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The Application of Talent Management Theories to the Prevention of "Brain Drain" in China

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<p>The thesis is a specialised study about talent management in China to the prevention of brain drain that China has faced for decades. Since China started the economic reform in 1978, there have been more and more Chinese students and academics going abroad to seek for better places and the number of them is in the millions. As the majority of them do never return to China, while the country is suffering from a severe skilled labour shortage, the Chinese government and businesses, both local one and multinationals, have implemented a series of encouraging acts towards overseas Chinese. In 2007, when the Chinese government first launched “the One Thousand Talent Plan”, the difference between how many people leave and how many return has showed a big change towards what Chinese leaders have expected.</p> <p>By applying comprehensive strategies taken from talent management theories, China has welcomed a fresh force of skilled labour in many fields, particularly in science and technology. Beijing launched a plan to reform the Chinese education system, through ways such as popularising education to rural areas, building numerous universities and luring the most prominent experts in the world, methods that are understood as talent development. Meanwhile, Chinese managers and leaders use both extrinsic and intrinsic incentives to retain talents in their organisations. Three phases of talent management are briefly illustrated via the exemplary case of Alibaba.</p> <p>The thesis aims to provide a clear picture of brain drain in China and the choice of China to solve this issue – talent management. Although an effective talent management alone cannot end the issue, what China has achieved in reversing brain drain is remarkable, especially in comparison to some other developing countries where the issue is now also becoming more visible and considered a harmful contagious phenomenon.</p>	
Keywords	China, brain drain, HR, HRM, labour shortage, talent management, talent attraction, talent development, talent retention, thousand talents programme, Alibaba.

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1 Introduction

1.1 Thesis' formation

During Spring 2017, I worked as a Digital Marketing intern at JobGo International, an executive search company, informally called headhunting service. The daily tasks required from me were a basic understanding of human resources (HR) and human resources management (HRM), giving me a glance about the labour markets in different countries and also the world as a whole. When assigned as the main pen of the marketing team with the task of writing blogs on problems that recruiters often face, I made a lot of researches and finally came to a conclusion that the biggest issue is the shortage of skilled labour. According to a research by The Organisation for Economic Co-operation and Development (OECD), around 40 percent of employers in Europe have experienced difficulties in finding employees with the required skills. However, in Asian countries such as Japan, India and China, the situation is even more severe.

It seems like a paradox that in the most crowded countries on earth, skilled human capital demand always outnumbers supply and that multinational companies and local ones are competing for talent acquisition. Although HRM is important, modern HR managers have paid a special attention to “talent management” and they consider it the central core of their HRM. There are various applications of talent management in different organisations and reality has shown that the most successful businesses are those with wise talent management strategies. On a national scale, talent management is applied to manage the skilled human flows in solving social issues, such as “brain drain” in developing countries.

In China where the population is up to 1.4 billion, high unemployment coexists with a labour shortage. Social scientists have clarified the issue and its reasons, such as structural changes in China’s demography as the consequences of the birth control policy. When asked about the situation, my Chinese friends did not hesitate to give their own opinions, and all showed a common reason - brain drain. From my own research, I realised that the Chinese government has put great effort into curing the dilemma of brain drain since the very first days after the Open Door policy of 1978. Talent management theories are the chosen methods to deal with this issue, and the positive change towards brain drain has illustrated their effectiveness.

1.2 Thesis' background and structure

"The righteous talents are the vitality of a nation"
Than Nhan Trung (申仁忠, 1419 - 1499)

Out of all the developing economies, China is leading the way. The country possesses a great ambition to become the world's leader in economics, science and technology. Since the birth of the Chinese government in 1949, Chinese leaders have gradually revolutionised, modernised and globalised the country to achieve their ambitious goals. They have faced many challenges and have received a fierce torrent of criticism from both internal and external sides about certain issues. In 1978, Deng Xiaoping opened a new chapter in the history of China by launching the Open Door policy, bridging China and the rest of the world. Since then, the Chinese people have had more opportunities to study and work in advanced environments, such as Europe and North America. After nearly four decades, the outflow of Chinese human capital has increased rapidly without signs of slowing down.

For various reasons, many talents and skilled individuals in China want to leave their nation. Until now, the amount of Chinese people living overseas and Chinese people leaving annually are calculated in units of million. China's brain drain has been more transparent overtime, forcing Chinese leaders to have rational acts. They have planned and implemented preventive programmes comprehensively to attract Chinese talents from overseas. Statistics have shown that their efforts have worked.

