws of migration" to the statisticians of London (Dorigo & Tobler 1983) and in many different disciplines such as international immigration, international tourism (Dann 1977) and international education (Li & Bray 2007; Mazzarol & Soutar 2002; Sánchez et al. 2006).

Definitions of push pull factors. Murray (1964) defines motivation as an internal factor that inspires and integrates a person's behaviour. Lee et al. (2002) proposed the motivational model (Figure 2.3) based on the knowledge from Mannell and Kleiber (1997). In this model, the manifested or latent needs and motives generate the consumer's behaviour or activities and lead to the achievement of goals or satisfactions.

Figure 2.3 Motivational model



Source: Lee et al (2002)

Push pull factors have different meanings in immigration, tourism and education business and marketing research. Definitions given in the literature clarified the different implications of push pull factors in multiple research areas (Table 2.2). According to Mejia, Pizurki and Royston (1979), migration is the consequence of the interaction of various forces at both sides of the migratory axis. Some of these forces are political, social, economic, cultural and environmental. The authors classified these forces as push and pull factors. Push factors are generally present in donor countries, and pull factors pertain to destination countries. Dorigo and Tobler (1983) defined push factors for immigration sectors as the factors from those life situations that give one reason to be dissatisfied with one's present locale. Push factors are those attributes of distance places that make them appear appealing. The push factors in the tourism sector are usually defined as factors that are internal to the individual and deal with tourist motivation or that are considered to be socio-psychological motivations predisposing the individual to travel. Most push factors are intangible or reflect an intrinsic desire of the individual travellers. The pull factors in tourism sector usually refer to factors related to attributes of a travel destination and the factors that attract the individual to a specific destination once the destination to travel has been made. Most pull factors are tangible resources (Baloglu & Uysal 1996; Dann 1981). In the education sector, Mazzarol and Soutar (2002) defined the push factors as the factors which operate within the source country and initiate a student's decision to undertake international study. In contrast, the pull factors operate within a host country to make that country relatively attractive to international students.

Table 2.2 Definition of push pull factors

Research area	Reference	Definition	
		Push factors	Pull factors
Immigration	Dorigo & Tobler (1983)	Those life situations that give one reason to be dissatisfied with one's present locale.	Those attributes of distance places that make them appear appealing.
Tourism	Dann (1981)	Factors are internal to the individual and deal with tourist motivation.	Factors related to attributes of a travel destination.

Research area	Reference	Definition	
		Push factors	Pull factors
	Baloglu & Uysal (1996)	Socio-psychological motivations that predispose the individual to travel. Most push factors are intangible or intrinsic desire of the individual travellers.	Those factors that attract the individual to a specific destination once the destination to travel has been made. Most pull factors are tangible resources.
	Klenosky (2002)	The specific forces in our lives that lead to the decision to take a vacation.	The forces lead an individual to select one destination over another once the destination to travel has been made.
Education	Davis (1995)	Create a generalised interest in overseas education but do not give specific direction to individuals	Conditions specific to a potential host country that serve to point students to particular destinations.
	Mazzarol & Soutar (2002)	Operate within the source country and initiate a student's decision to undertake international study	Operate within a host country to make that country relatively attractive to international students.

Source: developed for this research

Through identifying the definitions of the push and pull factors, we can see that the pull components represent the satisfaction that a destination can offer consumers to satisfy their needs which cannot be met by responding or reinforcing their initial push factors. Push factors affect or predispose a consumer's behaviour, while pull factors help us to understand or explain the consumer's destination selection choice. Logically, the push attributes are antecedent to pull factors (Lee et al. 2002) .

The push pull framework is helpful to explain the motivations underlying tourist behaviour. Dann (1977) proposes a simple and intuitive approach. According to this framework, push factors motivate the individuals' interest to take a vacation, and the pull factors attract individuals to select one destination over another one once they make a decision to travel. Push factors are related to the needs and wants of the tourist, while pull factors are characterised in terms of the features of the destination itself (Klenosky 2002). These two kinds of factors relate to a two stage decision: whether to go and where to go (Klenosky 2002).

Although the push and pull factors work separately for home country and destination country, some researchers note that these two kinds of factors are not entirely independent of each other. For instance, Crompton (1979) argued that push factors can arouse the interest to travel and also can direct the tourist toward a particular destination. Similarly, Uysal and Jurowski (1994) suggested that the tourists are not only motivated (pushed) to travel by their internal forces but also they are attracted (pulled) by the external forces of the destination at the same time. Dorigo and Tobler (1983) formulated the migration process with a push pull model. They used a mathematical model to combine the push factors and pull factors and deduce a specific mathematical form to illustrate Ravenstein's migration law. They believe that the push factor and reverse push factors exist at the same time in one place. If measured properly these two-way push factors in a given place might be negative (the reverse push factor

outweighs the push factor). The total value of the push factors at the original place is not the same as that of the pull factors from the destination place. Typically, the destination place features a larger pull value. This finding is similar to the results in a theoretical paper by Lee (1966).

To summarise, the key idea underlying the push pull framework --- which students are motivated and pushed by the push factors to study overseas and are attracted and pulled to the destination countries by the pull factors --- has been and will be the indispensable component of the international students' flow literature. Although push and pull factors correspond to different stages in students' decision making process, it is becoming obvious that these two kinds of factors depend on each other.

Alternative approaches. In addition to clarifying the definitions above, different approaches to analyse push pull factors in the literature have been identified (Table 2.3). Baloglu and Uysal (1996) examined the relationship of push pull factors for overseas pleasure travel by using survey and Canonical correlation analysis. Their findings suggest that the destination areas could consider the successful matching of push and pull factors in their market strategy. Klenosky (2002) used means-end approach to examine the relationship of push pull factors in an empirical study of students spring break destination choice. Mazzarol and Soutar (2002) surveyed students from Indonesia, Taiwan, India and China to identify the reasons why students selected a particular study destination. Lee and his colleges (2002) employed a multinational logistic regression and OLS regression techniques to assess the effect of each motivational factor on traveller's destination choice and holiday activity participation. They found that the pull factors have more influence on traveller's decision than push factors. The travellers are motivated by the pull factors to choose their destination.

Table 2.3 Approaches to identify push pull factors

Research Area	Approach & Author
Immigration	Linear spatial interaction models, Dorigo & Tobler (1983)
Tourism	Survey and canonical correlation analysis, Baloglu & Uysal (1996) Means-end approach, Klenosky (2002) Multinational logistic regression and OLS regression techniques, Lee et al. (2002)
Students' Flow	Survey, Mazzarol & Soutar (2002), Sánchez et al. (2006), Lawson (2011) Unstructured interview, O'Brien (2007) Regression model, Abbott (2009) Secondary data analysis, Ali (2010), Iyanna & Abraham (2012)

Source: developed for this research

Push pull model in international education

As international education continues to be a major economic force in the world economy, the competition for enrolling international students has become fierce. In addition, the advanced information technology has enabled students to be more sophisticated and intelligent consumers in choosing their study abroad destination.

Thus, the students have more information about the destination countries and accordingly they have more choices. The international education marketers from the main English speaking countries engage in enormous marketing to exploit new markets or maintain a current market share (*International education strategy: global growth and prosperity* 2013).

The theory became more popular in the context of analysing international students when Rao (1979) used this theory to investigate the attitudes and intentions of foreign students in Australia, USA, Canada and France. Afterwards, academics from diverse disciplines used the push-pull theory in order to analyse the different positive and negative factors which influence the decision-making process of international students. The push-pull theory has been used as a theoretical framework in the international higher education area in order to measure and to forecast the factors that influence students' decision process to study abroad (Mazzarol & Soutar 2002). The push-pull theory consists of two main elements, the push factors and the pull factors, which usually work in conjunction. The push factors operate within the students' home country and motivate the students' decision to study abroad (Altbach et al. 1985). The pull factors operate within the host country and include all various factors that make a country, city and university relatively attractive to international students (Mazzarol & Soutar 2002).

Agarwal and Winkler (1985) made one of the earliest comprehensive studies of international students studying abroad. They conducted a longitudinal study involving students from 15 different developing countries studying in the United States. The researchers analysed the complicated interrelationship of push-pull factors and found that the income in the students' home country, the study cost in the host country and the expected benefits of studying overseas were the most important push-pull factors in the decision process of international students.

Succeeding studies after the 1990s using the push-pull model had a broader approach. In 1997, for example Mazzarol et al. (1997) identified six pull factors which influence international students' selection of a host country. These six factors are knowledge and awareness of the host country, the personal recommendation, the cost issue, the environment, the geographic proximity and the social links. Mazzarol and Soutar (2002) later enhanced their previous research by conducting different studies over a four year period in order to find reasons why students selected a specific study destination. The study took place in four different countries (Taiwan, Indonesia, India and China) and included a total of 2,485 international students from different education sectors. Overall, it appears that the decision-making process of the international student contains at least three different stages (Cubillo et al. 2005; Mazzarol & Soutar 2002). Firstly, a range of factors within a student's home country push the student to decide to study abroad. Secondly, the next steps are to select a host country and city. In this stage, pull factors will play a significant role, making the host country more attractive than the comparative countries. Thirdly, students decide which university and which courses to enrol (Mazzarol & Soutar 2002). In addition, because the personality and circumstances are different for each student, a variety of other push and pull factors than the above-mentioned can influence the students' decision.

Maringe and Carter (2007) used the push pull model to gain insight into the choice and decision making process of African students in the Great Britain. They found that the

political, economic and higher education (HE) capability of the home country is the main push force for the African students. At the same time, Great Britain's international recognition of HE qualification, safe environment, easy application process and international HE experience are the main pull factors to attract African students to study abroad in Great Britain. Li and Bray (2007) conducted a survey to find the push pull factors of mainland Chinese students choosing to study in Hong Kong and Macau. They refined and extended the one-way push pull model into a two-way push pull model by adding reverse push pull factors. The positive factors in the home country and the negative factors in the destination country are called reverse push pull factors. For example, when a student has a strong desire to stay with the family or wishes to avoid high tuition fees in the destination country, reverse push pull factors are influencing the student.

The literature contains many studies, where researchers discussed and analysed the factors affecting the flow of international students from diverse points of view. The following Table 2.4 summarises much of this literature and categorises the factors into push and pull.

Table 2.4 Factors Which Affect International Students' Flow

Reference	Targets	Research Approach	Push Factors	Pull Factors
Mazzarol et al. (1997)	International students	Survey Development and analysis	<ul style="list-style-type: none"> • Knowledge of host country • Personal recommendations • High cost in home country • Environment • Geographic proximity • Social links 	
Mazzarol (1998)	International students	Survey Development and analysis		<ul style="list-style-type: none"> • Institutions reputation • Market profile • Range of course • Staff expertise • Alliance or coalitions
Mazzarol & Soutar (2002)	International students	Survey Development and analysis	<ul style="list-style-type: none"> • Perception that study abroad is better than local study • Students' ability to enter the local university • Desire to understand "West" • Intention to migrate in the future • Search for a new experience • Improve a professional situation 	<ul style="list-style-type: none"> • Quality and reputation of the university • Quality of the academic staff • Alumni base
Sánchez et al. (2006)	USA students	Survey Exploratory model based	<ul style="list-style-type: none"> • Improve social situation • Search for liberty / pleasure • Learn other language 	

Reference	Targets	Research Approach	Push Factors	Pull Factors
Sánchez et al. (2006)	French students	on expectancy theory Survey Exploratory model based on expectancy theory	•Search for a new experience •Improve social situation •Search for liberty / pleasure •Improve a professional situation	
O'Brien et al. (2007)	Indian international students	Unstructured interview		•Program content •International reputation •Sufficient funding for research
Chen (2007)	East-Asian students	Synthesis model Interview	•Political environment •Educational System •Social capital •Future career •Program Offering	•Visa / immigration possibility from third countries •Academic quality •Economic & political tie •Environment (safety / climate) •Culture / Language •Geographic proximity •Location •Financial aid •Alumni/Friends
Mpinganjira (2009)	International students	Online Survey		• Future career prospects • Worldwide recognized quality education • Experience of study overseas • Potential benefits related to study abroad
Abbott (2009)	International students	Regression model		• Exchange rate • Reputation of university
Wagner & Fard (2009)	Malaysian students	Interview Survey The importance-performance analysis model		• Education cost • Degree's content and structure •Wide range of course and specialist programs •Entry requirements
Ali (2010)	International students	Secondary data analysis		• Cost of overseas tertiary education

Reference	Targets	Research Approach	Push Factors	Pull Factors
Lawson (2011)	International students	Survey		<ul style="list-style-type: none"> • quality of education • Tuition & living cost
Lim et al. (2011)	Middle Eastern students	Survey questionnaire		<ul style="list-style-type: none"> • Lower cost • Comfortable climate
Iyanna & Abraham (2012)	International students	Secondary data analysis		<ul style="list-style-type: none"> • Cost of education
Wilkins et al. (2012)	International students	Survey questionnaire	<ul style="list-style-type: none"> • Insufficient capacity in home country higher education • Low quality / Lack of choice in home country • Ineligibility to enter state / public higher education 	<ul style="list-style-type: none"> • Country-specific advantage • Convenience • Foreign universities have best reputation • Improved prospects in national/regional labor market • More familiar / comfortable with culture / life style in country

Source: developed for this research

The number of mainland Chinese students are growing worldwide (Liu et al. 2007). A strong literature has already analysed some aspects of international students flow, and parts of this literature focuses on mainland Chinese students. There are many factors that influence mainland Chinese students' decision to think about which country is the best country to study abroad. White (2011) analysed the factors attributed to the increasing number of mainland Chinese students in the US and concluded that the growing middle class of China was capable of investing in expensive overseas education for their children. Chinese people see obtaining this type of education as contributing significantly to one's future achievement. Other factors include achieving success and leadership roles gained from the overseas returning students in the past decades and the high student visa issuance rate. The literature, as shown in Table 2.5, pinpoints certain key factors as having influenced mainland Chinese students' choice to study abroad.

Table 2.5 Factors influencing Mainland Chinese students' choice to study abroad

Reference	Targets	Research Approach	Push Factors	Pull Factors
Yao (2004)	Mainland Chinese students	Secondary data analysis	<ul style="list-style-type: none"> •Improve economic states •Avoid the competition of domestic higher education •Avoid the competition of employment • Traditional conception that education is important 	
Sánchez et.al. (2006)	Mainland Chinese students	Survey Exploratory model based on expectancy theory	<ul style="list-style-type: none"> •Improve social situation •Looking for a new experience •Search for travel •Search for liberty / pleasure 	
Yang (2007b)	Mainland Chinese students	Survey In-depth interview MaxDiff scaling		<ul style="list-style-type: none"> •Future immigration opportunities •High quality of education •Lower cost of study and living
Li & Bray (2007)	Mainland Chinese students	Survey Interview		<ul style="list-style-type: none"> •Job prospects •Ethic identity •Merger of Chinese and western culture •The distinctive features of university
Lu et al. (2009)	Postgraduate Chinese students	Self-completed questionnaire	<ul style="list-style-type: none"> • Motivation of live and work overseas • Availability of sponsorship • Well-designed informative website in local language 	<ul style="list-style-type: none"> •University ranking • Range and quality of services offered by host university •Well-designed university website
Yan (2010)	Mainland Chinese students	Survey SPSS for data analysis		<ul style="list-style-type: none"> • Supervisors' research area and academic level • Reputation of the university • Research Fund
Lim et al. (2011)	Chinese students	Survey questionnaire		<ul style="list-style-type: none"> •Familiarity of the country •Perceived favorable study environment •Reputation, quality of academic staff •Course content •Program-related issue •Delivery of service •Management concern

Source: developed for this research

In short, although each of these studies sought to identify motivational and attractive attributes, they differ on whether they concentrated on both push and pull factors, or push factors only or pull factors only. These studies also differ in the research approaches which were used to identify the push and pull factors. Some conducted

qualitative approaches, such as interviews, and others conducted quantitative approaches based on scale development approach, multivariate analyses, regression analysis and so on. This research focuses on both push factors and pull factors by using the gravity model as the research approach. A study of the literature reveals that the motivation and attraction for students to study abroad is multidimensional.

Summary of the push pull factors in international education

In section 2.3.2, we reviewed previous literature on push pull factors which influence international and Chinese students' decision to study abroad. Table 2.4 and 2.5 summarise those factors which may affect student destination choice from different researchers identified in push and pull groups. Even though these factors cannot exhaust all the possibilities of the influencing factors, they covered the major factors affecting student destination choice. This section summarises 64 items that may influence students' choice to study overseas in the previous research for both international and Chinese students (Table 2.6) and then examines the cognitive factors that catch students' conceptions of possible study abroad destinations.

Influential items for international students: In this section, attention is focused on different groups of push and pull factors, such as economic, environmental, quality and social factors to throw light on the underlying forces dominating the process of student movement. As shown in Table 2.6, fully 20 push factors and 22 pull factors are identified as influencing international student destination choice, while 9 push factors and 13 pull factors, are specified as important for mainland Chinese students' choice.

All of these influential push and pull factors are divided into 4 categories: economic concerns, environmental concerns, quality concerns and social and psychological concerns. The examination of these 42 influential items for international students reveals that 7 push pull factors are related to economic concerns. As shown in Table 2.6, these 7 economic push pull factors are the high education cost in domestic country, social capital in domestic country, financial aid in host country, exchange rate, the potential benefits related to study abroad, the education cost and the living cost in host country. Past research suggests that economic concerns in terms of cost are important criteria for potential students to choose their host country. The cost includes the cost of fees, living expenses, travel costs and the exchange rate. (Abbott & Ali 2009; Mazzarol & Soutar 2002). From the past studies we can find that cost is considered as a push factor as well as a pull factor. Because destination countries compete with each other to increase the enrolment of the international students, cost is an important factor contributing to the competitive advantage for each particular country (Ali & Subramaniam 2010). While the potential benefits related to study abroad, such as finding a part time job to earn living expenses or receiving a scholarship or other sponsorship, could be important considerations for students to choose their study abroad destination (Chen 2007; Mpinganjira 2009).

Another 17 of the 42 push pull factors may reflect international students' environmental concerns. These 17 items are the political environment in the home country, the natural environment of home country, search for a new experience, search for liberty/pleasure, improve a professional situation, the desire to understand "West", learn other language, the geographic proximity, social links, improve social situation, alliance or coalitions with home country, economic and political tie with the home

country, safe environment, climate, culture and language and geographic proximity and location. Previous research identified those students who intend to study abroad not only for economic concerns, but also for the desire to live in a different cultural environment (Chen 2007; Mazzarol & Soutar 2002; Mpinganjira 2009; Sánchez et al. 2006). Therefore, environmental concerns, such as political environment, safe environment, culture and language could influence the international students' choice. Especially in a domestic context, many of these environmental items, like natural environment or search for liberty/pleasure, would affect students' decision for destination countries.

Quality concerns for international students to choose their study abroad destination include 9 items. These items are mainly associated with educational quality: program offering in home country, educational system in home country, institutions' reputation, the range of programs of study, the quality of academic staff, the alumni base, program content, sufficient research funding and the degree's content and structure. The evidence indicates that the reputation of the institution and the quality of program content are the most important quality concerns for international students' choice (Abbott & Ali 2009; Chen 2007; Lawson 2011; Mazzarol 1998; Mpinganjira 2009; O'Brien et al. 2007; Wagner & Fard 2009). Furthermore, considering that one of the purposes of international students to study overseas is to find a good job in the future (Mpinganjira 2009; Sánchez et al. 2006), the degrees' content and value in a host country is also the important element to affect student's choice (Wagner & Fard 2009).

The rest of the 9 items from the 42 belong to the international students' social and psychological concern. These concerns include the knowledge for host country, the personal recommendations, the perception that study abroad is better than local study, future career prospects, students' ability to enter local university, intention to immigrate in the future, future career prospects, market profile and visa/immigration possibility from third countries. In this cohort, the future career prospects play a role in both push and pull factors. Chen (2007) believes that students perceive that a higher degree from a top ranked university might improve their future job prospects, so some students would like to consider studying overseas, especially for those students who came from developing countries. While Mpinganjira (2009) stated a similar opinion in his study, Mpinganjira thought that the destination countries which can brighten future career prospects to the international students will have a competitive advantage in the completion of enrolling international students. Besides, visa/immigration possibility from third countries is also a major concern for international students. The common reasons for international students to choose a destination which is not their first choice are the political relationship, discrimination and cost of higher education (Chen 2007). For example, it is known that US tightened its student visa policy for some countries or under some situations. If one student from Iran really wants to go to US and knows that there is a risk he will be rejected, he may very well consider choosing Canada as his first study abroad destination.

2.3.2 Utility theory

When faced with a choice, students will decide whether that choice is worth accepting. Utility theory discusses how consumers evaluate the value of purchasing a product. Basically, consumers will compare what they would gain and what they would lose from purchasing a product. The total value of a transaction to a consumer is the sum of acquisition utility and transaction utility (Fishburn 1970).

Acquisition utility is the result of comparing the price paid for a product to its value. It represents the economic gain or loss from a purchase transaction (Lichtenstein et al. 1991). The perceived acquisition value of a product will be positively influenced by the benefits consumers believe they receive by acquiring and using it and negatively influenced by the money or other things of value given up to acquire the product (Lichtenstein et al. 1991).

In contrast, transaction utility is the result of comparing the price paid to a reference price. Consumers would feel pleasure or displeasure toward a particular product when a price paid for a product is below or exceeds the reference price (Lichtenstein et al. 1991). In evaluating a product's price, consumers may be exposed to and use information containing multiple reference points from a variety of sources (Lichtenstein et al. 1991). A consumer's reference price might be based on the internal reference price that is the previous prices paid for the product.

Utility theory is a fundamental theory extensively adopted by researchers. This theory assists researchers to explain why consumers with different characteristics react differently to the similar product. It suggests that consumers with particular demographic or psychographic characteristics are attracted to particular perceived benefits and costs (Ailawadi et al. 2001). Hence, a consumer with different demographic or psychographic characteristics may differently perceive and evaluate benefits they may gain from a purchase of a product.

2.3.3 The theory of reasoned action

Theory of reasoned action provides an explanation of how attitudes predict behaviour (Hale et al. 2002). This theory specifies the linkage between consumers' beliefs or perceptions and their behaviours. It suggests that consumers' actual behaviours depend on their behavioural intentions. Intentions to perform a specific behaviour can be determined as the outcome of consumers' attitudes toward performing that behaviour and subjective norms concerning that behaviour. In addition, consumers' attitudes towards performing that behaviour are developed based on their own perceptions regarding that behaviour.

The theory of reasoned action provides three key contributions to research in the literature and this thesis. Firstly, it makes an important distinction between a consumer's perceptions or attitudes towards the specific behaviour and that of normative influencers. This theory suggests that researchers should focus on both the internal consumer factors, such as consumer perceptions and attitudes, and external factors.

Secondly, this theory suggests researchers measure perceptions or attitudes towards performing that specific behaviour rather than measuring overall perceptions or attitudes toward a product around the purchasing behaviour (Hale et al. 2002). The reason is that a consumer's overall perceptions toward a stimulus may not often be a good predictor of his/her specific behaviours regarding that stimulus (Hale et al. 2002). And thirdly, the theory of reasoned action introduces behavioural intention as the key construct that mediates the influence of consumers' attitudes and perceptions on actual behaviours (Hale et al. 2002).

The theory of reasoned action has been applied extensively as the basis for product or advertising decisions because these actions have a direct influence on consumer perceptions. However, application of this theory to students' decision making is still in its introductory stage. Early studies were more likely to apply push pull theory rather than the theory of reasoned action to develop their research models. As a result, factors included in these studies were confined only to the students' characteristics, in particular demographic and psychographic variables that related to perceived utility, whereas normative influencing factors were disregarded.

In brief, this section provided a discussion about the main theories to be used in this thesis, namely push pull theory, utility theory and theory of reasoned action. These theories will assist the researcher in explaining the influences of different variables on Chinese students' intention to choose their study abroad destination. Next, the literature turns to the review of key findings of previous research into key factors which influence Chinese students' study abroad destination choices.

2.4 Key factors influencing Chinese students' overseas study destination choices

Considering the importance of recruiting international students, many studies have identified factors which may influence international students study abroad decisions. Those factors can be categorised into two groups, push and pull factors (Mazzarol & Soutar 2002). The push pull framework has been widely used in the international education marketing research. It is useful to help us understand the strengths of, and relationships among, various factors that influence students' choice of destination countries and institutions. Mazzarol and Soutar (2002) defined the push factors as the factors which operate within the source country and initiate a student's decision to undertake international study. In contrast, the pull factors operate within a host country to make that country relatively attractive to international students. These two kinds of factors relate to a two stage decision: whether to go and where to go (Klenosky 2002). Although push and pull factors correspond to different stages in students' decision making process, it is becoming obvious that these two kinds of factors depend on each other.

To better understand Chinese students' choice of their overseas study destinations. The author researched into both the overseas-based research published in the English literature and the China-based research published in the Chinese literature in an effort to identify keys factors in terms of push and pull forces following Mazzarol and Soutar's (2002) above outlined framework. Findings of the overseas-based research will be presented first and then attention will be shifted to findings from the China-based research.

Overseas-based research

Much of the research found in the English literature focuses on identifying factors affecting international students' choice of overseas study destination. Many overseas researchers did not concentrate on the Chinese students. Instead Chinese students were included along with other international students. Furthermore, one characteristic of these studies is that the researchers designed their research instruments in English

initially instead of in Chinese due to the language barrier. Then for data collection purposes either the initial survey questionnaires designed in English were translated into Chinese or they interviewed Chinese students with the help of a Chinese interpreter.

This stream of literature, as shown in Table 2.6 below, contains the main findings from overseas-based research. Note that even though Chen might have a Chinese cultural background, he conducted his research in Toronto, and he collected the survey data in English. Therefore, we have included Chen as an overseas-based researcher.

Table 2.6 identifies certain key factors as having an influence on Chinese students' choice to study abroad from an outsiders' perspective. Those researchers share some similar findings. Such factors as the perceived lower educational quality in China, students' ability to enter domestic universities, desire to understand "West" or gain international experience and the wish to seek a good career have been considered as key drivers for many Chinese students seeking their tertiary education in the Western developed countries (Bodycott 2009; Chen 2007; Mazzarol et al. 2001). Historical cultural reasons can help us understand the existence of these factors. Chinese parents have long believed that education is vitally important for their children because only good education can bring wealth and good life for their children. This belief is deeply embedded into Chinese thought and have become part of China's tradition and Chinese culture (Wang 2007). From a more macro perspective, China lagged behind the West since the Qing Dynasty in terms of social, educational and economic development. Since then, the Chinese Government adopted a 'look to the West' approach and sponsored many Chinese students to study overseas in the hope that they could learn something useful from the West and then help their home country to regain its lost political, economic and cultural power (Zhang 2000) .

Table 2.6 Factors Influencing Chinese Students Studying Abroad Based on Overseas Research

Reference	Data Collection Method and Research Objects	Push Factors	Pull Factors
Lawson (2011)	Survey (questionnaire was translated into Chinese) Prospective students, parents, alumni		<ul style="list-style-type: none"> •Quality of education •Tuition cost •Living cost •Safety •Prospects for PR •Opportunities to work
Bodycott (2009)	Survey and Interview (with Mandarin-speaking assistants) Chinese students and parents	<ul style="list-style-type: none"> •Perceived higher quality of education in developed country •International/intercultural experiences 	<ul style="list-style-type: none"> •Onsite accommodation •Range of programs available •English-speaking environment •Language and academic support services •General facilities-buildings and grounds •International education experiences during courses •relatives or friends studying in the area •Social and emotional support services
Chen (2007)	Survey and Interview Students who come from China and other countries enrolled in two Ontario universities	<ul style="list-style-type: none"> •Political environment •Educational System •Social capital •Future career •Program Offering 	<ul style="list-style-type: none"> •Visa /immigration possibility from third countries •Academic quality •Environment (safety/climate) •Culture/Language •Geographic proximity •Location •Financial aid •Alumni/Friends
Mazzarol & Soutar (2002)	Survey (questionnaire was translated into student's native language) Students from China, Indonesia, Taiwan and India	<ul style="list-style-type: none"> •Perception that study abroad is better than local study •Students' ability to enter the local university •Desire to understand "West" •Intention to migrate in the future 	<ul style="list-style-type: none"> •Quality and reputation of the university •Quality of the academic staff •Alumni base •Geographic proximity

Source: developed for this research

As shown in Table 2.6 above, the future immigration opportunities, universities' reputation and programs and job prospects in the host country have all played an important role in determining the direction and magnitude of Chinese students to study abroad according to some overseas-based research (Chen 2007; Lawson 2011; Mazzarol & Soutar 2002). As we discussed above, even though the Chinese economy developed rapidly in the past three decades, the social resources are still distributed unevenly. As an emerging economy, China is suffering from social problems, such as corruption and restrictions on its citizen's freedom of speech. These may partly motivate Chinese students to seek opportunities to immigrate to Western countries. Moreover, as some Chinese students are not satisfied with the Chinese education system. These students may intend to immigrate in the future (Chen 2007). Also they may hope their progeny can be educated in a relatively relaxed and creative education environment found in Western developed countries. Due to strict immigration regulations in some Western developed countries, not every Chinese student will have the opportunity to immigrate after completing his/her studies in the destination

countries. On the other hand, China's rapid economic development has created many opportunities for those Chinese students who intend to go back to their home country once completing their degree studies with Western universities. For these Chinese students, other factors such as universities reputation, the content of program and geographic proximity are also important (Bodycott 2009; Lawson 2011).

There are other factors which induce Chinese students to study abroad, although these are not raised as frequently. As identified in Table 1, additional factors influencing the selection of a study destination include availability of scholarships, a safety environment, a merger of Chinese and Western culture and the alumni base (Bodycott 2009; Chen 2007; Lawson 2011; Mazzarol & Soutar 2002).

Even though those studies share some common features with each other, different researchers reach different findings. A major reason is that they chose to use different research subjects. For example, in Lawson's research (2011), the students, parents and alumni are grouped together as 'students', and therefore his findings are based on analysing those 'students' opinions. Similarly, Bodycott's (2009) studies shared the same feature with Lawson's in that students' parents were included as the research object. Both of them believed that mainland China is a Confucian society, whereby the conception of 'filial piety' is rooted deeply in most Chinese students. That is, the advice and suggestions of Chinese parents are highly persuasive to their children making the decision to study abroad. It is for this reason that Chinese parents are included in their studies.

In contrast, Mazzarol and Soutar (2002) studied factors influencing international students' destination choice by surveying international students from Indonesia, Taiwan, India and China. Their research findings indicate that parents' suggestions and advice highly influenced the students from Indonesia and Taiwan. However, Chinese students are less influenced by their parents on educational matters than some researchers think. A major reason is that most of this generation of Chinese students or older students' parents have not received any higher education and even fewer of them studied internationally. Accordingly, when their children decided to study abroad, they were supposed to provide financial support instead of giving constructive suggestions. Believing that usually Chinese students have more knowledge and information about studying abroad than their parents, Mazzarol and Soutar (2002) justified their approach to separate the Chinese students and their parents in different sample groups.

In summary, the overseas-based studies have unveiled some push and pull factors influencing Chinese students' studying abroad decisions and these factors are involved in many aspects of life. However, as mentioned earlier, these studies were carried out by overseas-based researchers. Therefore one cannot be sure whether they cover major factors that are relevant to this generation of Chinese students who are living in a country that is undergoing dramatic changes economically and socially almost every day. Much Chinese research literature, more relevant and current to Chinese students, may have been overlooked or ignored by overseas researchers. For this reason, we will review major studies which have been carried out by China-based researchers to supplement overseas-based research. We believe that this complimentary analysis into Chinese literature will generate more insightful understanding into Chinese students' overseas study destination choice process.

China-based research

The above discussion provides an overview of some factors influencing Chinese students' studying abroad choices as identified in overseas-based research. One should not neglect the China-based literature of the key factors influencing Chinese students to study abroad due to the fact that this stream of research may reflect on some points a better understanding of Chinese students' needs and wants, because the researcher and the subjects share the same cultural background and speak the same language.

China-based research collected data directly in the students' native language, and the research subjects are those students who were planning to study abroad but were personally still in China when the research was conducted. The researcher is originally from China and therefore she understands the Chinese language and culture. After reviewing the Chinese literature related to the factors which influence Chinese students' choice, the researcher translated the findings into English as shown in Table 2.7.

Table 2.7 China-based research of key factors that influencing Chinese students study abroad

Reference	Research Approach	Push Factors	Pull Factors
Liu et al. (2012)	Survey	<ul style="list-style-type: none"> •China's international cultural exchange •Education method in China •Lack of enrolment opportunities 	<ul style="list-style-type: none"> •Different foreign cultural experience •New knowledge and skills •Different education method •Employment prospects
Dong (2012)	Literature method	<ul style="list-style-type: none"> •Rapid development of Chinese national economy •Family funding to support their children's education fee • Chinese government pursues more lenient studying abroad policy •Diverse educational choices in China 	
Wu et al. (2010)	Literature method	<ul style="list-style-type: none"> •Perceived national power gap between China and developed countries •Foreign degree recognized in China •Higher wages of returnee than local graduates, 	<ul style="list-style-type: none"> •Provide scholarship •Lower entrance requirements •Issue working visa for students after they graduate •Degree of social welfare •More respect for the degree abroad •Wage level in host country
Yan (2010)	Survey		<ul style="list-style-type: none"> •Supervisors' research area and academic level •Reputation of the university •Research fund
Lu et al. (2009)	Self-completed questionnaire	<ul style="list-style-type: none"> •Motivation to live and work overseas •Availability of sponsorship •Well-designed information website in local language 	<ul style="list-style-type: none"> •University ranking •Range and quality of services offered by host university •Well-designed university website
Li & Bray (2007)	Survey Interview		<ul style="list-style-type: none"> •Job prospects •Ethical identity •Merger of Chinese and Western culture •Distinctive features of university

Reference	Research Approach	Push Factors	Pull Factors
Yang (2007b)	Survey In-depth interview	<ul style="list-style-type: none"> •Gain Western experience •Have international exposure •Learn western culture •Improve English •Difficult to gain entry in Chinese universities •Become better prepared for a career •Conceptions that overseas education is better •Family's financial situation •Have broader perspective on life •Travel 	<ul style="list-style-type: none"> •Future immigration opportunities •High quality of education •Lower cost of study and living •Wide range of programs
Zheng & Dai (2006)	Survey	<ul style="list-style-type: none"> •Possibility of study abroad 	<ul style="list-style-type: none"> •Teaching quality of the foreign university •Reputation of the university •Opportunity to improve English •Broaden the social network •Experience the Western culture •Possibility of immigration.
He (2005)	Literature method Comparative analysis	<ul style="list-style-type: none"> •Lower quality of educational research •Resources distributed unevenly 	

Source: Developed for this research

Compared to the overseas-based research, China-based research proposed more factors that might influence Chinese students' choice of study abroad. Those factors cover almost all aspects of Chinese society. Even though some studies only analyse either the push or the pull factors, the whole literature shows a general picture of the factors considered important by Chinese students during their decision-making process to study abroad.

As shown in Table 2.7 above, the phenomenon of Chinese students keen to study abroad has become a hot topic in Chinese academia. Some scholars explained why there is an increasing trend of Chinese students going abroad. They thought that due to historical and cultural differences between China and the Western developed countries, the educational quality and research quality in most Chinese universities is perceived inferior or at a lower level. However, some studies argued that the Chinese central government has made an effort to enhance the Chinese tertiary education and research activities by taking a 'Look West' approach, which encouraged more young Chinese students to study abroad in Western developed countries so that they could bring back fresh ideas or advanced knowledge in their chosen area of studies once they completed their studies overseas and returned to serve their home country (Huang 2005; Li et al. 2008). At the same time, most Chinese families only have one child as a result of the 'One Child' policy. In most Chinese families, the only child's overseas education expenses are provided by the two generations of grandparents and parents. Some parents even sell their house or lend money to provide financial assistance to their children. Given this heavy investment into the only child's education, Chinese students and their families, consider teaching quality of the foreign university as the most important factor. In addition, many Chinese students find the Western learner-centred teaching approach attractive as opposed to the Chinese teacher-centred teaching style. Some researchers point out that the reason Chinese students prefer a British university is the reputation of the British university (He 2005; Yu 2001; Zheng & Dai 2006).

In addition to focusing on the educational quality differences between China and developed countries, the Chinese scholars also attached great importance to economic factors. Some believed that the impact of the change in the exchange rate for the cost of studying abroad is not as significant as previously studied. As long as the family's economic strength is sufficient, no matter how the exchange rates move, the decisions of students going abroad or not are less affected (Hong 2010). This point of view coincides with Abbott's (2009) view from a study of the influence of exchange rate on international students' choice that exchange rate changes impacted Chinese students less than other international students. In addition, the national economic power gap between China and the Western developed countries, the perception of returnees' higher wages than local graduates, wage level in host country and the degree of social welfare higher than the home country are the main factors that Chinese students considered before they decided to study abroad (Dong 2012; Hong 2010; Wu et al. 2010).

As noted above, not all the Chinese studies analysing the factors which influence Chinese students' choice considered both push and pull perspectives. Some researchers took a macro-environment analysis approach to find reasons for Chinese students to study abroad. They concentrated on analysing the direction of Chinese government policy of supporting Chinese students study abroad. According to authorities from the Chinese Ministry of Education, more than one million Chinese students and scholars have gone abroad to study since 1978, among which 230,000 have come back to China. The Chinese Central Government's policy in this regard includes assisting students and scholars studying overseas, motivating them to return to China upon completion of their studies and ensuring the freedom of their coming and going. The new government policy is intended to end the prevalent view that only those students who come back to serve their home country are loyal. Those who decided to stay overseas will also win the respect, motivation and benefits provided by the government for their participation to China's construction (*People's Daily Overseas Edition* 20 August 2001). According to the policy, overseas Chinese talents can serve their motherland through part-time jobs, collaboration in research, financial commitment and beginning new companies, human resources training and performing as intermediaries without having to stay in China. In recent years, the Chinese government pursued a more lenient studying abroad policy to diversify educational choices for students in China (Dong 2012). At the same time, the growth of the study abroad agency as an industry simplified the studying abroad procedures (Hong 2010). This greatly promoted the development of the student studying abroad market.

The social and psychological concerns of Chinese students mainly reflect their cultural background. Traditionally, Chinese people think knowledge can change their destiny. They would like to invest heavily in both money and energy for their young generation's education. Meanwhile, Chinese students love to experience the different foreign culture, learning new knowledge and skills. When Chinese students noticed that more and more peers study abroad, they too will choose to study abroad to prevent being at a competitive disadvantage in the job market. Attracted by foreign countries' favourable conditions, most students would like to take their tertiary education in Western developed countries (Yao 2004). A well-designed information website in Chinese is proposed as a new factor in China-based research. This is due to the diminishing credibility of the study abroad agency's services (Yang 2007b). So a well-designed information website might be a positive push factor to motivate Chinese

students to choose their destination countries. Similarly, the well-designed university website can provide quality service information for students which will attract Chinese students to choose that university (Lu et al. 2009). This opinion conflicts with the statement that the appearance of the study abroad agency promotes the Chinese students study abroad market (Hong 2010). This difference could be the result of different data collecting and methods of analysis. Nowadays, both ‘good website’ and ‘appearance of the study abroad agency’ play important roles in Chinese students’ decision making process. Despite the availability of good website and due to the language barrier and information asymmetry, some students still seek help from the study abroad agency.

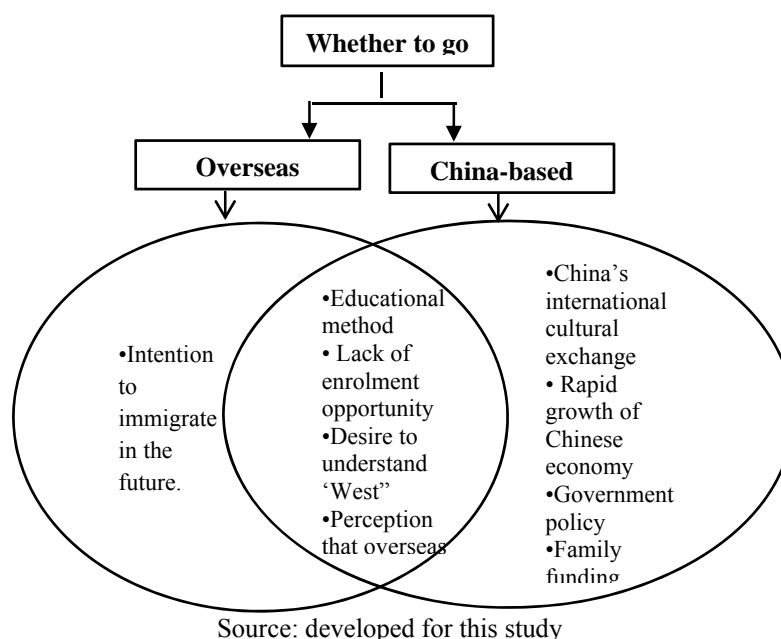
Comparing the factors: overseas-based research versus China-based research

The above review shows there are similar as well as different viewpoints between China-based and overseas based researchers on the findings of what factors affect Chinese students studying abroad.

China-based versus Overseas Perspective: Whether to go

Chinese scholars and overseas scholars shared a similar perspective about Chinese students deciding to study abroad (See Figure 2.4). Both China-based and overseas based research recognised the following key factors for motivating Chinese students to study abroad: lack of enrolment opportunity in the Chinese higher education system, the traditional duck-feeding instruction method in China, students’ desire to understand ‘West’, perception that overseas education is better and the hope to find good job opportunities in the future. These factors explained the first stage of Chinese students’ decision process, whether to go.

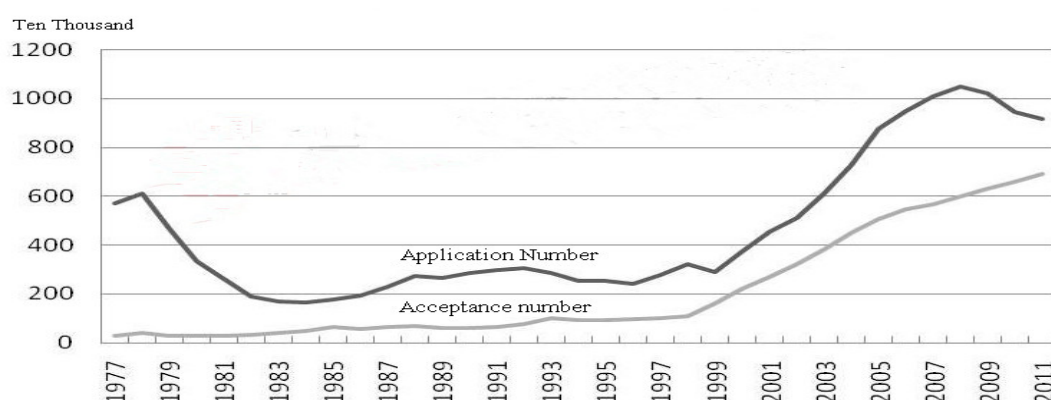
Figure 2.4 China-based versus overseas perspective: whether to go



Both China-based research and overseas-based research found that many Chinese students want to avoid the harsh competition of entering the Chinese domestic universities (lack of enrolment opportunity). Coupled with China's strong financial growth, China's education sector has improved. However, the training and learning system has not kept pace with the economic growth. Even though the Chinese government has increased the number of universities and colleges, competition is still very strong to gain admittance. Prior to 2009, the acceptance rate in the national entrance examination was lower than 60%, and prior to 1999, the acceptance rates were much lower, which means that students were subject to intense competition to continue their tertiary education. In order to avoid such intense competition, many students and their families may consider studying abroad as a good option (Yang 2007b).

However, by looking back to the past decades enrolment of college entrance examination and the acceptance rate (See Figure 2.5), we are aware that there is a trend of falling applications and rising acceptance rates since 2009 in national university entrance examinations. The big cause for these trends is the large expansion of the Chinese university system beginning in 1999. While there were 2.88 million applicants at that year, 9 years later in 2008 the number of applicants reached a historic high point of 10.5 million people, representing an average annual increase of 846,700 or an increase of 15.46% per annum. The university enrolment increased from 1.6 million in 1999, rising to 5.99 million in 2008, an average annual increase of 487,800 or an increase of 15.8% per annum. College acceptance rates rose from 34% in 1998 to 56% in 1999, an increase of 22%. After 2008, the applicants decreased by 390,000 people per year, at an annual rates of decrease of 3.86%. In 2009-2011, the annual increase in the number of university admissions was 253,300, around 4.06% annual growth, lower than the 15.8% nine years previous. But college acceptance rates, jumped from 57% in 2008 to 72.3% in 2011, an average annual increase of 5.1%.

Figure 2.5 The application and acceptance of Chinese students in national university entrance examinations



Source: China Education Online

Comparing data from 1999-2008, we can see that despite the expansion of college enrolment the pace slowed considerably in 2009-2011. While the applicants of college entrance examination rapidly declined, the university acceptance rate instead soared. This suggests that the record number of applicants caused the nearly three years of

rapidly rising college acceptance rate. Why did applications decline in the college entrance examination after 2008? There are different opinions, such as students studying abroad or giving up on the college entrance examination. Of course, these reasons played some part. However, the most fundamental factor was the decrease in school-age population (EOL 2010). We can look back in history, when more than 26 million children were born in 1990, while in 1991 the number dropped to 20 million, and since then it has steadily declined. In 2000, only 13.8 million children were born (2000 census). Considering this fact, the opinion of Liu and his research fellows (Liu et al. 2012) that lack of enrolment opportunities are still the key drivers for Chinese students to study overseas needs further testing. In the near future, the role of enrolment opportunities in China as a push factor is getting smaller. That means recruiting Chinese students will be more difficult than in the past. When there are equal opportunities to access the tertiary education both in China and overseas, the host country and its institutions will increasingly depend on 'pull factors', such as improve the educational quality, provide a variety of selective courses, offer practical programs and attract Chinese students by highlighting their university rankings when they promote their market profiles.

As identified by both China-based and the overseas-based researchers, studying overseas has become a stylish element of lifestyle for the young generation in China. There is a common belief that overseas studying experience can bring a brighter future for them. The returnees are not only enjoying well paid and stable positions in the academic institutes, but also in government, in politics, in business, in military and international trades, in technology and in almost all professions of China's community (Wang 2007). The returnees have changed not only their lifestyles and their professions but also the course of China's modernisation and China's twenty-first millennium and beyond. They are highly respected by the government and the community, earning eye-catching incomes and playing prominent roles. The value of international credentials and the popularity and gain which the first few cohorts of returned offshore students have acquired turned on the powerful passions of Chinese students to adhere to their example (Wu et al. 2010).

Chinese scholars share the similar point of view with the overseas-based researchers on the factor that the lower educational and research quality in Chinese university push Chinese students to study abroad. Following the fast development of China's economy, the improvement of the educational and research quality in China's university and the establishment of many overseas campuses in China by the Western universities, we still have a question: will more Chinese students prefer to stay in China to pursue their tertiary education rather than go out to study abroad in the near future?

The differences of the viewpoints between Chinese and overseas scholars on whether to study overseas are obvious. Firstly, the overseas-based researchers paid more attention to pull factors than to push factors, while China-based researchers addressed both push and pull factors evenly. This difference may be due to the language barrier or to the cultural background of the investigator.

Furthermore, Chinese scholars stressed the rapid development of Chinese national economy providing a chance for Chinese students to pursue their higher education abroad dream. The growth of Chinese family income promoted the development of the overseas study market. In addition, the Chinese government pursued a more lenient

studying abroad policy to diversify students' educational choices. Chinese students have more opportunities to choose different types of education now than in the past. Furthermore, the appearance of study abroad agencies provided more information related to study abroad for Chinese students and greatly simplified the procedures to apply studying abroad, making it more convenient. Even though some researchers thought the credibility of the study abroad agency is diminishing in China, it is estimated that about 67% of the families and students would use study abroad agency to assist enrolling to overseas universities (*Inventory: the market change of Chinese students study abroad from 2002-2012* 2012). The study abroad agency is still playing an important role on recommendation and consultation for Chinese students to study abroad.

China-based research also stressed the important impact of social influence on Chinese students' decision making, such as the perception that returnees might have a better salary than the local graduates. In addition, the rapid internationalisation of the Chinese economy makes English an important skill when students look for jobs, so the purpose of mastering fluent English is also a major influencing factor. The reason the overseas scholars do not mention this could be that this phenomena is common worldwide and so would not motivate emigration from China to one of the developing countries. There is only one factor which overseas scholars identified but has not been confirmed by Chinese scholars, and that is the intention to immigrate in the future. We will explain why these differences exist in the following section.

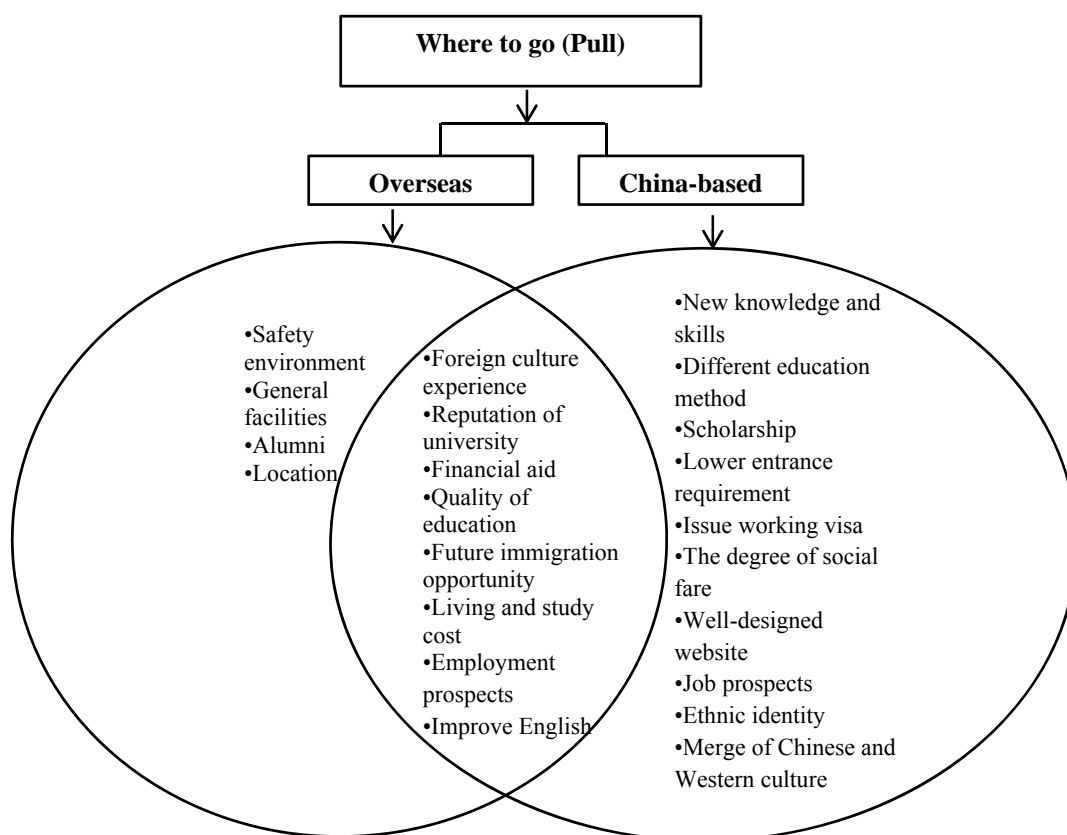
China-based versus overseas perspective: where to go

China-based research and overseas based research share some similar viewpoints on where Chinese students are going (See Figure 3). Firstly, both Chinese and overseas scholars have recognised that the main attraction of destination countries for Chinese students include the foreign culture experience, improving English capability, reputation of university, quality of education, availability of financial aid, living and studying costs, employment prospects and future immigration possibility. There is a causal relationship between some factors with the push factors (whether to go). For example, one of the motivations for Chinese students to study abroad is that Chinese students are not satisfied with the traditional duck-feeding instruction methods used in Chinese universities; hence the quality of education in the host country is becoming attractive accordingly. Chinese students also consider future career perspective as an important factor, and this factor pushes them to study abroad and also attracts them to the host country.

China-based and overseas-based study holds some different viewpoints in terms of where to go. Chinese scholars noticed the entrance requirements of studying abroad are lower than entering Chinese university. Chinese students need to go through many examinations and harsh competition to enter a Chinese university or obtain the postgraduate studying qualification due to the limited educational resources, while studying abroad has lower requirements than that. Furthermore, some host countries issue working visas for students after they graduate which greatly attract Chinese students. Many believe that students who have overseas working experiences will have better job opportunities back in China than local graduate students, because the economic development of China needs more employees with international perspectives and experiences. The factors---safety environment in host country,

general facilities in the host university, alumni and university's location---proposed by the overseas based research are not studied by Chinese scholars.

