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#### **MASTER OF BUSINESS ADMINISTRATION**

Brain drain of China: the inclination of Chinese students to stay abroad after their studies

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## Abstract

The topic of brain drain and brain gain has flourished over the years in China. Many existing literatures have reviewed the trend on brain drain and its impact on the economic development of the source countries and the host countries. This research is to investigate this subject based on the theoretical lens of human capital. This research adopts the quantitative method, to conduct a survey for three months on 300 Chinese overseas students in Malaysian universities. The collected data will be analyzed using both SPSS (frequency distribution) software and Smart PLS software (convergent and discriminat validity and path coefficients test). This research takes four independent variables which include satisfaction with the university; social support; family tie and career perception. The dependent variable is the intention of staying abroad after graduation by respondents. The findings reveal that social support from the university in host country and career perception at home and host country do impact and influence the Chinese students stay abroad, after their graduation. The implication of the findings is to reverse brain drain, and for the Chinese government to improve their education quality and better the relationship between the university and the students. The policies maker like HR department should enhance the employment environment and help create career development prospect for the domestic talents and for potential returnees.

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Bai Yuna 15<sup>th</sup> November 2013

## **Declaration by candidate**

I hereby declare that this research project is of my own effort except for the information that has been used from various authors that have been cited accordingly and ethically.

Bai Yuna 15<sup>th</sup> November 2013

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## List of Abbreviations

HR = Human Resource

MOP = Ministry of Personnel

NSFC = National Natural Science Foundation of China

CAS = Chinese Academy of Sciences

MOE = Ministry of Education and its precedent the State Education Commission

INTI International University (2013)

US = United States

UK = United Kingdom

OECD = Organization for Economic Co-operation and Development

H1/2/3/4 = Hypothesis

CNY = China Yuan

SAT= Satisfaction with University

SS = Social Support

FT = Family Tie

CP = Career Perception

INT = Intention to Stay Abroad

AVE = Average Variance Extracte

SPSS = Statistical Package for Social Science

PLS = Partial Least Square

SEM = Structural Equation Modeling

AMOS = Analysis of Moment Structures

LISREL = Linear Structural Relation

## Chapter 1: Introduction

#### 1.0 Introduction

This opening chapter presents an overview of the entire study. It begins by offering a background on the research and its problem definition by highlighting the main issues leading to the research. It further outlines the research objectives encompassing the entire study direction and providing clearer scope, limitations, and operating definitions, before making claims of any prospective contribution.

#### 1.1 Background

Human capital is one of the many valuable assets for a country and can be the most competitive factor in boosting national resilience. Especially for China, which has the largest population resource in the world, has paid great attention to cultivating talents. Apart from enhancing domestic education for talents, the government has tried hard to encourage students to go abroad to do further study and research, hoping that they will later successfully return to significantly contribute forwards for the development of China.

The UNESCO statistics (News Hodgepodge, 2011) showed that China had become the country that has the largest number of students overseas in 2006. There is almost one Chinese student for every seven overseas students, in the world. According to data from the Ministry of Education of China, the average number of student that went abroad for studying increased by 23% per year in the recent three years. Furthermore, there are 1.42 million oversea Chinese students abroad as at the end of 2011, from among the 9.5 billion doing various

stages of study or on academic visit. Chinese students studying abroad are distributed in more than 100 countries in the world, with students in 10 countries including US, Russia, Germany, France, Singapore, Canada, South Korea, Britain, Japan and Australia, accounting for 90.7% of all the overseas students(News Hodgepodge, 2011; Berkeley, 2012; Beijing Times, 2012).

#### 1.2 Problem Statement

#### 1.2.1 Definition of Brain Drain

According to POPIN Dictionary (1999), the term 'Brain drain' is defined as the flow of highly educated talents from their home country (sending country) to other countries (receiving country). In most cases, the receiving country is a developed country while the home country is usually a developing country. Another definition of brain drain, according to the Britannica Encyclopedia, is professional or educated person leaving from one country, field, or economic sector to another country, usually for a better living condition (Suntharaj & Kocaoglu, 2008).

#### 1.2.2 Problem Statement

Despite the increasing number of Chinese students going abroad for further study, there is lesser percentage that returns back to China in recent years. From 1978 to the end of 2007, there are 1.2117 million Chinese overseas students, while the number that came back after finishing their study is only 0.3197 million, which account for only 26.38%, while majority students which account for 73.62% of them do not come back to China (JSJ.edu.cn, 2008).

This situation cause serious brain drain of Chinese talents, which not only is a

waste of economic and educational cost but also has draconian effects on China's rapid development. As is known in the world, China is the world's fastest growing economy so therefore need large number of talents. While losing high quality talents on many areas (caused by the heavy brain drain), there are also many negative results behind this rapid development of China; such as the pollution, high capital waste, low efficiency, etc. Therefore, based on the human capital theory (Marshall, 1998), the Chinese government is trying hard to attract the oversea student back to China when they finish their study, in order to solve the problems and achieve overall and better development by the hand of high quality researchers.

The more important task before solving the problem of brain drain is to research the factors that are causing brain drain. This research is to examine this issue by testing the inclination of staying abroad after graduation for Chinese students in Malaysia. As the author understands from the students around, there are three trends after their studies in Malaysia. Firstly, many Chinese students will go back to China after their graduation. Secondly, some of them will go to other countries to continue their further studies, such as Australia, UK, Singapore, and so on. Then there are a few students who will stay in Malaysia to work or to migrate. This research therefore is to do practical investigation on this inclination and to test the factors that effect this inclination.