The thesis aims to uncover the concept of talent management in China's brain drain context to realise how Chinese leaders have applied talent attraction, talent development and talent retention in practice. In order to do so, it analyses macro-environmental factors of Chinese HR, examines the driving forces behind the issue of brain drain and gives explanations for human capital flows into and out of China. The study gives an objective view about the current issues of brain drain in China, which is illustrated via facts, data, statistics and examples collected in reliable sources. Answers to China's brain drain-related questions such as *"When or whether China's brain drain goes to an end?"* are therefore predictable.

1.3 Thesis' methodology

The thesis' topic can be seen from a social science perspective. Its values would not be inferred through reflection or intuition but be measured through objective methods. The core value of the thesis is to understand brain drain in China, involving both statistics and personal viewpoints. Therefore, the methodology methods applied to the thesis are both qualitative and quantitative, including interviews and documentary analysis, followed by a deductive approach.

The study involves questions *why* and *how* about brain drain in China and its related issues. While quantitative research is used to analyse precisely historical records and give future predictions of the phenomenon, qualitative research is applied to gain an in-depth understanding of underlying reasons, motivations and opinions about the interconnection between brain drain and talent management. The thesis also adopts a company case (Alibaba Group) as an exemplary image in answering the questions after quantitative and qualitative researches. Data in the thesis is exploited via official sources, such as the website of Ministry of Education of China. Explanations and hypotheses about brain drain in the thesis are analyses, filters and simplifications of experts in the field, such as Cong Cao, Professor of Chinese Studies at Columbia University and Conrad Schmidt, group leader of Talent Management Labs, Washington D.C.

During research for the thesis, I received guidance from the Department of Education and Training of Australian Government. In August 2016, they compiled a short research named "China – Outbound and inbound international students", which share some similarities with the thesis. I contacted them via email to ask for the necessary data, and they provided me with valuable materials and fact sheets that assisted me considerably with my study. I also contacted Chinese friends who had studied in Finnish higher educational institutions and asked them about brain drain in their country – its reasons, efforts of China's government, current situations and their own opinions.

The thesis itself has unavoidable limitations. Firstly, statistics taken from the Chinese government are often criticised as unreliable. There are certain deficiencies in the way they gather, measure and present their data, because Chinese local governments have their own ways to cover their dark corners (Wallace 2015). Numbers about economics, pollution, the exploitation of natural resources and energy consumption were not counted

by Chinese's local bureaucrats, which also arouses a lot of controversy and a big question mark about international researches that rely on this "non-transparent" source of material. Secondly, due to the abstraction of *skilled* and *talent*, there is no concrete data about skilled/ talent flow of Chinese human capital. Therefore, the study focuses on Chinese students and people working in STEM fields (Science, Technology, Engineering and Mathematics). Thirdly, my weakness in Mandarin Chinese is considered one of the major limitations when conducting researches, as there might be a huge amount of relevant materials written in this language. Last but not least, the small size of samples about opinions of Chinese students in Finland does not guarantee a significant relationship to the real issues as a whole. Personal views and feelings about the topic were carefully observed and analysed, however they were not utilised in order to ascertain the objectivity and the deductive approach of the thesis.

2 Macro-environmental analysis of Chinese human resources

Whether or not talented and skilled individuals return to China from abroad depends more or less on the effectiveness of the talent management strategies of the Chinese government and businesses. On the other hand, talent management is an essential part of HRM, therefore, brain drain can be said to be a secondary consequence of HRM. The external/ macro-environmental factors such as political, economical, social-cultural, technological and legal ones, shape HRM in one way or another, directly and indirectly affecting the creaky brain drain issue of China.

Political factors

To do business in China, it is vital to work with the government first. Political factors play an important and influential role in HRM arena, as the Communist party directly or indirectly controls every movement of firms. Over 70 million members of the Chinese Communist Party out of the membership of 89 million were spread out, from white-collar to blue-collar workers, holding critical positions in businesses' work system (Warner 2013). The numbers of China's companies listed in the Fortune Global 500 in 2000, 2010 and 2015 are respectively 10, 46, and 98, and most of them (76 out of 98) are state-owned (Fortune 2015), controlled by China's Government, or more exactly by the Communist Party, as the Party runs China's politics. While, private companies are also tightly managed, as they are required to have at least 50 employees who are representatives of the Communist Party, if their number of employees exceeds 100. They establish a party cell that reports directly to the Party in the local municipality (Abrami, Kirby & McFarlan 2014). Although businesses in China are strongly backed by their powerful government, these strict requirements affect negatively to the natural growth and the implementation of competitive strategies of firms, also constraining the incentives to grow one's own business. Those not adhering to government policies are severely fined and are likely forced to shut down.