Figure 2.6 China-based versus overseas perspective: where to go



Source: developed for this study

Discussion of differences between China-based and overseas based study

Chinese and overseas scholars study the same problem, but it leads to some different conclusions. One of the reasons is that the language barrier generates the different research subjects and research outcomes. Although a questionnaire used by those overseas researchers can be literally translated into Chinese, the design of the questionnaire will not be the same due to the cultural differences between China and the West. Furthermore, the fact that employing a Chinese interpreter conducting the interviews will also affect the final research results, because the interpreter's performance will directly affect the results of interviews. The interpreter not only should be competent in both the target and the source languages, but also needs to have cultural competence of the target culture and the source culture. The interpreter can function as a cultural bridge to smooth the communication between researchers and respondents, so that they can effectively convey the message across the two languages (Pan 2007). In overseas-based research, we cannot evaluate the interpreters' competency; accordingly it is hard to ensure the quality of the collected data. We also noticed that most overseas-based research used the qualitative research method, although this method is often challenged for the objectivity of its findings (Lewis 2009). Some have questioned the researcher's ability to exhibit objectivity when collecting data, since the specific ideas and beliefs predominant in the society or

culture to which the researcher belongs will affect or even determine "the kind of truth" he discovers (Fink 2000).

In addition, those overseas based researchers usually targeted Chinese students who have already arrived in their host countries and started their study with a Western university. For example, Chen (2007) interviewed and surveyed Chinese students enrolled in two Ontario universities of Canada. This practise might be due to the language barrier or convenience of contacting the potential research objects. However, a natural question arises about this kind of data collection. How can we know whether these students changed their minds after their arrival in the host country? If the aim is to enrol Chinese students to Western universities, those subject students should still be in China and are in the stage of planning to study abroad. Students might change their perspectives for different reasons due to their actual overseas experiences. Some factors which influence their choice to study abroad might have changed after their arrival in the host countries. For example, a Chinese student might be motivated by the intention to immigrate to Canada and choose to study in Canada. However, after arriving in Canada, the student may not like the living style there and therefore is no longer interested in pursuing the immigration dream any more. At that time, the immigration possibility will then not be a key driver for him/ her, even though it was important at the time the decision was made to study abroad. Therefore, it may not be appropriate to interview Chinese students who have already studied overseas.

Furthermore, the researchers might bring biases and prejudices to their work. These are rooted in their knowledge and personal experience (Dennis & Giangreco 1996). Common concerns about interview data are 'How do we know the informant is telling the truth' (Atkinson et al. 2003) and "the difference between what people say and what they actually do" (Deutscher 1973). These arguments do not ask us to give up the use of the interview data in standard ways, but alert us to what could be inferred from such data. The cultural identities of the researcher could influence the validity and credibility of qualitative interviewing (Fern 2001). The interviewer collects data and has a significant impact on the quality of the data. The facial expressions, body gestures, tone, way of outfit and style of terminology may present bias and prejudice. Similarly, the interviewer's age, social status, race and gender can generate bias. In particular, Chinese teenagers were sensitive to the interviewer's cultural identity. That is, such issues as the interviewer's physical appearance and language fluency would decide whether interviewees might withhold or reveal certain kinds of information (Song & Parker 1995).

2.5 Model conceptualisation based on previous literature

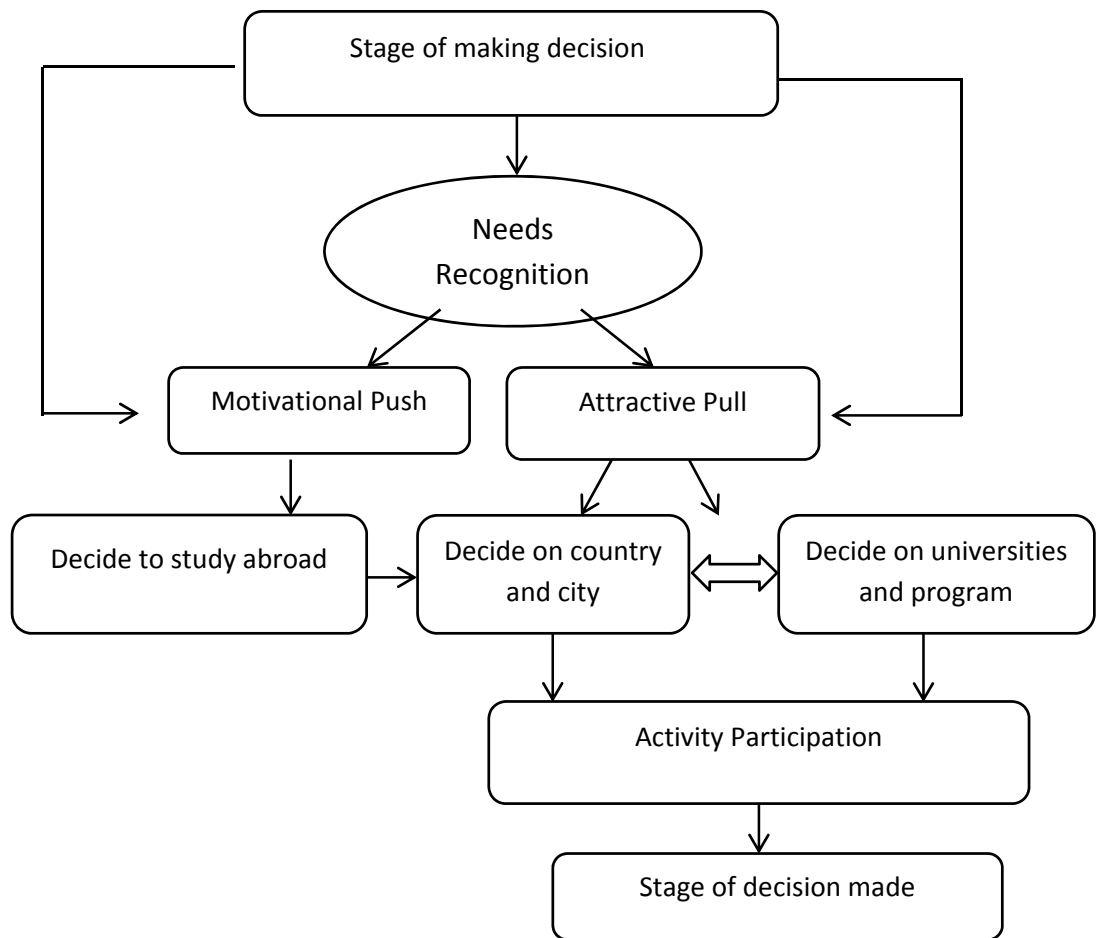
Based on discussion in the above sections, a conceptual framework is developed (figure 2.6). We have reviewed the student destination choice theory (section 2.2) and the theory foundation (section 2.3) which lay the foundations for the model conceptualisation of this research. Research models are developed in this section to hypothesise relationships between push pull factors and the students' destination choice.

The proposed research model for investigating the effects of push pull variables on Chinese students' decision to study abroad provides the guide to develop the questions for interview and questionnaire for survey. This research aims to form a view about

whether this conceptual frame work is applicable to Chinese students' decision making process.

The conceptual framework based on the previous literature shows that the push pull variables influence students' decision making process. The push and pull determinants govern the three stages of student's decision making process, that is, decide to study abroad, decide on country and city and decide on the university and programme. Following this chapter we will discuss which push pull determinants affect, and how they affect, the student's decision making process.

Figure 2.6 Conceptual frameworks from previous literature



Source: developed for this research based on literature review of student choice decision in section 2.2 and push pull framework in section 2.3.

2.6 Summary

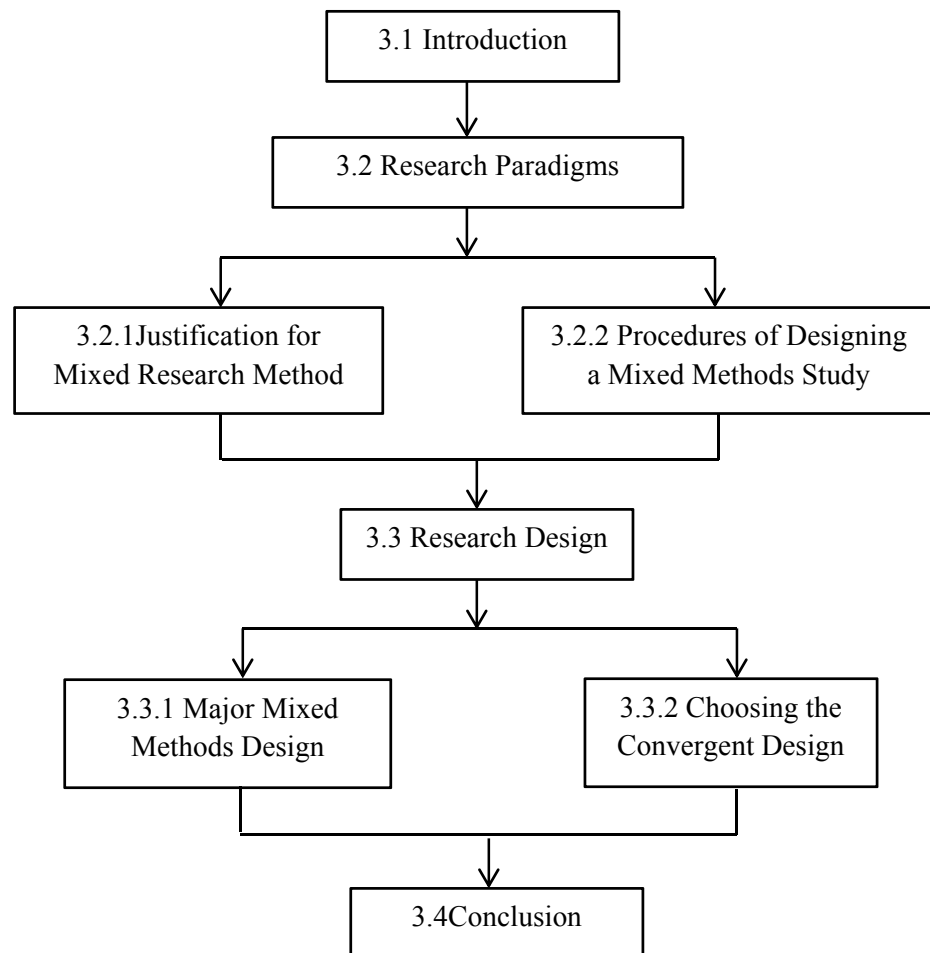
This chapter reviewed the literature of student's college choice model, push pull framework, utility theory, and the theory of reasoned action to lay the theoretical foundation for the model conceptualisation. First, the three stages of student's decision process were discussed (section 2.2). Second, the push pull determinants which influence these three stages were identified (section 2.3). Third, section 2.4 identified differences between overseas-based and China-based research outcomes. Finally, section 2.5 developed the research model to guide empirical testing. The next chapter will discuss the design of the methodology.

Chapter 3 Research Methodology

3.1 Introduction

The previous chapter reviewed the existing literature and discussed previous studies pertaining to variables which influence Chinese students' decision to study abroad. This chapter outlines the research methodology adopted for this study and the methods employed to address the research propositions and the research questions. As a means of justifying the chosen methodology, this chapter will discuss the research philosophy (Section 3.2) on which quantitative and qualitative methodology are based and discuss the rationale for the current methodology (Section 3.3). Finally, a summary of this chapter is presented to synthesise the main points of this chapter. The outline of Chapter 3 is as follows (See Figure 3.1):

Figure 3.1 Outlines for Chapter



Source: developed for this research

3.2 Research Paradigm

This section provides an overview of research paradigms and justifies the use of positivism and constructivism paradigms for this study. The rationale for using a mixed research method is also presented.

The research paradigm is a set of basic beliefs about the nature of reality and how researchers can understand that reality from a given research perspective (Creswell 2007; Guba & Lincoln 1994; Myers 2008; Patton 2002). Social science researchers develop ways to do research based on particular paradigms on which they rely (Guba & Lincoln 2005; Neuman 2006). These paradigms, in turn, guide them in viewing and explaining a phenomenon (Das 1993). There are four alternative paradigms relevant to social research: critical theory, constructivism, positivism, and critical realism (Guba & Lincoln 2005).

Which paradigms the researchers rely on decide how they investigate a phenomenon (Guba & Lincoln 2005). Each paradigm has a specific purpose of investigation. The purpose of studies under the critical theory is to critique and to transform social or cultural structures. The aim of the constructivist paradigm is to understand the world. Positivism is similar to critical realism paradigm, which attempts to predict or explain a phenomenon (Guba & Lincoln 2005).

Positivism or critical realism asserts that reality exists objectively and that the truth of reality is value-free from researchers and the participants (Guba 1990; Guba & Lincoln 2005; Patton, 2002). It is also called Objectivist epistemology. **Critical theory** is based on the belief that authentic people control the truth in order to maintain their powerful position. Feminism and materialism generally hold this viewpoint (Creswell 2007; Denzin & Lincoln 2011). **Constructivism** is similar to interpretivism; social constructionism and the interpretive paradigm share in common their phenomenological base. Phenomenology assumes that reality is subjective and thus has multiple co-constructed realities by researchers and participants in natural settings (Finlay 2009).

The review of literature in Chapter 2 produced a comprehensive understanding of Chinese students' decision to study abroad. However, this understanding has been developed based on studies undertaken in other contexts, in particular, not in China and Australia. Therefore, this study adopted the constructivism paradigm by employing an inductive method to collect and analyse data in order to gain an in depth understanding of the research area to be investigated (Neuman 2006). Furthermore, given that the data are sourced from participating mainland Chinese students using face-to-face interviews, the researcher will be active in collecting and interpreting the information.

In addition, positivist researchers deploy primarily quantitative measurements and analyses towards the phenomena under an objective study (Denzin & Lincoln 2011; Patton 2002). We should avoid unconsciously adhering to methodology that is dictated by a paradigm which will likely result in an inappropriate methodology and thus lead to bias (Patton 2002). Statistical techniques will help us to answer the research questions in this project. In employing a mixed methodology, this study will include psychology (benefits, needs, motivations), sociology (behaviours, networks),

economics (budget, expenditure) and management (services, impacts). In conclusion, the projected methodology for the study will be based on a mixed methods approach, combining a qualitative and quantitative research design. Many researchers endorse a mixed methods approach to research as comprehensive and worth our strong consideration (Johnson et al. 2007; Kumar 2011).

3.2.1 Justification for Combining Qualitative and Quantitative Research

The characteristic of a truly mixed method study is the combination of qualitative and quantitative findings at some stage of the research process, for example, during data collection, data analysis or interpreting stage of the research (Kroll & Neri 2009). The research paradigm of the mixed methods research encourages integrating the qualitative and quantitative research elements to answer complex questions (Creswell 2003; Greene 2007; Tashakkori & Creswell 2007).

Jick (1979) first introduced the concept of mixing qualitative and quantitative methods in social science research. Lately, the mixed methods research is broadly defined as a research in which the researcher collects and analyses data, integrates the findings and draws conclusion using both qualitative and quantitative approaches (Tashakkori & Creswell 2007). The underlying premise of the mixed method is that qualitative and quantitative methodologies offer complementary advantages for each other (Johnson et al. 2007; Tashakkori & Creswell 2007). The key advantage of quantitative research is easily to measure numerical data collected from a large sample of the population, giving the researcher the statistical power to look at effects and empirical associations between variables and outcomes (Murnane & Willett 2011), while the main advantage of qualitative studies is to explore the research questions in-depth and detail (Denzin & Lincoln 2011; Marshall & Rossman 2006). When combining qualitative and quantitative findings, the researcher forges an overall or negotiated account of the findings, an achievement not possible by using a singular approach (Bryman 2007). Mixed methods can also help to identify the similarities and differences between particular aspects of a phenomenon (Bernardi et al. 2007).

In any mixed methods study the purpose of mixing qualitative and quantitative methods should be clear. The previous literature has discussed the reasons for using mixed methods (See Table 3.1). Greene et al. (1989) believed triangulation, complementary relationship, development, initiation and expansion are the main reasons to use the mixed method in a research. Although this study is now about twenty five years old, it is still frequently argued and discussed in academia. As mixed methods research has been accepted widely in the last decades, more propositions have emerged. Bryman (2006) proposed more reasons for choosing mixed methods for research. These are detailed in Table 3.1.

The reasons for choosing mixed methods in this research to study the factors which influence Chinese students to study in Australia are to enhance the understanding of the research questions, to mitigate the weakness of the other method to be used in this study, to obtain a comprehensive understanding for research questions, to help us to answer different research questions, to explain the findings from each method by another method, to help us to better understand the unexpected results and to increase the credibility of this research (See Table 3.2).

Table 3.1 Reasons scholars will choose the mixed methods research

Greene et. al (1989)	<p>1. Triangulation seeks convergence and correspondence of findings from different methods.</p> <p>2. Complementary seeks elaboration, enhancement and clarification of the results from one method with the results from the other method.</p> <p>3. Development seeks to use the results from one method to help develop the other method</p> <p>4. Initiation seeks the discovery of contradiction, new perspectives of frameworks and the modification of questions from one method with questions from the other method.</p> <p>5. Expansion seeks to extend the depth of inquiry by using different methods.</p>
Bryman (2006)	<p>1. Triangulation refers to the research findings which might be triangulated in order to corroborate the qualitative and quantitative research.</p> <p>2. Offset refers to the fact that qualitative and quantitative methods have their advantages and disadvantages, so the mixed method can offset their weakness and draw on the strengths of both.</p> <p>3. Completeness refers to the fact that when the mixed method is employed, the researcher will obtain a comprehensive account of the area of inquiry.</p> <p>4. Process refers to quantitative research providing social life structures, while qualitative research provides sense of process.</p> <p>5. Different research questions explain that the qualitative and quantitative research can answer different research questions.</p> <p>6. Explanation means one method can be used to help explain results generated by the other method.</p> <p>7. Unexpected results refer to one method generating surprising results that can be understood by employing the other method.</p> <p>8. Instrument development refers to qualitative research generating better wording or more comprehensive answers.</p> <p>9. Sampling refers to one approach facilitating the sampling of respondents or cases.</p> <p>10. Credibility refers to enhancing the integrity of findings by employing the mixed method.</p> <p>11. Context refers to the qualitative research providing contextual understanding to rationalize the combination.</p> <p>12. Illustration refers to using qualitative data to illustrate quantitative data.</p> <p>13. Utility refers to the prospect that mixed method will be more useful to practitioners and others.</p> <p>14. Confirm and discover refers to using qualitative data to generate hypotheses and using quantitative research to test them within a single project.</p> <p>15. Diversity of views refers to combining researchers perspectives through quantitative and qualitative research respectively and reveals relationships between variables through quantitative research while also uncovering meanings among research participants through qualitative research.</p> <p>16. Enhancement refers to augment quantitative or qualitative findings by gathering data using a mixed method.</p>

Source: adapted from Greene et al (1989) and Bryman (2006)

Table 3.2 Reasons for choosing mixed methods in this research

Reason	Explanation
Expansion	Using mixed methods to extend the depth of understanding for Chinese students' decision to study abroad in Australia.
Offset	The mixed methods can offset the weakness of each method and draw on the strengths of both which can provide a complete picture for us to know why Chinese students choose to study in Australia.
Completeness	Using the mixed methods to obtain a comprehensive understanding for research questions.
Different research questions	The qualitative and quantitative method can explain the different research questions.
Explanation	Qualitative method can explain what are found from the quantitative , and quantitative can help us better understand the results from the qualitative
Unexpected results	If there are unusual findings from one method, we can better understand the results by employing another method.
Credibility	Employing the mixed method is helpful to enhance the credibility of research findings.

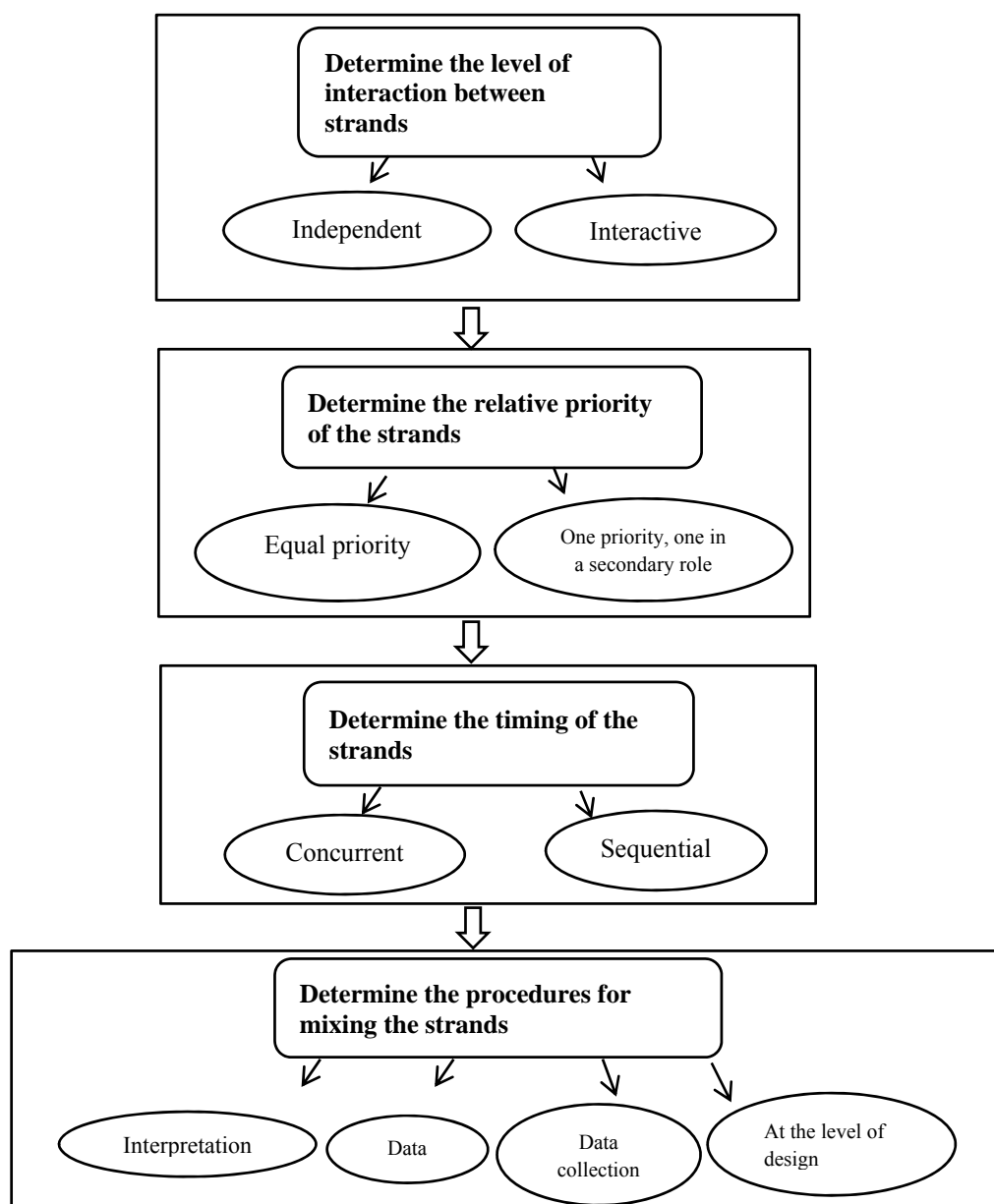
Source: developed for this research

3.2.2 Procedure of Designing a Mixed Methods Study

After choosing to use the mixed methods approach in this research, the researcher must specify a mixed methods design which best fits the problem and research questions in this study. The research designs are procedures of data collection, analysis, interpretation and report in a research (Creswell 2003). It is helpful to guide the research methods decisions that researchers must take during the studies.

The researcher firstly needs to choose the mixed methods design to use in a study. This choice addresses the different ways that the quantitative and qualitative strands of the study related to each other. A strand is a part of research that involves the primary procedure of performing quantitative and qualitative research: propose research question, collect data, analyse data and interpret results based on that data (Teddle & Tashakkori 2009). Mixed research method includes at least one quantitative strand and one qualitative strand. There are four key choices engaged in selecting an appropriate mixed methods design to use in a research (See Figure 3.2). The choices are (1) the level of interaction between strands, (2) the relative priority of the strands, (3) the timing of the strands and (4) the procedures for mixing the strands (Creswell 2003). We discuss each of these choices in turn in the following parts.

Figure 3.2 Selecting an Appropriate Mixed Methods Design



Source: developed for research by Creswell (2003)

Determine the level of interaction between strands. The level of interaction is the extent to which the two strands are kept independent or interact with each other (Creswell 2003). Greene (2007) noted two general options for a level of interaction between quantitative and qualitative strands, namely independent options and interactive options.

The independent level of interaction refers to the quantitative and qualitative strands applied so that they are independent from the other, that is the two strands are distinct. Separately they pose research questions, conduct data collection and analyse data. When the study is independent, the researcher only mixes the two strands when drawing conclusions during the overall interpretation at the end of the research (Creswell 2003).

The interactive options refer to a direct interaction occurring between the quantitative and qualitative strands of the study. In this direct interaction the quantitative and qualitative methods are mixed before the final interpretation. This interaction can occur at different stages in the research process and in various ways (Creswell 2003).

Determine the relative priority of the strands. The researcher needs to decide which strands are relatively important within the design. The two methods might have an equal priority so that both play an equal role in addressing the research questions. Or one method has priority and the other one is used in a secondary role (Creswell 2003).

Determine the timing of the strands. Timing refers to the temporary connection between the quantitative and qualitative strands within a research (Creswell 2003). Timing mostly describes the order in which the researchers use the findings from the two sets of data within a research. Timing relates to the entire quantitative and qualitative strands. Researchers can apply both of the strands during the single phase of the research, or researchers can apply both strands in two distinct phases, with the collection and analysis of one type of data occurring after the collection and analysis of the other type (Greene 2007) .

Determine the procedures for mixing the strands. Researchers need to decide when and how the mixing occurs. The mixing can occur during the interpretation, during data analysis, during data collection and at the level of design (Creswell 2003).

Mixing during the interpretation occurs in the final step of the research process after the researcher has collected and analysed both quantitative and qualitative data. The research conclusions reflect what was learned from the combination of results from the two strands of the study (Johnson et al. 2007). Mixing during the data analysis occurs when the researcher analyses the two sets of data. First the researcher analyses the quantitative data and qualitative separately, then using an interactive strategy of merging to bring the two sets of findings together (Creswell 2003). Mixing during data collection occurs when the researcher collects a second set of data. The results of one strand build to the collection of the other type of data (Creswell 2003). This mixing occurs by using the results of the first strand to shape the data collection in the second strand by specifying research questions, selecting participants, and developing data collection protocols or instruments. Researchers use three strategies for mixing at the stage of design: embedded mixing, in which the research embeds quantitative and qualitative methods within a design associated with one of these two methods (Creswell & Clark 2011); theoretical framework-based mixing in which the researcher mixes quantitative and qualitative strands within a transformative framework that guides the overall design; and program objective framework based mixing in which the researcher mixes quantitative and qualitative strands within an overall program objective that guide the joining of multiple projects or studies in a multiphase project (Creswell 2003).

This research will employ quantitative and qualitative methods independently. They have equal priority, they will be conducted concurrently, and they will be mixed in the final step during the interpretation stage. This is discussed further in section 3.3.2.

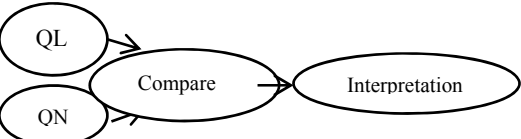
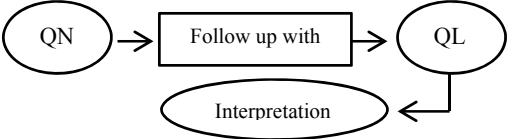
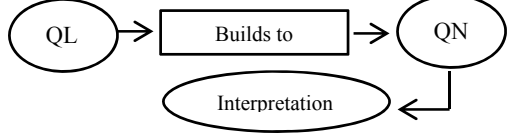
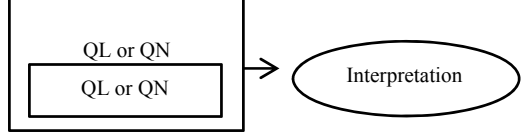
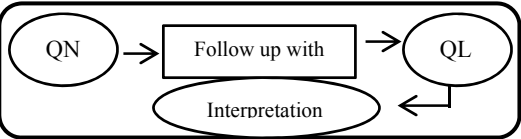
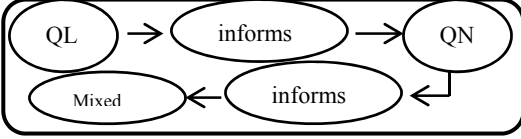
3.3 Research Design

3.3.1 The major mixed methods design

Although there are potentially a limitless number of combinations of qualitative and quantitative methods, a relative small set of combinations are used frequently in practice. After reviewing hundreds of mixed methods studies, Creswell (2003) recommended six major mixed methods designs which provide a useful guide for researchers to design their own studies.

These six major mixed methods research designs are the convergent parallel design, the explanatory sequential design, the exploratory sequential design, the embedded design and the transformative design and the multiphase design. The characteristics of these major mixed methods are discussed as follows (See Table 3.3).

Table 3.3 Characteristics of the Major Mixed Methods

Mixed Methods	Prototypical Version	Design Purpose	Level of Interaction	Priority of the Strands	Timing of the Strands	Primary Mixing strategy
Convergent Design		•Need a more complete understanding of a topic	Independent	Equal emphasis	Concurrent	After separate data analysis
Explanatory Design		•Need to explain quantitative results	Interactive	Quantitative emphasis	Sequential, quantitative first	Use quantitative results to make decisions about qualitative research
Exploratory Design		•Need to test or measure qualitative exploratory findings	Interactive	Qualitative emphasis	Sequential, qualitative first	Use qualitative results to make decisions about quantitative research
Embedded Design		•Need preliminary exploration •Need a more complete understanding of an experimental trial • Need follow-up explanations	Interactive	Either qualitative or quantitative emphasis	Either concurrent or sequential	Embedding one strand within a design based on the other type
Transformative Design		•Need to conduct research that identifies and challenges social justice	Interactive	Equal, emphasis	Either concurrent or sequential	Mixing within a theoretical framework
Multiphase Design		•Need to implement multiple phases to address a program objective	Interactive	Equal emphasis	Multiphase combination	Mixing within a program-objective framework

Source: developed for this research from Creswell (2003)(QL=Qualitative QN=Quantitative)

3.3.2 Choosing the convergent parallel design

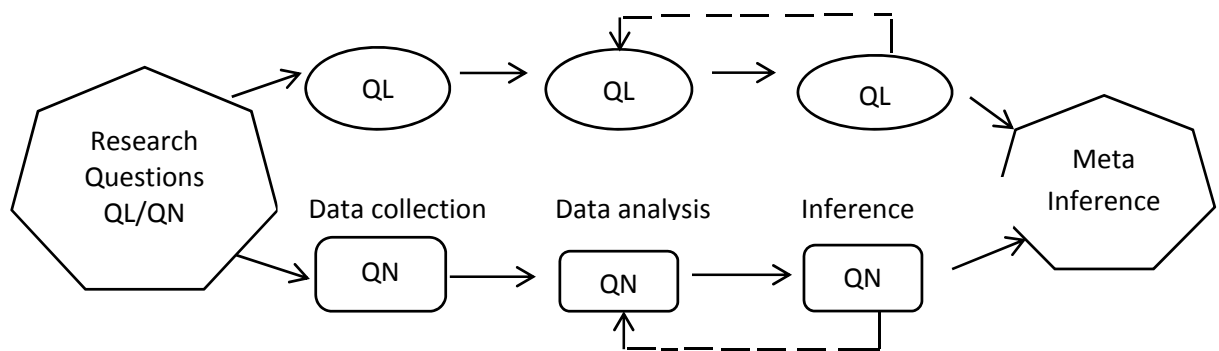
After comparing the characteristics of the major mixed methods and considering the research budget and time restriction, the convergent parallel design was chosen to help design the research methods in this study. The qualitative and quantitative strands are implemented in the same phase of the research process. Both methods are equally emphasized. Whilst each strand is independent during analysis, we integrate or mix the findings during the overall interpretation (Creswell 2003).

The convergent design is the most well-known approach to mix the qualitative and quantitative methods (Creswell & Clark 2011). Since the 1970s, this design has been discussed in academia as simultaneous triangulation (Morse 1991), parallel study (Tashakkori & Teddlie 1998), convergence model (Creswell 1999) and concurrent triangulation (Creswell 2003). Regardless of the name, the convergent design occurs when the researcher collects and analyses both quantitative and qualitative data during the same stage of the analysis procedure and then combines the two sets of findings into an overall interpretation (Creswell 2003).

The purpose of the convergent design is to help the researcher better understand the research questions by obtaining different but comprehensive data on the same topic (Morse 1991). This design can bring together the strengths of the qualitative and quantitative methods (Patton 2002).

There are four steps of implementing a convergent design (See Figure 3.3). At the beginning, the researcher collects both qualitative and quantitative data related to the research questions. These two types of data collection are concurrent but independent and separate. This means each type of data collection does not depend on the results of the other. They have equal importance for dealing with the research. In the second step, the researcher analyses the two data sets individually and independently from each other by using typical qualitative and quantitative analytic techniques. Once completing the analysis of the two sets of data separately, the researcher obtains the inference for each of the strands. In the final step, the findings and inferences from the two phases are integrated. This last step may involve directly comparing the separate results or transforming results for the further analysis (Tashakkori et al. 2010)

Figure 3.3 Convergent Parallel Mixed Methods Design



QL=Qualitative, QN=Quantitative, Dashed Line represents a feedback loop
Source: adopted from Tashakkori et.al (2010)

Choosing to use the convergent mixed methods in the research has some limitations. Firstly, much effort and expertise are required, due to the concurrent data collection (Creswell 2003). The researcher of this study has prepared to use mixed method and has trained to implement quantitative and qualitative methods in the research. The researcher was given enough time (around 3 months) to complete the data collection and data analysis (up to 6 months). Secondly, the researcher needs to consider the consequences of having different samples and sample sizes when merging the two data sets (Creswell 2003). The researcher makes great effort to collect large qualitative samples to reduce the sample size gap.

3.4 Summary

The mixed research methods have several designs. These designs provide sound frameworks for collecting, analysing, interpreting and reporting quantitative and qualitative data to best address specific types of research purpose. This chapter explained the reason of choosing a mixed research method and discussed the procedures of choosing a mixed research method.

The convergent design was chosen to be used in this research. In this research design the data collection and data analysis of qualitative and quantitative research are conducted at the same stage. Both methods are equally emphasized, and each strand is independent during analysis. Lastly, the findings are mixed during the overall interpretation. In the following chapters, the qualitative and quantitative research will be discussed separately.

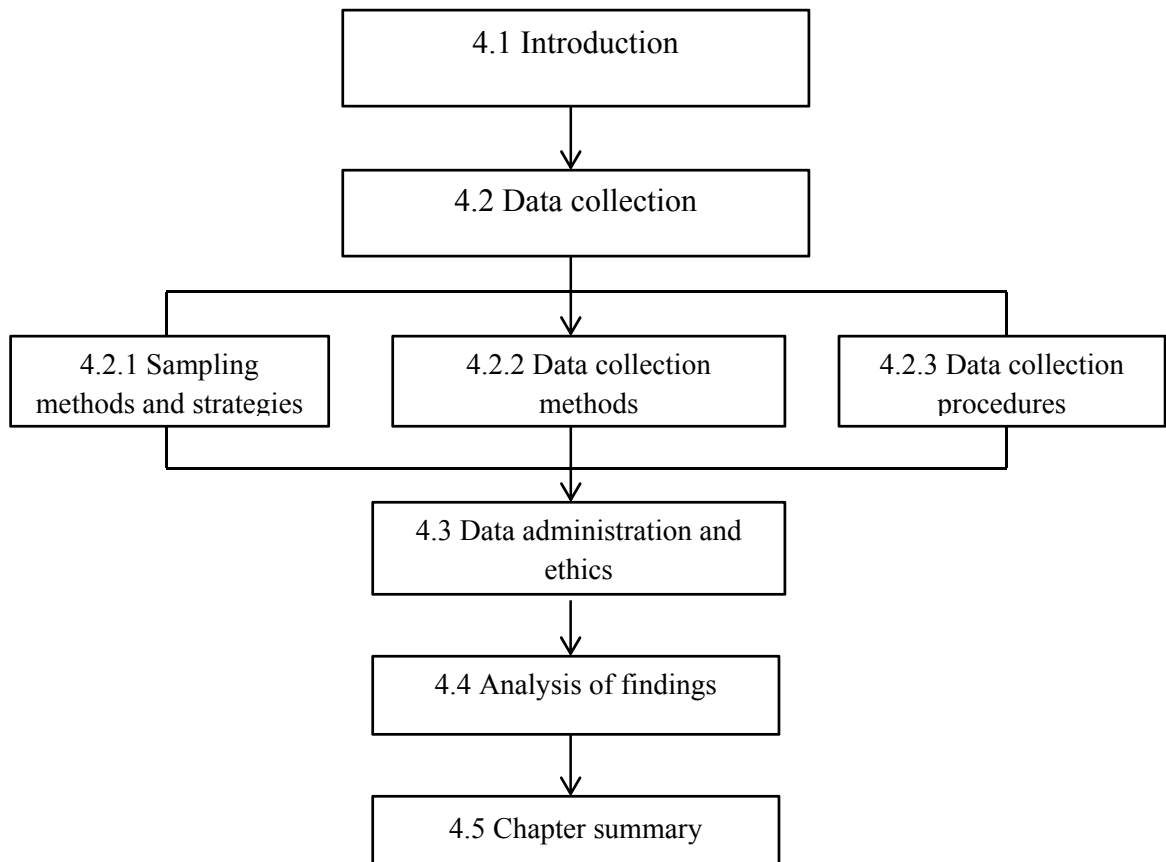
Chapter 4 Qualitative Research

4.1 Introduction

Chapter 2 detailed the theoretical framework in the relevant literature. The literature provided insights into the push pull factors which influence Chinese students to study abroad. However, there is a lack of empirical support for the nature of relationships between Chinese students and the influences these factors have on Chinese students' decision to study abroad. Consequently, further research is necessary to explore relevant push pull factors and justify how those factors possibly influence their decision to study abroad and choose their destination.

Chapter 3 justified using the mixed research method in this study. This chapter outlines the qualitative research adopted for this study and the methods employed to address the research questions. This chapter begins by describing the research design in terms of how the chosen research methodology is implemented. The research design includes the sampling methods and strategies, methods and procedures for data collection as well as the data analysis. Then a summary of this chapter is presented to synthesise the main points of the chapter. The following figure outlines the structure of Chapter 4.

Figure 4.1 Structure of Chapter 4



Source: Developed for this study

4.2 Data Collection

The literature research was conducted in the previous chapter, and the influential variables which affect Chinese students to study abroad have been presented. These factors will be further explored in this qualitative stage in order to identify the Chinese students' characteristics that are most relevant. The research could be conducted using focus group interviews, projective techniques and in depth interviews. Section 4.2.2 discusses these techniques.

4.2.1 Sampling methods and strategies

Sampling is fundamental to the research design and a well-defined sampling process plays an important role in determining the quality of research (Marshall & Rossman 2006). Therefore, sampling decisions should be made at the beginning of the research design and thus are the starting point of the data collection procedures in this study (Marshall & Rossman 2006). This study adopts a purposeful sampling method whereby snowball strategies were employed to identify the potential Chinese students who really have an intention to study abroad in the near future.

Chapter 2 reviewed the research regarding the factors which influence Chinese students to choose their study abroad destination. However, that research is not comprehensive and systemic. Furthermore, as the environment changes, factors affecting Chinese students studying abroad have correspondingly changed. So the purpose of this stage is to explore whether there are other factors that affect Chinese students that have never been found in past research. Therefore the research requires the selection of Chinese students who intend to study abroad and already started the application process. The sample students should have taken an English exam, such as IELTS, TOEFL and have started their application process of study abroad either by themselves or with the help of the study abroad agent. By selecting the students who have already started their application process the researcher has selected students who have already decided to study abroad. This results in a more purposeful sample. Leedy and Ormrod (2009) support purposeful sampling as particularly appropriate when experienced individuals are chosen to represent the targeted population.

Purposeful sampling method is a non-random selection of participants. It aims to select information-rich cases for study in depth (Patton 2002). The variables to which the sample is drawn up are linked to the research question. For example, if the purpose of this study was to look for factors that affect Chinese students studying abroad, we have to choose non-random sample of Chinese students who have experience in applying for overseas study. Purposeful sampling is very useful for situations when there is a need to access a targeted sample quickly and where sampling for proportionality is not the primary concern (Evans 2007).

Purposeful sampling methods consist of various strategies, each of which serves a particular purpose (Patton 2002). Among these strategies, snowball sampling is a subset of the purposeful sampling methods and targeted to identify a sample with specific characteristics, knowledge or skill. It help us to recruit future participants from their social networks (Given 2008). Thus the sample group appears to grow like a rolling snowball. In snowball sampling, we begin by identifying someone who meets the criteria for inclusion in this study. Then ask them to recommend others who also meet the criteria. Snowball sampling is an approach for locating information-rich key informants.

When we choose the interview subjects, we realised that there are large number of Chinese students intending to study abroad. Some of them are in the first stage of decision process which indicate that they do not have a deep understanding about choosing their destination countries. Given this reason, we should avoid employing these students in this stage to interview. However, because those students who have experience to choose their study abroad destination are spread throughout China, gaining access and confirming their situation for each of them is difficult and time-consuming. Accordingly, a flexible and emergent sampling strategy is required. That is the reason why we deploy the snowball sampling strategy in this research. Snowball sampling begins by identifying targets who meet the participating criteria in the study. It is especially useful to reach populations that are inaccessible or hard to find (Johnston & Sabin 2010).

The characteristics of snowball sampling method make it useful for identifying someone who meets the criteria for inclusion in this study. We then ask them to recommend others who may also meet the criteria. For instance, the study abroad agent

might recommend a student who has taken IELTS and started applying to study abroad. Then this student can recommend other students who have the similar experience to us.

Procedures of the snowball sampling process

The snowball sampling process started with 6 suitable students who are recommended by the study abroad agency. These students have taken their IELTS or TOEFL exam, and have started to apply for studying abroad. The researcher can spread out through the networks initiated by these students. The snowball sampling process is multistage, which terminates either when the sample network closes or no new references generate (Krippendorff 2004), or when a sample of a sufficient size is reached (Sudman & Kalton 1986). Specific to this study, the sample network terminated when sufficient Chinese students were enrolled for interview.

In this study, a student is the unit of analysis. In the first instance, the selection of Chinese students as sample units was required. Five study abroad agencies from Beijing, Shanghai, Jinan, Guangzhou and Xiamen were targeted. The study abroad agency is playing an important role on recommendation and consultation for Chinese students to study abroad. One study estimated that about 67% of the families and students would choose a study abroad agency to apply for study abroad matters (*Inventory: the market change of Chinese students study abroad from 2002-2012* 2012). These five study abroad agencies are located in the major cities from both North and South of China. They provide training to help students pass their English exam, and they also provide help for students who come from all over China to apply for studying overseas.

Emails looking for opportunities for interviews together with a brief overview of this research were first sent to senior executive officers of these study abroad agencies who are likely to be responsible for recommending students for interview in this study. Three agencies replied to express interest for this research. They were from Beijing, Jinan and Xiamen. After further discussion related to the interview, two of them replied with recommendation of 5 students for face-to-face interview and arranged a time and venue. A phone call was made to the last study abroad agency which agreed to interview 1 student.

Following the initial interviews and concurrent data transcription, the researcher realised that to address the research problem, more information would be needed to achieve the required depth, detail and richness. Accordingly, using the snowball sampling strategy, the sample was enlarged to include more experienced students at the second phase of interviewing. These six students then recommended their friends with similar experience to participate in this interview. Due to the time limitation, after finding 30 students, the snowball sample process was ended. Among these students, 18 of them are male, age 18-29, 12 of them female, age 18-30. They all have participated in the IELTS or TOEFL exam and in the process of applying to study abroad.

Using the snowball sampling strategy, the researcher was able to enlarge the sample network by probing more experienced students who have knowledge about the English exam and how to apply to the abroad universities. As a result, deeper insights into the research problem were obtained. As all of these students with relevant knowledge were

brought into the network, an in-depth understanding was obtained about their decision making to study abroad. Due to the time restriction, the researcher made every effort to have 25 students involved. Based on the snowball sampling strategy outlined in this section, the data collection procedures are outlined in the following section.

4.2.2 Data collection methods

A qualitative approach aims to explore a deeper understanding of Chinese students' decision making process of studying abroad. To achieve this deeper understanding, qualitative data need to be gathered which is in-depth, detailed and context based. The most common methods of data collection used in qualitative research are interviews, focus groups and observation (Gill et al. 2008; Hancock et al. 2007). The following table is trying to explore these three methods in more detail, in particular how they work in practice, the advantage and disadvantage of each and the option choices within each types.

There are three fundamental types of research interviews: structured, semi structured and unstructured. Structured interviews are basically verbally applied questionnaires in which a list of pre-specified concerns is asked. Little further follow-up questions are generated for further elaboration. Consequently, they are relatively quick and easy to manage and suitable for particular use if clarification of certain concerns are needed or if there are likely to be literacy or numeracy problems with the respondents. However, by its characteristics, a structured interview only allows for limited participant responses and therefore is of little use if 'depth' is required (Harris & Brown 2010).

Table 4.1 Qualitative Data Collection Methods and Options within Methods

Qualitative data collection methods	Appropriate use	Advantage	Disadvantage	Option within types
Interview	Supposition that the participants' standpoint is meaningful, knowable and able to be made detailed Their perspectives influence the success of the project. (Frechtling & Sharp 1997)	Usually yield richest data, details, new insights Permit face-to-face contact with respondents Provide opportunity to explore topics in depth Allow interviewer to explain or help clarify questions, increasing the likelihood of useful responses Allow interviewer to be flexible	Expensive and time-consuming Interviewers need good interviewing skills Interviewee may distort information, or has desire to please interviewer Volume of information too large; may be difficult to transcribe or reduce data	Structured interviews Semi-structured interview Unstructured interview
Observation	Gather firsthand data on programs, processes, or behaviours	Provide direct information about behaviour of individuals and groups	Expensive and time consuming	Observe only

Qualitative data collection methods	Appropriate use	Advantage	Disadvantage	Option within types
		Permit evaluator to enter into and understand situation/context Provide good opportunities for identifying unanticipated outcomes Exist in natural, unstructured, and flexible setting	Need well-qualified, highly trained observers; may need to be content experts May affect behaviour of participants Selective perception of observer may distort data Behaviour or set of behaviours observed may be atypical	Observe and participate
Focus group	Combine elements of both interview and participant observation Generate breadth of responses Can conduct several groups in a short period of time for initial exploration	Able to observe how participants are influenced by others. Good for getting rich data and developing deeper insight. Quick, efficient, cheap and relatively easy to assemble participants together.	Highly dependent on the skill of the moderator Requires skills in interpreting data Time-consuming in analysing primary data	Dual moderator focus group Duelling moderator focus group Mini focus groups

Source: Morgan (1996), Frechtling & Sharp (1997), Patton (2002), Mack (2005), and Thomas et al. (2011)

Semi-structured interviews involve several key questions that help to define the research areas to be studied, but also allow the interviewer or interviewee to diverge to be able to engage in a concept or reaction in more detail. This interview format is used most frequently in marketing research area, as it provides respondents with some guidance on what to talk about, which many find helpful. The flexibility of this approach, particularly compared to structured interviews, also allows for the development or elaboration of details that is essential to respondents but may not have formerly been considered as relevant by the research group (Whiting 2008).

Unstructured interviews do not offer a limited, pre-set wide range of alternatives for the respondent to choose. Such an interview may simply start with an opening question and will then progress based primarily upon the initial response. Unstructured interviews are usually very time-consuming and can be difficult to administrate and to participate in. Lacking predetermined interview questions, unstructured interviews provide little guidance on what to talk about. Accordingly, many participants find the process confusing and unhelpful. Their use is, therefore, usually only considered where significant ‘depth’ is needed or where almost nothing is known about the research area (Kothari 2004).

Observation in qualitative research generally involves taking extended periods of time in the setting. Observation notes are taken throughout the observations and are concentrated on what is seen. Many researchers also record notes to assist in identifying what the observed events might mean and to provide help for answering the research questions during subsequent data analysis (Bogdan & Biklen 2007; Pitney & Parker 2009). Although some researchers use cameras to record what is happening at the research site, that method is unusual and most researchers use field notes to record what has happened in the setting. One major shortcoming of observation methods is obtrusiveness. An unfamiliar person with a pad and pencil or a camera is trying to record people's natural behaviour. The task of a qualitative researcher is to make sure that the participants become acquainted to having a researcher around, as the participation of a stranger in the interview process might disturb or generate an uncomfortable environment for the respondents.

Another type of qualitative research technique utilises interviews on a specific subject with a small group of individuals, called a focus group. This technique can be efficient because the researcher can collect information about several people in one session. The group is usually homogeneous, such as a group of students or a group of customers. Patton (2002) argued that focus group interviews might provide quality administration because participants usually tend to put constraints and balances on one another that can serve to control incorrect or excessive opinions. Focus group interviews are usually pleasant for the participants, and the interviewee may be less afraid of being evaluated by the interviewer because of the group setting. The group members get to listen to what others in the group have to say, which may activate the individuals to reconsider their own opinions. In the focus group interview, the researcher is not trying to convince the group to achieve agreement. During the interview, taking notes can be difficult, but an audio or video recorder may fix that problem. Certain team characteristics such as power struggles and reluctance to state opinions openly are restrictions of the focus group interview. The number of questions that can be asked in one session is limited. Obviously, the focus group should be used along with other data-gathering techniques.

As discussed in the above section, the observation method is not appropriate for this research, because the purpose of this qualitative data collection is to explore the topics in depth and look for new insights. The observation method does not meet this requirement. A further question is raised now: should we use interview or focus group method to collect the qualitative data in this research? Table 4.2 compares the strengths and weakness of these two methods.

The in-depth interviews produce as much information as focus groups and sometimes more. The in-depth interview participant usually spends more time talking than a focus group participant. With more discussion from a participant, we likely get more depth about subjects. And if we speak to several participants with several different experiences, we will likely get breadth. The in-depth interviews are effective when the respondents are introverts who would rather not talk in front of groups of people. We can conduct in-depth interviews with the right questions. Interviewing one person at a time is easier than moderating several people at a time. In particular, in-depth interviews were used to confirm the appropriateness of findings from the literature reviews and provide opportunity to explore topics in depth. The characteristics of the in-depth interview are more suitable for this study.

Table 4.2 Using focus groups and in-depth interview methods

Considered factors	Using focus groups	Using in-depth interviews
Group interaction	Group interaction may stimulate richer responses or explore new and valuable perspectives.	The situation that group interaction is likely to be limited or non-productive. Individual interview can stimulate new ideas from respondents.
Group/peer pressure	Group/peer pressure will be valuable in challenging the thinking of respondents and illuminating conflicting opinions.	Group/peer pressure would inhibit responses and cloud the meaning of results.
Depth of individual responses	The topic is such that most respondents can say all that is relevant or all that they know in a very short time	The topic is such that a greater depth of response per individual is desirable, as with complex subject matter and very knowledgeable respondents.
Extent of issues to be covered	The volume of issues to cover is not extensive.	A greater volume of issues must be covered.
Continuity of information	A single subject area is being examined in depth and strings of behaviours are less relevant.	It is necessary to understand how attitudes and behaviours link together on an individual basis.
Experimentation with interview guide	Enough is known to establish a meaningful topic guide.	It may be necessary to develop the interview guide by altering it after each of the initial interviews.
Logistics geographically	An acceptable number of target respondents can be assembled in one location.	Respondents are dispersed or not easily assembled for other reasons.
Cost and training	Quick turnaround is critical, and funds are limited.	Quick turnaround is not critical, and budget will permit higher cost.
Availability of qualified staff	Focus group facilitators need to be able to control and manage groups	Interviewers need to be supportive and skilled listeners.

Source: Adapted from Frechtling & Sharp (1997), User-friendly handbook for mixed method evaluations.

Justifications of the methods adopted by this study for collecting qualitative data

As mentioned earlier, this study investigates the factors which influence Chinese students to study abroad in Australia instead of choosing other main English-speaking countries. Data are collected through semi-structured interviews with the experienced students who have already started to apply to study abroad. The interviews are conducted face-to-face. Due to the involvement of the students' educational background, perception, values and worldview in the investigation process, in-depth

interviews with the experienced students are considered to be the most appropriate method in capturing a deeper understanding about the factors which they considered when they intended to study abroad. They are productive in yielding abundant useful information and consist of three strategies (See Table 4.3) serving different purposes. They play a significant role in collecting qualitative data.