There are many existing literatures that have reviewed the issue of brain drain and the impact of it on the economic development of the source countries and the host countries. (eg:Dodani, LaPorte, 2005; Docquier, Sekkat, 2006). However, based on the thorough literature reviews, it is observed that this inclination the inclination by the Chinese students abroad has been researched albeit on a very limited scale. Only Baruch, Budhwar & Khatri (2007) and Kellogg (2012) seem to have researched on this relative perspective.

A detailed understanding on this inclination to stay or go back to China after graduation for Chinese students, will not only help the Chinese government to brain gain more effectively but also provide good information for host country to grasp these talents more easily. Identification of the crucial factors for this inclination has great significance on the future development of China.

#### 1.3 Research Questions

In responding to the problem statement, the research is to explore the factors which can influence the inclination for Chinese national students to stay abroad after their graduation. Hence the research questions in this context:

- To what extent the relationship between Chinese national students' satisfaction with university in the host country and their intention to stay back in the host country after their study?
- To what extent the relationship between social support to Chinese national students in the host country and their intention to stay back in the host country after their study?
- To what extent the relationship between Chinese national students' family tie in the home country and their intention to stay back in the host country after their study?
- To what extent the relationship between Chinese national students' career perception in the host country and their intention to stay back in the host country after their study?

## 1.4 Research Objectives

The main objective of this research is to examine the factors that influence the

inclination of 'staying abroad' or 'return to home country' from the perspective of Chinese national students studying in Malaysia.

#### The specific-objectives are:

- To examine the relationship between Chinese national students' satisfaction with university in the host country and their intention to stay back in the host country after their study.
- To examine the relationship between social support to Chinese national students in the host country and their intention to stay back in the host country after their study.
- To examine the relationship between Chinese national students' family tie in the home country and their intention to stay back in the host country after their study.
- To examine the relationship between Chinese national students' career perception in the host country and their intention to stay back in the host country after their study.

## 1.5 Significance of the Study

This research attempts to find out the main factors that affect the decision of Chinese students to return home or stay abroad after their graduation. This research can be important to three parties: to academia, to government and to the industry.

This study can contribute to the academicians and have great significance to future study on this research area. As there is limited study in this subject, this research should lead and encourage scholars to do more and deeper researches. The findings from this research can assist other academicians doing further research on this issue of brain drain especially on those influencing

factors that lead to brain drain. Additionally, this research provides useful and precious material for the study on this area.

The proposed framework for this study can also be replicated to other developing countries or industries that share the same problem. Just as it is a help to home country to reduce brain drain and realize brain gain, it can also help the host country to realize brain gain and reduce brain drain.

The findings will also be helpful for government to take effective measures to reduce brain drain and achieve brain gain.

Brain drain is a realistic problem for the Chinese government. Reversing brain drain has great impact on the development of China. And the government plays an important role on this mission. If the government wants to reverse brain drain, the various factors that influence the decision of Chinese students to come back to China after their studies abroad, must be seriously studied. This study can provide valuable information for government to identify some of the essential factors that matter, which can enhance the government to conduct more effective programs and adopt measures or policies to attract oversea Chinese students to come home after their studies.

The results from this study can be useful for the Human Resource (HR) department to manage human resource effectively. Human resource is essential to any country's development. Similarly it has great influence on the development of China when talents flow outside to other country. This study can provide the HR department the inputs that matter to the talents to stay abroad or come back to China, for HR mangers to take measures to counter the factors so as to attract high-caliber talents overseas back, and keep them domestically.

Finally, this study can help the talents to know more about the preferential policies conducted by the Chinese government. They can get the information and compare the situation in the foreign country, should they stay abroad, thus will help them make the best choice for themselves according to their own preference.

#### 1.6 Limitations

There are some limitations on this study details of which are as follows:

Firstly, time limitation. This research was done within three months from August to November in 2013. In this imitated time, the author cannot cover all the details that matter. In addition, in this short period when this research was conducted, the policies of the government toward talents attracting may have changed, and so too, are the opinions of talents toward where to work. And with the economic environment changing every day, may all cause for talents to also change their original intentions.

The secondly is geographic limitation of respondents. The majority of the Chinese overseas students are studying in Western countries, such as US, UK, and Germany and also in Australia (News Hodgepodge, 2011; Berkeley, 2012; Beijing Times, 2012). Most of the talents have the intention to work or are working in these countries because these countries are developed and provide better living condition for them (high salary, good environment, and good welfare and so on). These countries are more attractive for talents compared as compared to Malaysia. Therefore, any research done in these countries will be more authorities as a study. However due to the author studying in Malaysia, it is easier and more practical to do research in this country. This geographic limitation to Malaysia is recognized.

Likewise, there is also geographic limitation to the application of the findings of this research. This study is typically the issue of brain drain and brain gain in China. Applying the findings in totally to other countries, would not be proper as countries differ in conditions politically, socially and economically.

The other limitation is on sample size. Ideally, the sample size of this research should be set based on the total population of the Chinese students in Malaysia. However, the author tried, but failed to get this population figure. Therefore, this research takes the convenient sample size method. Considering the limited number of Chinese students the author knows, 300was set as the minimum sample size, while trying for more. Moreover, the respondents will be drawn from several universities with high number of Chinese national students.

There are many factors influencing the talents decision to or not to stay abroad, such as housing, insurance, welfare, children and spouse settlement, and personality. However for the purpose of this study, only five factors or variables will be researched on.

## 1.7 Scope of the Study

This research is focused on the issue of brain drain in China, by testing the factors that influence the intention of staying abroad after completing their studies of the Chinese students abroad.

The sample is focused on the university students of Chinese nationals in Malaysia. The students will be selected from several Universities with high number of Chinese national students. The unit of analysis is 300, and the research will be undertaken using the quantitative research approach with thorough questionnaire.

## INTI INTERNATIONAL UNIVERSITY

## MASTER OF BUSINESS ADMINISTRATION

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