Although human resources are scarce in China, as analysed in Section 3, they cannot adjust themselves naturally because of government interference. Talented people and skilled individuals, who want to climb further in the career ladder in China, implicitly perceive that they have to engage in politics, sooner or later.

Economic factors

The shape of the current economy also strongly influences the talent pool in particular as well as HRM in general. All movements of the economy regarding such things as imports, exports, urban growth and rates of savings, have a major impact to businesses, especially small and medium-sized entrepreneurs, as most of them are private and not backed by the Chinese government. In the last four decades, China's GDP growth has averaged nearly 10 percent a year, which has lifted more than 800 million people out of poverty (World Bank 2017). China has soared to become the second largest economy in the world since 2010 (Barboza 2010), and when it becomes the number one is just a matter of time.

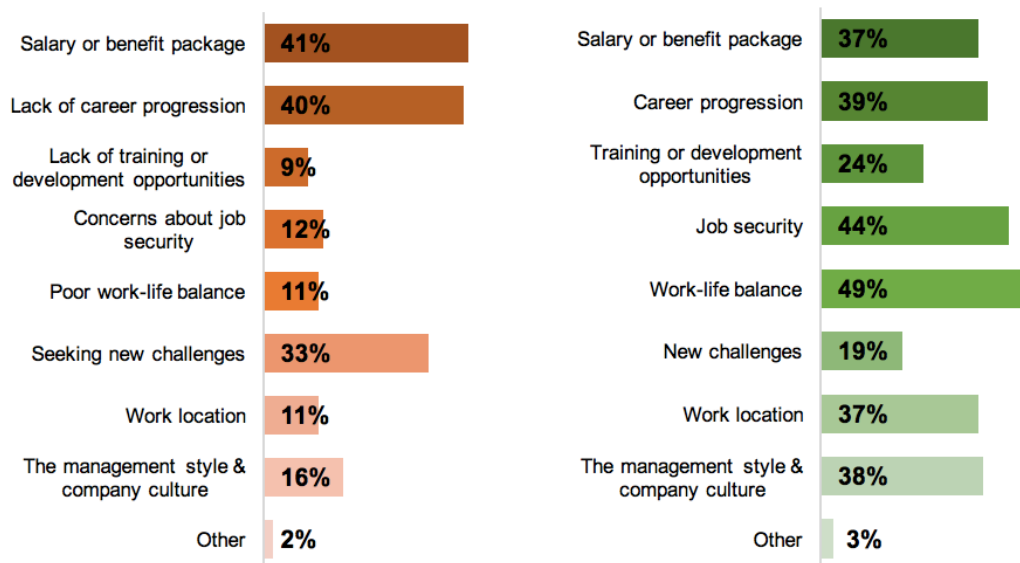


Figure 1: Reasons for looking for a new employer (left) and for staying with the current employer (right). (Source: 2016 Hays Asia Salary Guide)

Although the country is progressing day after day, there is still a big difference between China's per capita income and that of advanced economies, and China remains a developing country. Moreover, China's market reforms are deficient, which results in there being over 55 million people in rural areas living below \$1.25-a-day international poverty line (World Bank 2017). The way China has transformed from the low- to middle-income status is impressive, however in reality the transition from middle-income to high-income status is much more of a challenge. There are worrying trends, such as high inflation rates and high property prices, leading to a rapid surge in living costs that are incompatible with monthly incomes. It explains why while China in general is one of the

most generous in Asia in terms of salary increases (Figure 8 Chapter 5), “salary or benefit package” is still the prime factor forcing one to leave his/ her employer and look for a new one (Figure 1), according to Hays Asia Salary Guide 2016.

Social-cultural factors

A business is an entity in the society and HRM works as a cell. Therefore, there are always social-cultural impacts to every programme and action that firms and organisations make. In China’s context, as Confucianism has gone too deep into people’s mindset and been considered moral standards, social-cultural factors are too influential to neglect in terms of HRM.