Table 4.3 Strategies of Interviews

Strategies of Interviews	Characteristics	Advantage	Disadvantage
Unstructured interviews	<p>Tend to be more informal, open ended, flexible and free flowing.</p> <p>Questions are not pre-set.</p> <p>Neither the question nor the answer categories are predetermined.</p>	<ul style="list-style-type: none"> • Give respondents time and opportunities to develop their answers. • Are good in the initial stages of the project as they provide a general understanding of the problem. • Permit full exploration of ideals and beliefs. • It is more like a conversation and the interviewee is relaxed. 	<ul style="list-style-type: none"> • The information from the respondents may be vast and too unrelated for the targets. • Time consuming and difficult to analysis data. • Attention not focused on a given issue. • Fewer details provided on general concepts and objects.
Semi-structured interviews	<p>Has a formalized, limited set of questions.</p> <p>Flexible, allowing new questions to be brought up as a result of what the interviewee says.</p> <p>The interviewer develops and uses an 'interview guide'.</p> <p>The interviewer follows the guide, but is able to stray from the guide when he or she feels this is appropriate.</p>	<ul style="list-style-type: none"> • Obtains relevant information. • The audience is specifically targeted. • Structured so as to allow comparisons. • Gives the freedom to explore general views or opinions in more detail. • Questions can be prepared ahead of time, allows the interviewer to be prepared and appear competent during the interview. 	<ul style="list-style-type: none"> • Interviewing skills are required. • Need to meet sufficient people in order to make general comparisons. • Preparation must be carefully planned so as not to make the questions prescriptive or leading. • Need to have the skills to analysis the data.
Structured interviews	<p>The interviewer asks each respondent the same series of questions.</p> <p>The questions are created prior to the interview, and often have a limited set of response categories.</p>	<ul style="list-style-type: none"> • Allows for a wide topic area to be looked at. • Quick and cost effective in comparison with semi-structured interview. 	<ul style="list-style-type: none"> • Cannot be used to explore people's reasons for their views or feelings about the issues.

Strategies of Interviews	Characteristics	Advantage	Disadvantage
	<p>There is generally little room for variation in responses and there are few open-ended questions included in the interview guide.</p> <p>Questioning is standardized and the ordering and phrasing of the questions are kept consistent from interview to interview.</p> <p>The interviewer plays a neutral role and acts casual and friendly, but does not insert his or her opinion in the interview.</p>	<ul style="list-style-type: none"> •Allows for easy data analysis due to the tick box style answers. •The Interviewees do not need training. 	<ul style="list-style-type: none"> •Only allows the participant a minimal response. •Responses from interviewees can be influenced by their age, gender, culture or their ethnicity. •Expertise is required to design questionnaire. •Can be costly to achieve a representative response.

Source: Minichiello et al. (1990), Carey (1998), Patton (2002) and Myers (2008).

Semi-structured, rather than structured or unstructured, interviews were chosen as the most suitable type of interviews in this research. Structured interviews are not appropriate for this study due to the constraints they are likely to impose on the natural flow of the interviews (Patton 2002). In addition, bias that results from the interviewer's opinions, experiences and knowledge in designing the instruments for interviews are likely to emerge during the structured interviews (Myers 2008). The constraint and bias will reduce the validity and reliability of the data. Unstructured interviews do not fit into this study either. With unstructured interviews questions are likely to be asked in different ways for different students, which lead to a lack of compatibility and reliability of the collected data (Patton 2002; Rubin & Rubin 2005).

To obtain the required information about whether and how some factors play the roles in the processes of Chinese students to choose their study abroad destination, major areas and topics in interviews need to be identified and followed up (Rubin & Rubin 2005). The semi-structured interview is the basic form of interview in a qualitative study. It outlines central topics and issues which are flexible in both wording and sequencing, and new focuses are allowed to emerge in the course of data collection (Patton 2002). The structured component of the semi-structured interview ensures the data from different Chinese students are collected in a systematic and comparable way which enhances the reliability of data. The unstructured component allows new insights to emerge, current focuses to be adjusted and follow-up questions probing depth and detail to be asked as an integral part of the interview process (Kumar 2011). The unstructured component helps to improve the data validity.

Through semi-structured interviews, specific and rich descriptions of the Chinese students' experiences and perceptions which they experienced to choose the study abroad destination were obtained. Accordingly an understanding about what and how these factors affect their decision was captured (Rubin & Rubin 2005).

Furthermore, this researcher reviewed the literature regarding factors influencing international and Chinese students to study abroad with the purpose of developing interview checklists. The literature consisted of journal papers, conference papers, book chapters, government reports and website publications. This process added insights into and formed the basis of the guiding topics and the key issues for the interview checklists. Before interviews were conducted, very limited knowledge about the research problem existed. Therefore, the researcher comprehensively reviewed these documents and publications without designing a review checklist that pre-determined the focus of the review. By not using a review checklist, the researcher obtained a holistic view of international and Chinese students' decision making process and gained rich information. Given this substantial work before conducting interviews with Chinese students, interview checklists reflect the relevant influencing factors in these documents and publications. Therefore, the review of the published journal papers, conference papers, book chapters, government reports and web publications plays a significant role in the soundness of the interview checklists and hence the quality of the interview data.

The data triangulation through the reviews of the published documents and the interviews with the experienced Chinese students helps to improve the reliability of the collected data by testing consistency among the data from these two sources. At the same time, the data triangulation enhances the data validity by providing a cross-data validity check.

4.2.3 Data collection Procedures

Data collection instrument

Data are collected with the aim of gaining an extensive understanding on what and how some factors influence Chinese students study abroad. The in-depth interview guide is used as data collection instruments for the semi-structured interviews. This interview checklist is designed to generate information regarding Chinese students understanding and perspectives for study abroad and what factors play important roles for them when they apply for study abroad. By delimiting guiding topics to an in-depth interview guide, the researcher obtains more systematic and comprehensive information (Patton 2002). The in-depth interview guide is accompanied by a consent form (Appendix 1) required by the Human Research Ethics of the University of Southern Queensland (USQ). A cover letter (Appendix 2) is attached, which provides a self-introduction of the researcher, overview of the research purpose, benefits of participation and ethical clearance.

The in-depth interview guide (Appendix 3) is employed to collect data from experienced Chinese students. Those students have taken part in the TOEFL or IELTS exam and started their application process. The development of an in-depth interview guide is based on the conceptual framework from previous literature and the reviews of published reports and web publications related to international students to study abroad. The in-depth interview guide consists of five guiding topics, starting with broad general questions and then narrowing down to key issues. Adjustments to the guiding topics and key issues are allowed where necessary in the course of data collection.

The first section is the introduction of the interview. The part B guiding topics seek general information on students' experience of applying to study abroad. The part C and part D guiding topics examine the factors which influence international students and Chinese students to study abroad in the previous research. The questions in the last part encourage students to express their perspectives about study abroad. At the end of each interview, the student was asked whether he/she would like to raise any relevant issues that were not covered by the interview. This was to make sure that the interview encompassed all valuable information that is required to address the research problem.

In-depth interviewing procedure

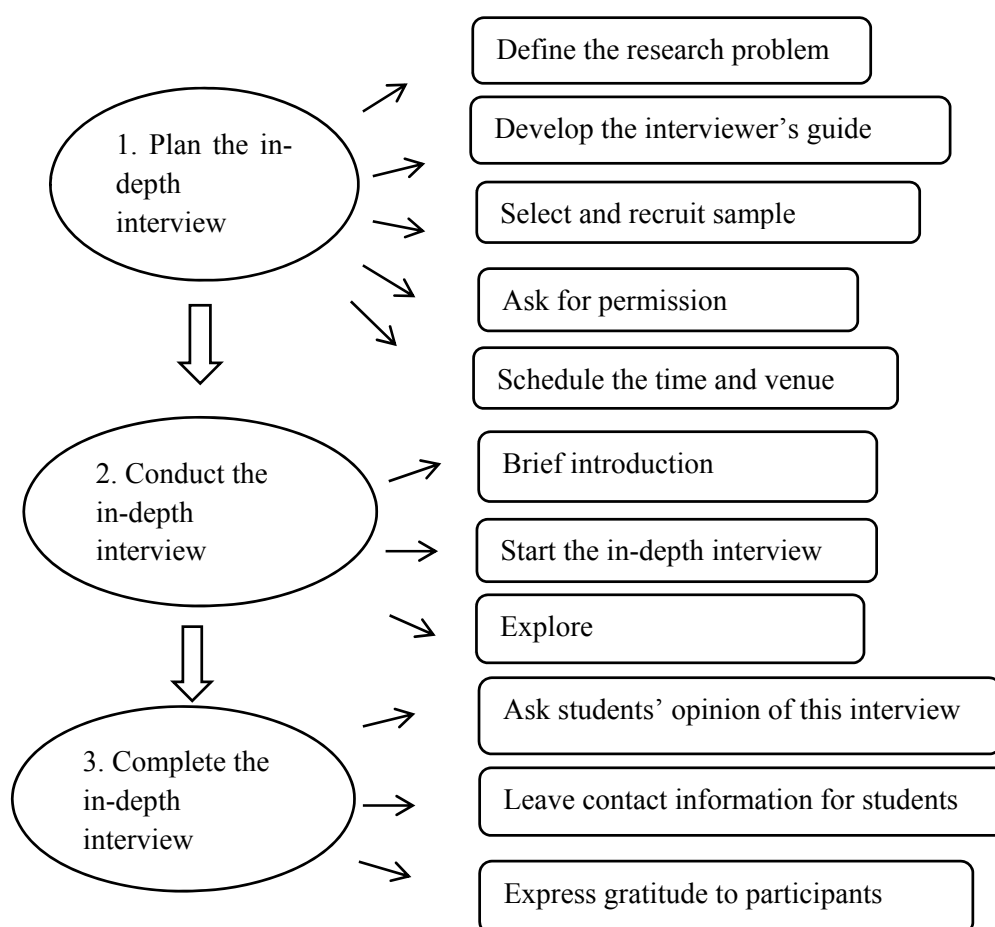
The in-depth interviews were conducted during the period from November 2012 to January 2013. Efforts were made to set up procedures for conducting in-depth interviews in this research. Figure 4.1 outlines this procedure, which also served as a framework for describing how in-depth interviews were conducted in this research.

Planning the in-depth interview

The researcher should plan the in-depth interview carefully (Boyce & Neale 2006). In this phase, the researcher should plan some issues and prepare deliberately before the official in-depth interview starts. In this research, the researcher started by defining the research problem and then developing the interviewer's guide. After selecting and recruiting participants, the researcher sent the consent form for asking permission. And finally, before the start of the official in-depth interview, the researcher and the participants scheduled the interview time and venue together.

Defining the research problem. In this stage the researcher first defines the research problem and then develops the interviewer's guide. The research problem highlights the whole purpose of the interview and determines the direction of this interview (Carson et al. 2001). For the in-depth interviews conducted in this research, the research problem was identified in the last chapter with this question: 'when you were considering study abroad, which broad factors and specific items influenced your choice of the destination country and its institution?' Once the research problem was identified, an in-depth interview's guide was developed. This interviewer's guide consisted of five sections which listed general questions that the researcher wanted to cover. But it is not necessary for these questions to be asked in a fixed order as they were stated in the interviewer's guide (Carson et al. 2001). The interviewer's guide was expanded or revised when new issues were revealed during the interview process.

Figure 4.1 In-depth interview procedures for this research



Source: developed for this research

Develop the interviewer's guide. With the semi-structured interview approach, the use of the interview guide enabled the researcher to lead the direction of the interview to topics relevant to the problem under study. The major motivations underlying Chinese students overseas study choice had been identified by reviewing the previous studies. Thus, the range of topics included in the interviewer's guide, which is presented in Appendix 3, was limited and specified.

Select and recruit sample. As discussed in section 4.2.1, this research selected and recruited participants using purposeful sampling and snowball sampling. In accordance with this strategy, Chinese students enrolled at three study abroad agency provided the sample for the in-depth interviews of this research.

Ask for permission. Before starting the interview, the researcher sent an in-depth interview guide, together with a consent form and a cover letter to the targeted students. This was to make sure the students were informed of the research purpose, the benefits of participating and the ethical clearance with regard to participants' rights and confidentiality. This process contributed to the consistent understanding of this study by different students and to the reliability of their responses. The consistent understanding and reliable responses in turn helped to enhance the reliability of the collected data (Creswell 2007).

Schedule the time and venue. After the students consented to participate, the researcher organised interviews in terms of time, date and location to align with the availability of the students. There are no pre-specified time limits on the duration of this in-depth interview. However, an individual in-depth interview normally takes around one hour or longer. Otherwise, the duration of an in-depth interview should not be taken as an indication of its 'depth' or quality (DiCicco-Bloom & Crabtree 2006). Considering the broad range of subjects to be discussed, the researcher scheduled each interview to last approximately 1 hour on average. With in-depth interviews, a researcher must consider carefully where the participants should be interviewed. Generally, the respondents can be interviewed in different places such as the classroom, the teacher's office or any other venues accessible to both the interviewer and the interviewee (Gordon & Langmaid 1998). The guiding principle is that the respondent should be interviewed at relaxed places that are acquainted to him or her (Carson et al. 2001). So usually the interviewee chooses the interview location, although this was more time-consuming and/or expensive for the researcher. More specially, some of the interviews occurred in the meeting room or classroom of the study abroad agency, some in the café shop and some in McDonalds or KFC.

Conducting the in-depth interview

To obtain valid and reliable information from individual in-depth interviews, it was important for the interviewer to create and develop a relaxed atmosphere in which interviewees feel free and comfortable to talk about themselves without fear of disapproval or loss of status (Taylor & Bogdan 1998). No specific method can guarantee the relationship with the interviewees. The only advice available is that the interviewer should try to be identical to or same with the interviewee with regards to overall appearance and behaviour (Carson et al. 2001; Gordon & Langmaid 1998). In addition, the interviewer should be willing to share his or her personal feelings with the interviewee and strive to match the perceptual patterns of the interviewee (Minichiello et al. 1995).

For this research, the researcher dressed appropriately and her Chinese background and student status provided her an advantage to easily identify with the interviewees. Indeed, she started the conversation by telling the interviewees something about herself. She shared her studying abroad experiences with them and showed personal concerns about their study and life. Some of the interviews were held in McDonalds and KFC, which are favourite entertainment places for Chinese students. The open environment with morning or afternoon tea made them feel comfortable and relaxed. At the start of the interview, it usually took five to fifteen minutes for the researcher to establish the necessary rapport with the respondents and to help make them feel at ease.

After establishing the initial relationship, the researcher confirmed again that the students agreed to be interviewed, for 'informed consent' is the ethical foundation of academic research (Carson et al. 2001). In particular, permission was asked for the researcher to use a digital recorder and take notes. Although the presence of the digital recorder may disturb both parties of the interview, the use of a digital recorder may enhance the relationship by allowing a more natural conversation style as well (Minichiello et al. 1995).

After the preliminary relationship was established and the digital record was set up, the researcher was ready to begin the interview. For this purpose, it was useful to start the interview with some topics that were of immediate interest and concern to the respondent (Smith 2003). In other words, the researcher did not push any agendas too early in the interview (Taylor & Bogdan 1998). Only when the researcher was sure that the respondent was ready then the interview began with some questions of general and broad nature (Minichiello et al. 1995).

The in-depth interviews conducted in this research usually started with some self-introduction and discussion about either the interviewee's or the interviewer's home town in China. Later, the researcher shared some study abroad experiences with the respondents to build the rapport. After this, the informants were approached with general descriptive questions like these: How is your study experience in China? or Why do you want to continue your study overseas? Then the conversation was directed to the research problem with a brief outline of the objective of the research. As most interviewed Chinese students were curious about the nature of this kind of research, considerable time was spent on assuring the respondents of the anonymous and confidential nature of the research. In particular, it was clearly stated that the interview would not involve any politically sensitive topics.

After a brief introduction of the research purposes and the interviewing procedures to follow, students were asked questions which covered the predetermined guiding topics and the key issues in the in-depth interview guide. For the purpose of eliciting more information, the researcher did not comment nor make judgments on students' responses during the interview, and new themes were allowed to emerge. The sequence and the wording of guiding topics and the subsequent key issues were dependent on where the students led the interview to. As such, the interview flowed naturally. This approach contributed to generating rich and nuance-considered information required for a deeper understanding and enhanced the validity of data. The natural flow of the interview also helped to mitigate bias that results from involvement of the researcher's opinions and thus contributed to the data validity. Follow-up questions when necessary sought depth, detail and clarification.

Now the conversation advances into issues concerning the further stage of the in-depth interview. As mentioned above, the in-depth interview began with some common concerns. However, the interviewer was required to cover a specific list of points in the semi-structured interview so as to maximise the collection of relevant data (DiCicco-Bloom & Crabtree 2006). Thus it was necessary for the interviewer to lead the respondents' discussion towards more specific topics by using probe questions that narrow the area.

This procedure of managing the flow of the conversation and leading the respondents to the issues being examined is often termed as funnelling (Minichiello et al. 1995). This strategy of funnelling was quite useful in this research. First of all, it allowed the researcher to cover a number of topics in the predetermined one hour time. Secondly, it enabled the conversation to develop from non-directive to directive subjects in a relative natural way. Indeed, funnelling was a natural process in the in-depth interview of this research, because the semi-structured interviewer's guide (Appendix 3) directs the conversation extensive subjects to particular problems.

Related to funnelling, an in-depth interviewer often needs to probe the respondents for details and specific descriptions of their perspectives on certain points. Probing allows the researcher to elicit past experiences hidden within a respondent's memory and explain or confirm the meanings embedded in the respondent's verbal accounts (Taylor & Bogdan 1998). In addition, probing differentiates in-depth interviewing from everyday conversations (Minichiello et al. 1995) and enables the researcher to keep the respondent on point by directing the flow of the conversation (Smith 2003).

Different strategies were employed in this research for probing. First of all, when the details given were incomplete or vague, the interviewer would encourage the respondent into continuing by saying 'could you tell me more about...?' Secondly, when the conversation was too directly limited to the respondent's personal experiences, the interviewer would pose the idea by asking a hypothetical question like 'let's presume that ..., then what will you think?' Furthermore, when the information implied was not clear, the interviewer would reflectively probe the respondent by asking some reflection or conclusion concerns like 'am I correct in assuming that...?' Finally, when an ambiguity had to be cleared up on a particular issue, a further question would be brought up to deliberately provoke the respondent into elaborating on his or her previous comments. However, attention was paid not to interrupt the respondent too often and push him or her into a defensive position. In particular, some body language like head nodding, quizzical facial expressions and even purposeful silence were found effective as probing gestures.

The in-depth interviews went beyond face value. That is, the researcher had the responsibility for imposing cross-checks on the respondent's stories, as sometimes internal inconsistencies were recognized with the accounts of the respondent. However, individuals could sometimes keep rationally unclear opinions, especially during a procedure of constructing their stock of social knowledge and the meaning of their experiences. Indeed, since in-depth interviews aim not at figuring out the truth per se but rather the respondent's viewpoints, these inconsistencies in a respondent's accounts are not necessarily a significant issue so far as the researcher is confident that the conversation has not been distorted to improve the respondent's image (Minichiello et al. 1995; Taylor & Bogdan 1998).

Thus, in this research, when a respondent appeared to contradict an earlier statement, the researcher would take a note of this contradiction and then carefully introduce the matter sometime later to clarify the issue. Normally the respondent would explain such contradiction, but not always. Nevertheless, the respondent was requested to clearly indicate the view on all problems with confirmatory tables provided during the in-depth interviews.

Complete the in-depth interview

The in-depth interviews were performed effectively with combined verbal and non-verbal strategies. While non-verbal strategies were used to hint to the respondent that the interview was about to close, verbal strategies were normally applied to summarise the conversation and express the researcher's appreciation for the respondent's cooperation. Each of these two strategies will be discussed in turn next.

An in-depth interview can be led to the close with non-verbal strategies. These non-verbal ending strategies vary from checking the time, standing up from the seat,

disconnecting the tape recorder, placing the cap back on the pen, closing the notebook or offering to shake hands (Minichiello et al. 1995). However, I was cautious not to be in an unseemly rush to quit the scene or let the respondent feel removed like a well squeezed dishcloth (Gordon & Langmaid 1998).

In this research most of the interviews took around one hour to complete. Although three respondents spent another 20 to 30 minutes chatting with the researcher about their life and study in China and their expectation to study abroad, the three other informants initiated the closing not too long after finishing the confirmatory part of the interview because they had something else to do. In all cases, the respondents voluntarily left their contact details with the researcher for further possible enquiries.

Similarly to regular daily conversation, an in-depth interview is often ended in some verbal way. These verbal ending strategies include clearing the interview to cover up those factors that have not been resolved effectively, summarising the areas of the discussion that have been covered in the conversation, expressing personal concerns over the respondent's life and study and finally expressing the appreciation for respondents for their participation in the interview (Minichiello et al. 1995). In this research all issues in the interviewer's guide were cleared and summarised. And the researcher expressed her concern over all the respondents' life and study in China. In particular, all informants were valued for their precious time and initiatives in helping the researcher to obtain the necessary information.

The in-depth interviews were recorded using a digital recorder for the purpose of data interpretation and data rechecking during and after the data collection. The recording of interviews was permitted by each student. Recording enhanced the accuracy of the collected data (Myers 2008; Patton 2002). Apart from interview recordings, interview notes were also taken. Interview notes were in the form of key phrases and major points from the interviewees' responses (Patton 2002). They were used as memos for the research to formulate follow-up questions during interviews. Taking interview notes is also expected to be a signal for students; that is, it indicates what they are saying is of significant importance to the researcher and therefore encourages more responses (Patton 2002).

Interviews were transcribed as soon as possible after each interview to enhance the data validity (Neuman 2006; Patton 2002). Once each data transcription was completed, information was classified into each key issue under the guiding topics of the employed interview checklist. The relevant emerging themes from each interview were also captured and included in the following survey questionnaires. This is the initial data analysis for each interview during the data collection procedure.

The limitation of in-depth interview

Individual in-depth interviews have some limitations that this researcher was aware of. First of all, in-depth interviewing is not a cost-effective method with regard to money and time required, particularly when considered on a per-interview basis. Indeed, individual in-depth interview can be one of the most costly types of marketing research that is widely used these days (Veludo-de-Oliveira et al. 2006). However, as only a small sample was engaged in this research and all the respondents were ideally located within 1.5 hours of public transportation from the interview venue, the total real cost of the interviews was not very high.

Secondly, the duration of the interview in addition to the costs indicates that the number of in-depth interviews is usually limited. The potential problem is that these small examples may not be associated with the focused population and thus restrict the credibility of the results (Boyce & Neale 2006). However, this limitation of in-depth interviewing was minimised in this research, because all the respondents were carefully screened to make sure that they were Chinese students who had applied or seriously considering applying to study abroad.

Furthermore, interviewer bias exists when interviewer has an influence on respondents' answers. The interviewer would try to be unaffected by circumstances, by an attitude to the topic or the respondents, or by personal involvement (Salazar 1990). The risk of interviewer bias might become highest when probes are employed for asking the respondent to explain further about something stated earlier. To reduce this risk, such probes were as nondirective as possible. In addition, respondents themselves can cause a bias when they do not comprehend or when they misunderstand the question. Rapport was maintained with respondents to reduce respondent bias. The interviewer also remained professional, relaxed, friendly, promised confidentiality and avoided exerting pressure on or arousing respondent thought.

Finally the achievements and high quality of an in-depth interview mostly relies upon the interviewer's capability and skills (Fontana & Frey 1994). That is, the procedure of the interview is vulnerable to the interviewer's impact, and the interpretation of the outcomes is subject to the researcher's understanding. However, in-depth interviews are easier to conduct and by implication need less expertise than focus group interviews (Gordon & Langmaid 1998). In this research, the researcher has a sound academic background and practical experience in dealing with Chinese students. In addition, she learnt the skill of how to conduct individual in-depth interviews from workshop trainings and intensive reading of related literature. Thus, the researcher possessed the required qualification and skills for conducting individual in-depth interviews for this research.

4.3 Data administration and ethics

Due to the involvement of human participants, the Human Research Ethics Committee of USQ requires ethical clearance. On 25 September 2012 the University granted Human Ethics Clarification (See Appendix 4) to this study on the basis of the appropriate ethical considerations regarding voluntary participation, confidentiality, anonymity, deception and reporting accuracy. Guided by these ethical considerations, this study was conducted using sound ethical practices. Students were informed of the research purpose and procedures. They were told that there were no anticipated physical, psychological or economic risks to them. Their participation was completely voluntary, and they had the right to refuse to answer any questions or withdraw from the study at any time.

The confidentiality of students was respected and protected. The consent forms from students were stored in a locked cabinet. The researcher recorded responses from students under the permission of students. The recordings, the subsequent data transcripts and summary in terms of the guiding topics and the key issues in interview checklists were kept in a separate hard drive which is also locked in a cabinet. The researcher coded all data to ensure the anonymity of both the students and their university. The names of students and the associated agency were also not identified in the aggregated results. Following the interviews with students, qualitative data analysis was conducted to interpret what and how some factors influence Chinese students study abroad. Qualitative data analysis is described in the following section.

4.4 Analysis of findings

Analysing and interpreting the data was the most complicated aspect with the qualitative inquiries, because the data were subjective (Dey 1993). Indeed, the analysis and interpretation of these qualitative inquiries were a process of creating a framework in the data and making sense of findings (Srivastava & Hopwood 2009). This section discusses the data analysis with content analysis and the data interpretation for this research. The validity and reliability of this analysis and interpretation are also addressed.

Although in qualitative research there is no clear distinction between data collection and data analysis, the analysis that happens during the data collection process is usually incomplete and incomprehensive (Patton 2002). Qualitative data analysis is a process of endowing raw data with order, structure and interpretation, which transforms the qualitative data into meaningful information (Myers 2008). Qualitative data analysis demonstrates how the raw data regarding the factors which influence Chinese students to study abroad is transformed into meaningful and convincing interpretations with the methods employed and the procedures followed.

Standardised qualitative analysis methods are likely to constrain the effectiveness of the researcher's investigations on the research problem given her unique intellectual competence, investigatory style and the available resources (Coffey & Atkinson 1996). Given that every stage of the qualitative approach relies on the researcher's experience, worldviews and competence, the appropriateness of the qualitative data analysis methods and procedures adopted by this study depend on the experience and capability

of the researcher (Patton 2002). Consequently, the researcher's qualitative data analysis in this study aims to generate detail-rich, context-sensitive and students' experience-reflective interpretations about which factors influence them to study abroad (Neuman 2006; Patton 2002).

The data analysis commenced with transcribing the data recorded. The technique of content analysis was adopted because this analysis technique enables the researcher to gather and analyse any messages communicated in written, visual or spoken form (Hsieh & Shannon 2005). Content analysis can be used for many purposes of analysis and clarifying and categorizing answers to open-ended survey questions. This technique could be used to turn the data collected from these interviews into a precise, objective and quantitative form.

In content analysis, one or more of four characteristics of text content can be measured: frequency, direction, intensity and space (Hsieh & Shannon 2005). Table 4.4 summarises meanings of these characteristics. The size or amount of the collected information was not analysed in this qualitative research. Therefore, only frequency, intensity and direction were the key characteristics being measured.

Table 4.4 Summary of meanings of characteristics of text content

Characteristics	Meaning
Frequency	Determining whether the investigated item occurs and if it occurs, how often
Direction	The direction of messages in the content along some continuum, i.e. supporting or opposed.
Intensity	The strength or power of a message in a direction.
Space	The size of a text message or the amount of space or volume allocated to it.

Source: developed for this research from (Hsieh & Shannon 2005)

To measure the frequency characteristic, factors were identified by respondents and were classified as either considered or not considered in explaining Chinese students' responses to study abroad. The relative importance of influential factors rated by respondents was measured and compared within a group of factors. This technique enabled the researcher to view the intensity characteristic of the collected data. The direction of messages in the content along the supporting or opposing continuum was also measured for answers to questions regarding influences of factors identified in relation to Chinese student' responses to the study overseas.

Data collected from interviews can be coded either by using computer software programs such as NVivo or it can be done manually (Basit 2010). The researcher's experience, perceptions, judgement and understanding were involved in interpreting interviewees' responses. A computer package for qualitative data analysis, for example, NVivo, is available to process non-numerical unstructured data. However, computer packages are more desirable in studies that have 'too much data for a single person to reasonably code' (Myers 2008). This study only has a small number (25) of interviews that require the researcher's critical judgement and comprehensive interpretation of the responses from the experienced students. A qualitative data analysis software package is unlikely to achieve the comprehensive and critical judgement and understanding required to address the research problem (Myers 2008). This view is supported by Easterby-Smith, Thorpe and Lowe (2002) who argue that qualitative data analysis with a computerised software package is likely to overlook the 'understanding of the quality of ideas and experiences'. In addition, qualitative data analysis software is not sufficiently context-sensitive to capture the clues provided by the non-verbal data such as the students' facial expressions or body language during interviews. As such, to interpret specific and rich description in a comprehensive and systematic way, the researcher manually conducted the qualitative data analysis.

The researcher scanned the transcript to carefully view the comments for ideas, opinions or thoughts raised by the respondents. Key comments to each factor were compared across the respondents to find common or contrasting ideas. This data comparison technique allows the researcher to interpret the data generally, easily and efficiently. However there is potential researcher bias in qualitative data analysis given the involvement of the researcher's perceptions, judgements and interpretations in the analytical process. Acknowledging the potential biases, the researcher has made her best effort to minimise them and enhance the reliability of the results throughout the analytical process.

The data analysis procedures used in this study are adapted from those provided by Creswell (2007) and Neuman (2006). The procedures started with transcribing and organising the data right after each interview. Second, the transcription for each interview was summarised in terms of the guiding topics and key issues in the applied interview checklist; emerging themes were captured. This was done as soon as possible after each interview, which contributed to the accuracy of the data and thus the data validity (Neuman 2006). The researcher paid as much care as possible to ensure the interviews flowed naturally even when additional questions were included.

4.4.1 Overview of the interview

When asked to identify the key study abroad destination countries for them, all respondents mentioned four English-speaking countries: America, Canada, Great Britain and Australia. Other English-speaking study abroad destinations, such as Hong Kong, Singapore and New Zealand, were considered to be less important. When asked about the domestic universities, the respondents in all cases viewed the domestic universities as only indirect competitors to the overseas universities. Some students mentioned that an important purpose of study abroad is to experience the diversified international culture.

Chinese students identified America as the international education market leader. America has a large number of universities, and many of these universities have a high ranking. Great Britain, Canada and Australia are also considered as the leading international education providers. Two respondents acknowledged that their student visa was rejected by American immigration. They are trying to apply to study in Canada, due to the geographic location of Canada and the future easiness to obtain the visa to go to America. More than half of the students thought the Australian climate to be better than the other three study destinations. In Chinese students' perception, Great Britain is famous for its oldest standing and excellent level of education. However, considering future career possibilities after graduation, they thought Great Britain to be less attractive than the three other countries.

When asked who has the most important influence on Chinese students in choosing their study abroad destinations, most students answered that their relatives, friends and alumni had more influence on them than their parents. One student explained that her major in her Chinese university motivated her to study abroad. As she studied English in a university of foreign languages, she and her friends were all longing to experience overseas study life. Most students acknowledged that their parents are very supportive for their study abroad plan. More than half of them seek help from the study abroad agency, and it took less than one year to get all things ready.

4.4.2 Findings of interviews

In this section, key findings of the in-depth interviews are discussed. Potential antecedent factors that influence Chinese students to study abroad and key response variables are clarified with justifications. Finally, the influence of the factors identified by these Chinese students is discussed.

Factors that influence Chinese students decision to study abroad

Following the discussion of an overview of Chinese students' decision making process, the respondents were given a list of all push and pull influencing factors suggested by the literature as influential in explaining Chinese students' choice to study abroad. They were then asked to identify the factors that they believe would influence their choice to study abroad. Factors were categorised into push and pull normative influencing factors. Table 4.5 presents the relative importance of the influential factors. Bold faced items indicate the factors are considered confirmed.

Factors perceived as important included **the knowledge for host country, sufficient family funding, the reputation of university in host country, the experience of study abroad and the easiness of obtaining visa**. Most of respondents mentioned the experience of study abroad by linking this factor with their own experience and their growth background. The students felt that the spread of Western culture in China played a great influence on Chinese students studying abroad. Half of the respondents suggested the researcher introduce more information about the host country and its institution for them. The knowledge for the host country and its institution is mainly from the internet, the advertisement or friends' introduction. When they make their decision, they are likely to have a deep understanding for the host country. Many students told the researcher, if the visa policy in a host country becomes strict, they usually would like to change to another country under the suggestion of the study abroad agency. In addition, most respondents mentioned that sufficient family funding is very important for their study abroad. Not all of these respondents are from a high income family; some of these respondents have already worked and need to send money back home. One of the respondents told the researcher that she is planning to sell her house to raise money for her study abroad tuition and living expenses. Three respondents mentioned that their parents will borrow money from friends or from a bank to support their study overseas. This situation puts some pressure on these students. When they feel financial pressure, these students were more likely to choose those countries which have relatively low tuition fees and living cost. And they were more likely to think about what they can gain after graduation, and they were more prone to seek a part time job during their study and obtain a working visa after their graduation.

Table 4.5 Summary of Chinese students' opinions of factors influencing their choice to study abroad

Category	Factors	Considered	No Idea	Not considered
Push factors	1.The knowledge for host country	21/25	1/25	3/25
	2. The personal recommendations	9/25	2/25	14/25
	3. The study cost	8/25	1/25	16/25
	4.The climate environment	10/25	2/25	13/25
	5 The political environment	5/25	3/25	17/25
	6.Competition to enter the local university	15/25	0/25	10/25
	7.The desire to understand "West"	18/25	2/25	5/25
	8.Intention to migrate in the future	12/25	6/25	7/25
	9.Perception of study abroad is better	10/25	7/25	8/25
	10.Educational System	14/25	1/25	10/25
	11.Social capital	8/25	8/25	9/25
	12.Future career	17/25	2/25	6/25
	13.Program Offering	9/25	4/25	12/25
	14.Sufficient family funding	22/25	0/25	3/25

Category	Factors	Considered	No Idea	Not considered
	15.Distribution of social capital	7/25	6/25	12/25
Pull factors	1.The reputation of university	21/25	0/25	4/25
	2.Market profile	8/25	6/25	11/25
	3.Alliance or coalitions	6/25	3/25	16/25
	4.The quality of academic staff	9/25	2/25	14/25
	5.Future immigration chance	12/25	4/25	9/25
	6.High quality of education	21/25	0/25	4/25
	7.Well designed website	6/25	1/25	18/25
	8. Cost of living	18/25	1/25	6/25
	9. Cost of studying	13/25	2/25	10/25
	10.Program content	11/25	2/25	12/25
	11.The job prospect after graduation	18/25	2/25	5/25
	12.Ethic identity	8/25	7/25	10/25
	13. Merge of culture	7/25	3/25	15/25
	14.The distinctive features of university	11/25	2/25	12/25
	15.Economic and political tie	10/25	7/25	8/25
	16.Climate environment	9/25	2/25	14/25
	17.Safety environment	18/25	2/25	5/25
	18.Political environment	10/25	2/25	13/25
	19.Location	3/25	6/25	16/25
	20.Financial aid	8/25	4/25	13/25
	21.Alumni/Friends	9/25	5/25	11/25
	22.The experience of study abroad	21/25	0/25	4/25
	23. Potential benefits	7/25	10/25	8/25
	24.The exchange rate	8/25	4/25	13/25
	25.The degree's content	10/25	5/25	10/25
	26.Wide range of course	12/25	4/25	9/25
	27.Entry requirement	15/25	0/25	10/25
	28.Easiness of visa	19/25	1/25	5/25
	29.Geographic proximity	3/25	0/25	22/25
	30.Visa possibility for the third country	10/25	5/25	10/25
Other factors or motivations you considered which not included above: Easiness to obtain working visa				

Source: developed for this research

Many respondents commented that **safety environment, political environment, alliance or coalitions** and **ethnic identity** were factors that would be likely to be closely related to each other. However, opinions varied in respect to these factors. Political environment was suggested as an influential factor in the literature, but was not suggested as important by the Chinese students in this interview. One of the students mentioned that he does not have much knowledge about politics and he has no interest in politics. Especially for Chinese students, political topics are not popular among friends. The intention to study abroad is not related to any political issue. Other respondents told the researcher that they were just concerned about the political stability of the destination country. Chinese students do not worry about the political situation or stability in Western developed countries. They believe that the stability of the political situation can provide a relative safe environment in the host country.

Regarding **alumni and friends** factor, more than half of the respondents agreed that if they have a friend in the country of destination, it will be better. However, if not, it would not affect their decision. In turn, most of these respondents wish to make more friends in the destination countries, and they are happy if their new friends will come

from different countries. However, one of respondents rated this factor as more important as she believed that the friends or alumni in the destination country will help her to adapt to the local life and she need not fear an unfamiliar environment. It appears that female students are more prone to rate this factors as important.

Immigration was viewed as less important than it has been viewed in the previous literature. Three respondents commented that their families have already guaranteed a good job after their graduation. These students are able to help manage the family business. Many respondents thought that as the only child in the family, aware of the difficulty of their parents adapting to Western life and given the traditional Chinese culture of filial piety, they would return to China after they graduate or after working in the destination country for a few years. Almost all of these respondents acknowledged that the Chinese economy is developing very fast, so that the career future for them might be brighter in China than overseas after they graduate. Due to the respondents' perspective that they will return to China after they graduate, **the reputation of the university** and **the high quality education** are rated important which will help these students to easily find a job in the Chinese job market. By contrast, four students told the researcher that their only purpose to study abroad is to immigrate, and these respondents already had graduated from a Chinese university. They felt the economic pressure, environment problem, children's education problem and interpersonal relationship push them to make that decision. Before they started to apply to study abroad, they reviewed the immigration policy for the main study destination countries, and they asked the researcher some questions about these countries.

Ability to enter the local university and entry requirement in destination country interestingly have the same rating. One of the respondents told the researcher that the reason to study abroad is that he cannot enter a good Chinese university due to the violent competition, while the entry requirements of many overseas universities are not as high as Chinese universities. He thought if he could obtain a good grade on the IELTS or TOELF test, it would not be difficult for him to enter into a good university overseas.

Almost all respondents rated the **location** as the least important factor. Their reasoning was that although the location of the designation country or university might lead them to spend more on travelling, these costs would be relatively low compared to the tuition and living cost. Furthermore, airline travel allows one to return home from all corners of the world. One respondent said that 'no matter where the university is located, he will go.'

Most respondents rated **study cost in host country** as less important for them than the living cost. This finding differs from the previous literature. Most respondents thought the study cost in the Western country is more expensive than China, but there is no big difference between those countries. They pay more attention to the living cost, such as renting, grocery, public transportation and auto expenditure. One respondent mentioned that he will not consider going to Australia, because he heard that the price level in Australia is higher than other major Western countries. His family can only support his tuition fees. Because he needs to pay for the living cost himself, he prefers to choose a country which has a low cost of living.

The above factors which influence Chinese students to study abroad were identified in the literature. These factors were further explored in the qualitative research in order to identify factors most relevant to Chinese students to study abroad. Table 4.6 summarises the factors investigated in the interview and literature review. The first column of this table divided those factors into push and pull groups. The second column lists the different factors which have been studied in the previous research and will be tested in this in-depth interview. The third column highlights the factors identified in the previous research. The fourth column confirmed those factors which are identified by the respondents in the interview. The last column confirmed which factors are considered by both literature review and in-depth interview.

In general, the findings of qualitative research were almost consistent with the literature, supporting most factors proposed to be relevant and important to Chinese students' decision to study abroad. The researcher was careful not to impose her own perspective on the interviewee (Carson et al. 2001). For this research, the overview grid is found useful to help us to interpret the collected qualitative data. See table 4.6.

Table 4.6 Summary findings of literature review and individual in-depth interviews

Push or Pull	Factors	Literature Review	In-depth interview	Confirmed
Push	Distribution of social capital	√		
	Future job prospects	√	√	Yes
	Rapid development of Chinese economy	√		
	Sufficient family funding	√	√	Yes
	Higher wages of returnee	√		
	Political environment	√		
	Competition to enter the university	√	√	Yes
	China's international culture exchange	√		
	Chinese government policy	√		
	Diversify educational choice in China	√		
	Appearance of study abroad agency	√		
	Perception that study abroad is better	√		
	International experience	√	√	Yes
	Intention to immigrate	√	√	Yes
	Foreign degree recognized in China	√		
	Knowledge of host country	√	√	Yes
	Education system in China	√	√	Yes
	Programming offering in China	√		
	Education method in China	√		
	Well-designed information website	√		
Pull	Tuition cost	√	√	Yes
	Living cost	√	√	Yes
	Financial aid	√		
	Wage level	√		
	Safety environment	√	√	Yes
	Climate environment	√		
	Political environment	√		
	English speaking environment	√		
	General facilities-buildings, grounds	√		
	Geographic proximity	√		
	Location	√		
	Provide scholarship	√		
	Ethnic identity	√		

Push or Pull	Factors	Literature Review	In-depth interview	Confirmed
	Merge Chinese and western culture	√		
	Possibility for immigration	√	√	Yes
	Relatives or friends study in host country	√		
	Visa possibility from third country	√		
	Issue working visa	√	√	Yes
	The degree of social fare	√		
	Broaden the social work	√		
	Quality of education in host country	√	√	Yes
	Onsite accommodation	√		
	Range and content of programs	√		
	Language and academic support service	√		
	International experience	√	√	Yes
	Social and emotional support service	√		
	New knowledge and skill	√		
	Different education method	√		
	Lower entrance requirement	√	√	Yes
	Reputation of university	√	√	Yes
	Well-designed website	√		
	Ease obtaining visa		√	

Source: developed for this research

Reliability and validity

Qualitative interviews are often challenged for the objectivity of their findings (Ratner 2002), because individual in-depth interviews rely on the assumption that people are able and willing to give verbal accounts of their perceived reality (Minichiello et al. 1995). The analysis of qualitative data about the social world is never merely a matter of discovering facts that are there waiting to be discovered (Dey 1993). The objectivity of qualitative interviews was examined and evaluated in terms of their reliability and validity in this research.

Reliability pertains to verifying the consistency of the research findings or the strength of the data. That is, if a technique of data collection is reliable, it should demonstrate the ability that other researchers can repeat or replicate the study to obtain similar results (Minichiello et al. 1995). However, too strong an emphasis on reliability may decrease creative innovations and variability (Gergen & Gergen 2000). Procedure and interviewer reliability are discussed next in regards to the qualitative interviews conducted in this research.

To evaluate the reliability of qualitative interviews, it was necessary for the researcher to document his or her procedure in a way such that any interested parties can find information about how the interviews were performed and evaluated (Minichiello et al. 1995). The researcher strove to administer and analyse the individual in-depth interviews in an organised procedure in this research, as reflected in this section. Although these detailed procedures may not guarantee a successful replication by another researcher to generate the same results, these procedures did assist the researcher herself to attain a certain degree of reliability for this research because they assisted the researcher in mastering the required abilities.

As stated above, the reliability of qualitative interviews relies upon to a great degree on the ability or skills of the interviewer (Fontana & Frey 1994). It will be more reliable

to have at least two interviewers be used and that they work independently but in parallel with each other. However, due to limited resources and financial restrictions, the researcher served as the only interviewer and analyst for the in-depth interviews performed in this research. However, researcher reliability was still evident because the researcher had first-hand exposure to the interviews and thus had a better feel for the data (Krueger 1994). Related to reliability, validity is the extent to which a finding is interpreted properly and thus credible (Gergen & Gergen 2000). The validity of qualitative interviews for this research can be justified from two perspectives: cultural identities of the interviewer and triangulation of research methods.

The cultural identities of the researcher could influence the validity of qualitative interviewing (Fern 2001). In particular, Chinese teenagers are sensitive to the interviewer's cultural identity. That is, such issues as the interviewer's physical appearance and language fluency would decide whether interviewees might withhold or reveal certain kinds of information (Song & Parker 1995). In this research, the researcher's Chinese background assisted her to obtain commonality with the participants. Thus, rapport and trust were easily developed and participants were more open during the interviews. Indeed, the quality of data collected was maximised because the individual in-depth interviews were conducted and analysed in the first language of the participants (Patton 2002).

Moreover, the validity of data analysis for qualitative interviewing depends upon the interviewer's assessment and interpretation of the information that had been collected (Neuman 2006). Since the purpose of the qualitative interviews was to learn how potential Chinese students construct their realities of overseas study destination choices, it was important for the researcher to understand the ethnographic context in which the respondents develop their verbal accounts (Minichiello et al. 1995). In this research, the researcher's identical cultural background and similar overseas studying experiences assisted her to understand the interviewees' meanings in both literal and cultural senses. Hence, this richer understanding of the respondents' perspective enhanced the validity of the individual in-depth interviews performed in this research.

Triangulation of methods. Triangulation is the procedure of building up the results acquired from a qualitative inquiry by cross-checking details. A researcher who claims that his or her results are resulting from many different types of individuals across many different circumstances will be more effective than another researcher whose results are based on one person in one setting (Potter 1996). This involves the cross-checking of information from different dimensions. Data triangulation occurs when the researcher refers to different sources of data in understanding a particular phenomenon. Methods triangulation occurs when the researcher uses different methods to study a particular phenomenon. Investigator triangulation occurs when the research involves different investigators or researchers in interpreting and explaining the data. Theory triangulation occurs when different theories are used to explain the data.

As applied in this research, both literature review evaluation method and individual in-depth interview were used to improve the credibility of the qualitative inquiries. While the literature review sought the shared meaning of studying abroad as mainland Chinese students, the individual in-depth interviews, in contrast, probed into personal experiences of Chinese students. This purposeful combination of methods and

selection of samples enabled the researcher to achieve both construct and measure validity for this research.

On the other hand, wording a question in different ways assisted the researcher to understand the respondents from different perspectives and hence to enhance the reliability of the research (Golafshani 2003). Although semi-structured interviewer's guides were prepared in this research, the actual phrasing of each interview questions varied in different sessions. Moreover, the strategies of probing and cross-checking were used in each session. Thus the qualitative interviews were conducted in this research accomplished a level of internal validity.

4.5 Summary

From the review of literature on factors that influence Chinese students to study abroad, a number of influential factors did emerge. However, there is a lack of studies attempting to explore and model the influence of those factors on Chinese students' intention to study abroad. So the underlying constructs related to this context have not been well identified.

The qualitative research by means of in-depth interview was conducted to explore relevant factors that influence Chinese students' choice and justify how these factors possibly influence these students' intention to study overseas. The interview followed a semi-structured approach with face-to-face interactions. The interviews began with wide-open, general questions and moved to more specific questions. The influence of these factors on Chinese students' responses is to be measured.

Content analysis was employed to analyse data collected. Key characteristics of the content measured include frequency, intensity and direction. Major influential factors were identified with justification from respondents. Efforts were made to improve the reliability and validity of the qualitative interviews. However, bias may still be present, because the researcher has to interpret the perspectives of the interviewees in accordance with her personal understanding and with reference to existing theories. As well, respondents might purposefully distort their perceived realities in order to enhance the interviewer's image of them (Minichiello et al. 1995).

The data analysis is undertaken both concurrently and after data collection. Acknowledgement that there is no agreed-upon rules for qualitative data analysis, the researcher analyses the interview data manually seeking in-depth and comprehensive understanding of factors that influence Chinese students study abroad. This chapter outlines the framework to obtain the required data addressing the research problem and to analyse the collected data. The qualitative research can only help us answer the research questions which relate to the factors influencing Chinese students to study abroad, while it cannot answer the question why Chinese students choose Australia as their destination. Chapter 5 will discuss the quantitative method which is employed in this research to help us find the reasons why Chinese students choose Australia rather than other English countries as their study abroad destination.

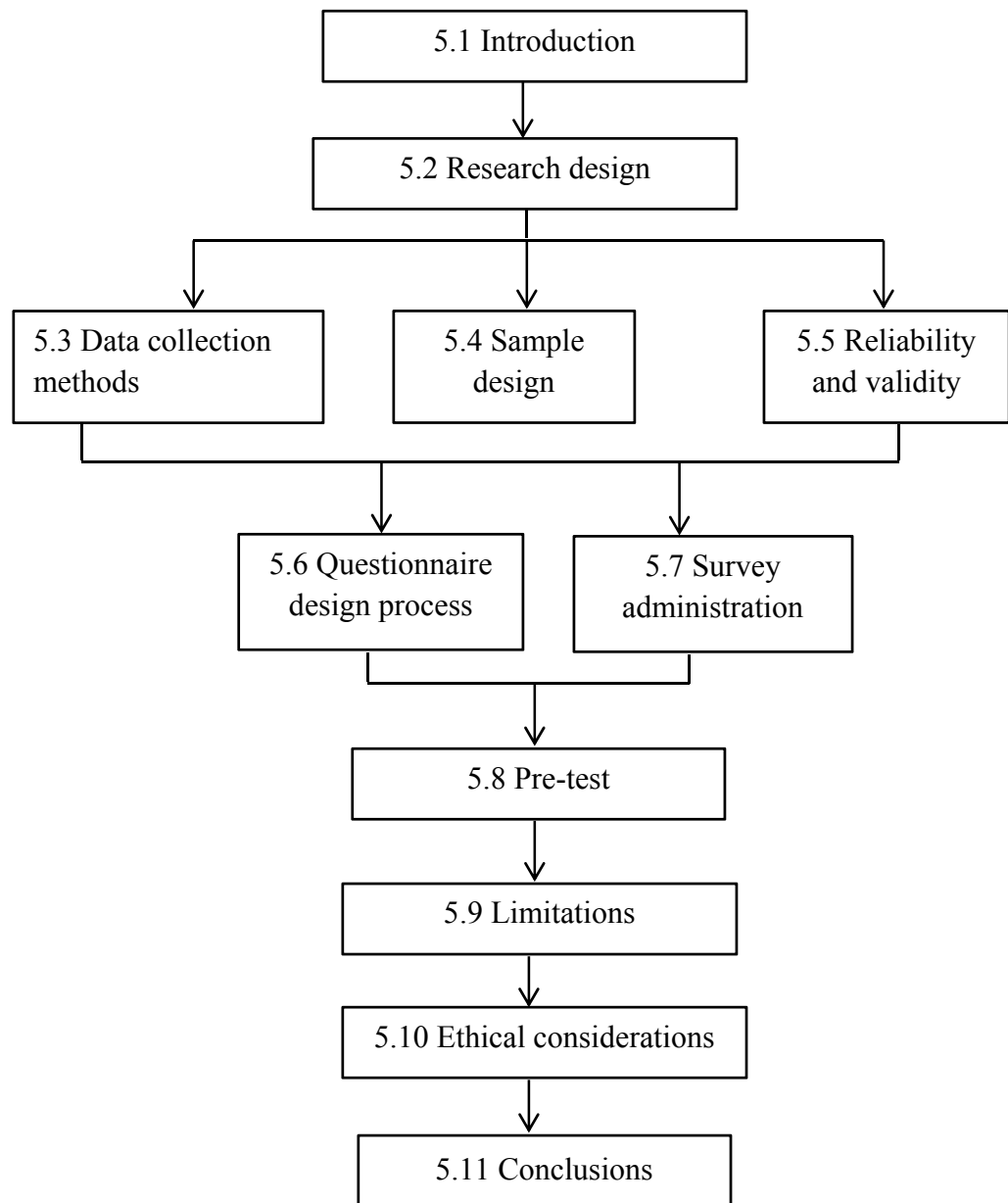
Chapter 5 Quantitative Research Method Design

5.1 Introduction

Based on findings of empirical studies, the previous chapter hypothesised factors which influence Chinese students to study abroad in different main English-speaking countries. The qualitative research has answered the questions which related to what factors influence Chinese students to decide to study overseas. However, it cannot help us to identify which factors influence Chinese students to study in Australia rather than other main English speaking countries. This chapter describes the research methodology used to collect data for testing the proposed research hypotheses which related to the factors which impact Chinese students to study in Australia.

There are eleven sections in this chapter, as illustrated in Figure 5.1. This chapter commences with the quantitative research design (section 5.2). Data collection methods are described in section 5.3. The discussion then moves to sample design (section 5.4). Reliability and validity issues are addressed in section 5.5. A questionnaire design process is proposed in section 5.6. Survey administration is discussed next (section 5.7), followed by the process of pre-test (section 5.8). Key limitations of this study are mentioned in section 5.9. Ethical issues in the research are then discussed (section 5.10). Finally, conclusions appear at the end of this chapter (section 5.11).