Over 4000 years of history, Confucianism covers all angles of life in China. Because of turning points in history since 19th and 20th centuries with the collapse of the Chinese feudalism, Chinese society is now affected by Confucian inheritance, Western imperialist influences and Marxism/ Leninism. According to Geert Hofstede’s value dimensions, China is a collectivist culture, in which *hierarchy*, *perseverance* and *thrift* are the core values (Warmer 2013). Chinese people emphasise on education and highly appreciate academic achievements, deriving from a long history of examination, which influences significantly to HRM, especially recruitment processes. However, *guan-xi*, or a personal network, is still very important and plays a decisive role in every HR decision (Fu 2013). Chinese people believe that success and achievement depend mainly on personal relationships rather than competence. Therefore, in order to have a good seat in any organisation, especially in the Chinese bureaucracy, talents, skills and experiences sometimes are not enough, instead all one needs might be a strong contact with Chinese managers or leaders.

Technological factors

Whilst other external factors change the way HRM approaches to effective outcomes, technological ones not only alter traditional HRM but also revolutionise the way firms do business. HR functions such as recruitment, selection, training and observing will be significantly improved by breakthroughs in technology. (Punia & Sharma 2015).

Technology is expected to fade China's reputation for low-cost manufacturing as it helps HR managers in reducing the existing manpower to save money.

Technology is the main driving force to transform China into a knowledge-based economy, while also making big changes in China's labour market. In recent decades, China has risen as a world's major contributor to science and technology, due to massive investments in higher education and technology centres by the Chinese government. Young talents are carefully cultivated and encouraged to follow STEM fields with the hope to bring positive economic outcomes. In addition, with more than 720 million internet users (Yangpeng 2017), e-commerce is blooming in China, with the absolute dominance of Alibaba. People spend more time on shopping online, though, the volume of e-commerce will continue to increase in near future, according to predictions of Boston Consulting Group (BCG Report 2011). Because of the instant changes of the work environment in e-commerce in particular and technology in general, requirements for more educated and qualified candidates increase and businesses have to raise training costs for their existing workforces.

Legal factors

Legal dimension, via labour law, influences HRM in both direct and indirect ways. The Labour Law 1994 marked a breakthrough in China's labour policy with the replacement of lifelong employment with contract-based and the replacement of government job assignment with the labour market (Gayle & Garot 2010). It established the basic rights and responsibilities of employment in China, such as annual vacations, working time, paid maternity leave, holidays and labour dispute. However, the Labour Law 1994 left big gaps in defining the creation of contract and the protection of part-time work, which led to the birth of Chinese Labour Law 2008 with three big creations – the Law on Mediation and Arbitration of Labour Disputes, the Labour Contract Law, and the Labour Promotion Law. The improvements of Chinese labour law implicate that employers in China need to approach new recruitment methods, as China's labour market became more rigid. According to Gayle Allard and Marie-José Garot (2010), Chinese Labour Law 2008 has resulted in a dual labour market, higher costs and greater union influence in foreign companies.

Another legal factor that threatens firms in general and HRM in particular is China's taxation system. There are more and more Chinese businessmen who claim that manufacture and production have become more expensive as a result of China's tough tax system. For example, Cao Dewang, the chairman and CEO of Fuyao Glas Industry Group, the second largest automotive glass supplier in the world, has tried to find a cheaper place to manufacture outside China. An example of this is when Dewang bought an old General Motors factory in Ohio in 2014 (The Economist, 2017). According to the Chinese millionaire, it is now costlier to run a business in China than in America and his claim shows its merit. Although on paper overall tax revenues as a percentage of GDP are just 30% in China, much lower than the average of developed countries (42.8%) and developing ones (33.4%), in reality the World Bank estimates that China's total tax rate as a percentage of profits is 68% (The Economist, 2017), as a consequence of huge indirect taxes.

3 Brain drain and talent management in China's context

3.1 Key definitions

3.1.1 Brain drain and controversy

According to the Cambridge dictionary, brain drain is defined as a situation in which many skilled and talented people leave their nation to live in other countries where conditions are superior. It is the process in which a country loses its most educated and talented workers to other countries through migration. This trend is considered a problem, because the competent individuals leave their homeland and contribute their expertise to other countries' economies. The country they leave can suffer economic hardships because those who remain don't have the 'know-how' to make a difference. Brain drain can also be defined as the loss of the academic and technological labour force through the moving of human capital to more favourable geographic, economic, or professional environments (Study.com, n.d.). In general, the movement of brain drain flows from developing countries to developed ones or advanced economies.

- Its history

In October, 1933, The United States received one of the brightest minds in the history of humankind, Albert Einstein. As the scientist knew he could not survive under the rise to power of the Nazis under a new Chancellor of Germany Adolf Hitler, he applied for citizenship in the U.S. and became an American citizen in 1940. The rest is history, when he contributed his entire life to modern physics, philosophy of science, human rights, peace and music, the establishment of Hebrew University of Jerusalem, and many other great things. However, he is only one in a formidable influx of scientists and engineers to the U.S. from Europe during and after the World War II, which tremendously helped the US become and maintain the world leader position in science, military and economics. The Royal Society was the first to use the term "brain drain" to describe that loss of technical expertise from 40s to 60s, but now it has been used widely not only in Europe, but in the whole globe, as the talent flow continues to pour from nation to nation as an inevitable consequence of globalization and the increase of people's awareness.

- There is a controversy about brain drain and gain.

Brain drain seems to cause labour shortage to the country of origin and innovation contribution to receiving countries, and many countries have rung the alarm bell about its formidable negative power that could lead to a huge loss of technical expertise. A country needs talented citizens to design and construct its own shapes, a business requires contributions from excellent employees and run by talented managers – it is a visible trend that one can witness from brain drain. On the contrary, destinations of migrants can receive contributions from a new labour source, which is called “brain gain”. However, there has been a big controversy for a long time about the issue of brain drain, as many questions arise and people has found evidences for and against it. For example, “brain waste” is understood in two contexts, either a misuse of skilled labour in receiving countries when talented immigrants cannot work in their specialist fields, or withering talents due to poor conditions in origin countries. Another concept of “brain circulation” is what matters and involved in the debate beside other definitions, indicating “the cycle of moving abroad to study, taking a job abroad, and later returning home to take advantage of a good opportunity” (Torres & Wittchen, n.d.). The most important point to countries like China is that only a small piece of brain drain becomes brain circulation, and in Chinese people’s view-point, brain drain brings more harm than good to their country.

There is more than one single way to prevent or end brain drain in China, but all strategies require a long run to prove their own efficiency. What China needs is a comprehensive term that is able to attract talented individuals back from overseas, to create a suitable environment for them to develop and a system that retains them.

3.1.2 Talent management and talent retention

- Talent management

Many understand the importance of HRM and talent management to the vitality of an organization, but just a few can differentiate one from the other. According to Gary Dessler (2013), HRM is one of the core activities of all organizations, described as the process of acquiring, training, appraising, and compensating employees, and of attending to their labour relations, health and safety, and fairness concerns. Talent management seems to share some traits with HRM, but in fact it does not consider

people as individuals or entities, but more considers their talents, sets of skills and their contributions to the organization. Therefore, talent management can be said to be the heart of HRM, and therefore an indispensable factor that drives an organization's sustainability and success both in the present and in the future.

Talent management is concerned with enhancing the attraction, development, and retention of key human resources. Building talents and retaining them are priorities worldwide, not just in China. Latter parts of the thesis will go more deeply into the analyses of the applications of the Chinese government and businesses in three segments of talent management, in the context of preventing China from brain drain.

- Talent retention

HRM in general is difficult, talent management is even more difficult, but talent retention is perhaps the most difficult task for managers. It is not a new emerging term, and evidence of this can be seen in many chapters and stories in history. The purpose of talent retention is to keep the existing talents within the company and maximize their potential and contribution to the organization. A loss of talent of these kinds to a business or country would ultimately be detrimental.

People often hear the term "employee retention" repeated more often than "talent retention", as it is hard to define talent in paper and measure or compare the contribution of every single employee in a row. Employee retention is an organization's ability to retain its employees, and it can be simply understood via rates and numbers. Talent retention, however, cannot be defined in any specific type, but rather in the implicative meaning of training, growing core employees and keeping them in order to exploit their talent. Burger King will not be affected by a resignation of a salesman, but there are considerable challenges if the resignation letter is from a key director. People will talk about a poorness in employee retention of Burger King's HRM in the first situation, but about a lack of talent retention in the second one. That is the difference.