Figure 5.1 Outline of chapter 5



Source: developed for this research

5.2 Research design

A research design is a series of important decisions that makes up the master plan specifying the research methods and procedures that should be used to guide data collection, data analysis tasks of the research project and the sampling methodology (Burns & Bush 2002; Hair et al. 2003).

Research designs are categorised into three groups based on the objective of the research project: exploratory research, descriptive research and causal research (Burns & Bush 2002; Hair et al. 2003; Neuman 2006) (See Table 5.1). These three research

categories can be considered as a continuous process, starting with exploratory research, then descriptive research and finally causal research (Burns & Bush 2002). Firstly, exploratory research is used when the research is designed to gain background information, to define terms, to clarify problems and to explore a new subject. To explain a phenomenon or measure variables recognised and their relationships, a descriptive research design is then employed. In turn, descriptive research can provide details which indicates that researchers should perform causal research to understand why relationships of particular variables exist (Burns & Bush 2002; Hair et al. 2003; Neuman 2006; Zikmund 2003).

Table 5.1 Three groups of research design

	Exploratory design	Descriptive design	Causal Design
Key features	No conclusive information or findings are provided.	Use scientific methods to help evaluate courses of actions. Formal and structured studies.	Use scientific methods to investigate and answer ‘why’ questions. Formal and structured studies.
Main purpose	Help to better understand the research questions. Formulate possible hypotheses to test. To define terms and concepts	To describe and evaluate phenomena. To discover and predict the relationships among variables.	To explain phenomena. To know causal relationships among variables.
Research methods	Qualitative research methods, e.g. interview, focus group	Quantitative research methods, e.g. survey.	Quantitative research methods, e.g. experiment
Limitations	Cannot explain the associations among variables	Only describe the associations among variables, cannot explain these associations.	Too complex, expensive and time-consuming

Source: developed for this research from Burns & Bush (2002), Kinnear & Taylor (1996), Zikmund (2003)

Exploratory research tends to be flexible while descriptive research is more rigid and needs a clear specification of the details being investigated (Churchill & Iacobucci 2004). Both descriptive and causal research designs can be viewed as conclusive research because they provide information for evaluating alternative courses of action (Zikmund 2003).

In this research, descriptive design was employed. The quantitative data were collected using the descriptive research design to achieve research objectives and to allow testing of the hypotheses of this study. Descriptive research enables the researcher to identify key demographic, psychographic and normative influencing variables and to examine how these factors influence the Chinese students’ decision process to study in Australia. Next, the discussion turns to data collection methods used in this study.

5.3 Data collection methods

This section justifies the research methods used to collect primary data for examining the hypotheses which developed in the first chapter. Three research methods commonly used by researchers to collect primary data include experiment, observation and survey (Zikmund 2003). Experiments were considered inappropriate for this research because the researcher did not involve and operate variables and did not control the research environment to evaluate the impact of the independent variables on the dependent variables in this study. Observation was also not appropriate since information in regards to Chinese students' characteristics and their decision of studying abroad could not be observed (Zikmund 2003).

Survey research method was then most appropriate for this study because it associates with descriptive research situations (Hair et al. 2003; Zikmund 2003). In this study, survey research includes the collection of quantitative data from a sample of elements drawn from a well-defined population through the use of a questionnaire. This research method will be used to evaluate participants' characteristics and their intention to study in Australia rather than other English-speaking countries. Selected participants were asked questions and their answers were collected in a structured, precise manner (Hair et al. 2003).

Survey research can be conducted through four basic approaches including personal survey, telephone survey, computer-assisted survey and self-administered survey (Burns & Bush 2002; Hair et al. 2003). Table 5.2 summarises the description and major tools of these survey approaches.

Table 5.2 Description of survey research approaches

Survey research approach	Description	Key tools
Personal survey	Like a face-to-face interview, the interviewer asks questions and records answers of participants.	Interviews
Telephone survey	The interviewer asks questions and records answers of participants through the telephone communication.	Telephone interview
Computer-assisted survey	The interviewer asks questions and records answers of participants through the computer technology communication.	Online survey Email survey
Self-administered survey	Respondents read questions and record their answers by themselves.	Mail survey

Source: developed for this research from Burns & Bush (2002), Hair et al (2003)

In order to choose the appropriate survey research approach, it is necessary to evaluate all these survey approaches. Comparisons of the comparative advantage and disadvantage of these survey research approaches were made for selecting the most appropriate survey approach for this study. Table 5.3 summarises these comparisons.

Table 5.3 Comparative advantages and disadvantages of survey approaches

Criteria	Complexity of tasks	Can collect details	Respondent clearly understands questions	Research budget	Non response		Willingness to participate
					Not at home	Refusals	
Personal survey	1	3	3	1	1	3	3
Telephone survey	2	1	2	2	1	2	1
Computer-assisted survey	2	1	1	1	3	1	1
Mail survey (Self-administered survey)	3	2	1	3	3	1	1

1=Weak 2=Strong 3=Extremely Strong

Source: developed for this research from Burns & Bush (2002), and Hair et al. (2003).

From the above comparison, the personal survey seems more appropriate for this research. However, due to the large size of the sample population, it is not realistic to survey each participant personally. In comparing the telephone survey, computer-assisted survey and the mail survey, the researcher found the mail survey to be most appropriate. Consequently, the mail survey will be employed to gather data for this study. The next paragraph amplifies key reasons for choosing the mail survey.

Firstly, there is no big difference related to the complexity of tasks among these three survey approaches. Secondly, the mail survey can collect more detailed information than the other two kinds of survey approaches. Thirdly, a telephone survey has more chance to be refused due to the participant's busy schedule, while computer-assisted and mail survey can give the participant enough time to answer the survey questions. In China the target participants, who are university students, normally check their mail box every day or receive their mail from their class advisor. The consequence is that we would expect the non-response rate to be lower than other kinds of survey research. Finally, In terms of the willingness to participate in this survey, these three approaches have about equal weight. So overall the mail survey is the best approach to use in this research. Furthermore, the mail survey is less expensive than other approaches (Kinnear & Taylor 1996). Participants can complete the questionnaire at their convenience because a mail survey does not require the participants to work on the survey continuously. Participants have enough time to think and answer questions carefully.

However, mail survey also has some disadvantages. Mail survey does not allow researchers to interact with the participants to help them have a clear understanding of the survey questions (Kinnear & Taylor 1996). However, questionnaires for this study were carefully designed, and the simple instructions can be followed to answer the structured questions. Therefore, assistance from the researcher is not necessary (Kinnear & Taylor 1996). In addition, the willingness of respondents to participate in this survey is another major problem that the mail survey would be faced with. The selected participants can more easily ignore the mail survey than they can refuse a personal interview or telephone view (Hair et al. 2003). Several strategies were

employed in this research to overcome the limitations, for example, using attractive and simple questionnaires, clearly stating the importance of this survey.

In brief, this section justified the appropriateness of the use of mail survey approach for this study. The next section discusses the population of interest and a particular sampling method used for this study.

5.4 Sample design

Choosing an appropriate data collection approach has been justified in the last section. This section discusses a process of survey participant selection for this study, involving the characteristics of sampling and determination of the appropriate sampling design.

It is infeasible to survey all Chinese students who have intention to study abroad to participate in this survey for this study, because researching all elements of the population would require a substantial budget and would be time consuming. Sampling was therefore considered the appropriate strategy and was used for selecting a small number of participants from a larger defined target group of population. By using probability sampling strategy, information collected from the small group would allow conclusions to be made about the defined population.

The sampling process has been proposed by a number of researchers (Burns & Bush 2002; Hair et al. 2003; Zikmund 2003). There are five stages in the sampling process: definition of the target population, identification of the sampling frame, selection of the appropriate sampling method, determination of the necessary sampling size and sample selection and determination of quality issues. These stages are discussed in turn.

Definition of the target population The first task in a sampling plan is to identify the target population that should be investigated (Hair et al. 2003). The target population should be carefully defined because incorrect or unclear definition of the sample population is likely to generate bias results (Zikmund 2003). The research objectives are the guidelines for identifying and selecting participants who should share a common set of characteristics and should be exclusive and countable (Hair et al. 2003; Zikmund 2003).

The appropriate population to be sampled was all Chinese students who have intention to study abroad now. Therefore, the population excludes those students who do not want to leave China to study abroad. Main data collected in this survey involved a number of Chinese students' characteristics. Specifically, these characteristics included Chinese students' demographic and psychographic characteristics, influencing factors and decision process of studying broad.

Identification of the sampling frame after identifying the target population, the researcher developed a sampling frame. A sampling frame is a list of population elements from which a sample can be drawn (Hair et al. 2003; Zikmund 2003). If a sampling frame is inappropriately identified, such as including unrelated components or excluding relevant components, a sample frame error exists. This error can result in deceptive and inaccurate research findings (Hair et al. 2003; Zikmund 2003).

The Students' Affairs Office in a Chinese university was the best available source for developing the sampling frame for this mail survey research, because the Students' Affairs Office is responsible for issuing transcripts for students. If students have an intention to study abroad, the transcript is needed for the application. The researcher found five students' affairs officers, who share university alumni status with the researcher. With their assistance, the researcher can smoothly develop the sampling frame. These five universities are located in Beijing, Xi'an, Nanjing, Guilin and Weihai. The students in these universities are from all over China.

These students' affairs officers can access or seek help from their colleagues to access the database containing a large number of students who have applied to obtain their past transcript. Although these databases do not provide a list of students who have specifically applied to study abroad, it enabled the researcher to generate a list of students who have asked for their transcripts. However, the students' affair officers claim that more than 80% of the students asking for their transcripts intend to apply to study abroad. Samples drawn from this list provide information required for this mail survey research, specifically the information regarding if the students asked for the English version transcript.

The sampling frame of this study was therefore a list of students from the database of Students Affairs Office in five Chinese universities. This sampling frame should help minimize sampling error because it contained a sufficiently large number of target elements from national wide sources. Simultaneously, this sampling frame enabled the researcher to exclude irrelevant elements, such as students who were not applying to study abroad.

Selection of the appropriate sampling method Drawing a sample is a very important step of the sampling process and survey research (Hair et al. 2003). There are two basic sampling methods: probability and non-probability sampling (Hair et al. 2003; Zikmund 2003). Probability sampling is a strategy of drawing a sample where each sampling unit has a known, nonzero probability of being selected. Non-probability sampling is a sampling process where the probability of selection of each sampling unit is not known (Zikmund 2003).

Non-probability sampling could result in samples being unrepresentative and this in turn could result in research findings being limited only to just samples providing the raw data in those surveys (Zikmund 2003). Probability sampling method enables the researcher to gather data from samples that represent the target population. This in turn allows this study to generalise research results to the population (Hair et al. 2003; Zikmund 2003).

Probability sampling can be achieved using one of the four key sampling tools: simple random sampling, systematic random sampling, stratified random sampling and cluster sampling (Burns & Bush 2002; Hair et al. 2003; Zikmund 2003). Stratified and cluster samplings could not be applied because these sampling strategies need the researcher to classify population into homogeneous strata and divide the sampling units into mutually exclusive and exhaustive clusters (Burns & Bush 2002; Hair et al. 2003; Zikmund 2003). However, in this research, such variables were as yet unknown.

Systematic sampling is one of the easiest ways of sampling techniques (Churchill & Iacobucci 2004). In most cases, a systematic sample and a simple random sample yield virtually equivalent sampling results (Neuman 2006). However, systematic samplings cannot be replaced by simple random samplings when components in the sampling list are organised in some type of pattern (Neuman 2006) or the sampling list is not random in character (Zikmund 2003). The systematic stratified sampling, when employed with the use of a sampling list that has a systematic pattern, would result in biased samples because there would be a systematic pattern of selecting sampling units (Zikmund 2003). As a result, samples are unlikely to be randomly selected, and they may not be representative of the defined population (Hair et al. 2003).

Systematic sampling was not considered appropriate to be used in this study because the sampling list (the list of students who asked English transcripts) has a specific systematic pattern. That is, after students applied for obtaining their transcripts, this requirement was recorded in the system. The students' major, class and faculties were recorded and categorised. Data from the Students' Affairs Office were arbitrarily grouped before the samples were selected. Therefore, elements in the sampling list of Students Affairs Office were likely to be systematically, rather than randomly, ordered. As a result, samples generated from the sampling list of the Students Affairs Offices by means of the systematic sampling approach may be less representative of the population defined in this research than that generated from the use of the simple random sampling technique.

To avoid a use of non-representative samples in this research, the researcher decided to generate samples using the simple random sampling technique. Simple random sampling was easier to implement in this study due to the availability of the database of Students Affairs Office and the convenience in assigning numbers to this population element.

Determination of the necessary sample size and sample selection Considering the budget and time limits, the researcher used Microsoft Excel to randomly draw and to generate a list of 600 sample units from the identified sampling frame consisting of Chinese students who have requested their transcripts. This list was further checked to assure the completeness of the name, surname and mailing address of these samples. Finally, the teachers mailed the questionnaires to these students' mail box. A total of 223 usable responses were obtained, and the response rate was 37%.

The 37% response rate is quite high in a mail survey. A response rate normally achieved is between 10 to 50 per cent (Neuman 2006). Typically, mail surveys target a response rate of less than 20 per cent (Burns & Bush 2002). For this study, the reason for the higher response rate has a cultural reason. In Chinese culture, students are usually willing to help their teacher to complete some tasks. Chinese students listen to their teacher and feel obligated to do the work which their teacher asks them to do (Guanrong 2011). Most Chinese students feel honoured to help their teachers. So when students received the mail survey from the universities' mail box sent by their teachers, they will treat this survey questionnaire seriously. In order to avoid students feeling obligated to participate this survey, the researcher has clearly stated the confidential policy of this research to ensure the students' details will not be given to anyone. The

researcher is the only one who could access participant information so that the teacher will not know who did not answer the questionnaire.

Determination of quality The quality of sample elements must be evaluated because errors or mistakes can exist during the sampling process. There are two basic errors that can possibly affect the quality of survey research: sample error and non-sampling error (Hair et al. 2003; Zikmund 2003). Sampling error refers to a difference between the value of a sample's characteristics and that of the focused population (Zikmund 2003). This error exists due to mistakes made in the procedure of sample element selection (Hair et al. 2003). To minimize possible mistakes, samples should be appropriately selected, as discussed in the previous section.

Non-sampling errors are all biases other than sampling errors that can exist at any stage of the research process (Hair et al. 2003; Zikmund 2003). Examples of non-sampling error are sampling frame error due to inaccurately defined target population, measurement error caused by unsuitable scale/question measurements, errors in data collection, recording responses and non-responses from sample elements (Zikmund 2003).

In conclusion, this section justified the sampling process for this research. The target population was Chinese students who intended to study abroad and are still living in China. A list of Chinese students who require their transcripts from five Chinese Universities' Students Affair Office was selected as the sampling frame for this study. Simple random sampling was used for this study. The sample selection process was strictly followed to ensure that sampling errors were minimised.

5.5 Reliability and validity

Good measurement should be both reliable and valid (Neuman 2006). A questionnaire is reliable when it provides consistent results over time and across situations (Neuman 2006; Zikmund 2003). Validity can be obtained when a questionnaire measures what we intend to measure (Hair et al. 2003). Studies using invalid questionnaires can yield misleading answers to research questions.

To strengthen the reliability and the validity of the questionnaire used in this research, meanings of all concepts have been clearly defined in both conceptual and operational levels to ensure that indicators were not measuring more than one concept. In addition, rather than using a lower level of measurement, such as nominal or ordinal scale, the key questions were developed using a higher level of measurement, such as a Likert scale. This scale allows the researcher to collect more detailed and precise information (Neuman 2006). The scale of measurement will be further detailed in section 5.6.

Next, multiple indicators were used in measuring each of the psychographic and normative influencing variables because the use of multiple questions enables this study to measure a wider range of the meaning of a concept than does a single indicator (Neuman 2006). And lastly, all of the key indicators measuring psychographic and normative influencing constructs were not newly developed items. These items were borrowed from those employed in previous studies undertaken to investigate these influential factors and then were slightly modified to make them most relevant to the

context of Chinese students' deciding to studying abroad. These steps are likely to assure that the questionnaire developed was sufficiently reliable and valid.

The researcher refined the questionnaire based on the suggestions received. The questionnaire was thus translated into Chinese. The questionnaires, both in English and Chinese version, were submitted to the Chinese academic researchers and experts in the marketing research field for assessing validity and suggesting amendments in relation to the language translations. The questionnaire was then refined based on these suggestions. Finally, this questionnaire was pretested with target respondents. Section 5.8 will discuss the process of pre-test. In addition, all indicators were statistically tested on reliability and validity using factor analysis. The next chapter will justify this analysis approach.

In conclusion, this section discussed the key criteria for determining quality of measurement: reliability and validity. A measurement should have high reliability and validity. That is, it should measure what it intends to measure and provide consistent results. The next section outlines the questionnaire design process.

5.6 Questionnaire design process

This section justifies steps taken to design the questionnaire used in this study. Questionnaire development is a systematic process in which the researcher deliberately considers established sets of scale measurements and formats them into a complete instrument for collecting primary data from respondents (Burns & Bush 2002; Hair et al. 2003). Questionnaire design is an important process in survey research because it translates research questions into specific questions that participants can provide true information (Burns & Bush 2002; Hair et al. 2003). In addition, a good questionnaire motivates participants to provide sufficient responses and encourages them to cooperate with the researcher.

The researcher bases the questionnaire design process for this study on questionnaire processes developed by a number of researchers (Burns & Bush 2002; Hair et al. 2003; Kinnear & Taylor 1996; Neuman 2006; Zikmund 2003). The process involves six key steps: identify sources of non-sampling errors, determine questionnaire structure and sequence, determine scales and formats of measurement, develop question wording, determine the questionnaire organisation and determine physical characteristics. These steps are discussed next.

Identify sources of non-sampling error Non-sampling error are all biases excluding sampling errors, which may exist at any stage of the research process (Hair et al. 2003; Zikmund 2003). They are not easily measurable and do not reduce with sample size (Kinnear & Taylor 1996). Non-sampling errors can affect the quality of a mail survey (Zikmund 2003). However, non-sampling errors can be controlled since they emerge from human mistakes in either the designing or executing of a survey design (Hair et al. 2003). They include respondents and administrative errors (Zikmund 2003).

Respondent errors appear when participants do not cooperate and/or do not give honest answers. They involve non-response errors (discussed in section 5.7) and response errors (discussed in section 5.8) (Hair et al. 2003; Zikmund 2003). Administrative

errors are caused by inappropriate administrations or executions of a research task. They include errors such as data processing errors (discussed in next chapter) and sample selection errors (discussed in section 5.4) (Hair et al. 2003; Zikmund 2003).

Determination of questionnaire structure and sequence When ready to draft a questionnaire, two important issues should be carefully considered: what questions should be asked and in which order these questions will be asked (Eiselen et al. 2005). Generally, a questionnaire includes three major parts: the introduction, the body of the questionnaire and the conclusion (Burgess 2001). Each of these three parts has different objectives and is discussed in turn.

The introduction part of the questionnaire is to inform the participants about this research. The introduction is to introduce the purpose of this research, contribution of this research and the confidential nature of this research. In addition, participants are informed of their right to participate or not to participate in this survey and the approximate time needed to complete this questionnaire. The body part of the questionnaire is the most important part of the survey. It contains questions and scales to measure the survey topics. To make the questionnaire look simpler and clear for participants, questions in this part are categorised into two parts: one part related to push factors and another part related to pull factors. To form coherence, each section contains only items devoted to a particular survey topic. The conclusion part of the questionnaire enabled the researcher to become familiar with the demographics of the sample and express the appreciation for the participants' contribution in this research.

After designing the structure of the questionnaire, the researcher must consider the sequence of the questions. The sequence of the questions can affect the motivation of participants to complete the questionnaire and therefore influence the results of the survey (Marsden & Wright 2010). Two concerns should be considered regarding this issue: first, how to make the participants answer questions smoothly and logically from general to specific topics and second, how to organise questions under each topic to avoid order bias (Neuman 2006).

For this research, the body of the questionnaire opened a screening question to verify respondents' qualification to complete the questionnaire, namely if the respondent intends to study abroad. Subsequently, questions related to the research questions were organised into two sections: push factor section and pull factor section. Following the funnel approach, the two sections were arranged in order. The sensitive questions, such as income questions, were arranged at the end of the questionnaire.

Determination of scales and formats of measurement The next step of the questionnaire development process is to determine appropriate scale and formats of measurement. Various scales and formats of measurement were adopted in this study to measure both independent and response variables. A scale is a measure which the researcher uses to capture the intensity, direction, level or potency of a concept and turn it into numerical data (Neuman 2006). Different types of scales yield different levels of information that unequally allow the researcher to describe the object of study (Burns & Bush 2002). Four types of scales in relation to numerical system are nominal, ordinal, interval and ratio (Zikmund 2003).

A nominal scale is the simplest type of scale. It is used for labelling variables without any quantitative value. Nominal scales are used to categorise respondents into groups pertaining to certain demographic variables such as gender, funding resource and how to apply to study abroad. In this research, the numbers were assigned for identification or classification purpose (Zikmund 2003). An ordinal scale identifies, categorises and also rank-orders the categories (Burns & Bush 2002). This scale orders the values, but cannot determine the amount of difference between each one. The researcher can determine the greater or less value, but not distance, among responses (Burns & Bush 2002). In this study, the participants are required to identify the importance of the push and pull factors for their decision to study abroad by using an ordinal scale.

Another type of scale of measurement is an interval scale. Interval scales not only arrange responses according to their magnitudes but also measure the order or distance in units of equal intervals (Zikmund 2003). Interval scales are numeric scales in which we know not only the order, but also the exact differences between the values. Variables investigated in this form include age and investment in education. Finally, a ratio scale has all the properties of the first three scales plus having an absolute zero point (Hair et al. 2003; Zikmund 2003). In this research, ratio scales were not employed.

After determining the scale of the measurement, the researcher selects the format of measurement. Researchers commonly use these three formats of measurement: open-ended questions, close-ended questions and scaled-responses questions (Burns & Bush 2002; Neuman 2006; Zikmund 2003).

Open-ended questions give no response choices to participants, and participants are free to use their own words in answering questions (Burns & Bush 2002; Zikmund 2003). Furthermore, open-ended questions can be used as introductory questions to establish rapport and to gain the participants' cooperation in responding to more structured questions (Kinneer & Taylor 1996; Zikmund 2003). However, open-ended questions have some limitations. They yield raw data which cannot be easily coded, compared, analysed and interpreted due to a substantial variety in response (Burns & Bush 2002). This type of question is inappropriate for mail surveys because participants may not give a complete answer or fail to answer this type of question. They tend to write more briefly and simply than they speak. In addition, illegible handwriting is also a problem during the data analysis process (Kinneer & Taylor 1996). Consequently, open-ended questions were not used as the major format of measurement in this survey due to their limitations (Zikmund 2003). In this study, they were only used at the end of the questionnaire. The participants were asked to make comments on this survey study at the end of the questionnaire.

The second format of measurement is that of close-ended questions which provide response options for participants in a questionnaire (Burns & Bush 2002). Close-ended questions require classifying answers into standardised groupings prior to data collection (Zikmund 2003). Participants were asked to choose an answer closest to their viewpoint from a list provided with a question (Kinneer & Taylor 1996; Zikmund 2003). Close-ended questions have some advantages. Large-scale surveys normally use these types of questions because close-ended questions can be understood and measured more quickly and easily than open-ended questions for both participants and researchers (Neuman 2006). These scales help reduce researcher's biases associated

with data processing because answers from various participants are easier to code, compare and statistically analyse (Hair et al. 2003; Zikmund 2003). Finally, particularly with self-administered questionnaires, they help increase cooperation of participants as the questions have a structured-response format that is easy to follow and respond to (Kinnear & Taylor 1996).

The third format of measurement is the scaled-response questions. These involve a scale developed by researchers to measure unobservable variables (Burns & Bush 2002), such as which factors students considered as important during their decision process of study abroad. As most of these concepts' properties are available on a continuous ranging from one extreme to another in the mind of participants, survey questions are therefore designed in an assumed interval format (Burns & Bush 2002). This study used Likert scales to collect the data regarding Chinese students' normative influencing variables for their decision to study abroad. The Likert scale is one of the most widely used scales among marketing researchers to evaluate consumer viewpoint and psychographic factors (Hair et al. 2003; Zikmund 2003). A Likert scale is easy to manage and therefore appropriate for research using self-administrated surveys (Hair et al. 2003). It allows for the degree of intensity or feelings to be expressed (Burns & Bush 2002).

In this study, Likert scales were employed to measure all normative influencing variables. Respondents were asked to check how strongly they agreed or disagreed with each relevant statement related to push or pull factors which influence their decision to study abroad. As reliability of a measurement increase when the number of scale points increases (Churchill & Iacobucci 2004), rather than using a narrow point scale, it was determined that a five-point scale ranging from strongly important, important, no idea, less important and strongly not important was appropriate for this research. In addition, a score (1-5) was assigned to alternative responses from strongly important to strongly not important respectively to reflect the degree of attitudinal favourableness. The use of this score descriptor allows data collected to be analysed using statistical tools (Hair et al. 2003).

In brief, this section justified scales and formats of measurement being used in this study. Demographic data were measured using close-ended and open-ended questions with nominal and ordinal scales. Psychographic and students' study abroad influencing variables were captured by using ratio scale.

Developing question wording Question wording tends to be more of an art than a scientific process. Wording the question is the most critical and difficult tasks when designing a questionnaire. Wording questions require skill, practise, patience and creativity (Neuman 2006). Question wording is essential since it helps capture the respondents' true answers and impact the reliability and validity of the survey research (Burns & Bush 2002). However, question wording can lead to response errors when the wording of a question influences respondents to answer unreliably or inaccurately (Burns & Bush 2002). A good survey question should avoid confusing participants and should maintain the participant's perspective (Neuman 2006).

Attention was paid to ensure that each question was understandable. In addition, only brief, legitimate questions were asked, whilst double barrelled and sensitive questions were avoided (Zikmund 2003). Table 5.4 summarises a number of principles and how they are incorporated into questionnaire design. By following these principles, the final version of the questionnaire was developed and is presented in Appendix 4. These principles help minimise biases from question wording, including auspices, prestige and social desirability. These biases are now discussed.

Auspices bias exists when participants are affected by the organisation conducting the survey (Zikmund 2003). Auspices bias was minimised in this study by informing participants that this research project was part of the researcher's doctoral dissertation of the University of Southern Queensland, Australia. Prestige bias may exist when a question is associated with a prestigious person or group that leads participants to answer on the basis of their feelings to the person or group rather than the issue being asked (Neuman 2006). To minimise this bias, questions were developed using neutral words, which were irrelevant to any prestigious person or group.

Social desirability bias exists because participants wish to create a favourable impression for researchers (Zikmund 2003). To reduce this bias, the importance of the true answers was stated at the introductory section of this questionnaire. Also, participants were advised that different answers from others were a regular situation and their answers were kept confidentially.

Table 5.4 Principles to follow for designing the wording of questions in this study

Principle of good question wording	Application to questions in this study
Avoid complexity	Avoided unnecessary and redundant words in all questions, which should be simple and understandable to all participants.
Avoid departing from the subject	Questions should relate to the research questions.
Avoid too sensitive	Avoid political or personal sensitive questions.
Avoid emotional	Words used in each question would not lead respondents to emotionally react to words rather than to the issue.
Avoid ambiguous or vague words or phrases	Using clear words with a specific meaning. Bias words and slang expressions were not used.
Avoid double-barrelled words	Ask one question at a time for one topic.
Avoid abbreviations	Questions should not contain abbreviations, which might confuse respondents.
Avoid making assumption	Questions to be answered should not be beyond respondents' capabilities.
Avoid leading or loaded words	Questions should not lead respondents to give what they believed to be acceptable rather than their true opinions.
Avoid professional jargon	Question should use simple and direct words that are understandable to respondents.
Avoid stating question subjectively	All questions should be neutrally worded.
Avoid stating with a false premise	Questions would not begin with such a premise that respondents may not agree and then ask about choices regarding it.
Avoid foreseeable bias on question response categories	Response categories were developed from insights gained in the literature review and other authorised sources.
Avoid overlapping or unbalanced categories for question response	Make sure no overlapping or unbalanced categories were presented.

Source: developed for this thesis from Burns & Bush (2002), Churchill (2004), Hair et al.(2003), Kinnear & Taylor (1996), Neuman (2006) and Zikmund (2003)

Determination of the questionnaire organisation After designing the question wording, the researcher determined the questionnaire sequence. The sequence of questions should follow some understandable logic in order to facilitate the questioning process (Burns & Bush 2002). This in turn helps to reduce the discomfort and confusion of participants to answer questions, while increasing the probability that participants will give reliable, precise and complete answers (Burns & Bush 2002; Neuman 2006).

The researcher should divide the questions into different categories based on types of information required to answer each research question and objective (Burns & Bush 2002). This approach helps reduce participants' confusion because questions on the same categories are grouped together (Neuman 2006). Thus, in this questionnaire, all questions were grouped into key sections based on types of variables (push factors, pull factors, psychographic and demographic characteristics). By following these approaches, five sections in the questionnaire were designed (introduction, warm ups, basic information, classification and thank you statement). A set of questions and sequencing of questions are illustrated in a draft questionnaire.

Firstly, on the front page the questionnaire started with a brief introduction of this research and communicated general information for the participants prior to asking the first question (Hair et al. 2003). Also, it stated the importance of giving true answers, the normality of one student's answers differing from another student's and confidentiality of participants' information.

Then, 'warm up' questions were introduced to participants. Warm up questions should be simple, interesting and unthreatening to make participants feel that the questions can be answered easily and quickly, especially to inspire their interest to answer these questions (Burns & Bush 2002; Churchill & Iacobucci 2004). Thereby the questionnaire can gain respondent's interest and rapport that in turn stimulates the respondent to complete the remainder of the questionnaire (Churchill & Iacobucci 2004). Information gained from this section was not used in the statistical analysis.

Basic details are in the third part, the most important section. The most essential questions are placed in this section for two reasons. Firstly, after going through easy questions, respondents would feel committed and be more willing later to answer more difficult questions rather than discontinuing their responses. Secondly, they would see that only a few sections of questions remain to be answered. Once they finish this section, they would be almost finished (Burns & Bush 2002). Questions regarding push and pull variables which influence Chinese students' decision to study abroad were placed in this section.

All demographic questions were placed in the fourth section to reduce the possibility that participants might quit the survey at the very beginning if these questions were placed at the front (Burns & Bush 2002; Zikmund 2003). At the end of the questionnaire, space was given for respondents to comment on this study. Finally, this questionnaire was ended with the 'thank you' statement.

In brief, this section discussed a flow of questions in the questionnaire used in this study. General questions were asked prior to specific ones. The questionnaire started with an introductory section, followed by warm up questions, basic information (purchase intention, psychographic and normative influencing variables), classification (demographic variables) and thank you sections.

Physical characteristics of the questionnaire The physical characteristics of the questionnaire are very important for a mail survey because there is no interviewer to interact with the participants when they complete the questionnaire (Neuman 2006). The physical characteristics of the questionnaire can affect participants' acceptance and cooperation with the questionnaire (Churchill & Iacobucci 2004). A good questionnaire should look professional, neat, attractive and be easy to follow (Churchill & Iacobucci 2004; Zikmund 2003). The following strategies were used in designing the questionnaire to enhance the likelihood of participation and clarity.

The title of the research should be carefully phrased, translated and printed on the questionnaire to inform and attract participants (Zikmund 2003). For this study, the research topic was bolded and appeared on the front page of the questionnaire. Headings and subtitles were used to identify and distinguish groups of questions on one section from the others. The use of headings helps participants to know the progress of answering the questions (Zikmund 2003). Key questions in the questionnaire were Likert type questions. Participants were introduced to tick or circle in the box most relevant to their answer. All response boxes were listed down a page to make the questionnaire easier to see.

The researcher made the questionnaire appear as brief and small as possible by printing them on both sides of A4 paper, folding and stapling them to form a booklet format. This format not only facilitates handling but also helps reinforce an image of quality. Shorter questionnaires are better than larger ones because they seem easier and appear to take less time to complete. However, they should not appear crowded (Churchill & Iacobucci 2004). A short mail questionnaire (three to four pages) is appropriate for the general population (Neuman 2006).

The front page of the questionnaire aimed to simulate participants' cooperation for this survey. Therefore, in addition to the research topic, this page contains key information emphasising the purpose of this study and the confidentiality of the participants. The back page was reserved for the participants' suggestions for the study and a thank you statement. The questionnaires were printed, not copied, on a good quality paper to emphasise the importance of the survey.

In summary, questionnaire design is an essential process in survey research because it translates research questions into specific questions that can be asked for the participants (Burns & Bush 2002). The process involved six key steps, namely source of non-sampling error, determination of scales and formats of measurement, development of question wording, determination of the questionnaire organization and determination of physical characteristics. Through this process, a quality questionnaire for this study was developed. This questionnaire would enable the researcher to encourage participants to provide adequate and accurate responses that were used to answer predetermined research questions.

In brief, this section discussed key issues concerning the physical characteristics of this questionnaire. These key issues included research topic, heading, instructions, questions, response choices and length of questionnaire. Care was taken to ensure that this final questionnaire had appropriate and professional physical characteristics to increase participants' cooperation.

5.7 Survey administration

How to develop the questionnaire in this study has been justified in the previous section. Now the discussion moves to strategies of managing the mail survey in this research in order to achieve a high response rate. Mail surveys have several advantages, such as a low cost and the ability to collect a large amount of information, as discussed previously. However, the mail survey has a limitation that cannot be neglected, namely non-response error (Burns & Bush 2002; Zikmund 2003). The following discussion proposes strategies to increase response rate.

5.7.1 Non-response error

Non-response error occurs when sampling units selected for a sample do not participate in this survey (Churchill & Iacobucci 2004; Zikmund 2003). Non-response errors may increase when the response rate decreases, which can invalidate research findings (Kinnear & Taylor 1996). Non-response problems in mail survey can be caused by participants' refusals to participate in the survey, break offs during the survey, refusals to answer some questions and incorrect mailing address (Burns & Bush 2002; Churchill & Iacobucci 2004; Hair et al. 2003).

A response rate normally achieved is between 10 to 50 per cent (Neuman 2006). Typically, mail surveys plan to achieve a response rate of less than 20 per cent (Burns & Bush 2002). For this study, the response rate by averaging the normal response rates suggested by Neuman (2006), and determined that 34.8% percent response rate is an acceptable response rate. To achieve an acceptable response rate, the total design method and other strategies suggested by a number of researchers were followed (Burns & Bush 2002; Churchill & Iacobucci 2004; Hair et al. 2003; Neuman 2006; Zikmund 2003). These strategies are discussed in the following sections.

5.7.2 Strategies to increase response rate

Three key strategies can be used to enhance the response rate. These include providing rewards, minimising respondents' costs and building trust (Neuman 2006). Monetary rewards can tremendously increase the response rate. Alternatively, rewards can be non-monetary premiums as well (Hair et al. 2003). Because of budget constraints, this study did not provide monetary incentives.

The questionnaire designed for this research was brief and easy to answer. Questionnaire length was kept as minimal as possible. Instructions and transition

phases were properly placed in the questionnaire to give participants a clear direction to follow. Participants just needed to return the envelopes to the Students Affair Office's mail box. Confidentiality was assured in the first page of the questionnaire. In addition, the University of Southern Queensland was named as the sponsor of this study. These characteristics made this study appear legitimate, a condition that in turn helps to increase response rate.

This section discussed non-response problems in mail surveys. Non-response errors could be caused by participants' refusals to participate in the survey, discontinuance of the survey, refusals to answer some questions and inaccurate mailing address. Strategies to improve response rate were then proposed and implemented.

5.8 Pre-test

The questionnaire for this study has been designed based on a number of strategies discussed in previous sections. The questionnaires are then available for a pre-test. A pre-test is performed to assess and enhance this questionnaire in aspects of wording, organisation and physical characteristics. It is a survey to small samples similar to targeted populations (Burns & Bush 2002; Hair et al. 2003; Zikmund 2003). In this research, the questionnaire developed was pre-tested using personal interviews. As these samplings are not used for the final statistical analysis, these participants were selected on a convenience basis. Participants were given this questionnaire and were asked to complete it. In addition, they were asked to comment on any difficulties they encountered in answering or understanding. Major comments on any issues were taken into account for further questionnaire modifications.

In summary, personal interviews were conducted to pre-test this questionnaire prior to a launch of the formal survey. The key objective of these interviews was to check the effectiveness of the questionnaire for this study. All key suggestions from respondents were taken into account to improve this questionnaire.

5.9 Limitations

The most important concern for this study is to ensure that research results can be generalised to population. This study aims to investigate factors that influence Chinese students' decision to study abroad. As a census cannot be conducted due to the budget and time constraints, this study will be conducted using a sampling method, which becomes a source of limitation for this study.

Research on a sampling basis requires a sampling frame to be identified for a sample selection. Sampling frame used in this study was the list of students who asked for transcripts from the Students Affair's Office in five Chinese universities. These students might not be completely representative of the population, the Chinese students who have intention to study abroad, because the transcripts also can be used in other areas, such as looking for a job or applying for postgraduate study at another university. Therefore, generalisation of the findings of this study to Chinese students might be limited.

5.10 Ethical consideration

Ethics provide appropriate direction for behaviours under a certain situation (Hair et al. 2003; Neuman 2006). In this study, ethics concentrated on what researchers do to increase the possibility that they will make ethical decisions in developing a research process (Hair et al. 2003). Researchers have to assess what activities are not appropriate and what activities must be performed to make sure that no one will suffer from research activities (Kinnear & Taylor 1996). Ethical treatment for participants is the most important ethical issue in this study. In designing the research process of this study, care was taken to ensure that participants' rights were not violated.

Participants have no obligation to cooperate in this survey. They are not forced to participate in this study. They have the right to refuse to answer any questions in this survey. Because this study was a mail survey, therefore, respondents were free to determine whether they wanted to participate in this study. Once they decide to give their information, they could exit the survey at any time. Privacy also ensures participants that their information on this survey will not be made public (Neuman 2006). Although this study required participants to give their contact information in the questionnaire for the purpose of implementing the follow up procedures, information used for the analysis or released to public was based on aggregated research findings. Identifying details were not given to anyone not relating to this research and were not used for purposes other than research. In terms of data accessibility, the researcher was the only one who could access participants' information. Therefore, participants' information was kept strictly confidential.

Potential participants must be given enough information about the nature of this study to decide whether they want to participate before starting the survey (Hair et al. 2003). A cover letter was used to provide necessary information about the mail survey to all respondent samples: the introduction of this research, purpose of the survey, information required from respondents, incentives provided and the sponsor of this survey. In addition, the researcher provided her contact number to respondents who might require further information before making their decision to participate. Thus, potential respondents received sufficient information to determine whether to participate.

The purpose of this research is to identify the factors which influence the mainland Chinese students' choice to study in English-speaking countries, especially in Australia. There is no risk for prospective participants in this research. This research does not ask any private information related to the participants. All the questions from the questionnaire have been checked by my supervisor and the faculty members of the targeted Chinese universities. The participants will be asked some questions related to what factors influence their intention to study in English-speaking countries. These questions should not pressure them or make them feel uncomfortable as these topics are well known to students and discussed in public media. All the participants in this research are voluntary. The participants will sign the Participant Information Sheet and Consent form in a Chinese version voluntarily before they start the questionnaire. This way they will clearly understand their rights to take part in this research.

Ethics in research also involve other issues for researchers. For instance, the researcher should maintain high standards to ensure that the data are accurate (Zikmund 2003).

Through the whole research process, appropriate scientific methods should be used. Possible errors should be detected and eliminated or reduced. The researcher should not manipulate data. Data should be honestly collected, analysed and interpreted (Hair et al. 2003).

In conclusion, ethics must be seriously considered through the whole research process. Participants have the right of privacy and the right to be informed of all the information they need. The researcher assured that high-standard research tasks were maintained in this study. Data were honestly collected, analysed and presented. By following these suggestions, ethics in research have not been violated.

5.11 Summary

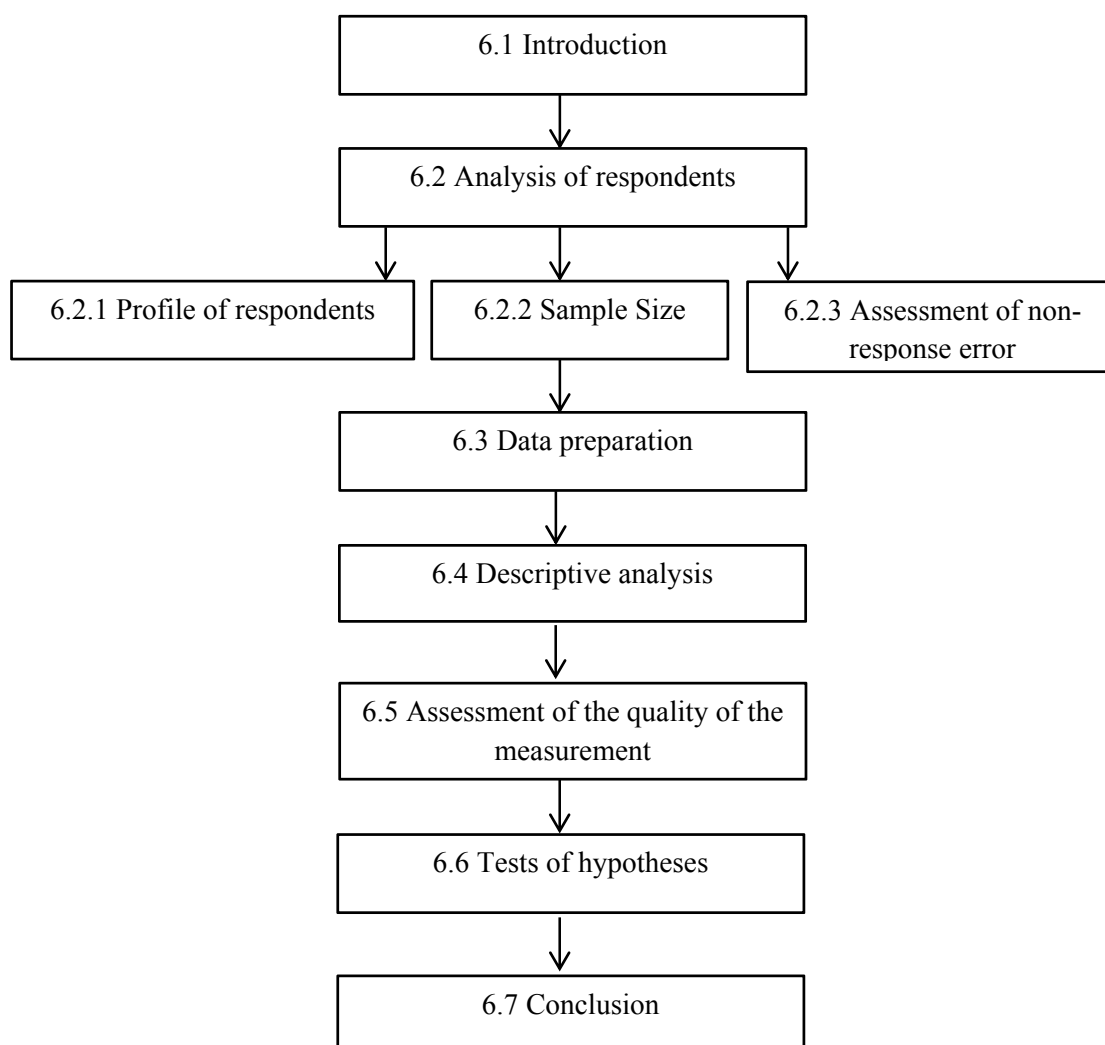
This chapter discussed the design for quantitative research methodology employed in this study. The researcher justified the selection of the research design with the mail survey approach, addressed the sample selection process and developed the measurement process. The questionnaire development process and steps of survey administration were given. The researcher proposed steps for the pre-test of the questionnaire. Key limitations of this study were addressed. Finally, the ethical issues relevant to the research process were discussed.

Chapter 6 Quantitative data analysis

6.1 Overview

The previous chapter described the methodology to collect quantitative data for this research. In this chapter, the collected data from the survey are analysed. This chapter consists of seven sections as shown in Figure 6.1. In section 6.2 the respondents' demographic characteristics are analysed. The data preparation strategies are discussed then in section 6.3. This is followed by the descriptive analysis of the data gathered in section 6.4. Next in section 6.5, the quality of the measurement used in this study is examined using factor analysis. The proposed hypotheses and the assumptions inherent to multiple regressions are then tested in section 6.6. Finally, conclusions are drawn in section 6.7.

Figure 6.1 Outline of chapter 6



Source: developed for this research

6.2 Analysis respondents

After collecting data, the researcher should prepare the data analysis. In this section, characteristics of respondents will be explored to gain a primary understanding of the data collected.

6.2.1 Profile of respondents

This section describes demographic characteristics of the respondents, which Table 6.1 summarises. The first column of this table identifies demographic variables investigated in this research and groups used to categorise respondents for each of these variables. The third and fourth columns show the proportion of respondents in each group in quantity and percentage formats respectively.

From this table it can be seen that most respondents are female (63.9%); male are 36.1%. Most of these students are between 18-25 years of age (81.2%). The amount students are willing to spend on their overseas studies varies: 11.9 % of these students are willing to invest only under 100,000 CNY, 37.1% of these students are willing to invest 100,001-200,000 CNY, 44.6% of these students are likely to invest 200,001-300,000 CNY and the remaining 6.4% of these students are willing to invest above 300,000 CNY for their overseas study.

Regarding the funding resources, most (73.8%) participants are sponsored by their family, 32.8% participants will get a loan from a bank, and 43.6% students wish to take a part time job to supplement the tuition fees or living expenses. Only 13.4% of participants have personal savings, most of whom are over 30 years old and may have worked a few years and saved money for their overseas study.

When considering how to apply study overseas, most participants (60.9%) choose to apply to study abroad with the help of a professional study abroad agent. Only 36.1% of participants will apply to study abroad independently. Most participants (60%) asked their parents for advices, 49.8% participants sought help from their friends, 39.5% participants will discuss with their overseas friends and 27.8% participants will consult with their study abroad agents. There are around 32.0% of participants who chose the other choice which usually means they would like to ask advice from their teachers.

Table 6.1 Profile of respondents

Profile of respondents			
Demographic characteristic		Number	Percentage
Gender	Female	129	63.9
	Male	73	36.1
	Total	202	100.0
Age	18~25	164	81.2
	26~30	25	12.4
	>30	13	6.4
	Total	202	100.0
Expected cost	Under 99,000	24	11.9
	100,000~199,000	75	37.1
	200,000~299,000	90	44.6
	>300,000	13	6.4
	Total	202	100.0
Income resource	Family Sponsor	149	73.8
	Savings	27	13.4
	Student Loan	66	32.8
	Scholarship	22	10.9
	Part-time Job	88	43.6
	Others	3	1.5
	Total	202	
Application method	By yourself	74	36.1
	Agents	123	60.9
	Others	5	2.5
	Total	201	99.5
Information resource	Family	123	60.0
	Friends	102	49.8
	Overseas Friends	81	39.5
	Agents	57	27.8
	Others	66	32.0
	Total	206	

Note: Students could select more than one answer for income resources and information resource. Source: developed for this study.

6.2.2 Sample Size

The sample size has a direct effect on the appropriateness and the statistical power of both factor analysis and multiple regressions. These techniques were used to examine reliability and validity of the collected data and to test the proposed hypotheses respectively (Maas & Hox 2005; Mundfrom et al. 2005; Williams et al. 2012). The final sample size, after all corrections to error and deletion of any invalid cases, was 202 cases. Of the total possible mailed out questions of 600, this represents a response rate of 34.8%.

The sample size of 202 cases meets the proposed guideline of 6:1 for the ratio of observations to the 36 indicators used in this research. This ratio is recommended for performing exploratory factor analysis (Garson 2008; Hatcher 1994; Hutcheson & Sofroniou 1999; MacCallum et al. 1999). The ratio of the observations to independent variables has a ratio of 26 to 1, appropriate for performing multiple regression analysis (Hair et al. 2003). Therefore, this sample size has been deemed appropriate for the data gathered from this research to be further analysed, using both factor analysis and multiple regression techniques.

6.3 Data preparation

Collected data have to be prepared to ensure that the accuracy of the data and their conversion from raw form to classified forms are appropriate for the analysis section (Hair et al. 2003). These tasks include data cleaning, data screening and the assessment of missing data, outliers and normality. These data preparation tasks are now discussed.

6.3.1 Data cleaning and screening strategies

To clean and screen the collected data, returned questionnaire will be examined for determining whether they will be acceptable for analysis in the next step. When questionnaires are returned they will be dated in order that a comparison of early and late responses can be made. Unacceptable questionnaires will be those returned with more than 30% of the questionnaire left unanswered (Hair et al. 2003; Kinnear & Taylor 1996).

Questionnaires will be further examined for errors, omissions or any errors to make sure that collected data are precise, complete, unambiguous, reliable, consistent with other information and organised to simplify coding (Kinnear & Taylor 1996). Non-response questions will be marked as missing data.

After editing data, the researcher then entered the coding stage. Questionnaires were pre-coded, as previously discussed in section 4.8.6. At this stage, the code '9' is assigned for missing values. Dummy variables will be used to transform non-interval and non-ratio demographic data into an acceptable format that can be analysed in the multivariate analysis section (Hair et al. 1998). The data to be transformed are the normal demographic variables, gender, age and family income, as well as funding source, application method for study abroad and source of advice or information. Table 6.2 summarises the data transformation and identifies the comparison groups for each of these demographic variables.

Table 6.2 Summary of dummy variables

Variables	Original response categories	New response categories and abbreviations
Gender	•Female •Male	0 1
Age	•18-25 •26-30 •>30	1 2 3
Investment for study abroad	•< 99,000 Yuan •100,000-199,000 Yuan • 200,000-299,000 Yuan • > 300,000 Yuan	1 2 3 4
Funding resource	•Family •Personal savings •Student Loan •Scholarship •Part-time Job •Others	Yes 1 No 0
Application method for study abroad	•Independent •Study abroad Agent	Yes 1 No 0
Source of advice or information	•Family members •Friends •Overseas friends •Study abroad agent •Others	Yes 1 No 0

Source: developed for this thesis and the analysis of survey data

Next, data codes will be inputted into a format that allows data to be analysed. To ensure that data are inputted correctly, a frequency distribution on each of the key questions will be run to check the accuracy of the data entered and to identify any extreme cases. Then, every tenth record will be spot checked to ensure accuracy. Any errors detected will then be corrected.

6.3.2 Assessment of missing data, outliers and normality

Next, collected data will be assessed for missing data, outliers and normality. Missing data exist from two sources, respondents and other sources in the research process (Little & Schenker 1994). In this study missing data could exist during the data preparation stage. Strategies to detect and minimise these mistakes were already discussed in the previous section. Missing data from respondents will be coded and left as missing for the analysis.

The number of missing data and responses for each question in the survey are summarised in Appendices 6.3a-6.3d. Most of the questions measuring independent

student characteristics varied in the amount of missing data from 0~15%. Demographic questions were found to have more missing data than the questions measuring psychographic and normative influencing variables. The participants might be guarding their privacy by not answering sensitive demographic questions.

Questions 2.22, 2.23 and 2.26 related to study in Australia were missed by 16%, 16%, and 18% respectively of the participants. Questions 2.22, 2.23, 2.25 and 2.26 related to study in America were missed by 16%, 15%, 15% and 17%. Questions 2.22, 2.23, 2.25 and 2.26 related to study in Canada were missed by 16%, 16%, 15% and 18%. Questions 2.22, 2.23, 2.25 and 2.26 related to study in Great Britain were missed by 15%, 16%, 15% and 17% (See appendix 6.3b-6.3d). Question 2.22 asked participants to evaluate the importance of the economic and political tie with China in Chinese students' decision process to study abroad. A possible reason for participants failing to answer this question is that participants might not actually have knowledge of it. Question 2.23 asked participants to evaluate the importance of the alumni and friends in Chinese students' decision process to study abroad. A possible reason for participants failing to answer this question is that participants might lack relevant exposure to alumni and friends. Questions 2.25 and 2.26 asked participants to evaluate the geographic proximity and the importance of the geographical position in Chinese students' decision process to study abroad. The possible reason for participants failing to answer this question is that participants might not have the exact knowledge for this factor or it is hard to evaluate these factors in a short time.

As the proportion of missing data was not too large and there were no questions containing excessive levels of missing data, all of the aforementioned questions have been retained for analysis.