3.2 Brain drain and the situation of China

China is well known as a huge source of talents. During the long history in its glorious ages, China has the right to be proud of producing a massive list of talented people whose influences have lasted for generations. Today, we still have inherited great

inventions from Chinese people, inventions that set the milestones in the history of humankind, such as paper money, the compass, gun power and the waterwheel. Their list of talents continues to grow, however, there is question mark about gifted people that should have been written down in the list, will never be, as a consequence of a dilemma that China has faced for decades. It is brain drain.

China always applauds people who return from abroad for bringing back advanced skills and contributing to the prosperity of their nation. In Mandarin Chinese, they are called “sea turtles”, or “*haigui*” (海归 / 海龟). According to Wang Huiyao, the founder and president of Center for China and Globalization, Chinese “sea turtles” have returned to China in five different waves. Before and during the 1950s, the first four waves produced Chinese nationalists and leaders in the Communist parties, such as Jiang and Li Peng, who later went to the Soviet bloc. The present wave, the fifth one, began in 1978. Mr. Wang said that “whereas the first three waves revolutionized China and the fourth modernized it, the fifth wave is globalizing the country”. (The Economist 2013). Outstanding examples of the current “sea turtles” are Robin Li and Eric Xu – co-founders of the internet giant Baidu; Li Sanqi, who left China in 1980 with three dollars in his pocket to the U.S. and excelled at the University of Texas, then returned to China and built up Huawei, a world-class multinational group. “*Haigui*”, or “sea turtles”, have significantly contributed to the China’s economy and connect it with the world. The issue is that there are many people such as Robin Li, Eric Xu and Li Sanqi, who live abroad and contribute their know-how to developed countries, not China.

Since the Chinese government under Deng Xiaoping’ leadership launched its “Open door policy 1978”, the Chinese Ministry of Education (MOE) calculates that approximately 3.9 million Chinese people have taken higher education overseas in the period of 1978 – 2015 (MOE 2016), while only a little more than half have returned to contribute to China. According to Jonathan Watts (2007), a research implemented in 2007 showed that 70% of Chinese overseas students never came back to China. The survey also revealed that in China’s biggest cities such as Shanghai and Beijing, about one third of high school students and a half of middle-school students wanted to change their nationality. A study of America’s National Science Foundation in 2013 showed that 92% of the Chinese people with a PhD still lived in the U.S. at least five years after graduation, followed by Indians 81%, South Koreans 41% and Mexican 32% (The Economist 2013). Upon hearing these statistics, China felt that nowhere else on earth was being hit as fiercely by brain drain as China was in this way. According to Yang Xiaojing (2007), one of the

first authors who conducted research about brain drain in China, a superfluous brain drain will ultimately intimidate the human resources, the social security and the national economy.

The column graph shows that the rate between the number of people who return to China and the number of people leaving the country is increasing. The returning rate in 2000, 2007 and 2015, respectively, is 23.4%, 30.6% and 78.1% (MOE, n.d.), which implicates great efforts of Chinese government and businesses in luring Chinese highly educated talents back to China from overseas. The change has become visible since 2008, and in 2015 the number of returnees (409,100) was more than ninefold the number of 2007 (44,000).

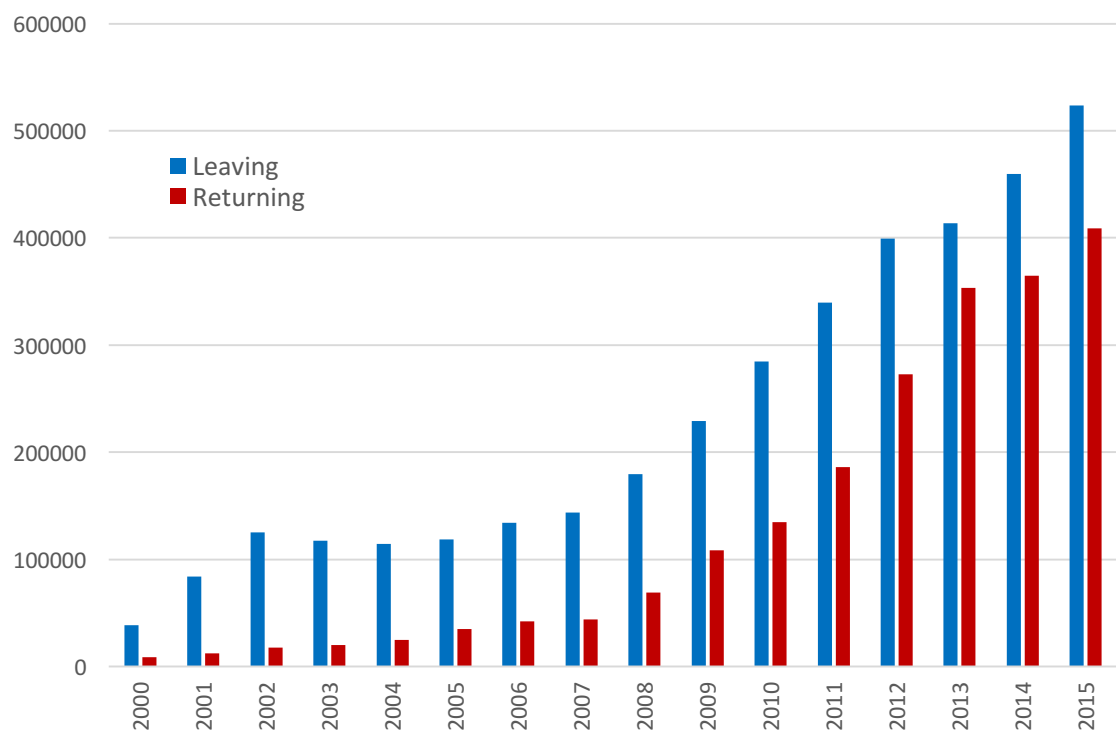


Figure 2: Number of Chinese students leaving abroad and returning 2000-2015
(Source: Globalization and Transnational Academic Mobility)

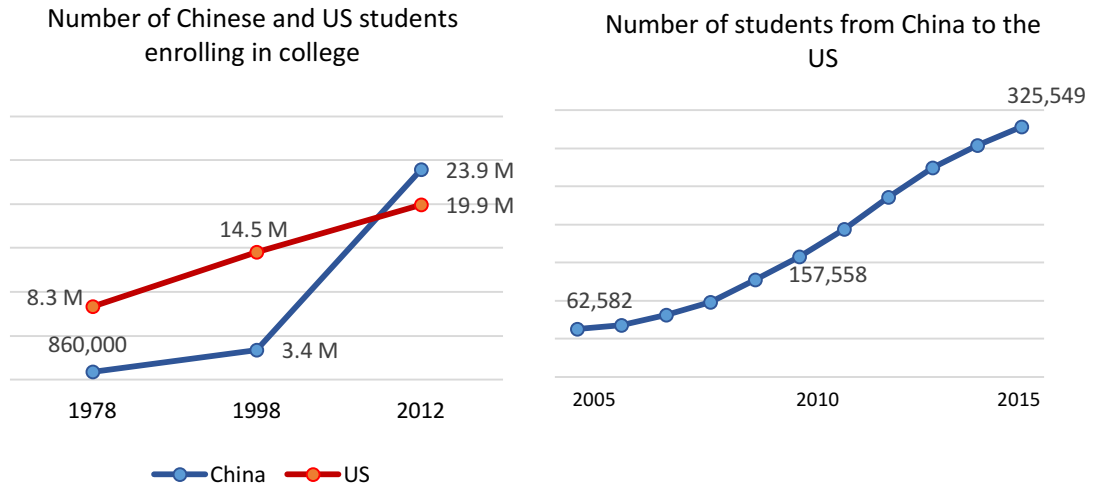


Figure 3: Brain gain and drain in China (Source: Harvard Business Review, 2014)

Despite the increasing trend of the Chinese returnees from overseas, brain drain is not likely to come to an end in China. The number of students leaving abroad each year is escalating, with the favourite destination being the U.S. In total, there is a bit less than half of all Chinese, up to 1.7 million, deciding to stay away permanently from China after completing their studies overseas, while China is suffering from a severe labour shortage. Brain drain is a complicated concern that China cannot solve in a short amount of time, as it links to other issues in China, such as environmental pollution, *guanxi*-based society, and stagnant bureaucracy, all of which are analysed carefully in detail in Section 4 of the thesis.

3.3 Why talent management theories? Why does it matter to China?

There is no doubt that talent management is the cradle of success of an organization. It is the process of identifying, acquiring, developing and retaining individuals with high values and high potential, according to Alice Withers (2014). Talent management is considered an investment. Managers need to attract potential individuals with promising values, then develop, manage and retain them in the organization. Talent management helps the organization build up a high-performance workplace and encourages an eager-to-learn environment among people. If talent management is effective, its return on talent investment based on their values and contributions is sometimes unmeasurable.