Table 6.3a Summary of responses received and missing data for each item-Australia

Items	Number of responses	Number of missing data	Percentage of missing data (%)
Q1.1	229	0	0
Q1.2	229	0	0
Q1.3	226	3	1
Q1.4	227	2	1

Items	Number of responses	Number of missing data	Percentage of missing data (%)
Q1.5	222	7	3
Q1.6	222	7	3
Q1.7	221	8	4
Q1.8	223	6	3
Q1.9	222	7	3
Q1.10	220	9	4
Q2.1	224	5	2
Q2.2	224	5	2
Q2.3	220	9	4
Q2.4	216	13	6
Q2.5	215	14	7
Q2.6	213	16	8
Q2.7	215	14	7
Q2.8	215	14	7
Q2.9	210	19	9
Q2.10	208	21	10
Q2.11	205	24	12
Q2.12	207	22	11
Q2.13	209	20	10
Q2.14	211	18	9
Q2.15	209	20	10
Q2.16	205	24	12
Q2.17	205	24	12
Q2.18	203	26	13
Q2.19	200	29	15
Q2.20	203	26	13
Q2.21	201	28	14
Q2.22	198	31	16
Q2.23	198	31	16
Q2.24	202	27	13
Q2.25	199	30	15
Q2.26	194	35	18

Source: developed for this thesis and the analysis of survey data

The next task is to access outliers. Outliers are observations distinctly different from the other observations (Dielman & Rose 1994). Outliers are called leverage points when they exist with independent variables (Dielman & Rose 1994; Hair et al. 2003). These outliers can seriously distort statistical tests, which in turn can lead to ungeneralisable research results. Outlier can stem from procedural errors or due to respondent answers (Dielman & Rose 1994). In this study, outliers arising from procedural errors were detected and corrected at the data cleaning and screening state, as previously discussed in section 6.3.1.

Outliers can be classified as either extraordinary value, which is the explanation for the uniqueness of the observation, or extreme value for which the researcher has no explanation (Hair et al. 1998). For this research, there were no outliers noted in most of the questions in the questionnaire because the questions were close-ended providing a fixed range of alternative choices for respondents to answer under the Likert scales, dichotomous and multiple choice questions.

Collected data will be tested on normality. All psychographic and normative influencing items for each country were examined for normality. The resulting statistics of this test are summarised in Appendices 6.4a-6.4d. The researcher decided to use the p value of 0.01 as the cutoff value for the determination of whether the data was non-normal because 'p' value is considered to be more appropriate for a normality analysis that involves a large number of constructs of variables. Very often, a p-value of 0.05 or below are accepted as that there is evidence against the null hypothesis and that reject the same at 5%. A p-value of 0.01 or below will under normal circumstances mean that there is substantial evidence against the null hypothesis.(Ghasemi & Zahediasl 2012).

For this research, we use the Shapiro-Wilk method to test the normality of the collected data due to the fact that the data is between $n = 3$ to 2000 (Park 2009). As can be seen from Appendices 6.4a-6.4d, all the p values are smaller than 0.01, meaning that all the data analysed was therefore non-normally distributed. Although normal data are necessary for factor analysis, the factor analysis for this research was more conceptual than statistical. Therefore, the normality of this set of data was not remedied at this stage and data were used in this form as the input for the next step of factor analysis.

Table 6.4a Test of normality – Australia

Variable	Shapiro-Wilk		
	Statistic	df	p-value
Q1.1	.652	184	.000
Q1.2	.766	184	.000
Q1.3	.848	184	.000
Q1.4	.857	184	.000
Q1.5	.695	184	.000
Q1.6	.857	184	.000
Q1.7	.769	184	.000
Q1.8	.891	184	.000
Q1.9	.772	184	.000
Q1.10	.753	184	.000
Q2.1	.832	184	.000
Q2.2	.853	184	.000
Q2.3	.860	184	.000
Q2.4	.869	184	.000
Q2.5	.875	184	.000
Q2.6	.754	184	.000
Q2.7	.737	184	.000

Variable	Shapiro-Wilk		
	Statistic	df	p-value
Q2.8	.830	184	.000
Q2.9	.830	184	.000
Q2.10	.854	184	.000
Q2.11	.818	184	.000
Q2.12	.879	184	.000
Q2.13	.871	184	.000
Q2.14	.896	184	.000
Q2.15	.887	184	.000
Q2.16	.866	184	.000
Q2.17	.907	184	.000
Q2.18	.914	184	.000
Q2.19	.872	184	.000
Q2.20	.859	184	.000
Q2.21	.885	184	.000
Q2.22	.874	184	.000
Q2.23	.814	184	.000
Q2.24	.779	184	.000
Q2.25	.884	184	.000
Q2.26	.835	184	.000

Source: developed for this thesis and the analysis of survey data

6.4 Descriptive analysis

Now, the discussion moves to strategies for the data analysis. Demographic characteristics of the sample have been explored and summarised in the previous section. In this section psychographic and normative influencing variables and the study abroad intention variables are examined to gain a primary understanding of the psychographic characteristics of the samples. As these variables were measured using Likert or behavioural intention scales, the means and standard deviations of these variables were used to describe these characteristics. Summary statistics of the means and standard deviations for these variables are presented in Appendices 6.5a-6.5d.

In relation to the **study abroad intention variable (Question Part 3)**, this variable was rated on the behavioural intention scale with a score of 1 indicating definitely not want to go, a mid-point of 3 indicating unsure and a score of 5 indicating strong desire to go. Participants tended to be very likely to choose to study in Australia ($m=4.02$, $sd=1.11$), whilst likely to choose to study in Canada ($m=3.89$, $sd=1.032$), in Great Britain ($m=3.76$, $sd=0.959$) and in America ($m=3.69$, $sd=1.211$).

Table 6.5a Summary of means and standard deviations for psychographic and normative influencing and purchase intention variables-Australia

Questions/Variables	Mean	Std Deviation
Destination country factors		
Q2.6 Air condition	4.35	0.62
Q2.7 Safety issue	4.18	0.66
Q2.8 Political environment	4.00	0.83
Q2.9 Reputation of the destination country	4.02	0.82
Q2.22 Politic and economic relationships	3.72	0.91
Domestic factors		
Q1.3 Air condition	3.07	1.11
Q1.4 Universities requirements	2.79	0.99
Q1.8 Job opportunities	2.96	1.09
Q1.9 Courses	3.37	1.14
Q1.10 Education system	3.34	1.02
University factors		
Q2.10 Academic staff qualification	4.00	0.84
Q2.11 Courses	4.04	0.80
Q2.13 Range of courses	3.35	1.33
Q2.16 Reputation of universities	3.72	1.00
Q2.19 Uniqueness of universities	3.64	1.06
Requirements		
Q2.3 Enrol requirements	2.97	1.27
Q2.17 Student visa	3.32	1.05
Q2.18 Third country visa	3.23	1.09
Students' personal factors		
Q1.1 Knowledge to destination country	4.57	0.53
Q1.5 Experiencing western culture	3.97	0.86
Q1.6 Immigration Intention	2.81	1.12
Q1.7 Desire to understand "West"	3.73	0.91
Q2.24 Ethical identity	4.09	1.06
Benefits factors		
Q2.5 Future job opportunities	3.79	0.98
Q2.14 Immigration opportunity	3.36	1.27
Q2.15 Culture merge	3.52	1.05
Q2.20 Value of the degree	3.67	1.07
Q2.21 Potential benefit	3.69	0.94
Other influencing factors		
Q1.2 Recommendation by others	3.58	0.89
Q2.23 Friends in the destination country	4.03	0.94
Q2.25 Geographic issue	3.48	1.11
Q2.26 Distance	3.21	1.32
Intentions		
Q3 How much do you want to study in Australia in Australia?	4.02	1.11

Source: developed for this research

6.5 Assessment of the measurement quality

Participant characteristics were analysed in the previous section. Prior to the testing of the proposed hypotheses, the researcher needs to assess reliability and validity of the measures, as using multiple indicators for measuring each of the constructs could raise the problem of reliability and validity since the indicators could have sizable measurement errors (Kimberlin & Winterstein 2008). If this is found to be the case, then the researcher needs to delete unreliable and/or invalid measures to ensure that

measurement errors would be minimised and will not therefore distort the investigated relationships or make the analysis less powerful (Kimberlin & Winterstein 2008).

In this section, validity and reliability of the collected data will be examined using common factor analysis. This analysis enables the researcher to detect, identify and delete poor indicators for purifying the measurement. This measurement purification in turn results in improving validity and reliability of the questionnaire. Purified data will then be combined into an appropriate form for the regression analysis using factors scores through principle components analysis.

Factor analysis can be performed from either exploratory or confirmatory perspectives (Tang 2010). Exploratory factor analysis can be used to provide the empirical basis for determining the structure of a set of variables and to produce the estimates of the factors and the contributions of each variable to the factors. This analysis is used when the researchers do not control which items describe which constructs (Hurley et al. 1997).

Confirmatory factor analysis is a more sophisticated technique that can be employed when the researcher has control over the specification of multiple indicators for each of the constructs investigated (Hurley et al. 1997). This analytical technique is appropriate for assessing validity and reliability of the complicated measures (Hurley et al. 1997).

The measures used in this thesis are unlikely to have complicated scales. That is, three to four indicators were used to directly measure each of the psychographic and normative influencing constructs, and each of these constructs did not have several dimensions. Exploratory factor analysis was therefore considered appropriate and was conducted first for a preliminary assessment of the quality of measurement scales used in this study.

In section 6.5.1 initial factor analysis with all 36 items inputted simultaneously was conducted to explore the overall pictures of the correlations of these items and to determine the issues of uni-dimensionality and validity of these scales. In section 6.5.2 confirmatory factor analysis was performed next for each measurement scale in order to have a closer assessment of the issues of uni-dimensionality and reliability of these scales and in order to purify the measures. And lastly in section 6.5.3, the collected data from the purified scales were combined into a set of independent variables appropriate as an input for the hypothesis testing section. The discussion now turns to the results of these analyses, commencing with the initial factor analysis with all items inputted.

6.5.1 Exploratory factor analysis with all 36 items included

Initial factor analysis with all items included simultaneously was performed in this section to determine whether these items adequately reflect critical aspects of the constructs being measured. Poor items were identified, which will be assessed further in the next section (section 6.5.2) in terms of their retention or deletion.

A primary step of factor analysis is to assess the adequacy of the correlation of the items. Correlation analysis, the Barlett test of sphericity for the correlation matrix and

a test of sampling adequacy ‘the Kaiser-Meyer-Olkin’ were the three analytical tools used for this assessment. The results of these tests are discussed next.

Firstly, a correlation analysis was run using SPSS in order to justify the application of factor analysis. Interrelation between variables is the critical assumption underlying factor analysis. Data with a substantial number of strong correlations (correlation coefficients greater than 0.30) are deemed appropriate to be used in factor analysis (Williams et al. 2012).

The correlation matrix of all observed psychographic and normative influencing indicators is illustrated in Table 6.6. As a result, most of the indicators were found to be strongly related with at least one other indicator with a correlation greater than 0.3. Only three items were found to have a weak correlation with all other indicators (correlation coefficients below 0.3). These items were Q1.8 Domestic job opportunities measuring domestic conditions, item Q1.1 Knowledge to destination country measuring destination country factors and item Q1.7 Desire to understand “West” measuring Other influencing factors. These three statements might be inappropriate to proceed with factor analysis and in turn might need deletion. However, they were left in the analysis at this primary stage and will be noted for closer examination when the individual measures are tested.

Table 6.6 Correlation matrix of all items measuring psychographic and normative influencing constructs

	Q2.6	Q2.7	Q2.8	Q2.9	Q2.22	Q2.1	Q2.2	Q2.4	Q2.12	Q1.3	Q1.4	Q1.8
Air condition	1.000											
Safety	.499	1.000										
Political environment	.420	.342	1.000									
Reputation of the destination country	.314	.253	.275	1.000								
Politic and economic relationships	.268	.156	.129	.312	1.000							
Tuition fee	.085	.318	.163	.176	.055	1.000						
Living expense	.120	.150	.169	.153	.011	.601	1.000					
Currency	.046	.155	-.015	.029	.103	.221	.203	1.000				
Scholarship	.223	.110	.091	.311	.210	.175	.160	.201	1.000			
Domestic air condition	-.045	.104	-.152	-.061	-.328	.165	.179	.115	.055	1.000		
Domestic universities requirements	.043	.059	-.027	.190	-.010	.217	.086	.197	.017	.418	1.000	
Domestic job opportunities	-.174	-.101	.016	.000	-.085	-.029	-.057	-.022	-.094	.103	.098	1.000
Domestic courses	-.199	-.168	.011	-.109	-.209	.023	-.038	-.012	-.088	.133	-.010	.351
Domestic education system	-.035	-.018	-.092	-.124	-.303	-.093	-.072	-.036	-.102	.160	.215	.259
Academic staff qualification	.215	.145	.379	.274	.261	.085	.042	.032	.194	-.146	-.112	.038
Courses	.206	.242	.203	.506	.323	.182	.079	.011	.310	-.019	.030	-.018
Range of courses	.260	.170	.181	.468	.351	.111	.076	.118	.382	-.052	.023	-.149
Reputation of universities	.153	.006	.262	.174	.282	.025	-.019	-.069	.113	-.089	-.028	.056
Uniqueness of universities	.206	.049	.170	.296	.324	.010	-.014	-.089	.276	.001	-.010	.001
Enrol requirements	.097	.031	-.002	-.015	-.021	.145	.252	.161	-.065	-.067	.086	-.190
Student visa	.084	.041	.015	.164	.258	.090	.081	-.025	-.083	-.011	.075	-.161
Third country visa	-.029	.019	.006	.124	.111	.067	-.002	-.083	.016	-.137	-.063	-.007
Knowledge to destination country	.153	.096	.023	-.032	.003	-.074	-.056	-.011	.150	-.029	-.072	-.108
Experiencing western culture	.058	.076	.074	.016	.023	.070	.122	-.086	.030	.008	-.145	-.045
Immigration Intention	.083	.163	.005	.093	-.006	.173	.065	.074	.075	.215	.210	-.074
Study in Australia wishes	.101	.146	.047	.090	.046	.161	.173	.062	.037	.164	.174	-.125
Study in Australia experience	.222	.034	.009	.083	.311	-.074	-.023	-.011	.113	-.097	-.061	-.009
Future job opportunities	.164	.100	.285	.216	-.009	.136	.089	.082	.151	-.046	.087	.037
Immigration opportunity	.165	.212	.225	.133	.209	.222	.197	.127	.071	.059	.036	-.010
Culture merge	.143	.175	.350	.220	.305	.154	.079	.034	.089	-.173	-.078	.029
Value of the degree	.093	-.060	.063	.249	.337	.000	-.103	.049	.220	-.032	.142	.083
Potential benefit	.020	-.051	.227	.168	.352	-.126	-.102	.008	.136	-.215	-.048	-.035
Recommendation by others	.044	.015	.021	.079	.071	-.060	-.072	-.054	-.027	.060	-.041	-.004
Friends in the destination country	.108	-.090	.120	.172	.290	.024	-.048	-.142	.026	-.201	-.060	-.117
Geographic issue	.142	.076	.115	.137	.355	.138	.105	-.041	.132	-.112	.077	-.069
Distance	.142	-.010	-.030	-.093	.177	.008	.091	.037	.097	-.036	.027	-.178

	Q1.9	Q1.10	Q2.10	Q2.11	Q2.13	Q2.16	Q2.19	Q2.3	Q2.17	Q2.18	Q1.1	Q1.5
Air condition												
Safety												
Political environment												
Reputation of the destination country												
Politic and economic relationships												
Tuition fee												
Living expense												
Currency												
Scholarship												
Domestic air condition												
Domestic universities requirements												
Domestic job opportunities												
Domestic courses	1.000											
Domestic education system	.258	1.000										
Academic staff qualification	.039	-.018	1.000									
Courses	-.106	-.107	.330	1.000								
Range of courses	-.105	-.182	.238	.412	1.000							
Reputation of universities	-.016	-.149	.342	.170	.232	1.000						
Uniqueness of universities	-.076	-.080	.266	.364	.301	.330	1.000					
Enrol requirements	-.231	.020	-.053	-.052	-.061	-.127	-.119	1.000				
Student visa	-.267	-.254	.067	.048	.219	.188	.223	.122	1.000			
Third country visa	-.146	-.126	.087	.067	.118	.075	.153	-.009	.432	1.000		
Knowledge to destination country	-.032	-.031	-.087	.023	.099	.131	.199	-.023	-.114	-.022	1.000	
Experiencing western culture	-.054	-.041	.034	.235	.110	.058	.185	.046	.305	.170	.085	1.000
Immigration Intention	-.107	-.055	.116	.144	.140	.115	.120	-.056	.036	.040	.100	.307
Study in Australia wishes	-.056	.036	.005	-.003	-.031	.038	-.007	.131	.121	.020	-.094	.017
Study in Australia experience	.019	-.164	.089	.096	.150	.220	.237	-.007	.088	-.089	.173	-.038
Future job opportunities	.036	-.044	.345	.226	.117	.173	.099	-.052	-.155	-.126	.058	-.021
Immigration opportunity	-.098	-.046	.218	.148	.172	.211	.314	-.104	.290	.173	.132	.138
Culture merge	-.108	-.247	.239	.326	.244	.437	.367	-.103	.238	.138	.008	.181
Value of the degree	-.011	-.084	.222	.144	.226	.289	.403	-.089	.106	-.077	.052	-.102
Potential benefit	-.066	-.185	.246	.272	.303	.301	.293	-.073	.141	.021	.129	.033
Recommendation by others	.035	-.073	.068	.045	.000	.032	.114	-.010	.122	.219	.236	.128
Friends in the destination country	-.028	-.127	.083	.216	.191	.209	.275	-.118	.138	.110	.116	.062
Geographic issue	-.083	-.088	.147	.184	.284	.219	.324	-.099	.328	.152	.129	.115
Distance	-.081	-.101	.051	-.028	.162	.187	.154	.064	.190	.150	.041	.061

	Q1.6	Q1.7	Q2.24	Q2.5	Q2.14	Q2.15	Q2.20	Q2.21	Q1.2	Q2.23	Q2.25	Q2.26
Air condition												
Safety												
Political environment												
Reputation of the destination country												
Politic and economic relationships												
Tuition fee												
Living expense												
Currency												
Scholarship												
Domestic air condition												
Domestic universities requirements												
Domestic job opportunities												
Domestic courses												
Domestic education system												
Academic staff qualification												
Courses												
Range of courses												
Reputation of universities												
Uniqueness of universities												
Enrol requirements												
Student visa												
Third country visa												
Knowledge to destination country												
Experiencing western culture												
Immigration Intention	1.000											
Desire to understand "West"	-.002	1.000										
Ethical identity	.094	.049	1.000									
Future job opportunities	.089	.002	-.023	1.000								
Immigration opportunity	.128	.131	.165	.025	1.000							
Culture merge	.105	.000	.299	.164	.435	1.000						
Value of the degree	.144	-.021	.244	.079	.238	.272	1.000					
Potential benefit	.059	-.079	.243	.253	.142	.395	.399	1.000				
Recommendation by others	.062	.004	.106	-.126	.139	.100	.106	.064	1.000			
Friends in the destination country	.000	-.069	.260	.068	.069	.266	.140	.315	.130	1.000		
Geographic issue	.071	.175	.333	.054	.299	.369	.219	.278	.174	.260	1.000	
Distance	-.063	.160	.229	.034	.102	.138	.191	.109	.092	.196	.381	1.000

Secondly, the Barlett test of sphericity for the correlation matrix was used to assess the overall significance of the correlation matrix. A significance of this test indicates the adequacy of the magnitude of the correlations. For this set of data, the Barlett test of sphericity for the correlation matrix was $\chi^2 = 1809$ with the degrees of freedom (df) = 630 and a significance level of $p = 0.000$. This supported the observed large correlations of these indicators.

Next, a measure of sampling adequacy, the Kaiser-Meyer-Olkin (KMO) was used to test the adequacy of the statement relationships. The data were considered appropriate for factor analysis as the KMO 0.695 was greater than 0.6. In general, this set of data was sufficiently correlated to justify the application of factor analysis based on the results of three primary analyses including correlation analysis, the Bartlett test of sphericity for the correlation matrix and a test of sampling adequacy, 'the Kaiser-Meyer-Olkin'. After the correlation analysis the discussion now moves to the justification of the chosen rotation technique.

A factor analysis with a Varimax rotation technique was considered the most appropriate method for this analysis. This technique was chosen over an orthogonal technique since there was no strong evidence in either the literature or the previous studies to support the assumption that underlining factors would be completely uncorrelated. Latent Root Criterion technique was used to specify the number of factors to extract because this technique can provide reliable analytical results for a study researching a number of indicators between 20 and 50 (Srivastava et al. 1989). Only the factors having eigenvalues less than 1 were considered insignificant and were disregarded (Chong et al. 2009).

The number of extracted factors and the total variance explained by these extracted factors are shown in Table 6.7. The resulting factor model explained 38.624 % of the variance in the 36 items used in this research, and it captured 8 factors (with eigenvalues greater than 1) and the same as proposed in the Chapter1. These results signalled that some items might be multidimensional ones measuring more than one construct simultaneously.

To identify multi-dimensional items, all 36 items measuring 8 constructs were analysed simultaneously to examine whether each of them was uni-dimensional or a pure item and whether it captured the underlining characteristics of the construct. A scale can have any number of dimensions in it. Most scales that we develop have only a few dimensions. If we want to measure a construct, we have to decide whether the construct can be measured well with one number line or whether it may need more. The measures with factor loadings of 0.30 or greater on only one factor are taken to be uni-dimensional and those with high loadings on more than one factor are noted as being multidimensional (Engle & Nehrt 2011). Table 6.8 and table 6.9 present the corresponding factor loadings of these items, namely the pattern matrix and the factor correlation matrix respectively.

Table 6.7 Total variance explained by the extracted factors

Factor	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
1	5.593	15.537	15.537	5.027	13.964	13.964	3.150
2	2.760	7.666	23.202	2.211	6.141	20.105	2.266
3	2.273	6.314	29.516	1.677	4.659	24.764	1.708
4	1.890	5.249	34.765	1.321	3.670	28.434	1.587
5	1.682	4.672	39.437	1.066	2.961	31.395	1.493
6	1.536	4.267	43.704	.928	2.577	33.971	1.430
7	1.485	4.125	47.829	.909	2.525	36.496	1.382
8	1.316	3.656	51.485	.766	2.128	38.624	.889
9	.989	3.296	54.781				
10	.968	3.133	57.914				
11	.954	2.905	60.819				
12	.926	2.844	63.663				
13	.910	2.666	66.329				
14	.885	2.459	68.788				
15	.868	2.412	71.200				
16	.834	2.316	73.516				
17	.761	2.115	75.631				
18	.732	2.034	77.665				
19	.702	1.951	79.616				
20	.681	1.892	81.507				
21	.642	1.783	83.290				
22	.602	1.674	84.964				
23	.586	1.628	86.592				
24	.573	1.593	88.185				
25	.533	1.481	89.665				
26	.503	1.397	91.062				
27	.443	1.231	92.293				
28	.425	1.182	93.475				
29	.399	1.107	94.582				
30	.368	1.022	95.604				
31	.320	.889	96.493				
32	.288	.799	97.291				
33	.269	.748	98.039				
34	.258	.718	98.757				
35	.239	.663	99.420				
36	.209	.580	100.000				

Extraction Method: Principal Axis Factoring

Table 6.8 Pattern matrix for all 36 indicators measuring psychographic and normative influencing variables

Proposed item membership	Factors							
	1	2	3	4	5	6	7	8
Destination country factors								
Q2.6 Air quality	0.15	0.162	0.677	-0.028	-0.075	-0.314	0.112	0.181
Q2.7 Safety issue	-0.074	0.161	0.581	0.15	0.065	-0.172	0.156	0.148
Q2.8 Political environment	0.157	0.16	0.644	0.144	0.016	0.132	-0.186	-0.093
Q2.9 Reputation of the destination country	0.12	0.267	0.625	0.019	0.091	-0.063	0.127	-0.16
Q2.22 Politic and economic relationships	0.103	0.325	0.497	-0.041	0.054	-0.248	-0.034	-0.114
Finance concern								
Q2.1 Tuition fee	-0.015	0.153	0.113	0.73	0.084	-0.009	0.146	-0.045
Q2.2 Living expense	-0.026	0.036	0.104	0.743	0.039	-0.109	0.064	-0.007
Q2.4 Currency exchange rate	0.01	0.095	0.008	0.301	-0.184	-0.116	0.188	-0.029
Q2.12 Financial aid	0.155	0.174	0.016	0.441	-0.168	-0.112	0.039	0.214
Domestic factors								
Q1.3 Air quality	-0.188	-0.009	-0.079	0.183	0.031	0.592	0.178	0.204
Q1.4 Universities requirements	0.014	0.099	-0.008	0.11	-0.08	0.681	0.043	-0.135
Q1.8 Job opportunities	-0.027	-0.027	-0.012	-0.057	-0.022	0.554	0.105	-0.133
Q1.9 Courses diversity	-0.043	-0.122	-0.068	0.022	-0.153	0.519	0.019	0.025
Q1.10 Education system	-0.211	-0.153	0.052	-0.094	-0.119	0.302	0.255	0.018
University factors								
Q2.10 Academic staff qualification	0.253	0.328	0.33	0.058	0.021	0.177	-0.138	-0.126
Q2.11 Courses content	0.122	0.669	0.164	0.078	0.13	0.03	-0.053	0.071
Q2.13 Range of courses choice	0.283	0.554	0.078	0.053	0.067	-0.178	0.009	0.066
Q2.16 Reputation of universities	0.163	0.482	0.17	-0.001	0.091	0.15	-0.086	-0.011
Q2.19 Uniqueness of universities	0.359	0.461	0.085	-0.067	0.214	0.087	0.036	0.194
Requirements								
Q2.3 Enrol requirements	-0.105	-0.103	0.044	0.194	-0.355	-0.03	0.045	-0.108
Q2.17 The grant of student visa	0.305	0.015	-0.015	0.029	0.65	-0.309	0.133	-0.243
Q2.18 Visa possibility for Third country	0.073	0.059	-0.026	-0.013	0.541	-0.106	-0.061	-0.087
Students' personal factors								
Q1.1 Knowledge to destination country	0.149	0.02	0.054	-0.081	-0.035	-0.043	-0.054	0.535

Proposed item membership	Factors							
	1	2	3	4	5	6	7	8
Q1.5 Experiencing western culture	-0.024	0.111	0.044	0.119	0.444	0.004	-0.113	0.245
Q1.6 Immigration Intention	0.029	0.213	0.038	0.111	0.136	0.047	0.199	0.234
Q1.7 Desire to understand West	0.08	-0.104	0.131	0.193	0.049	-0.147	0.259	-0.064
Q2.24 Ethical identity	0.518	-0.008	0.05	-0.053	-0.08	-0.079	-0.003	0.188
Benefit factors								
Q2.5 Future job opportunities	0.1	0.272	0.238	0.155	-0.223	0.173	-0.092	-0.041
Q2.14 Immigration opportunity	0.365	0.048	0.23	0.217	0.301	0.079	0.115	0.099
Q2.15 Culture merge	0.536	0.187	0.233	0.158	0.248	0.128	-0.179	-0.018
Q2.20 Value of the degree	0.549	0.264	-0.045	-0.101	-0.111	0.102	0.18	-0.034
Q2.21 Potential benefit	0.524	0.3	-0.002	-0.098	-0.038	0.055	-0.194	-0.04
Other influencing factors								
Q1.2 Recommendation by others	0.158	-0.029	0.017	-0.103	0.261	0.022	0.04	0.219
Q2.23 Friends in the destination country	0.393	0.15	-0.011	-0.075	0.097	-0.038	-0.179	0.054
Q2.25 Geographic issue	0.582	0.044	0.055	0.113	0.208	-0.086	0.067	0.089
Q2.26 Distance	0.441	-0.133	-0.035	0.092	0.039	-0.229	0.053	0.069

Source: Analysis of survey data

Table 6.9 Factor correlation matrix

	1	2	3	4	5	6	7	8
1	1.000							
2	.119	1.000						
3	.035	.108	1.000					
4	-.024	.034	.060	1.000				
5	.092	.004	-.017	.037	1.000			
6	-.015	.008	-.040	-.017	-.078	1.000		
7	-.030	.013	-.013	.076	.002	-.004	1.000	
8	.020	.004	.044	-.018	-.060	-.003	.021	1.000

Source: Analysis of survey data

Overall, the results indicated that the measures for 8 constructs were uni-dimensional as proposed. These constructs included Destination country factors, Finance concern, Domestic factors, University factors, Requirements factors, Students' personal factors, Benefits factors and **Other influencing factors**. All items measuring each of these constructs had their highest factor loadings (≥ 0.30) on only one factor. The cross loadings of the measures of these constructs on other factors were very low.

However, the factor loadings of item Q1.6, Q1.2, Q1.7 and item Q2.5 were slightly below 0.30, indicating that these two items could only be marginally accepted as pure measures. The issue of uni-dimensionality of these items will be further assessed in the next section of factor analysis (section 6.5.2) and the analytical results will be addressed in the same section.

In addition, factor 1 was found to consist of not only all five items measuring Benefits factors, but also the other three items of Other influencing factors signalling that these two constructs might be insufficiently distinct. As Benefits factors and Other influencing factors might be related, it was decided to assess whether these two scales had limitations in terms of convergent and discriminant validity. The correlations between the items measuring these two constructs were analysed. Table 6.10 summarises the results of this correlation analysis.

Table 6.10 Correlation matrix of the measures of Benefits factors and Other influencing factors

Variables	Items	Q2.5	Q2.14	Q2.15	Q2.20	Q2.21	Q1.2	Q2.23	Q2.25	Q2.26
Future job opportunities	Q2.5	1.000	.024	.165	.078	.254	-.127	.064	.055	.032
Immigration opportunity	Q2.14	.024	1.000	.434	.239	.141	.140	.071	.298	.103
Culture merge	Q2.15	.165	.434	1.000	.270	.395	.099	.257	.370	.135
Value of the degree	Q2.20	.078	.239	.270	1.000	.397	.108	.145	.217	.193
Potential benefit	Q2.21	.254	.141	.395	.397	1.000	.063	.307	.279	.107
Recommendation by others	Q1.2	-.127	.140	.099	.108	.063	1.000	.135	.172	.095
Friends in the destination country	Q2.23	.064	.071	.257	.145	.307	.135	1.000	.251	.204
Geographic issue	Q2.25	.055	.298	.370	.217	.279	.172	.251	1.000	.377
Distance	Q2.26	.032	.103	.135	.193	.107	.095	.204	.377	1.000

Source: Analysis of survey data

The correlation matrix showed that the discriminant correlations were found to be higher than the convergent correlations of all the items measuring **Benefits factors** and **Other influencing factors**, suggesting that these items might not effectively measure the characteristic of innovativeness and in turn might be invalid. This limitation could reduce the internal validity of the findings of this research. Therefore, the research findings to these two constructs will be carefully interpreted and the limitation regarding the issues of validity will be noted.

In addition, the measures for **Students' personal factors** did not appear to be perfectly uni-dimensional. More specifically, two items (Q1.1 and Q1.5) could be viewed as uni-dimensional to factor 8. On the other hand, item Q2.24 was found to have the highest loading of 0.518 on factor 1. Moreover, item Q1.5 was found to have the highest loading of 0.444 on factor 5 and Q1.7 was found to have the highest loading of 0.259 on factor 7. This suggests that, as a whole, the measures for **Students' personal factors** might not be uni-dimensional.

In relation to the five items measuring **Benefits factors**, item Q2.5 (Future job opportunities) was found to uni-dimensional to factor 2, while the other four items (Q2.14, Q2.15, Q2.20 and Q2.21) had the highest loadings on the same factor (factor 1). Therefore, item Q2.5 was unlikely to measure effectively the meaning of this construct.

Similarly, item Q1.2 was found to have the highest loading on factor 5, while the other three items were uni-dimensional to factor 1. Therefore, item Q1.2 was unlikely to measure effectively the meaning of this construct. In the following section, we will carry out confirmatory factor analysis for each construct to determine the items that need to be deleted.

Lastly, the relationships between the extracted factors were analysed. The results from the factor correlation matrix (Table 6.9) illustrated that all factors appeared only slightly related, indicating that each factor was somewhat unique.

In brief, this section discussed how the measures were primarily explored to determine whether they were sufficiently valid and uni-dimensional using exploratory factor analysis with all 36 items inputted. The results indicated 5 out of 8 constructs as uni-dimensional, and these 5 constructs included **Destination country factors, Finance concern, Domestic factors, University factors and Requirements factors**. On the other hand, the scales of **Students' personal factors, Benefits factors and Other influencing factors** were found to be multi-dimensional. In particular, only one item in the scales of **Benefits factors** and **Other influencing factors** is uni-dimensional to another factor. Therefore, by deleting the item (which we will discuss in the next section), the **Benefits factors** and **Other influencing factors** can be considered as uni-dimensional.

In terms of the issue of validity, the scale of **Benefits factors** and **Other influencing factors** were found not to have convergent and discriminant validity. These qualities of this scale could adversely affect internal validity of the findings of this research, particularly in relation to the construct of **Benefits factors** and **Other influencing factors**. This limitation in terms of scale validity will be noted when interpreting the research findings particularly in relation to this construct.

After this initial factor analysis with all 36 items inputted simultaneously, confirmatory factor analysis will be conducted for each of these scales in order to have a closer assessment of the issues of dimensionality and reliability and to refine the measure. The results of this analysis are now discussed.

6.5.2 Confirmatory factor analysis for each construct

In this section, confirmatory factor analysis was conducted for each scale using the root one criterion in order to determine whether the items for each scale were uni-dimensional and reliable. The number of extracted factor was specified to be 1 for this analysis in order to determine the loadings of each item on the single extracted factor. Poor items were identified and then deleted to improve the measures. As all items were of importance to this research, item deletion was done very carefully. Poor items to be deleted included those with low factor loadings (lower than 0.30), and those found to have high cross-loadings on other extracted factors in the initial exploratory factor analysis (section 6.5.1). In addition, reliability was estimated for each scale using the value of Cronbach alpha and suggestions of improvement by Cronbach's alpha if an item deleted was used for identifying and deleting an unreliable item.

Confirmatory factor analysis began with the assessment on the overall significance of the correlation matrix and the adequacy of the statement relationships of each scale using two key correlation tests: the Bartlett test of sphericity for the correlation matrix and the test of Kaiser-Meyer-Olkin (KMO). Table 6.11 summarises the results of these tests.

Table 6.11 The results of Bartlett test of sphericity for the correlation matrix (BTS) and the test of Kaiser-Meyer-Olkin (KMO)

Scales	KMO	BTS		
		Chi-square	df	p value
Destination country factors	.729	150.666	10	.000
Finance concern	.591	106.402	6	.000
Domestic factors	.582	120.245	10	.000
University factors	.717	132.072	10	.000
Requirements	.487	44.351	3	.000
Students' personal factors	.500	24.051	10	.007
Benefit Factors	.637	133.336	10	.000
Other influencing factors	.622	51.295	6	.000

Source: Analysis of the survey data

From Table 6.11, the Bartlett tests of sphericity for the correlation matrix indicated a significant level of p for each of these scales ($p = 0.000$), suggesting the adequacy of the magnitude of the correlations of the items measuring each of these constructs. In addition, the KMO for all of these scales, excluding those of **Finance concern**, **Domestic factors**, **Requirements** and **Students' personal factors** were greater than 0.6, indicating sufficient relationships among the measures for each of these constructs. These scales were therefore considered appropriate for factor analysis. On the other hand, there might be insufficient relationships among the items of the four constructs with the KMO below 0.60, and the data in relation to these three constructs might not be suitable for factor analysis.

Based on the results of these tests, only items measuring **Finance concern**, **Domestic factors**, **Requirements factors** and **Students' personal factors** might be inappropriate to proceed with the confirmatory factor analysis. Having taken this limitation into account, the researcher continued to perform factor analysis for each of these constructs. The results of these analyses will be discussed next commencing with the **Destination country factors** scale and then proceeding to the **Finance concern**, **Domestic factors**, **University factors**, **Requirements factors**, **Students' personal factors**, **Benefits factors** and **Other influencing factors**.

Table 6.12 Summary of confirmatory factor analysis for destination country factors

Items	Factor loadings on extracted factor	Alpha if item deleted
Q2.6	.591	.567
Q2.7	.367	.612
Q2.8	.301	.623
Q2.9	.334	.613
Q2.22	.340	.673
Cronbach's Alpha = 0.669		

Source: Analysis of the survey data

The results showed good factor loading for all five items. This supported the initial factor analysis that indicated the **Destination country factors** scale was uni-dimensional. In addition, the resulting Cronbach alpha of 0.669 was greater than the desirable level of 0.6, indicating that these items were reliable. Moreover, it was found that deleting item Q2.22 only slightly improved the reliability from 0.669 to 0.673. Therefore, all the five items were considered to be good measures for **Destination country factors** and all were retained in the analysis.

Table 6.13 Summary of confirmatory factor analysis for finance concern

Items	Factor loadings on extracted factor	Alpha if item deleted
Q2.1	.609	.400
Q2.2	.541	.417
Q2.4	.391	.595
Q2.12	.368	.613
Cronbach's Alpha = 0.592		

Source: Analysis of the survey data

The results showed good factor loading for all four items. This supported the initial factor analysis that indicated the **Finance concern** scale was uni-dimensional. In addition, the resulting Cronbach alpha of 0.592 was only slightly smaller than the desirable level of 0.6, and it was found that deleting item Q2.12 or Q2.4 only slightly improved the reliability. Therefore, all the five items were considered to be good measures for **Finance concern** and all were retained in the analysis.

Table 6.14 Summary of confirmatory factor analysis for domestic factors

Items	Factor loadings on extracted factor	Alpha if item deleted
Q1.3	.380	.506
Q1.4	.730	.543
Q1.8	.314	.504
Q1.9	.466	.518
Q1.10	.340	.484
Cronbach's Alpha = 0.567		

Source: Analysis of the survey data

The results showed good factor loading for all four items. This supported the initial factor analysis that indicated the **Domestic factors** scale was uni-dimensional. In addition, the resulting Cronbach alpha of 0.567 was smaller than the desirable level of 0.6. However, deleting of any of these items did not help improve the reliability. Therefore, none of these items were deleted from the scale. The issue of reliability of this scale might distort the research findings in the relation to this construct and will be taken into account as a limitation of this measure and this research.

Table 6.15 Summary of confirmatory factor analysis for university factors

Items	Factor loadings on extracted factor	Alpha if item deleted
Q2.10	.380	.619
Q2.11	.379	.599
Q2.13	.305	.627
Q2.16	.316	.637
Q2.19	.345	.596
Cronbach's Alpha = 0.667		

Source: Analysis of the survey data

The results showed good factor loading for all five items. This supported the initial factor analysis that indicated the **University factors** scale was uni-dimensional. In addition, the resulting Cronbach alpha of 0.667 was greater than the desirable level of 0.6, indicating that these items were reliable. Moreover, deleting of any of these items did not help improve the reliability. Therefore, none of these items were deleted from the scale. Therefore, all the five items were considered to be good measures for **University factors** and all were retained in the analysis.

Table 6.16 Summary of confirmatory factor analysis for requirements

Items	Factor loadings on extracted factor	Alpha if item deleted
Q2.3	.134	.614
Q2.17	.512	.018
Q2.18	.476	.195
Cronbach's Alpha = 0.371		

Source: Analysis of the survey data

The results showed that Q2.3 was not uni-dimensional to this construct. Moreover, deleting this item can significantly improve the reliability of **Requirements** from 0.371 to 0.614. As a result, we decide to delete the item Q2.3 to improve the reliability.

Table 6.17 Summary of confirmatory factor analysis for Students' personal factors

Items	Factor loadings on extracted factor	Alpha if item deleted
Q1.1	.197	.212
Q1.5	.336	.169
Q1.6	.213	.087
Q1.7	.131	.309
Q2.24	.349	.203
Cronbach's Alpha = 0.241		

Source: Analysis of the survey data

The results showed that only two items were uni-dimensional to these construct Students' personal factors. Moreover, the reliability of this construct was quite below

the desirable value. Deleting item 1.1 and item 1.7 will significantly improve the reliability from 0.241 to 0.607. Therefore, we decide to delete items 1.1 and 1.7

Table 6.18 Summary of confirmatory factor analysis for benefits factors

Items	Factor loadings on extracted factor	Alpha if item deleted
Q2.5	.089	.653
Q2.14	.628	.602
Q2.15	.431	.496
Q2.20	.235	.569
Q2.21	.823	.536
Cronbach's Alpha = 0.628		

Source: Analysis of the survey data

The results showed good factor loading for four of these items, and the loading of item Q2.5 was smaller than 0.3. This supported the initial factor analysis that indicated the **Benefits factors** scale was uni-dimensional to the four items. In addition, deleting item Q2.5 can improve the reliability from 0.628 to 0.653. Therefore, we decide to delete item Q2.5. The summary of confirmatory factor analysis for benefit factors after deleting item Q2.5 is shown in Table 6.19.

Table 6.19 Summary of confirmatory factor analysis for benefits factors after deleting Q2.5

Items	Factor loadings on extracted factor	Alpha if item deleted
Q2.14	.375	.640
Q2.15	.532	.530
Q2.20	.456	.606
Q2.21	.325	.604
Cronbach's Alpha = 0.662		

Source: Analysis of the survey data

The results showed good factor loading for all four items. In addition, the alpha value is greater than 0.6. Therefore, the above four items remain for the construct **benefits factors**.

Table 6.20 Summary of confirmatory factor analysis for Other influencing factors

Items	Factor loadings on extracted factor	Alpha if item deleted
Q1.2	.271	.529
Q2.23	.337	.474
Q2.25	.513	.326
Q2.26	.462	.419
Cronbach's Alpha = 0.518		

Source: Analysis of the survey data

The results showed good factor loading for three of these items, and the loading of item Q1.2 was smaller than 0.3. This supported the initial factor analysis that indicated the **Other influencing factors** scale was uni-dimensional to three items. However, deleting Q1.2 will not significantly improve the reliability of this scale. Therefore, none of these items were deleted. This issue of reliability of this scale might distort the research, which will be taken into account as a limitation of this measure and this research.

6.5.3 Data reduction methods

In this section, purified data were reduced into an appropriate form for the regression analysis. This can be done by either using surrogate variables or creating a smaller set of variables (Wang 2003). A justification of the selection of the most appropriate data reduction technique is now given.

Surrogate variables could be developed by selection the item with the highest factor loading on each factor and use it as a surrogate variable that is representative of that factor. However, this technique was considered inappropriate for this research since, for some constructs, such as Finance concern and University factors, factor loadings of the first alternative item were not substantially higher than that of the second one. Therefore, a selection of the surrogate variable for these constructs might not be easily done. More importantly, this data reduction technique relies on single items that may not well represent each of the extracted factors. It also ignores the issue of measurement error possibly existing when using single items. This in turn could result in misleading analytical results.

Alternatively, purified data can be combined into a smaller set of variables developed from factor scores or summated scales (Swaid & Wigand 2009). To create summated scales, all of the items loading highly on a factor need to be combined, and the average score of these items is computed and used as a replacement variable. However, a disadvantage of summated scale is that this technique uses only the items with high loadings on the factor and excludes those having low loadings (Swaid & Wigand 2009). As all remaining purified items were considered important and needing to be retained in the regression analysis, the summated scale approach was therefore considered inappropriate to be used for aggregating the purified data in this research.

Thus purified data were combined using factor scores through principle components analysis. Factor scores use all items relevant to each of the extracted factors to compute

a composite measure for that factor. Thus, the items with the higher loadings on an extracted factor will have a higher factor score (Distefano et al. 2009).

Rather than using common factor analysis, principle components analysis was performed to compute factor scores because the goal of this analysis is to summarise the purified data and not to detect the structure of the variables (Suhr 2003). This factor analysis technique enables the researcher to transform a number of correlated variables found in the previous factor analysis into a set of uncorrelated variables by taking into account total variances, which include common, specific and error variances. This data transformation in turn enables the researcher to generate the minimum number of factors needed to account for the maximum portion of the variance represented in the original set of variables (Suhr 2003).

Factor scores were computed for each of the purified items using principles component analysis. Table 6.21 summarises the results of this analysis. Purified data were then aggregated based on these resulting factor scores. The aggregated data will be used as the input for the next section of the regression analysis.

Table 6.21 Summary of factor scores using principle component analysis

Constructs	Extraction
Destination country factors	
Q2.6 Air condition	.722
Q2.7 Safety issue	.705
Q2.8 Political environment	.664
Q2.9 Reputation of the destination country	.723
Q2.22 Politic and economic relationships	.600
Finance concern	
Q2.1 Tuition fee	.734
Q2.2 Living expense	.728
Q2.4 Currency	.625
Q2.12 Scholarship	.716
Domestic factors	
Q1.3 Air condition	.644
Q1.4 Universities requirements	.753
Q1.8 Job opportunities	.600
Q1.9 Courses	.632
Q1.10 Education system	.561
University factors	
Q2.10 Academic staff qualification	.623
Q2.11 Courses	.637
Q2.13 Range of courses	.579
Q2.16 Reputation of universities	.495
Q2.19 Uniqueness of universities	.526
Requirements	
Q2.3 Enrol requirements	.691
Q2.17 Student visa	.698
Q2.18 Third country visa	.634

Constructs	Extraction
Students' personal factors	
Q1.1 Knowledge of destination country	.674
Q1.5 Experiencing western culture	.580
Q1.6 Immigration intention	.652
Q1.7 Desire to understand "West"	.483
Q2.24 Ethical identity	.576
Benefits factors	
Q2.5 Future job opportunities	.636
Q2.14 Immigration opportunity	.614
Q2.15 Culture integration	.675
Q2.20 Value of the degree	.625
Q2.21 Potential benefit	.608
Other influencing factors	
Q1.2 Recommendation by others	.634
Q2.23 Friends in the destination country	.626
Q2.25 Geographic issue	.576
Q2.26 Distance	.670

Extraction Method: Principal Component Analysis

6.6 Hypothesis testing and assumptions of regression models

Once the data have been purified and aggregated, the proposed hypotheses can be tested. This section begins with the discussion regarding key assumptions of the regression models that need to be tested (section 6.6.1). Then the results of the tests of the proposed hypotheses and the tests of the assumptions of regression models will follow in section 6.6.2

6.6.1 Key assumptions of the regression models

There are five key assumptions inherent in the regression models in this analysis and these include linearity, homoscedasticity, normality, multi-collinearity and independence of the error terms (Hair et al. 1998). However, the assumption regarding independence of the error terms was not tested in this thesis because this research did not use time series data or sequencing variables.

The assumptions of regression models were tested since findings from this research using a number of variables could be biased when these assumptions were violated (Hair et al. 1998). In particular, nonlinearity exists when correlations between the independent and the dependent variables are not linear. This violation can impact the actual strength of the relationship found between these variables (Hair et al. 1998).

The assumption of homoscedasticity is violated when the variance of the dependent variable being explained in the dependence relationship concentrates in only a limited range of the independent values. This violation not only causes the predictions to be more effective at some levels of the independent variable than at others, but also makes hypothesis tests either too conservative or too sensitive (Hair et al. 1998).

Nonnormality occurs when the shape of the data distribution for the variables varies considerably from the normal distribution. This violation may result in achieving invalid statistical results (Hair et al. 1998). Multicollinearity becomes the issue when the independent variables highly correlate with each other. High degrees of multicollinearity can result in both regression coefficients being inaccurately estimated and difficulties in separating the influence of the individual variables on the dependent variables (Hair et al. 1998).

After estimating the regression equations for each of the proposed hypotheses, the model assumptions previously discussed were assessed in this study. These assumptions can be examined by using graphical tools (such as scatter plots or residual plots) and/or statistical analyses. As violations of assumptions can often be detected through the use of graphical techniques, in particular the residual plots, without the use of statistical tests and as residual plots are better than scatter plots in detecting small variations, particularly in relation to linearity (Dielman 2001), the researcher therefore decided to use residual plots for testing linearity and homoscedasticity. Standard residuals were used in order to make residuals randomly distributed around their mean of zero (Hair et al. 1998). In addition, normality was tested using normal probability plots. Normality is achieved when the graphs illustrated no tremendous departure from the diagonal line (Hair et al. 1998).

In addition, tolerance values and values of variance inflation factor (VIF) were used to examine multicollinearity (Dielman 2001; Hair et al. 1998). Any variables with a tolerance value below 0.10 or with a value above 10.0 of VIF would have a correlation of more than 0.90 with another variable, indicative of the multicollinearity problem (Hair et al. 1998). Standardised residual plots, normal probability plots and calculations of tolerance values and VIF were performed for each of the proposed hypotheses to assess whether the data violated the assumptions of the regression models. The results of these tests will be reported along with the results of the hypothesis testing, which are now discussed.

6.6.2 Results of the tests of the proposed hypotheses

The entire hypothesis proposed in Chapter 1 will be tested in this section. The regressions were conducted over the full sample for each hypothesis, including those proposing to test the influence of *demographic variables* on the *psychographic variables* (H1-H3), those proposing to test the influence of the *psychographic variables* on the **Intention to study in Australia, America, Canada and Great Britain** (H4A-H4H). The results of the regression equations are reported along with the results of the test of multicollinearity in Table 6.22, Table 6.23 and Table 6.24 respectively. For hypotheses that have more than one independent variable, correlation analysis will be used to present an overall picture of the correlations between the independent variables. The discussion now turns to the results of the hypothesis testing commencing with those proposing to test the influence of *demographic* on *psychographic influencing variables*.

Table 6.22 Multiple regression analyses for hypothesis proposing the influence of demographic variables on psychographic and normative influencing variables

Hypothesis	Unstandardis ed Coefficients		Standardis ed Coefficient s				
	B	Std. Error	Beta	t	Sig.	Tolerance	VIF
H1 Dependent variables: Other influencing factors Adjusted R square -0.008 F 0.319 Signif F 0.728 <i>Independent variables</i> Gender	-.083	.125	-.051	-.664	.507	.953	1.049
Age	-.030	.105	-.022	-.289	.773	.953	1.049
H2 Dependent variables: Finance concern Adjusted R square -0.009 F 0.235 Signif F 0.791 <i>Independent variables</i> Expected cost	.023	.084	.021	.273	.785	.992	1.008
Age	.069	.115	.046	.602	.548	.992	1.008
H3 Dependent variables: Benefits factors Adjusted R square -0.006 F 0.005 Signif F 0.942 <i>Independent variables</i> Age	.009	.116	.006	.073	.942	1.000	1.000

Source: developed for this research

6.6.2a Test the influence of demographic variables on the psychographic variables

H1A: Female students consider Other influencing factors more than male students.

H1B: Age will negatively influence Other influencing factors

Correlation analysis was performed for this hypothesis to explore the relationship between these two demographic variables and **Other influencing factors**. Table 6.23 summarises the results. It indicates neither **Gender** nor **Age** is strongly related with **Other influencing factors**. The correlation matrix also signals the significant relationship between *demographic variables*, which has not been indicated in the literature. **Gender** was found to be positively related with **Age** ($r = 0.247$, $p < 0.01$). In our research, the male students are older than female students in general.

The intercorrelation was checked statistically to determine whether they violated the assumption of multicollinearity using tolerance values and values of variance inflation factor (VIF). As summarised in Table 6.22, the resulting tolerance value is not below 0.10 and the VIF value is not above 10.0. These results indicate no violation of this assumption. The regression analysis was performed and it yielded results consistent with that indicated by the correlation analysis. That is, **Gender** and **Age** were not found to significantly influence **Other influencing factors**.

Table 6.23 Correlation matrix (Gender, Age, and Other influencing factors)

Variables	Other influencing factors	Gender	Age
Other influencing factors	1.000		
Gender	-.056	1.000	
Age	-.033	.247**	1.000

* $p < 0.05$, ** $p < 0.01$

Source: Analysis of the survey data

H2A: Expected cost has a big influence on Chinese students' finance concern which affects their decision to study abroad.

H2B: Age has less influence on Chinese students' finance concern which affects their decision to study abroad.

Correlation analysis was performed for this hypothesis to explore the relationship between these two demographic variables and **Finance concern**, and the results are summarised in Table 6.24. It indicates neither **Expected cost** nor **Age** is strongly related with **Finance concern** which affects their decision to study abroad.

The intercorrelation was checked statistically to determine whether they violated the assumption of multicollinearity using tolerance values and values of variance inflation factor (VIF). As summarised in Table 6.22, the resulting tolerance value is not below 0.10 and the VIF value is not above 10.0. These results indicate no violation of this assumption.

The regression analysis was performed and it yielded results consistent with that indicated by the correlation analysis. That is, **Expected cost** and **Age** were not found to significantly influence **Finance concern**.

Table 6.24 Correlation matrix (Age, Expected cost and Finance concern)

Variables	Finance concern	Age	Expected Cost
Finance concern	1.000		
Age	-.048	1.000	
Expected Cost	-.025	.108	1.000

*p<0.05, **p<0.01

Source: Analysis of the survey data

H3: Age will negatively influence Benefits factors

The regression analysis from Table 6.22 indicates no significant difference in **Benefits factors** between different age groups. The values of tolerance and VIF from Table 6.22 do not indicate any serious violations. The hypothesis was thus rejected. **Age** is not a key factor that influences **Benefits factors**.

In brief, all hypotheses stating the influence of *demographic variables* on the *psychographic variables* were tested in this section. All our previous hypotheses were rejected.

6.6.2b Test the influence of psychographic influencing variables on the variables of intentions of study in Australia, America, Canada and Great Britain

Australia

Correlation analysis was performed first to explore the relationship between all of the investigated psychographic variables and the single dependent variable (**Intention to study in Australia**).

Table 6.25 Summary of hypotheses of the effect of psychographic variables on the intention to study in Australia

Hypothesis	Expected relationships
H4	A: Destination country factors will positively influence the intention to study in Australia
	B: Finance concern will positively influence the intention to study in Australia
	C: Domestic factors will positively influence the intention to study in Australia
	D: University factors will positively influence the intention to study in Australia
	E: Requirements will positively influence the intention to study in Australia
	F: Students' personal factors will positively influence the intention to study in Australia
	G: Benefits factors will positively influence the intention to study in Australia
	H: Other influencing factors will positively influence the intention to study in Australia

Source: Designed for this research

Table 6.26 shows the results of the correlation analysis indicating most of variables were not correlated. Only four of these variables are correlated, that is **University factors** and **Intention to study in Australia** ($r = 0.324$, $p < 0.01$), **Benefit factors** and **Intention to study in Australia** ($r = 0.333$, $p < 0.01$), **Other influencing factors** and **Intention to study in Australia** ($r = 0.328$, $p < 0.01$) and **Other influencing factors** with **Benefit factors** ($r = 0.745$, $p < 0.01$).

Moreover, only four of these eight psychographic influencing variables were related to the Intention to study in Australia. These are **Destination country factors**, **University factors**, **Benefit factors** and **Other influencing factors**. The other four variables (**Requirements factors**, **Finance factors**, **Domestic factors** and **Students' personal factors**) were found to be not significantly related to the study in Australia.

Table 6.27 provides the regression results. From all the investigated *Psychographic influencing variables*, only four variables were seen to significantly influence *Intention to study in Australia*. They are **Destination country factors**, **University factors**, **Benefit factors** and **Other influencing factors**. This result is consistent with the findings in the correlation matrix.

Among these variables, **University factors**, **Destination country factors**, **Benefit factors** and **Other influencing factors** were found to have a strong positive influence on the Intention to study in Australia, with the corresponding Beta factors of 0.286, 0.167, 0.115 and 0.240, all with $p < 0.01$. The other four variables, **Finance factors**, **Requirements factors**, **Domestic Factors** and **Students' personal factors** were not found to have a significant influence on the intention to study in Australia, and these do not support the relevant propositions.

The tolerance values and values of variance inflation factor (VIF) were calculated to determine whether they violated the assumption of multicollinearity. As summarised in Table 6.27, the resulting tolerance value is not below 0.10 and the VIF value is not above 10.0. These results indicate no violation of this assumption.

In brief, all hypotheses stating the influence of *psychographic influencing variables* on the **intention to study in Australia** were tested in this section. Table 6.28 summarises which hypothesis was accepted or rejected. Based on these findings, Figure 6.2 illustrates the model depicting the influence of *psychographic influencing variables* on **intention to study in Australia**. This model shows the significant *psychographic influencing variables* and their relationship with the dependent variable. Beta weights are given to indicate the degree of the association between these variables. In addition, Figure 6.3 illustrates the correlations between the *psychographic influencing variables* in order to show the degree of intercorrelations of these antecedent variables.

Table 6.28 Summary of the results of hypotheses of the effect of psychographic variables on the intention to study in Australia

Hypothesis	Expected relationships	Accepted or Rejected
H4	A: Destination country factors will positively influence the intention to study in Australia	Accepted
	B: Finance concern will positively influence the intention to study in Australia	Rejected
	C: Domestic factors will positively influence the intention to study in Australia	Rejected
	D: University factors will positively influence the intention to study in Australia	Accepted
	E: Requirements will positively influence the intention to study in Australia	Rejected
	F: Students' personal factors will positively influence the intention to study in Australia	Rejected
	G: Benefits factors will positively influence the intention to study in Australia	Accepted
	H: Other influencing factors will positively influence the intention to study in Australia	Accepted

Source: Designed for this research

Table 6.26 Correlation matrix all 8 psychographic influencing variables and intention to study in Australia

Variables	Intention to study in Australia	Destination country factors	Finance concern	Domestic factors	University factors	Requirements	Students' personal factors	Benefit factors	Other influencing factors
Intention to study in Australia	1								
Destination country factors	.212**	1							
Finance concern	-.010	.060	1						
Domestic factors	-.049	-.040	-.017	1					
University factors	.324**	.108	.034	.008	1				
Requirements	.040	-.017	.037	-.078	.004	1			
Students' personal factors	.135	.068	.120	.031	.249**	.279**	1		
Benefit factors	.333**	.035	-.024	-.015	.119	.092	.116	1	
Other influencing factors	.328**	.032	.093	-.170*	.018	.256**	.151*	.745**	1

*p<0.05, **p<0.01

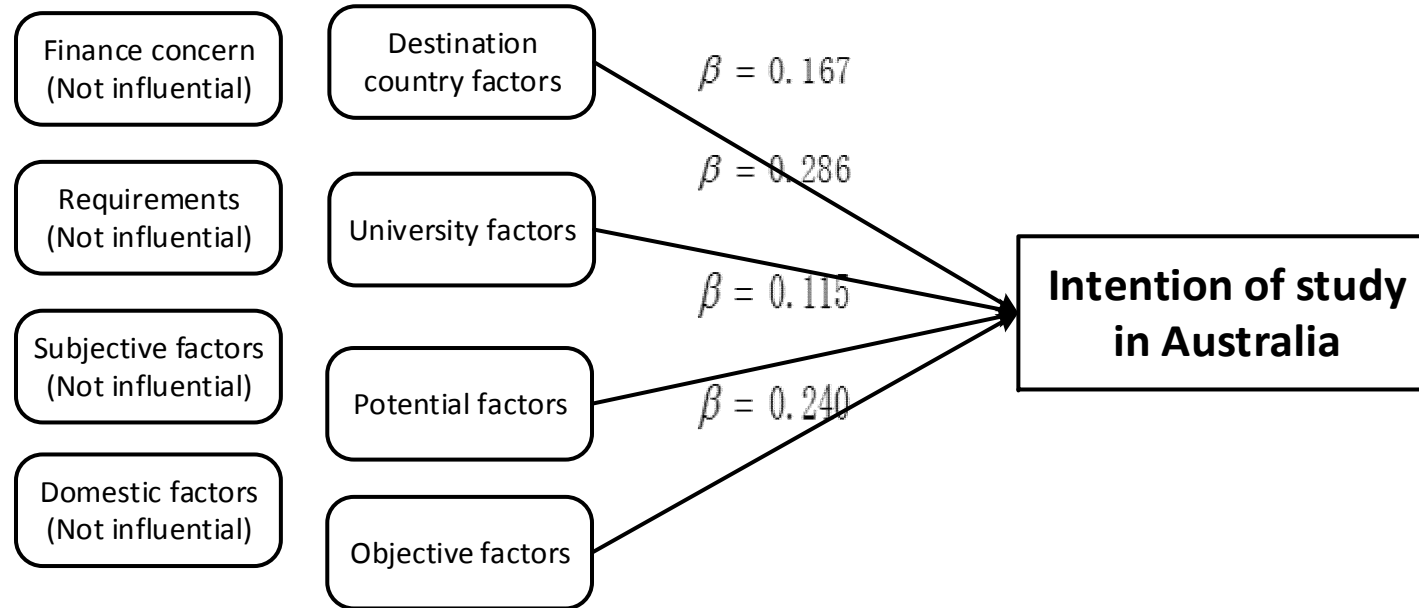
Source: Analysis of the survey data

Table 6.27 Multiple regression analyses for hypothesis proposing the influence of *demographic variables* on *psychographic* and *normative influencing variables*

Hypothesis							
	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Tolerance	VIF
	B	Std. Error	Beta				
<i>Dependent variable:</i> Intention to study in Australia							
Adjusted R square	0.210						
F	6.885						
Signif F	0.000						
<i>Independent variables</i>							
Destination country factors	.215	.088	.167	2.452	.015	.965	1.036
Finance concern	-.072	.087	-.057	-.835	.405	.955	1.047
Domestic factors	-.024	.095	-.018	-.254	.800	.941	1.063
University factors	.366	.090	.286	4.065	.000	.900	1.112
Requirements	-.029	.095	-.022	-.301	.764	.846	1.183
Students' personal factors	.015	.116	.009	.127	.899	.833	1.201
Benefit factors	.143	.132	.115	1.077	.283	.393	2.542
Other influencing factors	.339	.156	.240	2.176	.031	.368	2.717

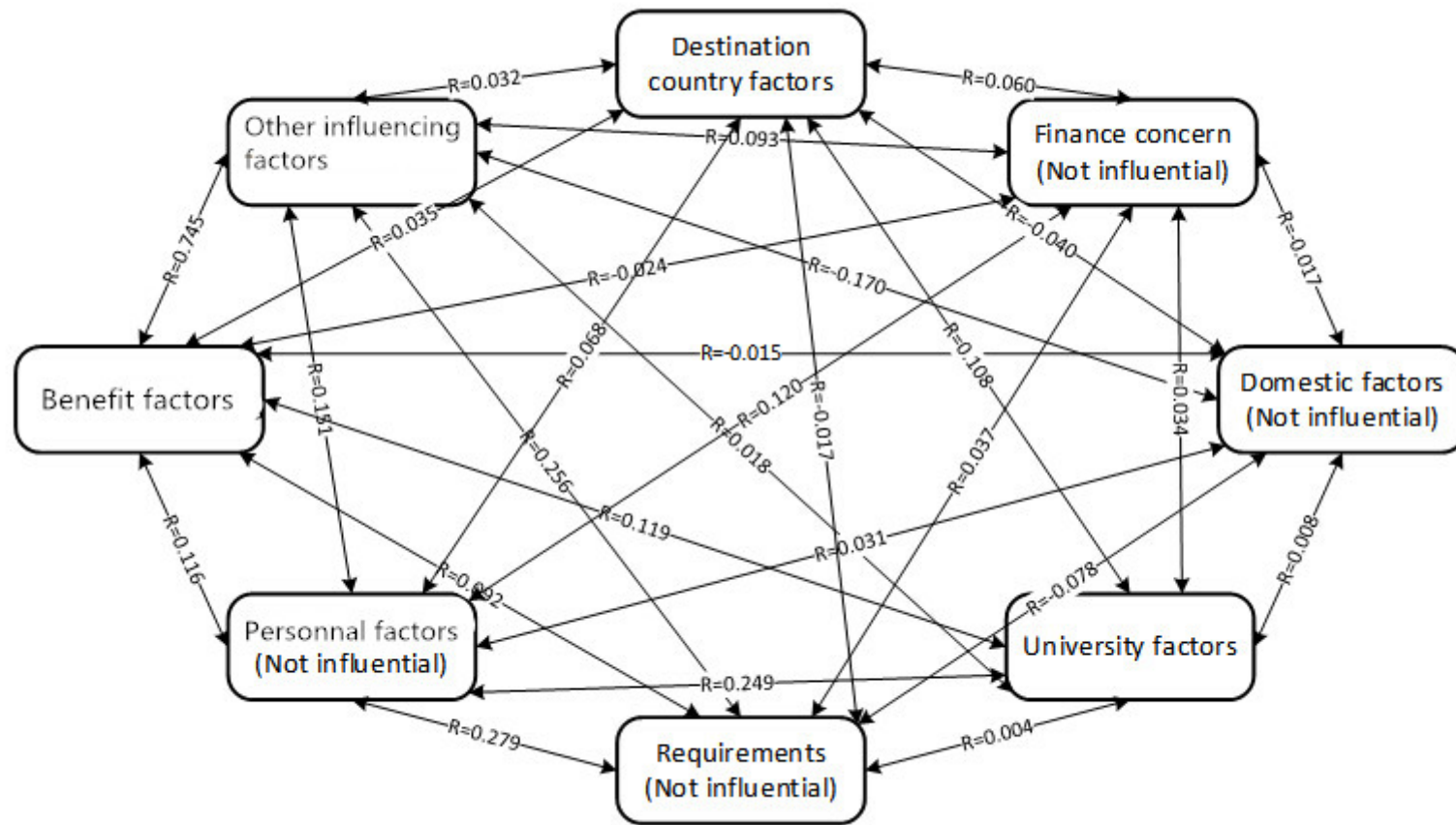
Source: Analysis of the survey data

Figure 6.2 Model depicting the influence of *psychographic influencing factors* on intention to study in Australia



Source: Analysis of the survey data

Figure 6.3 Intercorrelations of psychographic influencing variables



Source: Analysis of the survey data

America

Correlation analysis was performed to explore the relationship between all of the investigated psychographic variables and the single dependent variable (**Intention to study in America**).

Table 6.29 Summary of hypotheses of the effect of psychographic variables on the intention to study in America

Hypothesis	Expected relationships
H4	A: Destination country factors will positively influence the intention to study in America
	B: Finance concern will positively influence the intention to study in America
	C: Domestic factors will positively influence the intention to study in America
	D: University factors will positively influence the intention to study in America
	E: Requirements will positively influence the intention to study in America
	F: Students' personal factors will positively influence the intention to study in America
	G: Benefits factors will positively influence the intention to study in America
	H: Other influencing factors will positively influence the intention to study in America

Source: Analysis of the survey data

Shown in Table 6.30 are the results of the correlation analysis indicating seven of these variables are correlated, that is **University factors** and **Intention to study in America** ($r = 0.411$, $p < 0.01$), **Benefit factors** and **Intention to study in America** ($r = 0.441$, $p < 0.01$), **Other influencing factors** and **Intention to study in America** ($r = 0.354$, $p < 0.01$), **Destination Country factors** and **Intention to study in America** ($r = 0.451$, $p < 0.01$), **Potential factor** and **Destination country factors** ($r = 0.402$, $p < 0.01$), **University factor** and **Potential factor** ($r = 0.387$, $p < 0.01$) and **Objective factor with Potential factor** ($r = 0.359$, $p < 0.01$).

Moreover, only four of these eight psychographic influencing variables were related to the Intention to study in America. These are **Destination country factors**, **University factors**, **Benefit factors** and **Other influencing factors**. The other four variables **Requirements factors**, **Finance factors**, **Domestic factors** and **Students' personal factors** were found not significantly related to the study in America.

Table 6.31 provides the regression results. From all the investigated *Psychographic influencing variables*, only four variables were seen to significantly influence *Intention to study in America*. They include **Destination country factors**, **University factors**, **Benefit factors** and **Other influencing factors**. This result is consistent with the findings in the correlation matrix.

Among these variables, **Destination country factors**, **Domestic factors**, **University factors** and **Other influencing factors** were found to have a strong positive influence on the Intention to study in America, with the corresponding Beta factors of 0.553,

0.151, 0.474 and 0.466, all with $p < 0.01$. The other four variables, **Finance factors**, **Requirements factors**, **Domestic Factors** and **Students' personal factors** were not found to have a significant influence on the intention to study in America, and these variables do not support the relevant propositions.

The tolerance values and values of variance inflation factor (VIF) were calculated to determine whether they violated the assumption of multicollinearity. As summarised in Table 6.31, the resulting tolerance value is not below 0.10 and the VIF value is not above 10.0. These results indicate no violation of this assumption.

In brief, all hypotheses stating the influence of *psychographic influencing variables* on the **intention to study in America** were tested in this section. Table 6.32 summarises which hypothesis was accepted or rejected.

Table 6.32 Summary of the results of hypotheses of the effect of psychographic variables on the intention to study in America

Hypothesis	Expected relationships	Accepted or Rejected
H4	A: Destination country factors will positively influence the intention to study in America	Accepted
	B: Finance concern will positively influence the intention to study in America	Rejected
	C: Domestic factors will positively influence the intention to study in America	Accepted
	D: University factors will positively influence the intention to study in America	Accepted
	E: Requirements will positively influence the intention to study in America	Rejected
	F: Students' personal factors will positively influence the intention to study in America	Rejected
	G: Benefits factors will positively influence the intention to study in America	Rejected
	H: Other influencing factors will positively influence the intention to study in America	Accepted

Source: Analysis of the survey data

Based on these findings, Figure 6.4 illustrates the model depicting the influence of *psychographic influencing variables* on **intention to study in America**. This model shows the significant *psychographic influencing variables* and their relationship with the dependent variable. Beta weights are given to indicate the degree of the association between these variables. In addition, Figure 6.5 illustrates the correlations between the *psychographic influencing variables* in order to show the degree of intercorrelations of these antecedent variables.

Table 6.30 Correlation matrix of all 8 psychographic influencing variables and intention to study in America

Variables	Intention to study in USA	Destination country factors	Finance concern	Domestic factors	University factors	Requirements	Students' personal factors	Benefit factors	Other influencing factors
Intention to study in USA	1								
Destination country factors	.451**	1							
Finance concern	.068	.002	1						
Domestic factors	.098	.019	-.011	1					
University factors	.411**	.061	.000	.010	1				
Requirements	-.067	-.059	.026	.023	-.016	1			
Students' personal factors	-.061	-.013	.021	-.004	.023	-.068	1		
Benefit factors	.441**	.420**	-.073	-.049	.387**	-.208**	.007	1	
Other influencing factors	.354**	.066	-.026	-.071	.050	.015	-.006	.359	1

*p<0.05, **p<0.01

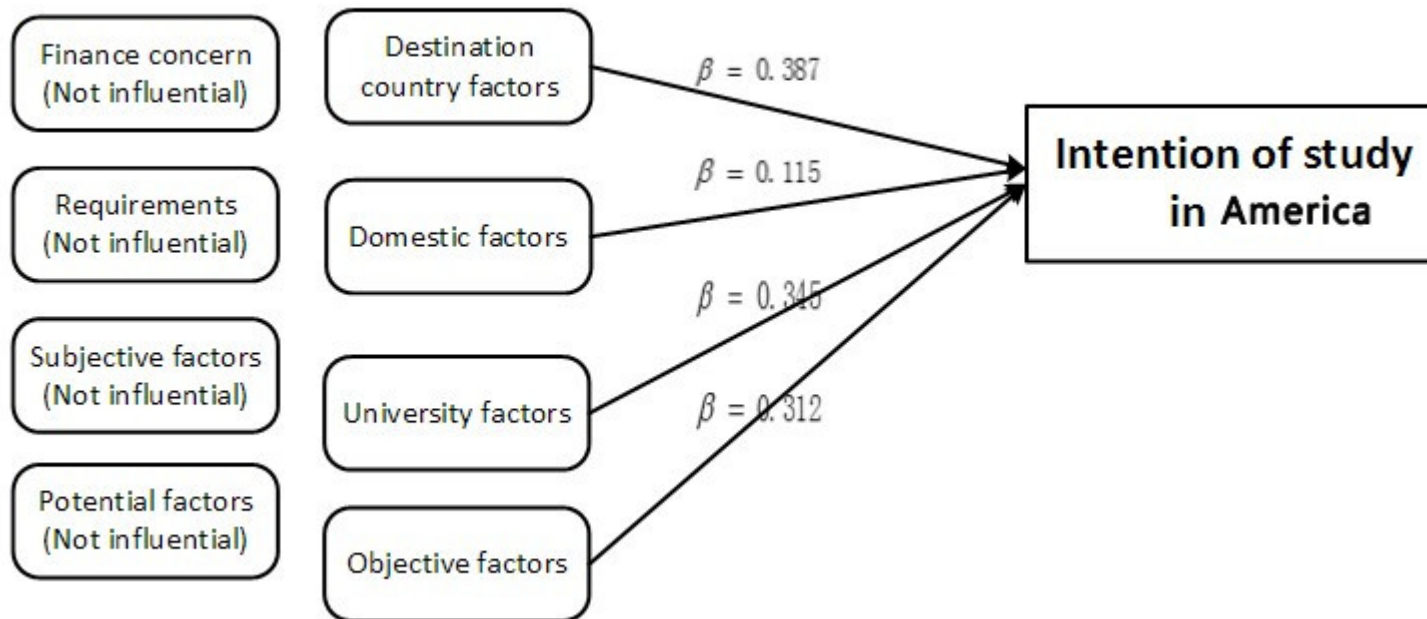
Source: Analysis of the survey data

Table 6.31 Multiple regression analyses for hypothesis proposing the influence of *demographic variables* on *psychographic* and *normative influencing variables*

Hypothesis							
	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Tolerance	VIF
	B	Std. Error	Beta				
<i>Dependent variable:</i> Intention to study in USA							
Adjusted R square	0.442						
F	18.410						
Signif F	0.000						
<i>Independent variables</i>							
Destination country factors	0.553	0.09	0.387	6.166	0	0.804	1.243
Finance concern	0.092	0.069	0.075	1.33	0.185	0.992	1.008
Domestic factors	0.151	0.075	0.115	2.022	0.045	0.989	1.011
University factors	0.474	0.085	0.345	5.541	0	0.816	1.225
Requirements	-0.051	0.088	-0.034	-0.58	0.562	0.935	1.069
Students' personal factors	-0.072	0.079	-0.051	-0.911	0.364	0.993	1.007
Benefit factors	0.062	0.115	0.041	0.545	0.587	0.561	1.781
Other influencing factors	0.466	0.092	0.312	5.072	0	0.838	1.193

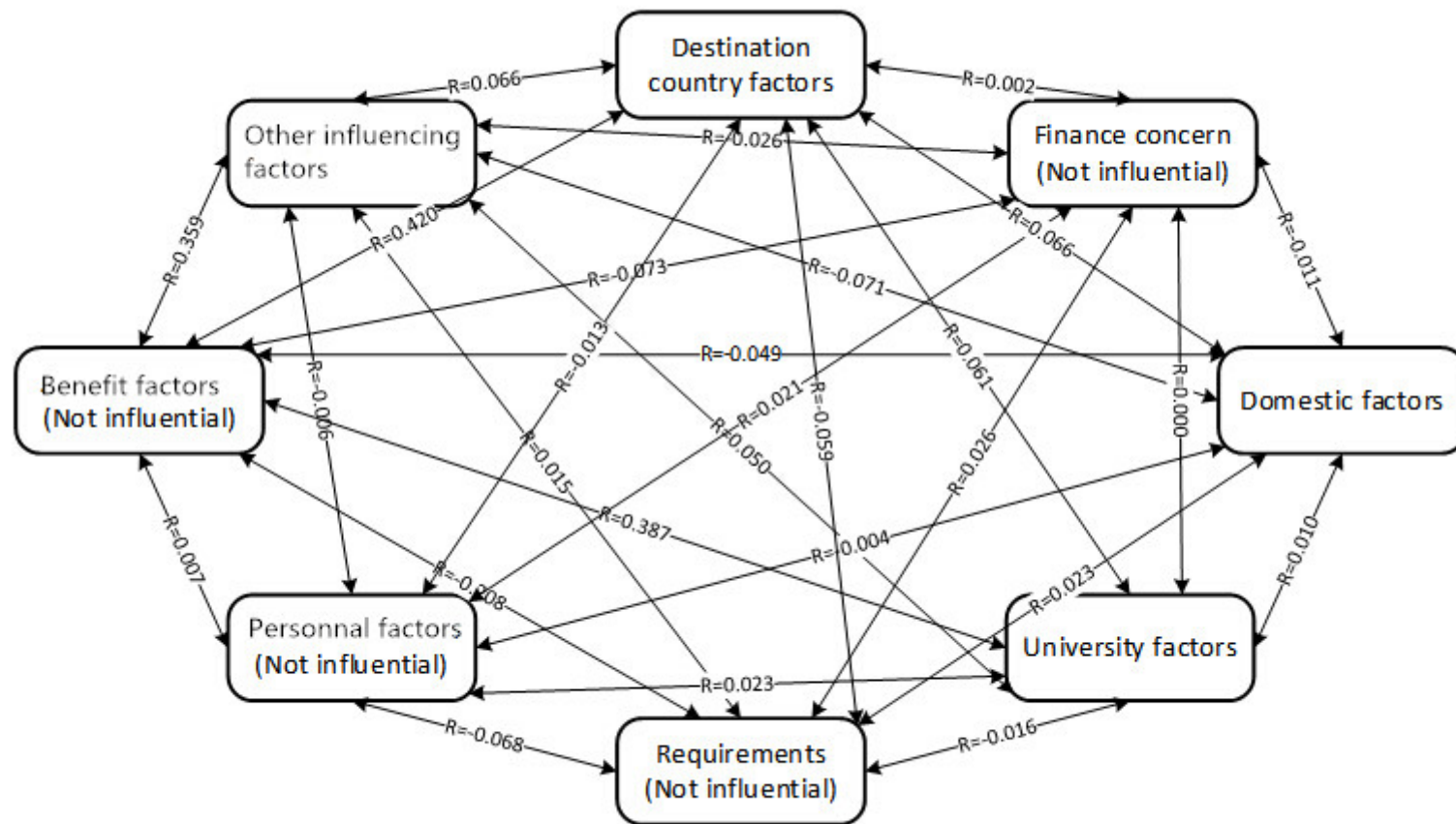
Source: Analysis of the survey data

Figure 6.4 Model depicting the influence of *psychographic influencing factors* on intention to study in America



Source: Analysis of the survey data

Figure 6.5 Intercorrelations of psychographic influencing variables



Source: Analysis of the survey data

Canada

6.6.2b The influence of psychographic influencing variables on the variables of intentions to study in Canada

Correlation analysis was performed to explore the relationship between all of the investigated psychographic variables and the single dependent variable **Intention to study in Canada**.

Table 6.33 Summary of hypotheses of the effect of psychographic variables on the intention to study in Canada

Hypothesis	Expected relationships
H4	A: Destination country factors will positively influence the intention to study in Canada
	B: Finance concern will positively influence the intention to study in Canada
	C: Domestic factors will positively influence the intention to study in Canada
	D: University factors will positively influence the intention to study in Canada
	E: Requirements will positively influence the intention to study in Canada
	F: Students' personal factors will positively influence the intention to study in Canada
	G: Benefits factors will positively influence the intention to study in Canada
	H: Other influencing factors will positively influence the intention to study in Canada

Source: Analysis of the survey data

Table 6.34 provides the regression results from all the investigated *Psychographic influencing variables*. Five variables significantly influence *intention to study in Canada*. They include **Destination country factors**, **Domestic factors**, **University factors**, **Benefit factors** and **Requirement factors**. Among these variables, **Benefit factors** and **Requirement factors** have a strong positive influence on the Intention to study in Canada with the corresponding Beta factors of 0.341 and 0.222, both with $p < 0.01$. The other variables, **Finance factors**, **Other influencing factors** and **Students' personal factors** did not have a significant influence on the intention to study in Canada, and these do not support the relevant propositions.

The tolerance values and values of variance inflation factor (VIF) were calculated to determine whether they violated the assumption of multicollinearity. As summarised in Table 6.28, the resulting tolerance value is not below 0.10 and the VIF value is not above 10.0. These results indicate no violation of this assumption.

In brief, all hypotheses stating the influence of *psychographic influencing variables* on the **intention to study in Canada** were tested in this section. Table 6.35 summarises which hypotheses were accepted or rejected.

Table 6.35 Summary of the results of hypotheses of the effect of psychographic variables on the intention to study in Canada

Hypothesis	Expected relationships	Accepted or Rejected
H4	A: Destination country factors will positively influence the intention to study in Canada	Accepted
	B: Finance concern will positively influence the intention to study in Canada	Rejected
	C: Domestic factors will positively influence the intention to study in Canada	Accepted
	D: University factors will positively influence the intention to study in Canada	Accepted
	E: Requirements will positively influence the intention to study in Canada	Accepted
	F: Students' personal factors will positively influence the intention to study in Canada	Rejected
	G: Benefits factors will positively influence the intention to study in Canada	Accepted
	H: Other influencing factors will positively influence the intention to study in Canada	Rejected

Source: Analysis of the survey data

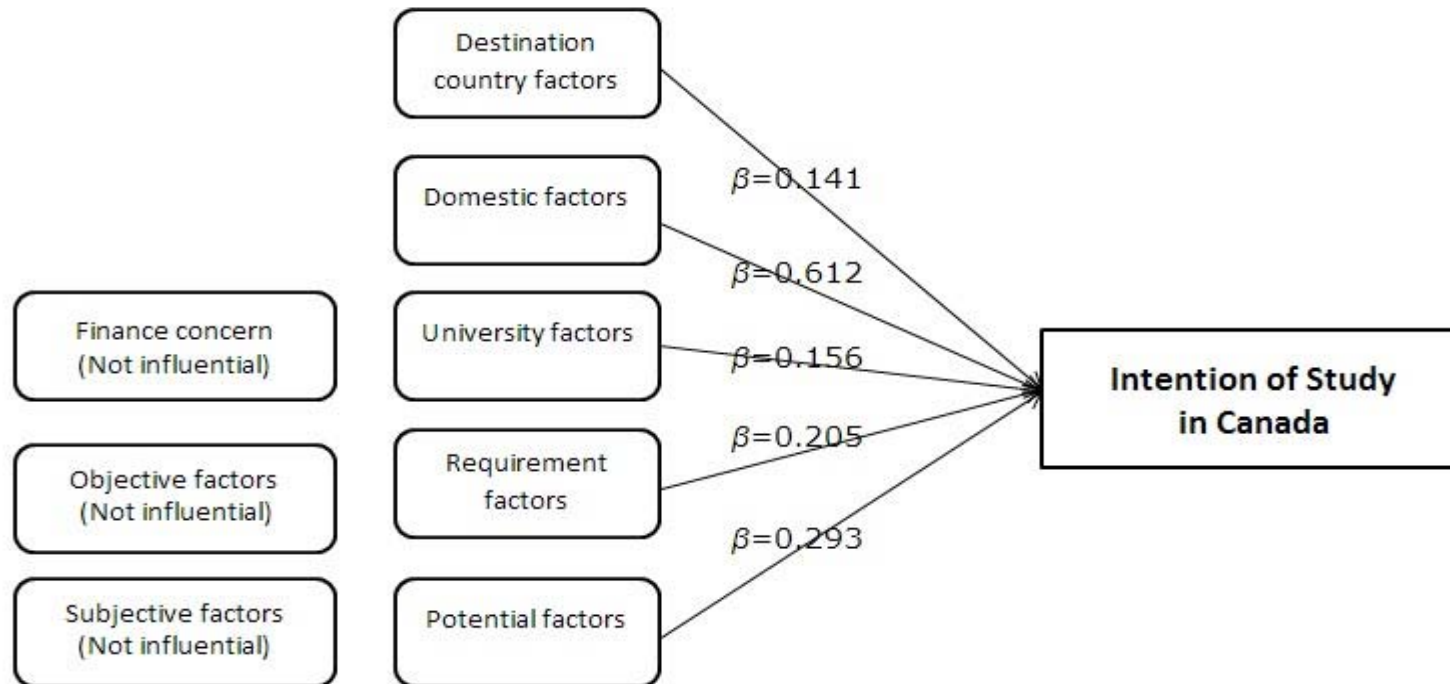
Based on these findings, Figure 6.6 illustrates the model depicting the influence of *psychographic influencing variables* on **intention to study in Canada**. This model shows the significant *psychographic influencing variables* and their relationship with the dependent variable. Beta weights are given to indicate the degree of the association between these variables. In addition, Figure 6.7 illustrates the correlations between the *psychographic influencing variables* in order to show the degree of intercorrelations of these antecedent variables.

Table 6.34 Multiple regression analyses for hypothesis proposing the influence of *demographic variables* on *psychographic* and *normative influencing variables*

Hypothesis	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Tolerance	VIF
	B	Std. Error	Beta				
<i>Dependent variable:</i> Intention to study in Canada							
Adjusted R square	0.266						
F	9.136						
Signif F	0.000						
<i>Independent variables</i>							
Destination country factors	0.15	0.093	0.141	1.608	0.11	0.532	1.879
Finance concern	-0.29	0.149	-0.27	-1.942	0.054	0.211	4.741
Domestic factors	0.177	0.152	0.162	1.165	0.246	0.212	4.72
University factors	0.174	0.095	0.156	1.826	0.07	0.559	1.789
Requirements	0.222	0.14	0.205	1.581	0.116	0.243	4.117
Students' personal factors	-0.028	0.091	-0.02	-0.303	0.762	0.946	1.057
Benefit factors	0.341	0.107	0.293	3.177	0.002	0.478	2.091
Other influencing factors	0.048	0.16	0.041	0.302	0.763	0.224	4.474

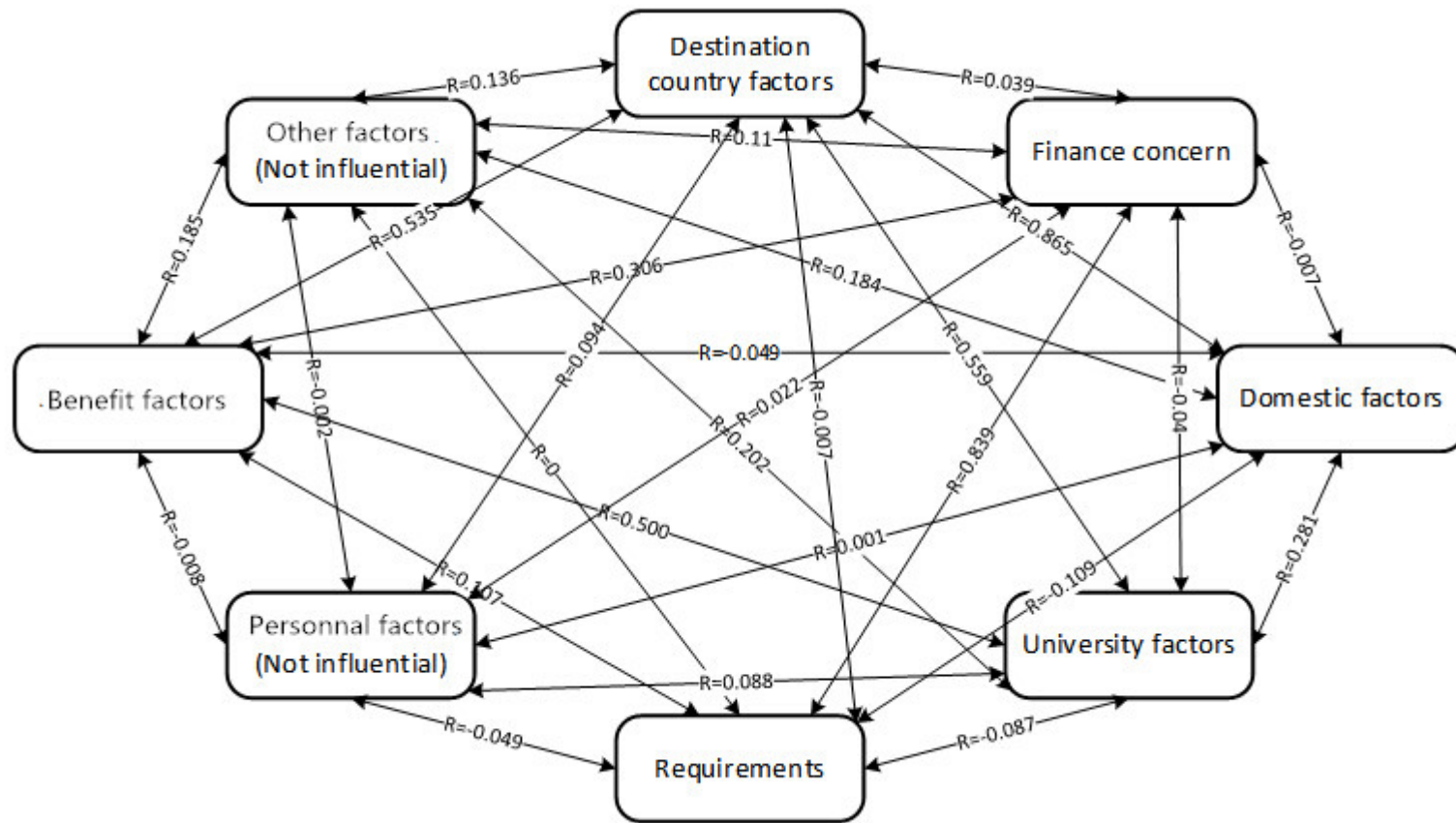
Source: Analysis of the survey data

Figure 6.6 Model depicting the influence of *psychographic influencing factors* on intention to study in Canada



Source: Analysis of the survey data

Figure 6.7 Intercorrelations of psychographic influencing variables



Source: Analysis of the survey data

Great Britain

The influence of psychographic influencing variables on the variables of intention to study in Great Britain

Correlation analysis was performed to explore the relationship between all of the investigated psychographic, variables and the single dependent variable (**Intention to study in the Great Britain**).

Table 6.36 Summary of hypotheses of the effect of psychographic variables on the intention to study in Great Britain

Hypothesis	Expected relationships
H4	A: Destination country factors will positively influence the intention to study in Great Britain
	B: Finance concern will positively influence the intention to study in Great Britain
	C: Domestic factors will positively influence the intention to study in Great Britain
	D: University factors will positively influence the intention to study in Great Britain
	E: Requirements will positively influence the intention to study in Great Britain
	F: Students' personal factors will positively influence the intention to study in Great Britain
	G: Benefits factors will positively influence the intention to study in Great Britain
	H: Other influencing factors will positively influence the intention to study in Great Britain

Source: Analysis of the survey data

Table 6.37 provides the regression results from all the investigated *Psychographic influencing variables*. Only three variables were seen to significantly influence *Intention to study in Great Britain*. They are **Destination country factors**, **University factors**, and **Benefit factors and Other influencing factors**. This result is consistent with the findings in the correlation matrix.

Among these variables, **University factors and Destination country factors** were found to have a strong positive influence on the Intention to study in Great Britain with the corresponding Beta factors of 0.301 and 0.200, both with $p < 0.01$. The other variables, **Finance factors**, **Requirements factors**, **Domestic factors**, **Other influencing factors and Students' personal factors** were not found to have a significant influence on the intention to study in Australia, and these do not support the relevant propositions. The tolerance values and values of variance inflation factor (VIF) were calculated to determine whether they violated the assumption of multicollinearity. As summarised in Table 6.28, the resulting tolerance value is not below 0.10 and the VIF value is not above 10.0. These results indicate no violation of this assumption.

In brief, all hypotheses stating the influence of *psychographic influencing variables* on the **intention to study in Great Britain** were tested in this section. Table 6.38 summarises which hypotheses were accepted or rejected.

Table 6.38 Summary of the results of hypotheses of the effect of psychographic variables on the intention to study in Great Britain

Hypothesis	Expected relationships	Accepted or Rejected
H4	A: Destination country factors will positively influence the intention to study in Great Britain	Accepted
	B: Finance concern will positively influence the intention to study in Great Britain	Rejected
	C: Domestic factors will positively influence the intention to study in Great Britain	Rejected
	D: University factors will positively influence the intention to study in Great Britain	Accepted
	E: Requirements will positively influence the intention to study in Great Britain	Rejected
	F: Students' personal factors will positively influence the intention to study in Great Britain	Rejected
	G: Benefits factors will positively influence the intention to study in Great Britain	Accepted
	H: Other influencing factors will positively influence the intention to study in Great Britain	Rejected

Source: Analysis of the survey data

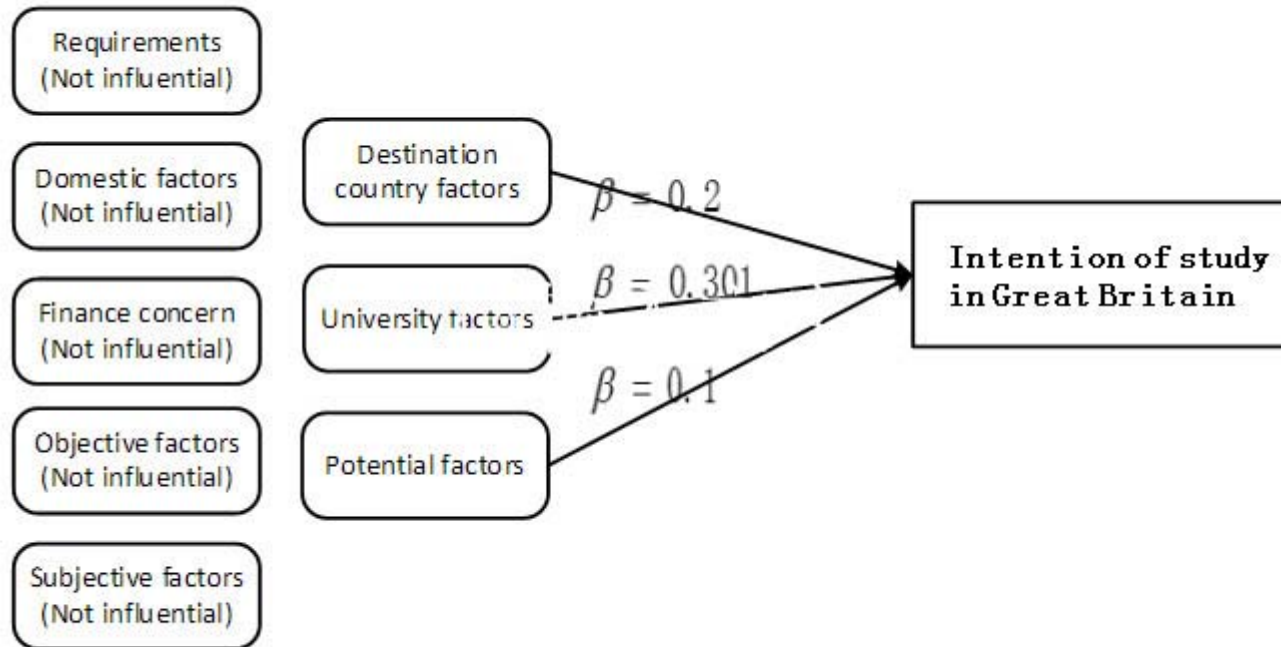
Based on these findings, Figure 6.8 illustrates the model depicting the influence of *psychographic influencing variables* on **intention to study in Great Britain**. This model shows the significant *psychographic influencing variables* and their relationship with the dependent variable. Beta weights are given to indicate the degree of the association between these variables. Figure 6.9 illustrates the correlations between the *psychographic influencing variables* in order to show the degree of intercorrelations of these antecedent variables.

Table 6.37 Multiple regression analyses for hypothesis proposing the influence of *demographic variables* on *psychographic* and *normative influencing variables*

Hypothesis	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Tolerance	VIF
	B	Std. Error	Beta				
<p><i>Dependent variable:</i> Intention to study in Great Britain</p> <p>Adjusted R square 0.171</p> <p>F 5.572</p> <p>Signif F 0.000</p> <p><i>Independent variables</i></p>							
Destination country factors	0.271	0.098	0.2	2.778	0.006	0.901	1.11
Finance concern	-0.05	0.109	-0.034	-0.459	0.647	0.874	1.145
Domestic factors	0.069	0.096	0.05	0.723	0.471	0.972	1.028
University factors	0.382	0.1	0.301	3.822	0	0.757	1.32
Requirements	0.046	0.09	0.035	0.514	0.608	0.995	1.005
Students' personal factors	0.027	0.106	0.017	0.251	0.802	0.974	1.027
Benefit factors	0.14	0.11	0.1	1.271	0.205	0.764	1.309
Other influencing factors	0.077	0.099	0.055	0.772	0.441	0.934	1.07

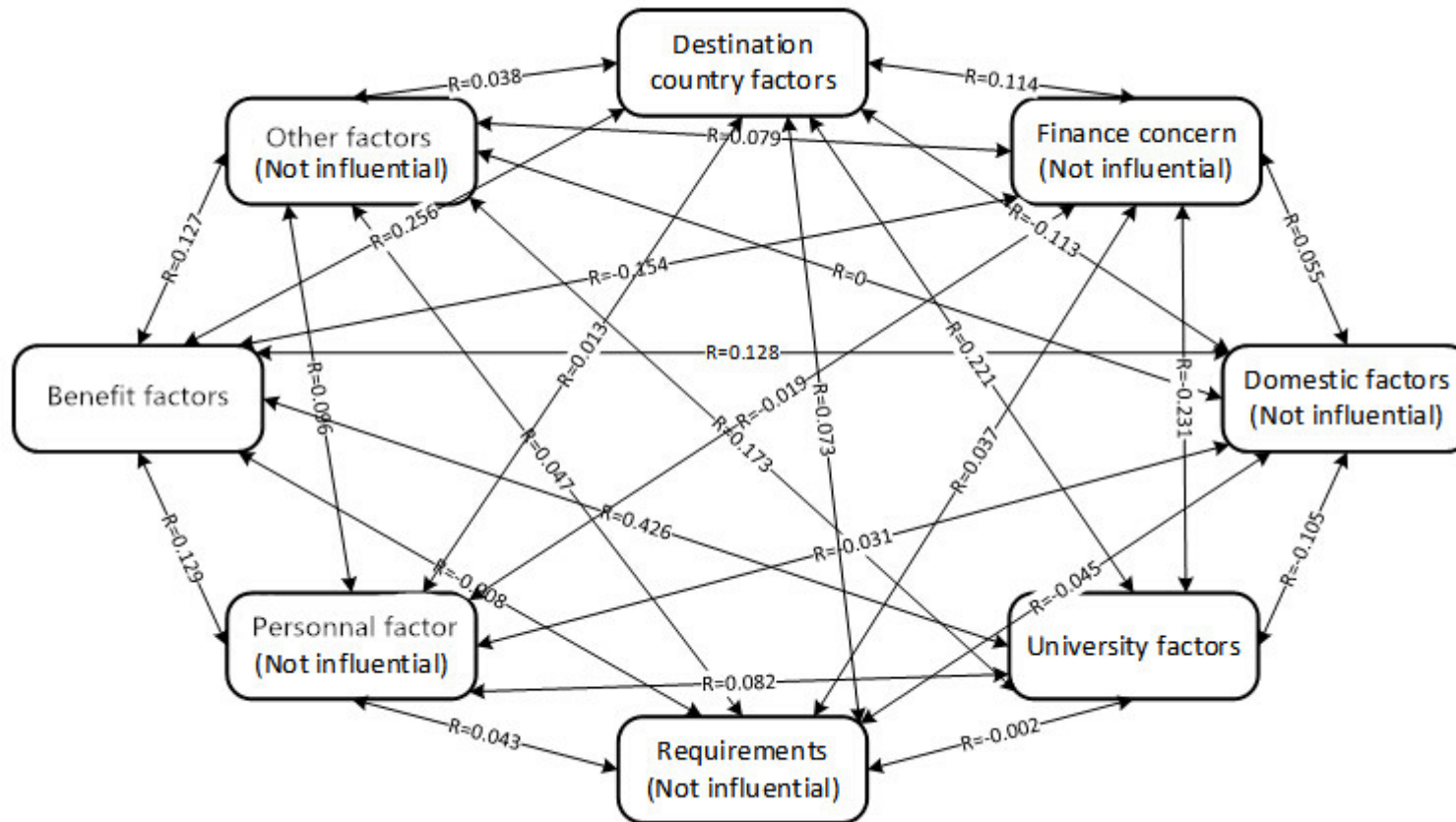
Source: Analysis of the survey data

Figure 6.8 Model depicting the influence of *psychographic influencing factors* on intention to study in Great Britain



Source: Analysis of the survey data

Figure 6.9 Intercorrelations of psychographic influencing variables



Source: Analysis of the survey data

6.7 Summary

This chapter has discussed how the collected data were prepared, purified and analysed to test the hypotheses in Chapter 1. The profile of respondents was explored. The summary of responses and non-response error were assessed. The collected data were screened to ensure the accuracy and the completeness. Missing data, outliers and non-normal data were handled.

The discussion then turned to descriptive statistics regarding the participants' intention to study in Australia, America, Canada and Great Britain, as well as their psychographic and normative influencing characteristics. The measures used in this research were then tested to determine if the scales were reliable, uni-dimensional and valid by the using the factor analysis technique. Purified data were aggregated using the principle component analysis technique, and these aggregated data were then used as the input for the test of the proposed hypotheses using the regression analysis.

Based on the results of the regression analysis, demographics variables were not found to have a strong influence on psychographic and normative influencing variables and Chinese students study abroad intentions. On the other hand, psychographic and normative influencing variables were shown to have a significant effect on those students' intention to study in the main four English countries. Particularly, **destination country factors, university factors, benefit factors and other influencing factors** have a strong influence on Chinese students' intention to study in Australia. **Destination country factors, domestic factors, university factors and other influencing factors** have an obvious effect on Chinese students choice to study in America. There are more factors influencing Chinese students to study in Canada. They are **destination country factors, domestic factors, university factors, requirement factors and benefit factors**. Finally, destination country factors, university factors and benefit factors are the main influence variables for Chinese students deciding to study in Great Britain.

This research used the mixed research method. Chapter Seven will provide a broader discussion and interpretation of the merged results from the qualitative and quantitative data.

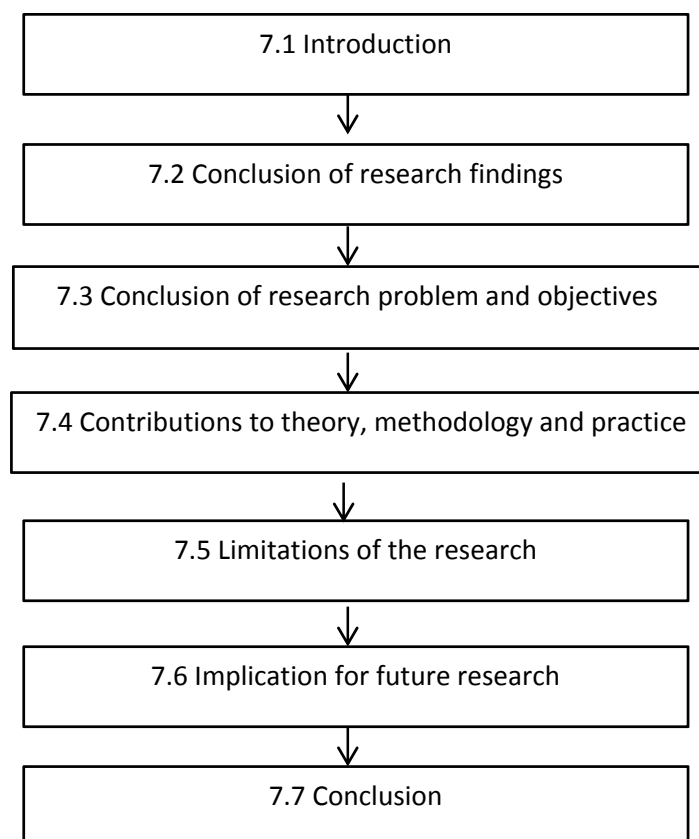
Chapter 7 Conclusion and Implication

7.1 Introduction

The previous chapter analysed the collected data and reported the research results. This chapter will draw conclusions and discuss implications based on the results of this research project.

There are six sections in this chapter as outlined in Figure 7.1. Discussed in the first section, 7.1, is the introduction summarising the earlier stages of this research program. The discussion then turns in section 7.2 to conclusions in relation to the research findings for both qualitative and quantitative, and this is followed in section 7.3 by conclusions regarding the research problem and research objectives. Section 7.4 will discuss contributions of this research to theory, methodology and practice. Limitations of this research and implications for future research will be addressed in section 7.5 and 7.6 respectively. Finally, an overall conclusion of this research is in section 7.7.

Figure 7.1 Outline of chapter 7



Source: Analysis of the survey data

Chapter 1 provided a background for this research. The research problem was addressed in section 1.3.1: “*No consensus has been reached as to which factors play decisive roles in making mainland Chinese students choose Australia as their destination of foreign education when they face different choices*”. Justifications for this research included the lack of a complete analysis for what drives Chinese students

to choose Australia as their destination when comparing to other English-speaking countries. The limited research investigated only mainland Chinese students. Most research targets were Chinese students who had already started their study overseas. The existing literature exhibited a lack of research based on probability sampling techniques that could be generalised to an industry or to a managerial application. At the end of Chapter 1, a final list of hypotheses was proposed.

Chapter 2 reviewed the literature regarding international students' decision making process to study abroad and considered findings relating to which push and pull factors influence international students' choice. Chapter 2 explored the students' college choice model, push pull framework, utility theory and theory of reasoned action. The latter is the most relevant to this research.

Chapter 3 then presented and justified the methodology applied in this research. The discussion began with the research paradigms and then justified the selection of the mixed research method. The research design was discussed and the convergent research design was selected for this research.

Chapter 4 discussed the methodology of individual interviews and how the reported findings of the interviews would illuminate the general picture regarding Chinese students' decision-making in choosing their study abroad destinations. The individual interviews were conducted with 30 Chinese students who had intention to study overseas. The sample selection and the measurement process were proposed. The discussion then turned to the data collection procedure and steps. The collected data were analysed using content analysis techniques. The data administration and ethics were discussed. Finally, the findings of qualitative data analysis were reported.

Next, Chapter 5 discussed the methodology of survey research. The discussion began with the data collection methods and sample design. The discussion then turned to the questionnaire design process and survey administration. The developed questionnaire was pretested and the process followed was outlined. Finally, the limitation and ethical considerations were addressed.

Chapter 6 analysed the collected quantitative data. This chapter began with a profile and analysis of respondents in order to determine representativeness of the samples and to assess non-response error. The data cleaning process proceeded to ensure the accuracy and the completeness of the collected data. Data were then assessed for missing data, outliers and normality. The discussion then moved to descriptive statistics analysis regarding Chinese students' intention to choose their study abroad destination country as well as their psychographic influencing variables. Exploratory and confirmatory factor analysis by SPSS techniques were used to assess the reliability and validity of the measures. As a result, only one measure (Students' personal factors) was removed. After the data were purified and aggregated, the proposed hypotheses were tested by regression modelling.

In general, results of the regression analysis indicated that all the previous hypotheses regarding the influence of demographic variables on the psychographic variables were rejected. In contrast, some hypotheses regarding the psychographic influence variables on the variables of Chinese students' intention to choose their study abroad destination were accepted. The factors affected Chinese students to study in Australia are

Destination country factors, University factors, Benefits factors and other influencing factors. Similar factors influenced Chinese students to choose America as their study abroad destination. Only one item is different, namely that the **Domestic factors** substituted Benefits factors to affect Chinese students to study in America. There are more statistically significant factors attracting Chinese students to study in Canada: **Destination country factors, Domestic factors, University factors, Requirement factors and Benefits factors.** Fewer factors affected Chinese students to study in Great Britain: **Destination country factors, University factors and Benefits factors** (see table 7.1).

Finally, this last chapter will provide conclusion for this thesis, commencing with the conclusions regarding the findings of this research.

Table 7.1 Factors influence Chinese students to choose different study abroad destinations

	Australia	America	Canada	Great Britain
Destination country factors	✓	✓	✓	✓
Finance concern				
Domestic factors		✓	✓	
University factors	✓	✓	✓	✓
Requirements			✓	
Students' personal factors				
Benefits factors	✓		✓	✓
Other influencing factors	✓	✓		

Source: Analysis of the survey data

7.2 Conclusions of the research findings

This section discusses conclusions. The following subsections will be described, including the conclusion from comparing qualitative and quantitative research (section 7.2.1), conclusion of the relationship between psychographic and influencing variables (section 7.2.2) and finally the explanation of the conclusion (7.2.3).

Table 7.2 compares the results of this research to that of previous studies. The first column contains the tested hypotheses. The following sections (section 7.2.1, 7.2.2, 7.2.3) will discuss the conclusions about these results. The second, third and fourth columns indicate the source of the hypotheses. Overall, the table shows that the

findings of this research did not support most of the hypotheses stating the influence of demographics on psychographic or influencing variables or Chinese students' intention to choose their study abroad destination, but were likely to support those expecting the impact of psychographic and influencing variables on Chinese students' decision to choose their destination.

Table 7.2 Comparing the source of the results

Hypothesis	Source		
	The literature review	Interview	Survey
H1A Female students consider other influencing factors more than male students	N/A	N/A	X
H1B Age will negatively influence other influencing factors	N/A	N/A	X
H2A Expected cost will positively influence finance concern	√	N/A	X
H2B Age will positively influence finance concern	N/A	N/A	X
H3 Age will negatively influence Benefits factors	N/A	N/A	X
H4 for Australia			
A: Destination country factors will positively influence the intention to study in Australia	√	√	√
B: Finance concern will positively influence the intention to study in Australia	√	√	X
C: Domestic factors will negatively influence the intention to study in Australia	√	√	X
D: University factors will positively influence the intention to study in Australia	√	√	√
E: Requirements will positively influence the intention to study in Australia	√	√	X
F: Students' personal factors will positively influence the intention to study in Australia	√	√	X
G: Benefits factors will positively influence the intention to study in Australia	√	√	√
H: Other influencing factors will positively influence the intention to study in Australia	√	X	√
H4 for America			
A: Destination country factors will positively influence the intention to study in America	√	√	√
B: Finance concern will positively influence the intention to study in America	√	√	X
C: Domestic factors will negatively influence the intention to study in America	√	√	√
D: University factors will positively influence the intention to study in America	√	√	√

Hypothesis	Source		
	The literature review	Interview	Survey
E: Requirements will positively influence the intention to study in America	√	√	X
F: Students' personal factors will positively influence the intention to study in America	√	√	X
G: Benefits factors will positively influence the intention to study in America	√	√	X
H: Other influencing factors will positively influence the intention to study in America	√	X	√
H4 for Canada			
A: Destination country factors will positively influence the intention to study in Canada	√	√	√
B: Finance concern will positively influence the intention to study in Canada	√	√	X
C: Domestic factors will negatively influence the intention to study in Canada	√	√	√
D: University factors will positively influence the intention to study in Canada	√	√	√
E: Requirements will positively influence the intention to study in Canada	√	√	√
F: Students' personal factors will positively influence the intention to study in Canada	√	√	X
G: Benefits factors will positively influence the intention to study in Canada	√	√	√
H: Other influencing factors will positively influence the intention to study in Canada	√	X	X
H4 for Great Britain			
A: Destination country factors will positively influence the intention to study in Great Britain	√	√	√
B: Finance concern will positively influence the intention to study in Great Britain	√	√	×
C: Domestic factors will negatively influence the intention to study in Great Britain	√	√	×
D: University factors will positively influence the intention to study in Great Britain	√	√	√
E: Requirements will positively influence the intention to study in Great Britain	√	√	X
F: Students' personal factors will positively influence the intention to study in Great Britain	√	√	X
	√	√	√

Hypothesis	Source		
	The literature review	Interview	Survey
G: Benefits factors will positively influence the intention to study in Great Britain	√	X	X
H: Other influencing factors will positively influence the intention to study in Great Britain			

Source: Analysis of the survey data

After comparing and integrating qualitative and quantitative research results, the researcher highlighted, in Table 7.3, the factors which influenced Chinese students in choosing a study abroad destination.

Table 7.3 Comparing qualitative and quantitative research results

	Australia	America	Canada	Great Britain
Destination country factors	√	√	√	√
Finance concern				
Domestic factors		√	√	
University factors	√	√	√	√
Requirements			√	
Students' personal factors				
Benefits factors	√		√	√
Other influencing factors				

Source: Analysis of the survey data

As shown above, a comparison of the qualitative and quantitative research with the previous research reveals that finance concern, students' personal and Other influencing factors are not confirmed as the important influencing factors for Chinese students in choosing a study abroad destination. University factors and destination country factors are the most important factors for Chinese students to consider no matter which countries they prefer. The discussion now turns to conclusions of the relationship among demographic, psychographic and influencing variables.

7.2.1 Conclusions of the relationship between demographic and psychographic and influencing variables

In this section are conclusions for the hypotheses (hypothesis 1A to hypothesis 3) testing the influence of demographic variables on psychographic and influencing variables.

In chapter 1 a positive relationship between **female students** with **other influencing factors** and a negative relationship between **male students** with **other influencing factors** (hypothesis 1A) were hypothesized. In addition, **age** was proposed to have a negative relationship with the other influencing factors. The positive relationship between **female students** and **other influencing factors** was expected due to the traditional thoughts that female students were considered to be more likely to be influenced by their friends. Due to this justification, female students were expected to consider other influencing factors more important than male students.

Although the literature does not indicate the relationship between age and other influencing factors, the researcher proposed a hypothesis based on the idea that the younger student may be less apt to go to a very strange destination without any friends or relatives.

The expected cost was forecasted to positively influence Chinese students' finance concern because the lower the expected cost is more likely to attract more Chinese students. In addition, age was deemed to have an influence on Chinese students finance concerns in the way that the older Chinese students may have self-finance ability for their study abroad. Furthermore, age was supposed to negatively influence the benefits factors. The reason is that because the older students may have a job or be married, they usually consider carefully the benefits factors from studying abroad. Older students have fewer years to benefit from the investment. The older they are, the more likely that they will think about it.

The findings of this research do not support these hypotheses. It was therefore concluded that female students do not consider other influencing factors more than male students. Age does not negatively influence other influencing factors and benefits factors. Age also does not influence Chinese students' finance concern.

7.2.2 Conclusions of the relationship between psychographic and influencing variables and Chinese students' choice decision (Hypothesis H4A to H4B for each country)

In this section, conclusions will be made for hypotheses proposed to test the influence of psychographic and influencing variables on Chinese students' choice for their study abroad destinations. The hypotheses were developed in Chapter 1, predicting the influence of each variable on Chinese students' choice of their study overseas destination.

Based on the monetary saving concept of utility theory, the finance **variable** was expected to have a positive influence on Chinese students' intention to choose their

study abroad destination, because price conscious consumers were likely to seek monetary savings. A cheaper cost in the destination country was likely to satisfy those students and their families because it will help they save money and reduce their finance pressure.

Based on the utility theory, the **benefits factors variable** was expected to have a positive relationship with Chinese students' intention to choose their study abroad destination, because the benefits factors could maximise the costs of Chinese students spend on their study. In a sense, to gain more benefits factors is more attractive for Chinese students than the lower cost.

Based on the product quality concept of utility theory, quality conscious Chinese students and their family tended to perceive the cost of one destination country's education and inferred that the level of the cost was positively related to the level of the education quality. These Chinese students and their family tend to view higher cost education more favourably due to their perceptions of an increase in education quality for additional cost. Therefore, the **university variable** was predicted to have a positive effect on Chinese students' intention to choose their study abroad destination.

Based on the theory of reasoned action, the **other influencing factors** were expected to have a positive effect on Chinese students' intention to study overseas due to students who needed to have friends in a strange country. The **students' personal factors** were also supposed to positively influence Chinese students' intention, because the stronger desire of Chinese students to understand the host country would increase the chance they will choose that country as their study abroad destination.

The concept of loyalty switching was used to explain a positive relationship between a **requirement variable** and Chinese students' intention to choose their study abroad host country. The requirement variable was expected to have a positive effect on Chinese students' decision because Chinese students are likely to change their preferred country towards a country with lower entry requirement.

In respect to students' future after graduation, the **destination country** variable was expected to have a positive relationship with Chinese students' intention to choose their study abroad destination, while the **domestic variable** was supposed to have a negative relationship with Chinese students' choice. Chinese students and their family might be more likely to compare all aspects of a destination country with home country. Therefore, the advantage of the destination country was predicted to have a positive influence on Chinese students' decision, while the disadvantage of home country was perceived to have a negative influence on Chinese students' intention.

From all investigated variables, **Destination country factors, university factors and benefit factors** were indicated to have a significant influence on a Chinese student's intention to study in Australia. **Destination country factors, domestic factors and university factors** were indicated to have a significant influence on Chinese student's intention to study in America. **Destination factors, domestic factors, university factors, requirement factors, and benefit factors** were indicated to have a significant influence on a Chinese student's intention to study in Canada. **Destination country factors, university factors and benefit factors** were indicated to have a significant influence on Chinese student's intention to study in Great Britain.

By considering beta values of these variables, **university factors** were shown to be the most important variables that could have an influence on Chinese students' intention to choose their study abroad destination. In contrast, **finance concern, other influencing factors and students' personal factors** were not found to have a significant influence on Chinese students' intention to choose their study abroad destination. As a result, these variables were not considered influential in explaining Chinese students' decision making process. Consequently, the relevant hypotheses relevant to these variables were not confirmed. Section 7.2.3 will give possible explanations for the disconfirmation of these hypotheses. The discussion now turns to explanations of the conclusions.

7.2.3 Explanation for conclusions

Conclusions regarding the relationships between all demographic, psychographic and influencing variables and Chinese students' intention to choose their study abroad host country were made in previous sections. As summarised in Table 7.2 and discussed in previous sections, demographic variables are unlikely to have a significant relationship with psychographic and influencing variables in this research. These results seem to be inconsistent with the findings of previous research.

In terms of the findings regarding the relationship between demographics and Chinese students' intention to choose their study abroad destination, this research indicates that demographic variables are not major variables to influence Chinese students' intention to choose their study abroad host country. Although this finding differs from those of previous studies where demographics was noted to be significant factor that could have an effect on Chinese students' behaviour, it is supported by a recent study indicating no significant effect of demographics on Chinese students' intention to make their decision to choose their host country.

In relation to the findings regarding the influence of psychographic and influencing variables on Chinese students' decision making process, different specific psychographic and influencing variables affect Chinese students to choose different study abroad destination. This finding partly supports the previous literature.

Overall, the findings of this research do not support all of the previous research. This inconsistency probably arose from the following reasons. Firstly, in terms of the region in which the previous studies were conducted, most previous research were undertaken in Western countries, attempting to investigate international students and their choice of their study abroad destination countries, while Chinese students were just a subset of their students. However, research models developed in Western regions might not be completely satisfactory to depict Chinese students' behaviour in all the English-speaking countries. This regional issue could be a key factor that makes the findings of this research different from other previous studies.

Secondly, regarding the destination countries, previous research either sets one particular host country or the main English-speaking countries to study, never investigating if there are any different factors influencing international students, especially Chinese students, in choosing the study abroad destination. Thirdly, this

research was undertaken in a different context, specifically for Chinese students who intend to study abroad, but have not yet done so. They were still in China during the data collection period. In addition, this research took a more narrow focus in its scope considering only the Chinese students who intend to study overseas only in the main English speaking countries but still resided in China.

Finally, the result of this research may also differ due to the use of a different sampling technique. This research was conducted using a probability sampling technique, specifically the simple random method. On the other hand, most of the previous research conducted their studies using a non-probability sampling technique. By using non-probability sampling techniques, these previous studies may be unlikely to generalise their findings to the contexts researched in this study.

In summary, this section concluded and compared findings of this research to previous studies. In general, the results of this study tended not to confirm those of previous studies. Possible explanations for differences in the findings of this research and the literature were also given. Next, the discussion turns to conclusions regarding the research problem and research objectives.

7.3 Conclusions in relation to the research problem and research objectives

The research problem developed in this thesis was “How does push pull factors influence Chinese students to choose different English-speaking countries as their study abroad destinations?” The findings of this research provide answers to this problem by addressing the specific research objectives:

- To identify key push pull factors that influence Chinese students’ intention to study abroad and choose their destination.
- To determine how those factors have an impact on Chinese students intention to choose different English-speaking countries as their study abroad destination countries.

In relation to the first objective of this research, the literature review of Chapter 2 indicated a number of possible push pull factors that could influence Chinese students’ intention. All of these factors were investigated to determine whether they were influential in explaining why Chinese students choose a particular English-speaking country as their study abroad destination.

The findings of this research discussed in section 7.2.1 have satisfied the first objective by suggesting destination country factors, domestic factors, university factors, requirement factors, students’ personal factors and benefit factors have a significant influence on Chinese students’ decision in choosing their host country. The financial factors and other influencing factors were not found to be significant, and therefore they are not considered key influential factors.

With respect to the second objective of this research, section 7.2.2 discussed the determination of how these factors influence Chinese students in choosing their study

abroad host countries. The findings of this research discussed in section 7.2.1 and 7.2.2 have satisfied this second objective of this research.

In terms of the level of importance of influential factors that could affect Chinese students' intentions and the direction of the relationship between Chinese students' characteristics and decision process, this research found that demographic variables played a less important role than psychographic and influencing factors in explaining why Chinese students choose an English-speaking country as their study abroad destination.

In summary, the findings of this research have satisfied the research problem proposed by firstly identifying key push pull factors that could have an impact on Chinese students' intention to study abroad and by secondly determining how these factors influence Chinese students to choose the English-speaking countries as their study abroad hosts countries. In general, demographics tended not to have a relationship with psychographics and influencing factors. In addition, none of the demographics were considered to influence Chinese students' intention to study abroad and choose their destination countries. Next, the discussion turns to the implications of these research results.

7.4 Contributions to theory, methodology and practice

The research findings discussed in previous sections have contributions for theory (section 7.4.1), methodology (section 7.4.2), and practices (section 7.4.3). These contributions are now discussed.

7.4.1 Theoretical contributions

This section discusses the contributions in a theoretical context. The contributions are described in relation to key gaps justified in previous chapters. These are the principal gaps:

- A lack of studies incorporating all relevant factors relating to both utility theory and the theory of reasoned action in previous research;
- Research conducted in a limited context;
- A lack of research studies using a probability sampling technique.

Contributions of this research to these gaps are now addressed starting with the implication regarding an investigation of all factors relating to both utility theory and the theory of reasoned action.

This study included all foreseeable factors relating to both the utility theory and the theory of reasoned action. This research is the first study of the factors influencing Chinese students' choice of the English-speaking study abroad countries, which reinforces the use of both utility theory and the theory of reasoned action to develop a research framework depicting the push pull factors and their influences on

Chinese students' decision making process. Utility theory and the theory of reasoned action enable the researcher to provide an explanation for the relationship between push pull factors relating to demographic, psychographic and the students' response variables. However, there is a general lack of research that includes all of these relevant factors at a time. To fill this gap, this research has explored a number of possible influential factors from the review of literature. As a result this research developed a more comprehensive set of all possible Chinese students characteristics (demographics, psychographics and influencing characteristics) expected to be key factors that could influence Chinese students' choice of study abroad country. This in turn enables the researcher to develop a more complete understanding of how push pull factors and Chinese students' characteristics in relation to utility theory and the theory of reasoned action affect Chinese students to choose different English-speaking countries as their study abroad destinations.

The findings of this research support these two theories identifying the psychographic and influencing variables as the key factors that influence Chinese students' intention to choose an English-speaking country as their study abroad destination. These support the findings of previous studies in the way that psychographic and influencing variables play a more important role than demographic variables in explaining how Chinese students choose the study abroad country.

Most previous research conducted in limited contexts. The second implication relates to the research context investigated. Previous studies have tended to limit their research to Chinese students who have already started their study abroad in Western regions, or the research is limited to all the possible study abroad destination countries. To extend the body of knowledge of Chinese students' intention to choose their study abroad destination literature, this research was designed to investigate Chinese students who intend to study overseas in the main English speaking countries, but still reside in China.

Previous studies lack the probability sampling technique. Most studies in this area conducted their research using a non-probability sampling technique, for example, judgment sampling and convenience sampling. Non-probability sampling techniques have resulted in research findings being limited to just samples investigated in the surveys. Therefore, findings of previous studies may have a limitation in terms of generalisability of the results to other research contexts.

This research has attempted to reduce this limitation by employing a probability sampling technique, namely, simple random sampling, because using this sampling technique helps the researcher to gain reliable and valid results and then to be able to generalise research findings to the defined targeted population. However, finally in this research, samples generated from the use of this sampling technique were not perfectly representative of all Chinese students who have intention to study overseas. Section 7.5 will detail this limitation in terms of the sample representativeness.

In brief, this research provides theoretical contributions to the body of knowledge of the influence of push pull factors on Chinese students' responses to different English-speaking countries in several ways. Firstly, all possible push pull factors in relation to utility theory and the theory of reasoned action were investigated simultaneously to determine the influence of these factors on a dependent variable of behavioural

intention. Secondly, this research was conducted in the context of Chinese students who intend to study overseas in one of the main English-speaking countries but still reside in China during the data collection process. This research context has never been explored by previous research. And lastly, this research used a probability sampling technique to select samples for this investigation in order to gain more valid research results than previous research, which used non-probability sampling techniques. Next, the discussion considers the methodological contributions.

7.4.2 Methodological contributions

The main methodology contribution of this research is the first time of using the mixed methodology to study which push pull factors influence Chinese students choosing Australia as their study abroad destinations. Previous research of how push pull factors influenced Chinese students to choose their study abroad destination were conducted either by the quantitative method or the qualitative method. This study was conducted by employing a mixed methodology, because areas of study include psychology (benefits, needs, motivations), sociology (behaviors, networks), economics (budget, expenditure) and management (services, impacts). The mixed methodology helps to mitigate the weakness of a singular methodology, to obtain a comprehensive understanding for research questions, to help to answer different research questions, to explain the findings from each methodology by another methodology, to help us to better understand the unexpected results and to increase the credibility of this research.

This research chose to use the methodology of convergent design, in which data collection and data analysis of qualitative and quantitative research are conducted at the same stage. The qualitative and quantitative strands are implemented in the same phase of the research process. Both methods are equally emphasized. Whilst each strand is independent during analysis, the researcher integrates the findings during the overall interpretation.

The key advantage of quantitative research is easily to measure numerical data collected from a large sample of the population (Murnane & Willett 2011), while the main advantage of qualitative studies is to explore the research questions in-depth and detail (Denzin & Lincoln 2011; Marshall & Rossman 2006). When combining qualitative and quantitative findings, the researcher forges an overall or negotiated account of the findings, an achievement not possible by using a singular approach (Bryman 2007). Mixed methods also help us to identify the similarities and differences between particular aspects of a phenomenon (Bernardi et al. 2007).

Methodology of individual interviews and the reported findings of the interviews were discussed to gain a good general picture regarding Chinese students' decision to choose their study abroad destination. Methodology of the survey research was discussed to find different variables influencing Chinese students to choose their different study abroad destination. The findings from quantitative methodology justified which push pull factors influence Chinese students choosing Australia as their study abroad destination.

In brief, this research provides methodology contributions to find the reasons behind Chinese students choosing their different study abroad destinations. When combining qualitative and quantitative findings, the researcher forges an overall or negotiated account of the findings, an achievement not possible by using a singular approach

(Bryman 2007). Mixed methods also help us to identify the similarities and differences between particular aspects of a phenomenon (Bernardi et al. 2007). Next, the discussion considers the practical contributions.

7.4.3 Practical contributions

In addition to the theoretical and methodological contributions discussed above, this research also has contributions for management practices. Key practical implications of this research cover the topics of host countries and their government international education departments' ability to develop more effective marketing policies to attract Chinese students to study in their countries and Chinese students' awareness of the policies and relevant programs. These issues are discussed in turn.

The first issue of practical contributions is regarding the host countries and their international education departments' wishes and ability to develop a more effective marketing policy to attract Chinese students choose their countries as study abroad destination. To be successful in implementing an attractive marketing policy, the potential host country and their international education department should be able to identify Chinese student real needs and wants and in turn to develop an appropriate marketing policy to persuade Chinese students to choose their country as their study priority. This can be done by performing an analysis of push pull factors and the influence of these factors have on Chinese students' responses to their marketing policies.

This research has provided information specifically about push pull factors that could influence Chinese students' intention to choose their study abroad destination through attractive marketing policies. Each English-speaking country tends to address different points. These diverse elements have been identified to be influential in explaining Chinese students' intention to study in Australia, America, Canada and Great Britain (section 7.2.3).

For America, destination country factors, domestic factors and university factors have emerged as the key factors that affect Chinese students to choose America as their study abroad destination. These findings will enable the American government to understand how to make a suitable marketing policy to meet the Chinese students' needs and expectations.

For Canada, destination country factors, domestic factors, university factors, requirement factors and benefit factors are confirmed to be the important factors for Chinese students to choose Canada as their study abroad destination. These findings will enable the Canadian education department to understand how to address their marketing policy to attract Chinese students.

For Great Britain, destination country factors, university factors and benefits factors motivated Chinese students to choose Great Britain as their study abroad destination. These findings will enable the English education department to find the most effective way to attract Chinese students to study there.

For Australia, host country economic and safety environment, the quality of university, the benefits factors (such as the availability of working visa) and the influence of the alumni have been identified as influencing Chinese students to choose Australia as their host country. These findings will enable the Australian education department to understand how Chinese students respond to Australian educational department policies based on these variables. This knowledge is in turn expected to enable these policy makers to develop program or marketing policies more effectively. Most importantly for Australia is that the education department can distinguish the factors which influence Chinese students in choosing their English-speaking country as their study abroad destination. It will help the Australian education department to make a competitive marketing policy to win the competition in attracting Chinese students.

7.5 Limitation of this research

This research has attempted to provide both valid and reliable explanations of how Chinese students' response to choose English-speaking countries as their study abroad destinations by incorporating all possible relevant push pull factors and investigating the influence of these factors on the dependent variable of Chinese students' decision process. However, some limitations of the study and its results do exist.

Firstly, most of the push pull factors included in this research were selected and developed from the findings of the previous studies investigating international students' choice of their destination countries. Some destination countries of these studies were not the main English-speaking countries. There may be other factors that are also relevant to this research context but have not yet been investigated by previous research and not included in this study. An exclusion of these possible factors may reduce the accuracy of the findings of this research. These other factors may include, for instance, media exposure and the parents' or relatives' opinion. Future research may also focus on these possible factors to examine if they are influential in explaining Chinese students' choices. Section 7.6 will further discuss future research.

Secondly, in terms of the generalisability of the research findings, this research specified the Chinese students' study abroad destination as Australia, America, Canada and Great Britain. This might have imposed a limitation on understanding the nature of Chinese students' responses to the other study abroad host countries, which may have different push pull factors to influence Chinese students' choices.

In respect to the issue of the sample representativeness, samples used in this study were generated from the specific Chinese cities. However, samples were not perfectly statistically representative of all the Chinese students who intend to study overseas. In addition, how well these samples represent the population cannot be assessed at this stage due to the lack of information regarding push pull factors for all Chinese students who intend to study abroad. Hence, results of this research may be confined only to this group of samples rather than to the rest of all Chinese students and those who have intention to study in non-English-speaking countries. The issue of representativeness of these samples may result in some limitations in terms of the generalisability of the findings of this research.

Next, in terms of quality of the measurements, some items were found to be unreliable and/or multi-dimensional measures. However, these items were still used in the

analysis due to the fact that items eliminations could not be completely performed as few items were left to represent the relevant construct. In addition, eliminating these poor items helped to gain only marginal improvement in the statistical validity and reliability of the measures. These poor items include the Q1.2, the recommendation of others, Q2.3, enrol requirement, and Q2.22, connection between economics and politics. The use of unreliable and/or multi-dimensional items could distort the research findings in relation to the above variables.

Lastly, the data used in the analysis in this research were correlated and analysed using multiple regression methods. However, regression methods have limitations. This analysis technique cannot be used to estimate a number of relationships between independent and dependent variables at one time, and this in turn tends not to allow the researcher to depict complex relationships between these variables simultaneously. In terms of the casual explanation of the relationship between antecedent and dependent variables, cause-effect relationships between antecedent demographic, psychographic and influencing variables and the dependent variable of Chinese students decision making process discussed in this research have not been actually tested but assumed based on a priori logic.

The above limitations do not minimize seriously the value of the findings of this research program. These limitations provide implications for future research, which is discussed next.

7.6 Implications for future research

The opportunities for future research extend from the limitations of this study and respond to possibilities in implementation. Future research may consider the following issues.

The future research could study the other key factors. This research is the first empirical study investigating the influence of push pull factors on Chinese students' intentions to choose different countries as their study abroad destinations. Key push pull factors investigated in this research do not cover all the variables which may influence Chinese students' choice. A forward step in the future would be to include other possible variables to Chinese students' intention to choose their study abroad destination. Potential push pull factors may include if the summer school or winter school will be helpful for the host country to attract more Chinese students. An inclusion of additional push pull factors will enable the research to provide a more complete picture of the influence these factors have on Chinese students' intention to choose their study abroad destinations. This understanding may in turn help the host country to develop an attractive marketing policy or programme to attract Chinese students to choose their country as a study abroad destination.

This research has tended to provide different results from that of previous research in some key areas, for instance the findings regarding the insignificant relationship between demographic and psychographic and influencing variables and the results regarding the different variables influencing Chinese students to choose different study abroad destinations. To determine whether the findings of this research can be generalised, additional research may be conducted to investigate if similar patterns can be repeated in another research context. For example, other researchers may conduct

their studies with Chinese students to find the key variables for Chinese students to choose non-English-speaking countries as their study abroad destinations.

In terms of the sampling technique used in this research, as discussed previously in section 7.5, samples used in this research should represent the national wide Chinese students. It is statistically possible that the samples, generated by the simple random sampling technique, may not represent the population well. As a consequence the conceivable non-representativeness of samples would result in ungeneralisable findings. Future studies may repeat this research project with other samples or with other probability sampling techniques. Future studies also can refine the measurement scales used in this research by using multi-items (at least 4 items) for each construct. Thus, after removing unreliable or invalid items, there will be sufficient items remaining for completing an item remedy process.

Finally, future research can use a more complex data analysis technique to examine the relationship between push pull variables and the dependent variables of Chinese students' intention to study abroad. Specifically, structural equation models can be used to estimate multiple interrelated relationships between these variables simultaneously. Hence, the complex relationships between push pull variables, specifically the inter-correlations between demographic, psychographic and influencing variables and Chinese students' intention. Moreover, future studies may also be conducted using explanatory research to examine casual relationships of these variables. Therefore, the direction of the relationship of these variables can be understood more appropriately.

Furthermore, the future research could be considered to use RMSEA, NNFI, CFI, GFI fitting indexes etc. These statistics are used to test structural equation which created the model fit with data indicators, known as goodness of fit index (goodness of fit index), referred to as fit index (Minglong 2009). Different scholars have put forward many different fit index. Commonly used indicators typically is degrees of freedom df, RMSEA (Root Mean Square Error of Approximation, the approximation error mean square), GFI (goodness-of-fit index, goodness of fit indices), NNFI (non-normed fit index) and the CFI (comparative fit index, comparative fit index). Generally, RMSEA below 0.08 (the smaller the better), GFI, NNFI and CFI in 0.9 or above (bigger is better), and the fitted model is a "good" model. AGFI (adjusted goodness-of-fit index), IFI is the bigger the better, indicating that mode for the better, but it is now rarely used (Jietai etc. 2004). In the future work, the fitting of the model with regard to the data using the abovementioned measures can be explored.

7.7 Conclusions

This research has addressed the problem of how push pull factors influence Chinese students' intention to choose their study abroad destinations. The objective was to identify important push pull variables and to determine how these variables influence Chinese students' choice. Based on the extant literature, hypotheses depicting a relationship between these variables were developed and tested. Findings of this research indicated different push pull factors will influence Chinese students to choose different English-speaking countries as their study abroad destinations. On the other hand, none of the demographics were found to have a significant relationship with this

dependent variable. In addition, demographics were not shown to be related with most of the psychographic and normative influencing variables.

This research has contributed to the body of knowledge in the field of the influence of push pull variables on Chinese students' intention to choose their study abroad destination. This research has discussed limitations of this study and has also highlighted multiple opportunities for future research.

References

Abbott, M & Ali, E 2009, 'The impact of exchange rate variation and university reputation on the choice of destinations of international students in Australia and New Zealand', *Journal of Econometric and Social Policy*, vol. 13, no. 1, pp. 1-19.

Agarwal, V & Winkler, D 1985, 'Foreign demand for United States higher education: a study of developing countries in the Eastern Hemisphere', *Economic Development and Cultural Change*, vol. 33, no. 3, pp. 623-44.

Ailawadi, KL, Neslin, SA & Gedenk, K 2001, 'Pursuing the value-conscious consumer: store brands versus national brand promotions', *Journal of Marketing*, vol. 65, pp. 71-89.

Ali, E & Hsieh, T 2009, *The impact of international education on the Chinese economy*, Centre for Research in International Education, Auckland, New Zealand, 2-5 July

Ali, E & Subramaniam, G 2010, 'Analysis of the cost of international education in selected countries', *Business Management Quarterly Review*, vol. 1, pp. 50-63.

Altbach, P, Kelly, D & Lulat, Y 1985, *Research on foreign students and international study: an overview and bibliography*, Greenwood Publishing Group.

Altbach, PG, Reisberg, L & Rumbley, LE 2009, *Trends in global higher education: tracking an academic revolution*, UNESCO 2009 World Conference on Higher Education, Paris.

Asgarkhani, M & Wan, J 2008, 'International students and cooperative industry projects in ICT education: A study of impact factors', paper presented to 21st Annual Conference of the National Advisory Committee on Computing Qualifications, Auckland, New Zealand.

Atkinson, P, Coffey, A & Delamont, S 2003, *Key themes in qualitative research: continuities and change*, Altamira, Walnut Creek, CA.

Australian Bureau of Statistics 2011, *International Trade in Services by Country, by State and by Detailed Services Category, Financial Year, 2010-11* Australian Bureau of Statistics, viewed 11 November 2011, <<http://www.abs.gov.au/AUSSTATS/abs@.nsf/Lookup/5368.0.55.003Main+Features12010-11?OpenDocument>>.

Australian Education International 2011, *Export Income to Australia from education services in 2010-11*, <<https://www.aei.gov.au/research/Research-Snapshots/Documents/Export%20Income%202010-11.pdf>>.

Australian Education International 2012, *International students enrolment in Australia 1994-2011*, viewed June 2012, <<https://internationaleducation.gov.au/research/International-Student-Data/Documents/INTERNATIONAL%20STUDENT%20DATA/2011/2011%20Time%20Series%20Graph.pdf>>.

Australian in the Asian Century 2012, Australia Government, Canberra.

Baldwin, G & James, R 2000, 'The market in Australian higher education and the concept of student as informed consumer', *Journal of Higher Education Policy & Management*, vol. 22, no. 2, pp. 139-48.

Baloglu, S & Uysal, M 1996, 'Market segments of push and pull motivations: a canonical correlation approach', *International Journal of Contemporary Hospitality Management*, vol. 8, no. 3, pp. 32-8.

Basit, T 2010, 'Manual or electronic? The role of coding in qualitative data analysis', *Education Research*, vol. 45, no. 2, pp. 143-54.

Becker, GS 1975, 'Human capital: A theoretical and empirical analysis, with special reference to education', in 2nd edn, NBER.

Becker, R & Kolster, R 2012, *International student recruitment: policies and developments in selected countries*, Netherlands Organization for International Cooperation in Higher Education.

Bernardi, L, Kleim, S & Von Der Lippe, H 2007, 'Social influences on fertility: a comparative mixed methods study in eastern and western Germany', *Journal of mixed methods research*, vol. 1, no. 1, pp. 23-47.

Blundell, R, Dearden, L, Meghir, C & Sianesi, B 1999, 'Human capital investment: the returns from education and training to the individual, the firm and the economy', *Fiscal Studies*, vol. 20, no. 1, pp. 1-23.

Bodycott, PB 2009, 'Choosing a higher education study abroad destination: what mainland Chinese parents and students rate as important', *Journal of Research in International Education*, vol. 8, no. 3, pp. 349-73.

Bogdan, RC & Biklen, SK 2007, *Qualitative research for education: an introduction to theories and methods*, 5th edn, Pearson Education, Boston.

Boyce, C & Neale, P 2006, *Conducting in-depth interviews: a guide for designing and conducting in-depth interviews for evaluation input*, Pathfinder International.

Bredo, O, Forersom, T & Laursen, PF 1993, 'Students' choice: a model', *Higher Education Review*, vol. 26, no. 1, pp. 64-73.

Bruno, G 2008, 'Using gravity models for the evaluation of new university site locations: a case study', *Computers & operations research*, vol. 35, no. 2, pp. 436-44.

Bryman, A 2006, 'Integrating quantitative and qualitative research: how is it done?', in *Qualitative Research*, Sage Publications, London.

Bryman, A 2007, 'Barriers to integrating quantitative and qualitative research', *Journal of mixed methods research*, vol. 1, no. 1, pp. 8-22.

Burgess, TF 2001, A general introduction to the design of questionnaires for survey research, University of Leeds.

Burns, A & Bush, R 2002, Marketing research: online research application, 4th edn, Prentice Hall, Upper Saddle River, New Jersey.

Carey, JW, Wenzel, PH, Reilly, C, Sheridan, J & Steinberg, JM 1998, 'CDC EZ-text: software for management and analysis of semistructured qualitative data sets', Cultural Anthropology Methods, vol. 10, no. 1, pp. 14-20.

Carson, D, Gilmore, A, Perry, C & Gronhaug, K 2001, Qualitative marketing research, Sage Publications, London.

Chapman, DW 1981, 'A model of student college choice', The Journal of Higher Education, vol. 52, no. 5, pp. 490-505.

Chen, L-H 2007, 'East-Asian Students' Choice of Canadian graduate schools', International Journal of Educational Advancement, vol. 7, no. 4, pp. 271-306.

China Education Online 2013, The trend in 2013 to study abroad, viewed June 2015 , <<http://www.eol.cn/html/lx/baogao2013/page1.shtml>>

Chinese Students Abroad - 2011 Figures Released 2012, AEI Australian Government.

Chong, AY, Ooi, K, Lin, B & Raman, M 2009, 'Factors affecting the adoption level of c-commerce: an empirical study', Journal of Computer Information Systems, pp. 13-22.

Churchill, G & Iacobucci, D 2004, Marketing research: methodological foundations, 9th edn, Thomson Southwestern, Mason, Ohio.

Codd, J 2001, The Third Way for Tertiary Education Policy: TEAC and Beyond. New Zealand Annual Review of Education, Christchurch, 6-9 December.

Coffey, A, B. Holbrook & Atkinson, P 1996, 'Qualitative data analysis: technologies and representations', Sociological Research Online, vol. 1, no. 1, p. 44.

Consulate-General, A Study in Australia, viewed March 2012, <<http://www.shanghai.china.embassy.gov.au/shai/study.html>>.

Cook, RW & Zallocco, RL 1983, 'Predicting university preference and attendance: applied marketing in higher education administration', Research in Higher Education, vol. 19, no. 2, pp. 197-211.

Corden, WM 2009, 'China's exchange rate policy, its current account surplus and the global imbalances', The Economic Journal, vol. 119, no. 541, pp. 430-41.

Creswell, J 1999, 'Mixed method research: introduction and application', in T.Cijek (ed.), Handbook of educational policy, Academic Press, San Diego, California.

Creswell, J 2003, *Research design: qualitative, quantitative, and mixed methods approaches*, 2nd edn, Sage Publications, Thousand Oaks, California.

Creswell, J 2007, *Qualitative inquiry & research design: choosing among five approaches*, 2nd edn, Sage Publications, Thousand Oaks, California.

Creswell, J & Clark, VLP 2011, *Designing and conducting mixed methods research*, Sage Publications, Thousand Oaks, California.

Crompton, JL 1979, 'Motivations for pleasure vacation', *Annals of Tourism Research*, vol. 6, pp. 409-24.

Cubillo, J, Sanchez, J, Cervino, J & Olcese, L 2005, 'Modelling international students' intention of destination', vol. 11, p. 2007.

Dann, G 1981, 'Tourist motivation: an appraisal', *Annals of Tourism Research*, vol. 8, pp. 187-219.

Dann, GMS 1977, 'Anomie, ego-enhancement and tourism', *Annals of Tourism Research*, vol. 4, no. 4, pp. 184-94.

Das, TK 1993, 'A multiple paradigm approach to organizational control', *The International Journal of Organizational Analysis*, vol. 1, no. 4, pp. 385-403.

Davis, T 1995, 'Flows of international students: trends and issues', *International Higher Education*, vol. 1, pp. 2-4.

Dennis, RE & Giangreco, MF 1996, 'Creating conversation: reflections on cultural sensitivity in family interviewing', *Exceptional Children*, vol. 63, no. 1, pp. 103-16.

Denzin, N & Lincoln, Y 2011, 'Introduction: discipline and practice of qualitative research', in N Denzin & Y Lincoln (eds), *The SAGE Handbook of Qualitative Research*, 4th edn, Sage Publications, Thousand Oaks, California, pp. 1-20.

Department of Education and Training, Australian Government, 2015, *Export income to Australia from international education activity in 2014*, viewed June 2015, < <https://internationaleducation.gov.au/research/Research-Snapshots/Documents/Export%20Income%20CY2014.pdf>>

Department of Foreign and Affairs and Trade, AG 2011, *Trade at a Glance 2011*, Department of Foreign and Affairs and Trade, Australia Government, viewed June 2012, < <http://www.dfat.gov.au/publications/trade/trade-at-a-glance-2011.pdf>>.

DesJardins, SL, Dunder, H & Hendel, DD 1999, 'Modeling the college application decision process in a land-grant university', *Economics of Education Review*, vol. 18, no. 1, pp. 117-32.

Deutscher, I 1973, *What we say/what we do: sentiments and acts*, Scott Foresman, Glenview, Illinois.

Dey, I 1993, *Qualitative data and analysis: a user-friendly guide for social scientists*, Routledge, London.

DiCicco-Bloom, B & Crabtree, BF 2006, 'Making sense of qualitative research', *Medical Education*, vol. 40, pp. 314-21.

Dielman, TE 2001, *Applied regression analysis for business and economics*, Duxbury Press, Pacific Grove, California.

Dielman, TE & Rose, EL 1994, 'Forecasting in least absolute value regression with autocorrelated errors: a small-sample study', *International Journal of Forecasting*, vol. 10, no. 4, pp. 539-47.

Distefano, C, Zhu, M & Dindrila, D 2009, 'Understanding and using factor scores: considerations for the applied researcher', *Practical Assessment Research & Evaluation*, vol. 14, no. 20, pp. 1-11.

Dong, W 2012, 'Upon the construction of fuzzy evaluation system for studying abroad', *Journal of Ningbo University (Educational Science Edition)*, vol. 34, no. 5, pp. 72-5.

Dorigo, G & Tobler, W 1983, 'Push-Pull Migration Laws', *Annals of the Association of American Geographers*, vol. 73, no. 1, pp. 1-17.

Easterby-Smith, M, Thorpe, R & Lowe, A 2002, *Management research: an introduction*, Sage Publications, Thousand Oaks, California.

EiC 2011, *The Report of Chinese Overseas Students Intention Survey 2011*, Qide Education, viewed September, 2012<<http://www.eic.org.cn/Edushow/2011diaocha/>>.

Eiselen, R, Uys, T & Potgieter, N 2005, *Analysing survey data using SPSS13: a workbook*, University of Johannesburg.

Eagle, RL & Nehrt, C 2011, 'Conceptual ability, emotional intelligence and relationship management: a multinational study', *Journal of Management of Policy and Practice*, vol. 12, no. 4, pp. 58-72.

EOL 2010, *The real causes of decrease in the number of college entrance examination: the reduction of school age population*, Education Online, viewed April 2011, <http://www.eol.cn/kuai_xun_3075/20100126/t20100126_444896.shtml>.

Evans, JE 2007, *Your psychology project: the essential guide*, Sage Publications, Thousand Oaks, California.

Fink, AS 2000, *The role of the researcher in the qualitative research process. A potential barrier to archiving qualitative data*, *Forum: qualitative social research*, <<http://www.qualitative-research.net/index.php/fqs/article/view/1021/2201>>. viewed April 2011.

Finlay, L 2009, 'Debating phenomenological research methods', *Phenomenology & Practice*, vol. 3, no. 1, pp. 6-25.

Fishburn, PC (ed.) 1970, *Utility theory for decision making*, *Utility Theory for Decision Making*. Publications in Operations Research, No. 18. New York: John Wiley and Sons.

Florax, RJGM, Hall, P, Titheridge, H & Wikhall, M 2004, 'A Comparative analysis of the geography of student recruitment and labor market entry', in G Törnqvist & S Sörlin (eds), *The Wealth of Knowledge: Universities and the New Economy*, MIT Press, Cambridge.

Fontana, A & Frey, JH 1994, 'The art of science', in N.a.Y.L. Denzin (ed.), *Handbook of Qualitative Research*, Sage Publications, Thousand Oaks, California.

Francis, B & Archer, L 2005, 'British-Chinese pupils' and parents' constructions of the value of education', *British Educational Research Journal*, vol. 31, no. 1, pp. 89-108.

Frechtling, JA & Sharp, LM (eds) 1997, *User-friendly handbook for mixed method evaluations*, DIANE Publishing, Collingdale, Pennsylvania.

Gareth, D 2005, 'Chinese students' motivations for studying abroad', *International Journal of Private Higher Education*, vol. 2, pp. 16-21.

Garson, DG 2008, *Factor Analysis: Statnotes*, North Carolina State University Public Administration Program, viewed March 2011, <<http://www2.chass.ncsu.edu/garson/pa765/factor.htm>>.

Gergen, MM & Gergen, KJ 2000, 'Qualitative inquiry: tensions and transformations', in N.Denzin & Y.Lincoln (eds), *Handbook of Qualitative Research*, 2nd edn, Sage Publications, Thousand Oaks, California.

Ghasemi, A & Zahediasl, S 2012, 'Normality tests for statistical analysis: a guide for non-statisticians', *International Journal of Endocrinology and Metabolism*, vol. 10, no. 2, pp. 486-9.

Gill, P, Stewart, K, Treasure, E & Chadwick, B 2008, 'Methods of data collection in qualitative research: interviews and focus groups', *British Dental Journal*, pp. 291-5.

Given, LM 2008, *The SAGE Encyclopedia of Qualitative Research Methods*, Sage Publications, Thousand Oaks, California.

Golafshani, N 2003, 'Understanding reliability and validity in qualitative research', *The Qualitative Report*, vol. 8, no. 4, pp. 597-607.

Gordon, W & Langmaid, R 1998, *Qualitative market research*, Gower, United Kingdom..

Greenaway, D & Haynes, M 2003, 'Funding higher education in the UK: the role of fees and loans', *The Economic Journal*, vol. 113, no. 485, pp. 150-66.

Greene, JC 2007, *Mixed methods in social inquiry*, Jossey-Bass, San Francisco.

Greene, JC, Caracelli, VJ & Graham, WF 1989, 'Toward a conceptual framework for mixed-method evaluation designs', *Educational Evaluation and Policy Analysis*, vol. 11, no. 3, pp. 255-74.

Griffith University 2012, *The Australia-China relationship at forty: building a pathway for the future*, Griffith University, Peking University, and Queensland Government, viewed 25-26 September, 2012, <http://www.griffith.edu.au/__data/assets/pdf_file/0007/485836/Outcomes-and-Background-Paper-2012-Second-Track-Dialogue-V2.pdf>.

Guanrong, C 2011, 'Discussion on teaching and learning in Chinese and Western', *Mathematicians' Essay*, vol. 2, no. 4, pp. 94-5.

Guba, E 1990, 'The alternative paradigm dialog', in E Guba (ed.), *The Paradigm Dialog*, Sage Publications, Thousand Oaks, California, pp. 17-28.

Guba, E & Lincoln, Y 1994, 'Competing paradigms', in N Denzin & Y Lincoln (eds), *Handbook of Qualitative Research*, Sage Publications, Thousand Oaks, California., pp. 105-17.

Guba, E & Lincoln, Y 2005, 'Paradigmatic controversies, contradictions, and emerging confluences', in N Denzin & Y Lincoln (eds), *The SAGE Handbook of Qualitative Research*, 3rd edn, Sage Publications, Thousand Oaks, California, pp. 191-215.

Guo, F 2008, *When the purpose of overseas study becomes immigration*, viewed August 2011, <<http://webdiary.com.au/cms/?q=node/2611>>.

Hair, J, Bush, R & Ortinau, D 2003, *Marketing research: within a changing information environment*, 2nd edn, McGraw-Hill/Irwin, New York.

Hair, JFJ, Anderson, R, Tatham, R & Black, W.C, . 1998, *Multivariate data analysis*, 5th edn, Prentice Hall, Upper Saddle River, New Jersey.

Hale, JL, Householder, BJ & Greene, KL 2002, 'The theory of reasoned action', in J.P.Dillard & M.Pfau (eds), *The persuasion handbook: developments in theory and practice*, Sage Publications, Thousand Oaks, California, pp. 259-86.

Hancock, B, Windridge, K & Ockleford, E 2007, *An introduction to qualitative research*, viewed January 2012, <http://www.rds-yh.nihr.ac.uk/wp-content/uploads/2013/05/5_Introduction-to-qualitative-research-2009.pdf>

Harris, LR & Brown, GTL 2010, 'Mixing interview and questionnaire methods: practical problems in aligning data', *Practical Assessment Research & Evaluation*, vol. 15, no. 1, pp. 1-19.

Hatcher, L 1994, *A Step-by-Step Approach to Using the SAS® System for Factor Analysis and Structural Equation Modeling*, SAS Institute, Cary, North Carolina.

He, Y 2005, 'Cause analysis and its treatment adverse balance of China's overseas education services', Hunan Normal University.

Heckman, JJ 2005, 'China's human capital investment', *China Economic Review*, vol. 16, pp. 50-70.

Hemsley-Brown, JV 1999, 'College choice: perceptions and priorities', *Educational Management and Administration*, vol. 27, no. 1, pp. 85-98.

Hong, S 2010, 'Econometric analysis of the impact factors of Chinese students studying abroad', *Science and Technology Innovation Herald*, vol. 28, pp. 212-3.

Hsieh, H-F & Shannon, SE 2005, 'Three approaches to qualitative content analysis', *Qualitative Health Research*, vol. 15, no. 9, pp. 1277-88.

Huang, F 2005, 'Qualitative enhancement and quantitative growth: changes and trends of China's higher education', *Higher Education Policy*, vol. 18, pp. 117-30.

Hui, L 2005, 'Chinese cultural schem of education: implications for communication between Chinese students and Australian educators', *Issues in Educational Research*, vol. 15, no. 1, pp. 17-36.

Hurley, AE, Scherriesheim, CA, Brannick, MT, Seers, A, Vandenberg, RJ & Williams, LJ 1997, 'Exploratory and confirmatory factor analysis: guidelines, issues, and alternatives', *Journal of Organizational Behavior*, vol. 18, pp. 667-83.

Hutcheson, G & Sofroniou, N 1999, *The multivariate social scientist: introductory statistics using generalized linear models*, Sage Publications, Thousand Oaks, California.

International education strategy: global growth and prosperity, 2013, Government, UK.

Inventory: the market change of Chinese students study abroad from 2002-2012, 2012, China Education, viewed November 2012, <http://edu.china.com.cn/2012-11/07/content_27027695.htm>.

Iyanna, S & Abraham, J 2012, 'A comparative cost analysis of undergraduate business degrees for international students in selected countries', *International Journal of Business and Management*, vol. 7, no. 4, pp. 145-53.

Jick, TD 1979, 'Mixing qualitative and quantitative methods: triangulation in action', *Administrative Science Quarterly*, vol. 24, pp. 602-11.

Jietai, H, Zhonglin, W & Zijuan C 2004, 'Structural Equation Model and Its Applications', Education Science Publishing House, Beijing, China.

Johnson, R, Onwuegbuzie, A & Turner, L 2007, 'Toward a definition of mixed methods research', *Journal of mixed methods research*, vol. 1, no. 2, p. 112.

Johnston, LG & Sabin, K 2010, 'Sampling hard-to-reach populations with respondent driven sampling', *Methodological Innovations Online*, vol. 5, no. 2, pp. 38-48.

Kemp, S, Madden, G & Simpson, M 1998, 'Emerging Australian education markets: a discrete choice model of Taiwanese and Indonesian student intended study destination', *Education Economics*, vol. 6, pp. 159-69.

Kenkel, DS 1990, 'Consumer Health Information and the Demand for Medical Care', *Review of Economic and Statistics*, vol. 72, pp. 587-95.

Kimberlin, C & Winterstein, AG 2008, 'Validity and reliability of measurement instruments used in research', *American Journal of Health-System Pharmacy*, vol. 65, no. 2276-2284,

Kinney, TC & Taylor, JR 1996, *Marketing research: an applied approach*, 5th edn, McGraw Hill, New York.

Kjellström, C 1999, 'Does Distance to a university affect enrollment decisions? evidence from data on three cohorts of Swedes', in *Essays on Investment in Human Capital*, The Swedish Institute for Social Research, Stockholm University, Stockholm.

Klenosky, DB 2002, 'The "Pull" of tourism destinations: A means-end investigation', *Journal of Travel Research*, pp. 385-95.

Kothari, CR 2004, *Research methodology: methods & techniques*, 2nd edn, New Age International, Delhi, India.

Krippendorff, K 2004, *Content analysis: an introduction to its methodology*, Sage Publications, Thousand Oaks, California.

Kroll, T & Neri, M (eds) 2009, *Designs for mixed methods research*, *Mixed Methods Research for Nursing and the Health Sciences*, Wiley-Blackwell, Chichester.

Krueger, RA 1994, *Focus groups: a practical guide for applied research*, Sage Publications, Thousand Oaks, California.

Kumar, R 2011, *Research methodology : a step-by-step guide for beginners*, 3rd edn, Sage Publications, London.

Kyung, W 1996, 'In-migration of college students to the State of New York', *The Journal of Higher Education*, vol. 67, no. 3, pp. 349-58.

Lawson, C 2011, *Studying in Australia: View from Six key Countries*, Australian Education International, Canberra.

Lee, E 1966, 'A Theory of Migration', *Demography*, vol. 3, no. 1, pp. 47-57.

Lee, G, O'Leary, JT, Lee, SH & Morrison, A 2002, 'Comparison and contrast of push and pull motivational effects on trip behavior: an application of a multinational logistic regression model', *Tourism Analysis*, vol. 7, pp. 89-104.

Leedy, P & Ormrod, J 2009, *Practical research: planning and design*, 9th edn, Pearson Education, Upper Saddle River, New Jersey.

Lewis, J 2009, 'Redefining qualitative methods: believability in the fifth Moment', *International Journal of Qualitative Methods*, vol. 8, no. 2, pp. 1-14.

Li, M & Bray, M 2007, 'Cross-border flows of students for higher education: Push-pull factors and motivations of mainland Chinese students in Hong Kong and Macau', *Higher Education*, vol. 53, no. 6, pp. 791-818.

Li, Y, Whalley, J, Zhang, S & Zhao, X 2008, 'The higher educational transformation of china and its global implication', *The World Economy*, vol. 34, no. 4, pp. 516-45.

Lichtenstein, DR, Netemeyer, RG & Burton, S 1991, 'Using a theoretical perspective to examine the psychological construct of coupon proneness', in RH Holman & MR Solomon (eds), *NA - Advances in Consumer Research*, Association for Consumer Research, Provo, Utah, vol. 18, pp. 501-8.

Lim, YM, Yap, CS & Lee, TH 2011, 'Destination choice, service quality, satisfaction, and consumerism: international students in Malaysian institutions of higher education', *African Journal of Business Management*, vol. 5, no. 5, pp. 1691-702.

Little, R.J.A. & Schenker, N 1994, Missing data. In: *Handbook for Statistical Modeling in the Social and Behavioral Sciences*. G. Arminger, C.C. Clogg and M.E. Sobel, eds., pp. 39-75, Plenum, New York.

Liu, A, Rhoads, RA & Wang, Y 2007, 'Chinese university students' views on globalization: exploring conceptions of citizenship', *Chung Cheng Educational Studies*, vol. 6, no. 1, pp. 95-125.

Liu, Y, Kong, F & Zhong, Y 2012, 'Our high school students to study abroad at their own expense willingness research - seven city-based sample survey data', *Education Research*, vol. 10, pp. 59-63.

Lu, Y, Mavondo, FT & Qiu, LL 2009, 'Factors influencing the choice of overseas study by undergraduate and postgraduate chinese students', paper presented to Australian and New Zealand Marketing Academy Conference, Melbourne.

Maas, C, J. M. & Hox, J, J. 2005, 'Sufficient sample sizes for multilevel modeling', *Methodology*, vol. 1, no. 3, pp. 86-92.

MacCallum, RC, Widaman, KF, Zhang, S & S., H 1999, 'Sample size in factor analysis', *Psychological Methods*, vol. 4, pp. 84-99.

Mack, N, Woodsong, C, MacQueen, KM, Guest, G & Namey, E 2005, *Qualitative research methods: a data collector's field guide*, Family Health International, Research Triangle Park, North Carolina.

MacLeod, A 2011, *Why We Must Rescue One of Our Biggest Exports*, *The Melbourne Review*, viewed April 2012, <<http://www.melbournereview.com.au/read/96/>>.

Mannell, RC & Kleiber, DA 1997, *Sociology of Leisure*, Venture Publishing, State College, Pennsylvania

Marginson, S & Wende van der, M 2007, *Globalisation and Higher Education*, OECD Education Working Papers, No.8, OECD Publishing, viewed on April 2012 <<http://files.eric.ed.gov/fulltext/ED503826.pdf>>.

Maringe, F & Carter, S 2007, 'International students' motivations for studying in the UK: insights into the choice and decision making of African students', *International Journal of Educational Management*, vol. 21, no. 6, pp. 459-75.

Marsden, PV & Wright, JD (eds) 2010, *Handbook of Survey Research*, 2nd edn, Question and questionnaire design, Emerald Group Publishing, Bingley, UK.

Marshall, C & Rossman, G 2006, *Designing qualitative researcher*, 4th edn, Sage Publications, Thousand Oaks, California.

Mazzarol, T 1998, 'Critical success factors for international education marketing', *International Journal of Educational Management*, vol. 12, no. 4, pp. 163-75.

Mazzarol, T & Soutar, GN 2002, '"Push-pull" factors influencing international student destination choice', *The International Journal of Educational Management*, vol. 16, no. 2, pp. 82-90.

Mazzarol, T, Kemp, S & Savery, L 1997, *International students who choose not to study in australia: an examination of Taiwan and Indonesia*, Australian International Education Foundation, Canberra.

Mazzarol, T, Soutar, GN & Choo, S 2001, *Perceptions, information and choice: understanding how Chinese students select a country for overseas study*, Australian Education International, Canberra.

McHugh, R & Morgan, JN 1984, 'The determinants of interstate student migration: a place-to-place analysis', *Economics of Education Review*, vol. 3, no. 4, pp. 267-78.

Meek, VL & Wood, FQ 1997, 'The Market as a new steering strategy for Australian higher education', *Special Issue of Higher Education Policy*, vol. 10, no. 3/4, pp. 253-74.

Mejia, A, Pizurki, H & Royston, E 1979, *Physician and nurse migration: analysis and policy implications*, World Health Organization, Geneva.

Minglong, Wu 2009, *Structural Equation Modeling, SEM*, Chongqing University Press, Chongqing, China.

Minichiello, V, Aroni, R, Timewell, E & Alexander, L 1990, *In-depth interviewing: researching people*, Longman Cheshire, Hong Kong.

Minichiello, V, Aroni, R, Timewell, E & Alexander, L 1995, *In-depth interviewing: principles, techniques, analysis*, 2nd edn, Longman, Melbourne.

Morgan, DL 1996, Focus groups as qualitative research, Sage Publications, Thousand Oaks, California.

Morse, JM 1991, 'Approaches to qualitative-quantitative methodological triangulation', *Nursing Research*, vol. 40, no. 2, pp. 120-3.

Mpinganjira, M 2009, 'Comparative analysis of factors influencing the decision to study abroad', *African Journal of Business Management*, vol. 3, no. 8, pp. 358-65.

Mundfrom, D, J, Shaw, D, G. & Tian, LK 2005, 'Minimum sample size recommendations for conducting factor analyses', *International Journal of Testing*, vol. 5, no. 2, pp. 159-68.

Murnane, RJ & Willett, JB 2011, *Methods matter: improving causal inference in educational and social science research*, Oxford University Press, New York.

Murray, EJ 1964, *Motivation and Emotion*, Prentice Hall, Englewood Cliffs, New Jersey.

Myers, M 2008, *Qualitative Research in Business and Management*, Sage Publications, Thousand Oaks, California.

Neuman, W 2006, *Social research methods: qualitative and quantitative approaches*, 6th edn, Pearson Education, Boston.

O'Brien, A, Webb, P, Page, S & Proctor, T 2007, A study into the factors influencing the choice-making process of Indian students when selecting an international university for graduate studies using grounded theory, viewed October 2011, <<http://hdl.handle.net/10034/37772>>.

OECD 2011, *Education at a Glance 2011*, OECD Publishing, Canberra.

Pan, Y 2007, Development of guidelines on the use of interpreters in survey interviews Statistical Research Division, U.S. Census Bureau, Washington DC.

Park, H 2009, Comparing group means: T-tests and One-way ANOVA Using STATA, SAS, R, and SPSS, The University Information Technology Services Center for Statistical and Mathematical Computing, Indiana University, Bloomington, United States. viewed March 2011, <<http://www.indiana.edu/~statmath/stat/all/ttest/ttest.pdf>>.

Patton, M 2002, *Qualitative research & evaluation methods*, 3rd edn, Sage Publications, Thousand Oaks, California.

Phillimore, J & Koshy, P 2010, The economic implications of fewer international higher education students in Australia, Australian Technology Network of Universities, Adelaide, South Australia.

Pitney, WA & Parker, J 2009, *Qualitative research in physical activity and health professions*, Human Kinetics, Champaign, Illinois.

Potter, W 1996, *An analysis of thinking and research about qualitative methods*, Lawrence Erlbaum Associates, Mahwah, New Jersey.

Psacharopoulos, G & Patrinos, HA 2004, 'Returns to investment in education: a further update', *Education Economics*, vol. 12, no. 2, pp. 111-34.

Rao, GL 1979, *Brain drain and foreign students: a study of the attitudes and intentions of foreign students in Australia, the U.S.A., Canada and France.*, Palgrave Macmillan, Basingstoke, United Kingdom.

Ratner, C 2002, 'Subjectivity and objectivity in qualitative methodology', *Forum: qualitative social research*, vol. 3, no. 3, viewed April 2011, <<http://www.qualitative-research.net/index.php/fqs/article/view/829/1800>>

Rubin, H & Rubin, I 2005, *Qualitative interviewing: the art of hearing data*, 2nd edn, Sage Publications, Thousand Oaks, California.

Sá, C, Florax, RJGM & Rietveld, P 2004, 'Determinants of the regional demand for higher education in The Netherlands: a gravity model approach', *Regional Studies*, vol. 38, no. 4, pp. 375-92.

Salazar, M 1990, 'Interview bias. how it affects survey research', *AAOHN Journal*, vol. 38, no. 12, pp. 567-72.

Salisbury, MH, Umbach, PD, Paulsen, MB & Pascarella, ETP 2009, 'Going global: understanding the choice process of the intent to study abroad', *Research in Higher Education*, vol. 50, no. 2, pp. 119-43.

Sánchez, CM, Fornerino, M & Zhang, M 2006, 'Motivations and the intent to study abroad among U.S., French, and Chinese Students', *Journal of Teaching in International Business*, vol. 18, no. 1, pp. 35-7.

Smith, JA 2003, *Qualitative psychology: a practical guide to research methods*, Sage Publications, Thousand Oaks, California.

Song, M & Parker, D 1995, 'Commonality, difference and the dynamics of discourse in in-depth interviewing', *Sociology*, vol. 29, no. 2, pp. 241-56.

Srivastava, P & Hopwood, N 2009, 'A practical iterative framework for qualitative data analysis', *International Journal of Qualitative Methods*, vol. 8, no. 1, pp. 76-84.

Srivastava, UK, Shenoy, GV & Sharma, SC 1989, *Quantitative techniques of managerial decisions*, New Age International Publishers, New Delhi.

Sudman, S & Kalton, G 1986, 'New developments in the sampling of special populations', *Annual Review of Sociology*, vol. 12, pp. 401-29.

Suhr, D, D. 2003, 'Principal component analysis vs. exploratory factor analysis', *SUGI 30, Statistics and Data Analysis*, pp. 203-30.

Surge in Overseas Students 2011, Global Times, viewed April 2012, <<http://www.globaltimes.cn/www/english/sci-edu/china/2011-04/644286.html>>.

Swaid, SI & Wigand, RT 2009, 'Measuring the quality of e-service: scale development and initial validation', *Journal of Electronic Commerce Research*, vol. 1, pp.3-28,

Tang, J 2010, 'Exploratory and confirmatory factor analysis of epistemic beliefs questionnaire about mathematics for Chinese junior middle school students', *Journal of Mathematics Education*, vol. 3, no. 2, pp. 89-105.

Tashakkori, A & Teddlie, C 1998, *Mixed methodology: combining qualitative and quantitative approaches*, Sage Publications, Thousand Oaks, California.

Tashakkori, A & Creswell, J 2007, 'Editorial: the new era of mixed methods', *Journal of mixed methods research*, vol. 1, no. 1, pp. 3-7.

Tashakkori, A, Brown, LM & Borghese, P 2010, 'Integrated methods', in MTC Kathleen, AJ Onwuegbuzie & Q G.Jiao (eds), *Toward a broader understanding of stress and coping: mixed methods approaches*, Information Age Publishing, Charlotte.

Taylor, SJ & Bogdan, RC 1998, *Introduction to qualitative research methods: a guidebook and resource*, 3rd edn, Wiley, New York.

Teddlie, C & Tashakkori, A 2009, *Foundations of mixed methods research*, Sage Publications, Thousand Oaks, California.

Tertiary Sector News &Views 2014, International enrolments up 10%, viewed on June 2015, <<http://the-scan.com/2014/07/21/international-enrolments-up-10/>>.

Thomas, JR, Nelson, JK & Silverman, SJ (eds) 2011, *Research methods in physical activity*, 6th edn, Human Kinetics, Champaign, Illinois.

Uysal, M & Jurowski, C 1994, 'Testing the push and pull factors', *Annals of Tourism Research*, vol. 21, no. 4, pp. 844-6.

Veludo-de-Oliveira, T, Ikeda, AA & Campomar, MC 2006, 'Commentary ladder in the practice of marketing research: barriers and solutions', *Qualitative Market Research: An International Journal*, vol. 9, no. 3, pp. 297-306.

Wagner, K & Fard, PY 2009, Factors influencing Malaysian students' intention to study at a higher educational institution, E-Leader Kuala Lumpur, viewed May 2012, <<http://eprints.oum.edu.my/365/1/Wagner-Fard.pdf>>.

Wang, Q 1994, 'The future of the overseas returnee in Minguo period', *Min Guo Chun Qiu*, vol. 3, p. 1.

Wang, Q 2003, 'Dimension reduction in partly linear error-in-response models with validation data', *Journal of Multivariate Analysis*, vol. 85, no. 2, pp. 234-52.

Wang, Z 2007, 'Key factors that influence recruiting young Chinese students', *International Education Journal*, vol. 8, no. 2, pp. 37-48.

White, A 2011, Chinese students' international study: factors feeding the decision process, World Education Service, viewed January/February, 2012, <<http://www.wes.org/ewenr/11feb/feature.htm>>.

Whiting, L 2008, 'Semi-structured interviews: guidance for novice researchers', *Nursing Standard*, vol. 22, no. 23, pp. 35-40.

Wilkins, S, Balakrishnan, MS & Huisman, J 2012, 'Student choice in higher education: motivations for choosing to study at an international branch campus', *Journal of Studies in International Education*, vol. 16, no. 5, pp. 413-33.

Williams, B, Brown, T & Onsman, A 2012, 'Exploratory factor analysis: a five-step guide for novices', *Australian Journal of Paramedicine*, vol. 8, no. 3, pp. 1-14.

Wu, Z, Shu, L & Xie, W 2010, 'Analysis of the situation and reason of Chinese students studying abroad', *Economic and Trade Update*, vol. 24, p. 282.

Xi, S 2006, Ministry of Education Officials: More self-financed international students will receive scholarship, viewed May 2012, <<http://edu.people.com.cn/GB/4414097.html>>.

Xiao, G 2010, 'Exchange rate policy and macroeconomic adjustment', in *China: the next twenty years of reform and development*, viewed June 2013, <<http://press.anu.edu.au/apps/bookworm/view/China%3A+The+Next+Twenty+Years+of+Reform+and+Development/7021/ch08.xhtml>>.

Yan, Y 2010, 'Factors influencing the students' decision-making to study abroad in selecting host universities: a state sponsored program', paper presented to Management and Service Science (MASS), Aug 24-26.

Yang, M 2007a, 'What attracts mainland Chinese students to Australian higher education', *Studies in Learning, Evaluation, Innovation and Development*, vol. 4, no. 2, pp. 1-12.

Yang, M 2007b, 'What attratcs mainland chinese students to Australian higher education', *Studies in Learning, Evaluation, Innovation and Development*, vol. 4, no. 2, pp. 1-12.

Yao, L 2004, 'The Chinese overseas students: an overview of the flow change', paper presented to 12th Biennial Conference of the Australian Population Association, Canberra, 15-17 September.

Yu, C & Xiong, J 2010, 'The dilemma of interdependence: the features and trends of Sino-Australian relations', paper presented to the 2nd Dialogue Forum of the Sino-Australian Joint Research Program, Brisbane.

Yu, X 2001, 'The survey of Chinese students' experience of studying abroad in England', *Modern Foreign Languages*, vol. 3, pp. 317-23.

Zhang, X 2001, Chinese families spend heavily on children's education, viewed Novmeber 2011, <<http://www.china.org.cn/english/2001/Nov/22548.htm>>.

Zhang, Y 2000, 'Development of education in the late Qing', *Journal of Huaqiao University*, vol. 4, pp. 1-4.

Zheng, M & Dai, R 2006, 'Motivated investigation report of our students to study abroad ', *World Education Information*, vol. 6, pp. 30-2.

Zhou, P & Lawley, M 2003, 'Consumer image effects in international marketing of a service', paper presented to 2003 World Marketing Congress: Marketing Across Borders and Boundaries, Perth, 11-14 Jun.

Zikmund, WG 2003, *Business Research Methods*, 7nd edn, South Western Oklahoma, Weatherford, Oklahoma.

Appendices

Appendix 1: In-depth interview information sheet and consent form (English Version)



University of Southern Queensland

The University of Southern Queensland Participant Information Sheet

HREC Approval Number:

Full Project Title: Modelling Analysis of Australian International Education Market for Mainland Chinese Students

Principal Researcher: Xuemei Liu

Other Researcher(s):

I would like to invite you to take part in this research project.

This research aims to investigate and analyze the important factors which influence self-financed mainland Chinese students to study in Australia when they are faced with the choice from other three major English-speaking countries, i.e. America, UK, and Canada

1. Procedures

Participation in this project will involve

- ***If you choose to participate, you will be asked to take part in a 20-30 minutes interview.***
- ***The interview will be recorded on a recorder. Typical questions include: why do you want to study abroad in English-speaking countries? What factors influence your choice?***
- ***Apart from taking 20 minutes of your time for the interview, we can foresee no risks for you.***
- ***You are free to decide if you want to be involved in this project or not and you can stop participating at any time. If you decide to stop participating, any information you have given will not be used.***
- ***This study is funded by a research grant from the Faculty of Business and Law. If you decide to help us in this study, you will provide us with valuable information about how mainland Chinese students choose their study abroad destination.***
- ***The content of this interview may be published in the future, but we will not use your name in any part of the research.***

2. Voluntary Participation

Participation is entirely voluntary. **If you do not wish to take part you are not obliged to.** If you decide to take part and later change your mind, you are free to withdraw from the project at any stage. Any information already obtained from you will be destroyed.

Your decision whether to take part or not, or withdraw after participation, will not affect your relationship with the University of Southern Queensland.

Please notify the researcher if you decide to withdraw from this project.

Should you have any queries regarding the progress or conduct of this research, you can contact the principal researcher:

[Researchers' names]Xuemei Liu

[Researchers' faculties/divisions and schools] Faculty of Business and Law, School of Accounting, Economics and Finance

[appropriate address] Station 7, L413, USQ

[contact phone numbers] 0746875678

[please also include after hours number(s)]0431597384

If you have any ethical concerns with how the research is being conducted or any queries about your rights as a participant please feel free to contact the University of Southern Queensland Ethics Officer on the following details.

***Ethics and Research Integrity Officer
Office of Research and Higher Degrees
University of Southern Queensland
West Street, Toowoomba 4350
Ph: +61 7 4631 2690
Email: ethics@usq.edu.au***

(English Version)



University of Southern Queensland

The University of Southern Queensland
Consent Form

HREC Approval Number:

TO: *Participants*

Full Project Title: Modelling Analysis of Australian International Education Market for Mainland Chinese Students

Principal Researcher: Xuemei Liu

- I have read the Participant Information Sheet and the nature and the purpose of the research project has been explained to me. I understand and agree to take part.
- I understand the purpose of the research project and my involvement in it.
- I understand that I may withdraw from the research project at any stage and that this will not affect my status now or in the future.
- I confirm that I am over 18 years of age.
- I understand that while information gained during the study may be published, I will not be identified and my personal results will remain confidential.
- I understand that the tape will be retained with pin. Only the principal researcher can access to it. It will be locked in her private office.

Name of participant.....

Signed.....**Date**.....

If you have any ethical concerns with how the research is being conducted or any queries about your rights as a participant please feel free to contact the University of Southern Queensland Ethics Officer on the following details.

Ethics and Research Integrity Officer
Office of Research and Higher Degrees
University of Southern Queensland
West Street, Toowoomba 4350
Ph: +61 7 4631 2690
Email: ethics@usq.edu.au

Appendix 2: Cover Letter to prospective respondents for mail survey research (English Version)

The following cover letter will be sent with the questionnaire to respondents for the first mailing.

(Date)

Dear (Respondent name)

I am a Doctoral student at the University of Southern Queensland, Australia. I am conducting survey research on Chinese students' choice to study in the main English-speaking countries. Your answers to this questionnaire are very important because they will be enhanced with others' to produce aggregated findings, which will then be submitted as a part of my thesis for completing the Doctoral program of the University of Southern Queensland. In addition, research findings will enable the main English-speaking countries to be aware of factors that should be taken into account for developing specific promotional marketing strategy and policy to attract Chinese students.

The information obtained from this survey will not reflect the identities of the people participating. Your cooperation, attitudes and opinions will be kept strictly confidential.

Your name is randomly selected from a representative list of students who have asked for their transcript from your university's student's office. Because the success of this survey depends on the cooperation of all the people who are selected and their honest responses, I would especially thank you for your willingness to help me.

Upon receiving this survey, please take the time to complete it as soon as possible. It will take only about 20 minutes of your time to answer each of the simple questions in the enclosed questionnaire. You can easily answer the questions by following the instructions provided.

After completing all the questions, please feel free to return to your class mail box. Once again, your true opinions are very important to this research study. If you wish to receive a report on research findings, please feel free to contact with me.

I will be very pleased to answer any questions you may have. Please write or call. My email is u1020586@usq.edu.au. My telephone is +610746875678.

Sincerely

Xuemei Liu

Doctoral Student

University of Southern Queensland

Appendix 3: In-depth interview guide (English Version)

In-depth Interviewer's Guide

(English Version)

Thank you for taking time to participate in this research.

Part A. Introduction

This research aims to investigate and analyse the important factors which influence self-financed mainland Chinese students to study abroad in Australia when they faced with the choice from the other three major English-speaking countries (America, Great Britain, Canada).

The interviewer's guide is a structured framework to help the researcher to confirm the factors which were studied in the previous research, and to find the factors which were not involved in the past research.

Ethical Concerns. All data collected in this interview will be confidential and anonymous. Could I record this interview for the transcription in the later analysis? You can ask me to stop the recoding at any time during the interview process without any reasons. Do you have any objections to this procedure?

Part B. Opening Question

Let us start from your personal story about your study abroad plan.

1. Generally, how did you get the idea of studying abroad? Why did you want to finish your tertiary education in the English-speaking country? How long did it take you to prepare the applications (that is, the whole process from the early information searching, taking the English examination and apply for the student visa)?
2. During this process, who have the most important influence on you? Are your family members or alumni or yourself or any other people who encourage you to study abroad?

3. When you choose the destination country, which factors affect your decision?
Especially when you face with the different choice from those main English-speaking countries?

Part C The Factors and Motivations which Push You to Study Abroad?

(The Factors which operate in China)

4. Could you please let me know which items in the following table were relevant to your consideration to study abroad?

Factors and Motivations Push You to Study Abroad				
Category	Factors and Motivations	Considered	No Idea	Not Considered
Push Factors	1.The knowledge for host country			
	2.The personal recommendations			
	3.The study cost			
	4.The climate environment			
	5 The political environment			
	6. Ability to enter the local university			
	7.The desire to understand “West”			
	8.Intention to migrate in the future			
	9.Perception of study abroad is better			
	10.Educational System			
	11.Social capital			
	12.Future career			
	13.Program Offering			
Other factors or motivations you considered which not included above:				

Part D The Factors and Motivations which Pull You to Study Abroad?

(The Factors which operate in those English-speaking country)

To be continued

5. As the destination country is concerned, could you please let me know which items in the following table were relevant to your consideration?

The Factors and Motivations which Pull You to Study Abroad				
Category	Factors and Attractions	Considered	No Idea	No Considered
Pull Factors	1.The reputation of University			
	2.Market profile			
	3.Alliance or coalitions			
	4.The quality of academic staff			
	5.Future immigration chance			
	6.High quality of education			
	7.Lower cost of studying			
	8.Lower cost of Living			
	9.Program content			
	10.International reputation			
	11.The job prospect after graduation			
	12.Ethic identity			
	13. Merge of culture			
	14.The distinctive features of university			
	15.Economic and political tie			
	16. Climate environment			
	17.Safty environment			
	18.Political environment			
	19.Location			
	20.Financial aid			
	21.Alumni/Friends			
	22.The experience of study abroad			
	23.Potential benefits			
	24.The exchange rate			
	25.The degree's content			
	26.Wide range of course			
	27.Entry requirement			
	28.Easiness of visa			
	29.Geographic proximity			
	30.Visa possibility for the third country			
Other factors or motivations you considered which not included above:				

Part E. Closing Question

6. Could you explain why do you think the above factors or motivations are important for you when you choose your study abroad destination?

7. Do you have any other comments or suggestions for this study?

Thank you for your time, and I wish you well with your study abroad.

Appendix 4: Survey consent form with questionnaire (English Version)



University of Southern Queensland

The University of Southern Queensland Participant Information Sheet

HREC Approval Number:

Full Project Title: Modelling Analysis of Australian International Education Market for Mainland Chinese Students

Principal Researcher: Xuemei Liu

I would like to invite you to take part in this research project.

This research aims to investigate and analyze the important factors which influence self-financed mainland Chinese students to study in Australia when they are faced with the choice from other three major English-speaking countries, i.e. America, Great Britain, and Canada.

3. Procedures

Participation in this project will involve

- ***If you choose to participate you will be asked to complete a questionnaire using 20-30 minutes.***
- ***Typical questions include: how do you evaluate the factors which influence your choice to study abroad in English-speaking countries. How do you think about the main English-speaking countries?***
- ***Apart from taking 20-30 minutes of your time for the questionnaire, we can foresee no risks for you.***
- ***You are free to decide if you want to be involved in this project or not and you can stop participating at any time. If you decide to stop participating any information you have given will not be used.***
- ***This study is funded by a research grant from the Faculty of Business and Law. If you decide to help us in this study, you will provide us with valuable information about how mainland Chinese students choose their study abroad destination.***
- ***The results of your questionnaire may be published in the future, but we will not use your name in any part of the research.***

4. Voluntary Participation

Participation is entirely voluntary. **If you do not wish to take part you are not obliged to.** If you decide to take part and later change your mind, you are free to withdraw from the project at any stage. Any information already obtained from you will be destroyed.

Your decision whether to take part or not, or withdraw after participation, will not affect your relationship with the University of Southern Queensland.

Please notify the researcher if you decide to withdraw from this project.

Should you have any queries regarding the progress or conduct of this research, you can contact the principal researcher:

[Researchers' names] Xuemei Liu

[Researchers' faculties/divisions and schools] Faculty of Business and Law, School of Accounting, Economics and Finance

[appropriate address] Station 7, L413, USQ

[contact phone numbers] 0746875678

[please also include after hours number(s)] 0431597384

If you have any ethical concerns with how the research is being conducted or any queries about your rights as a participant please feel free to contact the University of Southern Queensland Ethics Officer on the following details.

***Ethics and Research Integrity Officer
Office of Research and Higher Degrees
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West Street, Toowoomba 4350
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Email: ethics@usq.edu.au***



University of Southern

The University of Southern Queensland
Consent Form

HREC Approval Number:

TO: Participants

Full Project Title: Modelling Analysis of Australian International Education Market for Mainland Chinese Students

Principal Researcher: Xuemei Liu

- I have read the Participant Information Sheet and the nature and the purpose of the research project has been explained to me. I understand and agree to take part.
- I understand the purpose of the research project and my involvement in it.
- I understand that I may withdraw from the research project at any stage and that this will not affect my status now or in the future.
- I confirm that I am over 18 years of age. *Omit if participants are under age of 18.*
- I understand that while information gained during the study may be published, I will not be identified and my personal results will remain confidential.

Participants under the age of 18 normally require parental or guardian consent to be involved in research. The consent form should allow for those under the age of 18 to agree to their involvement and for a parent to give consent. Copy and paste another signature field if necessary.

Name of participant.....

Signed.....**Date**.....

If you have any ethical concerns with how the research is being conducted or any queries about your rights as a participant please feel free to contact the University of Southern Queensland Ethics Officer on the following details.

Ethics and Research Integrity Officer
Office of Research and Higher Degrees
University of Southern Queensland
West Street, Toowoomba 4350
Ph: +61 7 4631 2690
Email: ethics@usq.edu.au

Questionnaire (English Version)

Thank you for participating in this survey. Please **Circle** your answer in this questionnaire.

Are you currently considering applying for taking your tertiary education in an English-speaking country within next two years?

If Yes---Please Continue

If No----Thank you, please stop here

Part 1: How do you evaluate the following push factors when you decide to study abroad? (Push Factors which work in the home country to motivate you to study abroad)

Please Circle the number of your answer for each factor.

1.The Knowledge to destination country

- 5 Very important 4 Important 3 Not sure 2 Not important 1 Trivial

2. The personal recommendation

- 5 Very important 4 Important 3 Not sure 2 Not important 1 Trivial

3. Domestic air quality

- 5 Very High 4 High 3 Not sure 2 Low 1 Very Low

4. Domestic university requirements

• 5 Very Bad 4 Bad 3 Not Sure 2 Good 1 Very Good

5. Experiencing western culture

• 5 Very Bad 4 Bad 3 Not Sure 2 Good 1 Very Good

6. Immigration intention

• 5 Very Low 4 Low 3 Not Sure 2 High 1 Very High

7. The Desire to Understand " West"

• 5 Very Strong 4 Strong 3 Not sure 2 Weak 1 Very Weak

8. Domestic job oppptunities

• 5 Very Strong 4 Strong 3 Not sure 2 Weak 1 Very Weak

9. Course diversity

• 5 Very Strong 4 Strong 3 Not sure 2 Weak 1 Very Weak

10. Domestic education system

• 5 Very Bad 4 Bad 3 Not sure 2 Good 1 Very good

Part 2: How do you evaluate the following pull factors from the following five countries when you choose your study abroad destination? (Pull Factors which work in the host countries to attract you to study there)

Please make your perceptions toward the four countries given below in a five-point scale.

1. The Cost of Studying

	(5)Very Low	(4)Low	(3) Not Sure	(2)High	(1) Very High
Australia	5	4	3	2	1
Canada	5	4	3	2	1
Great Britain	5	4	3	2	1
America	5	4	3	2	1

2. The Cost of Living

	(5)Very Low	(4)Low	(3) Not Sure	(2)High	(1) Very High
Australia	5	4	3	2	1
Canada	5	4	3	2	1
Great Britain	5	4	3	2	1
America	5	4	3	2	1

3. Entry Requirement

	(5)Very Low	(4)Low	(3) Not Sure	(2)High	(1) Very High
Australia	5	4	3	2	1
Canada	5	4	3	2	1
Great Britain	5	4	3	2	1
America	5	4	3	2	1

4. The Exchange Rate with Chinese Yuan

	(5)Very Low	(4)Low	(3) Not Sure	(2)High	(1) Very High
Australia	5	4	3	2	1
Canada	5	4	3	2	1
Great Britain	5	4	3	2	1
America	5	4	3	2	1

5. Job Future

	(5)Very Low	(4)Low	(3) Not Sure	(2)High	(1) Very High
Australia	5	4	3	2	1
Canada	5	4	3	2	1
Great Britain	5	4	3	2	1
America	5	4	3	2	1

6. Air Quality

	(5)Very Good	(4)Good	(3) Not Sure	(2)Bad	(1) Very Bad
Australia	5	4	3	2	1
Canada	5	4	3	2	1
Great Britain	5	4	3	2	1
America	5	4	3	2	1

7. Safety Environment

	(5)Very Good	(4)Good	(3) Not Sure	(2)Bad	(1) Very Bad
Australia	5	4	3	2	1
Canada	5	4	3	2	1
Great Britain	5	4	3	2	1
America	5	4	3	2	1

8. Political Environment

	(5)Very Good	(4)Good	(3) Not Sure	(2)Bad	(1) Very Bad
Australia	5	4	3	2	1
Canada	5	4	3	2	1
Great Britain	5	4	3	2	1
America	5	4	3	2	1

9. Reputation of destination country

	(5)Very Good	(4)Good	(3) Not Sure	(2)Bad	(1) Very Bad
Australia	5	4	3	2	1
Canada	5	4	3	2	1
Great Britain	5	4	3	2	1
America	5	4	3	2	1

10. Quality of Academic Staff

	(5)Very Good	(4)Good	(3) Not Sure	(2)Bad	(1) Very Bad
Australia	5	4	3	2	1
Canada	5	4	3	2	1
Great Britain	5	4	3	2	1
America	5	4	3	2	1

11. Program Content

	(5)Very Good	(4)Good	(3) Not Sure	(2)Bad	(1) Very Bad
Australia	5	4	3	2	1
Canada	5	4	3	2	1
Great Britain	5	4	3	2	1
America	5	4	3	2	1

12. Financial Aid

	(5)Very Good	(4)Good	(3) Not Sure	(2)Bad	(1) Very Bad
Australia	5	4	3	2	1
Canada	5	4	3	2	1
Great Britain	5	4	3	2	1
America	5	4	3	2	1

13. The Wide Range of Course

	(5)Very Good	(4)Good	(3) Not Sure	(2)Bad	(1) Very Bad
Australia	5	4	3	2	1
Canada	5	4	3	2	1
Great Britain	5	4	3	2	1
America	5	4	3	2	1

14. Future Immigration Opportunity

	(5)Very High	(4)High	(3) Not Sure	(2)Low	(1) Very Low
Australia	5	4	3	2	1
Canada	5	4	3	2	1
Great Britain	5	4	3	2	1
America	5	4	3	2	1

15. Merge of Chinese and Western Culture

	(5)Very High	(4)High	(3) Not Sure	(2)Low	(1) Very Low
Australia	5	4	3	2	1
Canada	5	4	3	2	1
Great Britain	5	4	3	2	1
America	5	4	3	2	1

16. Reputation of University

	(5)Very High	(4)High	(3) Not Sure	(2)Low	(1) Very Low
Australia	5	4	3	2	1
Canada	5	4	3	2	1
Great Britain	5	4	3	2	1
America	5	4	3	2	1

17. The Grant of Student Visa Application

	(5)Very High	(4)High	(3) Not Sure	(2)Low	(1) Very Low
Australia	5	4	3	2	1
Canada	5	4	3	2	1
Great Britain	5	4	3	2	1
America	5	4	3	2	1

18. Visa possibility for third country

	(5)Very Easy	(4)Easy	(3) Not Sure	(2)Difficult	(1) Very Difficult
Australia	5	4	3	2	1
Canada	5	4	3	2	1
Great Britain	5	4	3	2	1
America	5	4	3	2	1

19. Distinctive Features of University

	(5)Very Easy	(4)Easy	(3) Not Sure	(2)Difficult	(1) Very Difficult
Australia	5	4	3	2	1
Canada	5	4	3	2	1
Great Britain	5	4	3	2	1
America	5	4	3	2	1

20. Values of degree

	(5)Very Close	(4)Close	(3) Not Sure	(2)Far	(1) Very Far
Australia	5	4	3	2	1
Canada	5	4	3	2	1
Great Britain	5	4	3	2	1
America	5	4	3	2	1

21. Potential benefits

	(5)Very High	(4)High	(3) Not Sure	(2)Low	(1) Very Low
Australia	5	4	3	2	1
Canada	5	4	3	2	1
Great Britain	5	4	3	2	1
America	5	4	3	2	1

22. Politic and economic relationships

	(5)Very High	(4)High	(3) Not Sure	(2)Low	(1) Very Low
Australia	5	4	3	2	1
Canada	5	4	3	2	1
Great Britain	5	4	3	2	1
America	5	4	3	2	1

23. Friends in the destination countries

	(5)Very High	(4)High	(3) Not Sure	(2)Low	(1) Very Low
Australia	5	4	3	2	1
Canada	5	4	3	2	1
Great Britain	5	4	3	2	1
America	5	4	3	2	1

24. Ethic Identity

	(5)Very Similar	(4)Similar	(3) Not Sure	(2)Different	(1) Very Different
Australia	5	4	3	2	1
Canada	5	4	3	2	1
Great Britain	5	4	3	2	1
America	5	4	3	2	1

25. Geographic Proximity

	(5)Very Important	(4)Important	(3) Not Sure	(2)Unimportant	(1) Trivial
Australia	5	4	3	2	1
Canada	5	4	3	2	1
Great Britain	5	4	3	2	1
America	5	4	3	2	1

26. Location (Distance)

	(5)Very Important	(4)Important	(3) Not Sure	(2)Unimportant	(1) Trivial
Australia	5	4	3	2	1
Canada	5	4	3	2	1
Great Britain	5	4	3	2	1
America	5	4	3	2	1

Part 3: What are your overall attitudes toward each of the five English-speaking countries?

	Quite Like	Like	Not Sure	Dislike	Quite Dislike
Australia	5	4	3	2	1
Canada	5	4	3	2	1
UK	5	4	3	2	1
America	5	4	3	2	1

Part 4: Could you please give some information about yourself?

You can tick one or more appropriate answer(s)

1. Your Gender <ul style="list-style-type: none"><input type="checkbox"/> Male<input type="checkbox"/> Female	2. Your Age <ul style="list-style-type: none"><input type="checkbox"/> 18-25<input type="checkbox"/> 26-30<input type="checkbox"/> > 30	3. How much money would you willing to pay for your overseas education? <ul style="list-style-type: none"><input type="checkbox"/> Under Yuan 99,000<input type="checkbox"/> From Yuan 100,000 up to 199,000<input type="checkbox"/> From Yuan 200,000 up to 299,000<input type="checkbox"/> Over Yuan 300,000
4. How will you be financed? <ul style="list-style-type: none"><input type="checkbox"/> Family<input type="checkbox"/> Personal bank deposit<input type="checkbox"/> Student Loan<input type="checkbox"/> Scholarship<input type="checkbox"/> Income of casual job while study abroad<input type="checkbox"/> other Source ____	5. How will you apply for study abroad <ul style="list-style-type: none"><input type="checkbox"/> By self<input type="checkbox"/> By professional agent<input type="checkbox"/> other choice ____	6. Which of the following parties would you consult for advice? <ul style="list-style-type: none"><input type="checkbox"/> Family members<input type="checkbox"/> Friends<input type="checkbox"/> Overseas alumni<input type="checkbox"/> Study abroad agent<input type="checkbox"/> Other choice

Do you have any comments about this survey, please let me know.

Thank you very much for your participation in this survey and wish you good luck with your overseas tertiary education.

Appendix 5 Table 6.3b-6.3d

**Table 6.3b Summary of responses received and missing data for each item-
America**

Items	Number of responses	Number of missing data	Percentage of missing data (%)
Q1.1	229	0	0
Q1.2	229	0	0
Q1.3	226	3	1
Q1.4	227	2	1
Q1.5	222	7	3
Q1.6	222	7	3
Q1.7	221	8	4
Q1.8	223	6	3
Q1.9	222	7	3
Q1.10	220	9	4
Q2.1	228	1	0
Q2.2	225	4	2
Q2.3	221	8	4
Q2.4	217	12	6
Q2.5	215	14	7
Q2.6	212	17	8
Q2.7	214	15	7
Q2.8	216	13	6
Q2.9	210	19	9
Q2.10	210	19	9
Q2.11	207	22	11
Q2.12	209	20	10
Q2.13	209	20	10
Q2.14	211	18	9
Q2.15	209	20	10
Q2.16	205	24	12
Q2.17	205	24	12
Q2.18	203	26	13
Q2.19	201	28	14
Q2.20	203	26	13
Q2.21	201	28	14
Q2.22	197	32	16
Q2.23	199	30	15
Q2.24	202	27	13
Q2.25	199	30	15
Q2.26	196	33	17

Source: Analysis of the survey data

Table 6.3c Summary of responses received and missing data for each item-Canada

Items	Number	Number	Percentage
Q1.1	229	0	0
Q1.2	229	0	0
Q1.3	226	3	1
Q1.4	227	2	1
Q1.5	222	7	3
Q1.6	222	7	3
Q1.7	221	8	4
Q1.8	223	6	3
Q1.9	222	7	3
Q1.10	220	9	4
Q2.1	224	5	2
Q2.2	224	5	2
Q2.3	220	9	4
Q2.4	216	13	6
Q2.5	215	14	7
Q2.6	213	16	8
Q2.7	216	13	6
Q2.8	215	14	7
Q2.9	210	19	9
Q2.10	208	21	10
Q2.11	205	24	12
Q2.12	207	22	11
Q2.13	210	19	9
Q2.14	211	18	9
Q2.15	209	20	10
Q2.16	205	24	12
Q2.17	205	24	12
Q2.18	203	26	13
Q2.19	200	29	15
Q2.20	203	26	13
Q2.21	201	28	14
Q2.22	198	31	16
Q2.23	198	31	16
Q2.24	202	27	13
Q2.25	199	30	15
Q2.26	194	35	18

Source: Analysis of the survey data

**Table 6.3d Summary of responses received and missing data for each item-
Great Britain**

Items	Number of responses	Number of missing data	Percentage of missing data (%)
Q1.1	229	0	0
Q1.2	229	0	0
Q1.3	226	3	1
Q1.4	227	2	1
Q1.5	222	7	3
Q1.6	222	7	3
Q1.7	221	8	4
Q1.8	223	6	3
Q1.9	222	7	3
Q1.10	220	9	4
Q2.1	227	2	1
Q2.2	224	5	2
Q2.3	220	9	4
Q2.4	216	13	6
Q2.5	215	14	7
Q2.6	214	15	7
Q2.7	216	13	6
Q2.8	218	11	5
Q2.9	210	19	9
Q2.10	209	20	10
Q2.11	205	24	12
Q2.12	207	22	11
Q2.13	209	20	10
Q2.14	211	18	9
Q2.15	210	19	9
Q2.16	205	24	12
Q2.17	206	23	11
Q2.18	203	26	13
Q2.19	201	28	14
Q2.20	203	26	13
Q2.21	201	28	14
Q2.22	199	30	15
Q2.23	198	31	16
Q2.24	202	27	13
Q2.25	199	30	15
Q2.26	195	34	17

Source: Analysis of the survey data

Appendix 7: Table 6.4b-6.4d

Table 6.4b Test of normality-US

Variable	Shapiro-Wilk		
	Statistic	df	p-value
Q1.1	0.652	184	0
Q1.2	0.766	184	0
Q1.3	0.848	184	0
Q1.4	0.857	184	0
Q1.5	0.695	184	0
Q1.6	0.857	184	0
Q1.7	0.769	184	0
Q1.8	0.891	184	0
Q1.9	0.772	184	0
Q1.10	0.753	184	0
Q2.1	0.834	182	0
Q2.2	0.847	182	0
Q2.3	0.852	182	0
Q2.4	0.811	182	0
Q2.5	0.882	182	0
Q2.6	0.891	182	0
Q2.7	0.889	182	0
Q2.8	0.904	182	0
Q2.9	0.867	182	0
Q2.10	0.772	182	0
Q2.11	0.827	182	0
Q2.12	0.859	182	0
Q2.13	0.862	182	0
Q2.14	0.912	182	0
Q2.15	0.897	182	0
Q2.16	0.788	182	0
Q2.17	0.915	182	0
Q2.18	0.908	182	0
Q2.19	0.791	182	0
Q2.20	0.763	182	0
Q2.21	0.874	182	0
Q2.22	0.886	182	0
Q2.23	0.891	182	0
Q2.24	0.813	182	0
Q2.25	0.906	182	0
Q2.26	0.883	182	0

Source: Analysis of the survey data

Table 6.4cTest of normality-Canada

Variable	Shapiro-Wilk		
	Statistic	df	p-value
Q1.1	0.652	184	0
Q1.2	0.766	184	0
Q1.3	0.848	184	0
Q1.4	0.857	184	0
Q1.5	0.695	184	0
Q1.6	0.857	184	0
Q1.7	0.769	184	0
Q1.8	0.891	184	0
Q1.9	0.772	184	0
Q1.10	0.753	184	0
Q2.1	0.858	184	0
Q2.2	0.882	184	0
Q2.3	0.866	184	0
Q2.4	0.879	184	0
Q2.5	0.865	184	0
Q2.6	0.823	184	0
Q2.7	0.848	184	0
Q2.8	0.873	184	0
Q2.9	0.856	184	0
Q2.10	0.835	184	0
Q2.11	0.862	184	0
Q2.12	0.878	184	0
Q2.13	0.880	184	0
Q2.14	0.904	184	0
Q2.15	0.893	184	0
Q2.16	0.830	184	0
Q2.17	0.901	184	0
Q2.18	0.913	184	0
Q2.19	0.856	184	0
Q2.20	0.839	184	0
Q2.21	0.875	184	0
Q2.22	0.865	184	0
Q2.23	0.884	184	0
Q2.24	0.822	184	0
Q2.25	0.896	184	0

Source: Analysis of the survey data

Table 6.4d Test of normality- Great Britain

Variable	Shapiro-Wilk		
	Statistic	df	p-value
Q1.1	0.652	184	0
Q1.2	0.766	184	0
Q1.3	0.848	184	0
Q1.4	0.857	184	0
Q1.5	0.695	184	0
Q1.6	0.857	184	0
Q1.7	0.769	184	0
Q1.8	0.891	184	0
Q1.9	0.772	184	0
Q1.10	0.753	184	0
Q2.1	0.81	184	0
Q2.2	0.783	184	0
Q2.3	0.844	184	0
Q2.4	0.766	184	0
Q2.5	0.893	184	0
Q2.6	0.867	184	0
Q2.7	0.863	184	0
Q2.8	0.867	184	0
Q2.9	0.852	184	0
Q2.10	0.852	184	0
Q2.11	0.851	184	0
Q2.12	0.876	184	0
Q2.13	0.857	184	0
Q2.14	0.901	184	0
Q2.15	0.9	184	0
Q2.16	0.787	184	0
Q2.17	0.882	184	0
Q2.18	0.861	184	0
Q2.19	0.821	184	0
Q2.20	0.825	184	0
Q2.21	0.877	184	0
Q2.22	0.884	184	0
Q2.23	0.885	184	0
Q2.24	0.825	184	0
Q2.25	0.868	184	0
Q2.26	0.793	184	0

Source: Analysis of the survey data

Appendix 8: Table 6.5b-6.5d

Table 6.5b Summary of means and standard deviations for psychographic normative influencing and purchase intention variables-US

Questions/Variables	Mean	Std. Deviation
Destination country factors		
Q2.6 Air condition	3.60	1.013
Q2.7 Safety issue	3.06	1.203
Q2.8 Political environment	3.51	1.061
Q2.9 Reputation of the destination country	3.86	1.010
Q2.22 Politic and economic relationships	3.36	1.096
Finance concern		
Q2.1 Tuition fee	2.32	1.269
Q2.2 Living expense	2.34	1.169
Q2.4 Currency	2.48	1.102
Q2.12 Scholarship	3.67	1.025
Domestic factors		
Q1.3 Air condition	3.07	1.112
Q1.4 Universities requirements	2.79	.989
Q1.8 Job opportunities	2.96	1.090
Q1.9 Courses	3.37	1.137
Q1.10 Education system	3.34	1.018
University factors		
Q2.10 Academic staff qualification	4.22	.776
Q2.11 Courses	4.11	.860
Q2.13 Range of courses	3.68	1.180
Q2.16 Reputation of universities	4.16	.905
Q2.19 Uniqueness of universities	4.02	1.068
Requirements		
Q2.3 Enrol requirements	2.49	1.189
Q2.17 Student visa	3.10	1.120
Q2.18 Third country visa	2.89	1.147
Other influencing factors		
Q1.1 Knowledge to destination country	4.57	.530
Q1.5 Experiencing western culture	3.97	.863
Q1.6 Immigration intension	2.81	1.119
Q1.7 Desire to understand “West”	3.73	.914
Q2.24 Ethical identity	4.01	1.067
Potential benefit		
Q2.5 Future job opportunities	3.70	1.105
Q2.14 Immigration opportunity	3.15	1.267
Q2.15 Culture merge	3.41	1.080
Q2.20 Value of the degree	4.19	.974
Q2.21 Potential benefit	3.77	1.004
Students’ personal factors		
Q1.2 Recommendation by others	3.58	.893

Questions/Variables	Mean	Std. Deviation
Q2.23 Friends in the destination country	3.58	1.138
Q2.25 Geographic issue	3.19	1.075
Q2.26 Distance	2.99	1.181
Intentions		
Q3 How much do you want to study overseas in US?	3.69	1.211

Source: Analysis of survey data

Table 6.5c Summary of means and standard deviations for psychographic normative influencing and purchase intention variables-Canada

Questions/Variables	Mean	Std. Deviation
Destination country factors		
Q2.6 Air condition	4.08	.788
Q2.7 Safety issue	3.88	.801
Q2.8 Political environment	3.79	.854
Q2.9 Reputation of the destination country	3.82	.784
Q2.22 Political and economic relationships	3.43	.851
Finance concern		
Q2.1 Tuition fee	2.81	1.094
Q2.2 Living expense	2.65	1.069
Q2.4 Currency	2.84	.951
Q2.12 Scholarship	3.48	.924
Domestic factors		
Q1.3 Air condition	3.07	1.112
Q1.4 Universities requirements	2.79	.989
Q1.8 Job opportunities	2.96	1.090
Q1.9 Courses	3.37	1.137
Q1.10 Education system	3.34	1.018
University factors		
Q2.10 Academic staff qualification	3.91	.733
Q2.11 Courses	3.79	.834
Q2.13 Range of courses	3.43	1.110
Q2.16 Reputation of universities	3.83	.831
Q2.19 Uniqueness of universities	3.65	.961
Requirements		
Q2.3 Enrol requirements	2.81	1.113
Q2.17 Student visa	3.24	.975
Q2.18 Third country visa	3.14	1.101
Other influencing factors		
Q1.1 Knowledge to destination country	4.57	.530
Q1.5 Experiencing western culture	3.97	.863
Q1.6 Immigration intention	2.81	1.119
Q1.7 Desire to understand "West"	3.73	.914
Q2.24 Ethical identity	4.01	.946
Potential benefit		
Q2.5 Future job opportunities	3.75	.898
Q2.14 Immigration opportunity	3.24	1.215
Q2.15 Culture merge	3.46	.985
Q2.20 Value of the degree	3.78	.846
Q2.21 Potential benefit	3.59	.879
Students' personal factors		
Q1.2 Recommendation by others	3.58	.893
Q2.23 Friends in the destination country	3.48	1.148
Q2.25 Geographic issue	3.32	.987
Q2.26 Distance	3.12	1.161
Intentions		
Q3 How much do you want to study overseas in Canada?	3.76	.959

Source: Analysis of survey data

Table 6.5d Summary of means and standard deviations for psychographic normative influencing and purchase intention variables- Great Britain

Questions/Variables	Mean	Std. Deviation
Destination country factors		
Q2.6 Air condition	3.67	1.010
Q2.7 Safety issue	3.58	.942
Q2.8 Political environment	3.49	.876
Q2.9 Reputation of the destination country	3.95	.843
Q2.22 Politic and economic relationships	3.22	.994
Finance concern		
Q2.1 Tuition fee	2.45	1.145
Q2.2 Living expense	2.13	.859
Q2.4 Currency	2.16	.963
Q2.12 Scholarship	3.31	1.016
Domestic factors		
Q1.3 Air condition	3.07	1.112
Q1.4 Universities requirments	2.79	.989
Q1.8 Job opportunities	2.96	1.090
Q1.9 Courses	3.37	1.137
Q1.10 Education system	3.34	1.018
University factors		
Q2.10 Academic staff qualification	4.03	.759
Q2.11 Courses	3.89	.781
Q2.13 Range of courses	3.33	1.113
Q2.16 Reputation of universities	4.14	.807
Q2.19 Uniqueness of universities	3.88	.898
Requirements		
Q2.3 Enrol requirements	2.78	1.212
Q2.17 Student visa	3.22	1.035
Q2.18 Third country visa	3.49	.977
Other influencing factors		
Q1.1 Knowledge to destination country	4.57	.530
Q1.5 Experiencing western culture	3.97	.863
Q1.6 Immigration intension	2.81	1.119
Q1.7 Desire to understand “West”	3.73	.914
Q2.24 Ethical identity	4.03	.999
Potential benefit		
Q2.5 Future job opportunities	3.73	.958
Q2.14 Immigration opportunity	2.94	1.157
Q2.15 Culture merge	3.12	1.017
Q2.20 Value of the degree	4.02	.876
Q2.21 Potential benefit	3.44	.963
Students’ personal factors		
Q1.2 Recommendation by others	3.58	.893
Q2.23 Friends in the destination country	3.53	1.084
Q2.25 Geographic issue	2.89	.958
Q2.26 Distance	2.75	1.081
Intentions		
Q3 How much do you want to study oversea in Great Britain?	3.89	1.032

Source: Analysis of survey data