- Labour shortage in China

Talent management is a perfect choice for not only brain drain, but also a more intense and persistent concern that China has faced for long: labour shortage. It seems a paradox in the case of the most crowded country on earth, however, China sees a big gap between recruiters' demand for skilled individuals and labour market's supply. Both domestic and foreign companies realize that the number of more than one billion citizens in China is meaningless in the context of HRM and it does not guarantee for an abundance of labour. Although China has more workers than any other country by far, with approximately 730 million, managers still find it difficult to fulfil positions that require skills, a situation that McKinsey referred to as "the supply paradox" (Dodyk, Richardson & Wu 2012). The number of labour shortage in many coastal areas in China is up to millions (Wolford 2017). Many people easily figure out the chief reason causing the shortage is the one-child policy of the Chinese government, which results in many imbalances to China's society as a whole and to the economy in particular. However, they forget another reason of the skilled labour shortage – brain drain.

Profession	Junior to mid management	Senior management
Human Resources	8%	15%
Accountancy & Finance	8%	16%
Banking & Financial Services	7%	4%
Sales	23%	28%
Marketing	10%	19%
Engineering	18%	16%
Property Management	5%	4%
Legal	3%	9%
Operations	10%	16%
Distribution	4%	5%
Purchasing	7%	7%
Information Technology	8%	11%
Technical	15%	15%
Healthcare	4%	5%
Research & Development	13%	18%
Other	2%	1%

Table 1: Percentage of Chinese employers who find it difficult to recruit in different professions (Source: 2015 Hays Asia Salary Guide)

Talent acquisition is now at the top priority of all executives' long term plan, as nothing is more important than the sustainability and prosperity of the business now and in the future, which is implicitly understood as a cultivation of the next generations. The scarcity of skilled labours in China has become the fierce battle between domestic and foreign multinational companies, as there is more and more preference towards working for local firms (Schmidt 2011). In a CEB Global's survey in 2011, there were many Chinese employees "getting recruiting calls every day", and managers face trouble with both attracting talents and retaining them. While skilled and talented individuals in China are still in demand, brain drain makes the situation worse as Chinese highly educated students stay put overseas. Incentives to return to China in monetary types offered by the Chinese government and businesses are not enough to persuade all talented individuals, as the opportunity cost to them is often too high.

- Why does talent management matter to China in terms of brain drain?

Brain drain hurts China in the long run and directly hits human resources in this country. China's best option is to develop the talent management and to apply talent management theories in practice comprehensively, for the following reasons.

Firstly, a good talent management can attract Chinese skilled individuals with expertise back to China from overseas. As their know-how is precious, they can motivate and inspire young talents in China by innovation and experience in international scope. When more people return to China, especially the high-end with strong reputation and influence in certain fields, it can leverage the effect to the people who decide to set up their own career in developed countries by the returnees' patriotism. Thanks to that, China is able to constitute the main advantages that drive the country to a technology hub and innovation-oriented society in the future.

Secondly, talent management not only helps China reverse brain drain or transform brain drain into brain circulation but also nurtures the young talents within China as seeds in a fertile environment. Those who return to China, especially the academic ones, need generous financial supports and willing co-operations from local governments, making China realise that there are restrictions in both working system and mechanism. The young talents are gradually aware of the advancement in China's science, economics and technology, so it is likely that their desire to earn a degree of overseas higher education is not as fervent as before. Talent development is the heart of talent

management, as the returnees are willing to leave China again if there is no room for career advancement in their fatherland.

Thirdly, while brain drain has caused a headache to China for decades, talent management theories help China's politics and businesses' leaders be aware of their deficiency in running their community and society. They will know that talent management is effective when and only when China is able to retain the skilled and talented individuals. The perspective that foreign experts leave China, young and promising scientists look for a better academic environment at the other side of China's borderline, or entrepreneurs and competent employees desire to seek for new opportunities with better paychecks in advanced economies, is considered horrifying to China as a whole and to businesses in particular, shattering the skilled labour shortage concern into a more serious situation and ruining the efforts to reverse brain drain. To cover all three sectors of talent management theories demands a comprehensive plan that reforms many things from the root, such as simplifying of China's bureaucracy, narrowing the education gap between rural and urban areas and confronting environmental concerns. However, a talent management plan needs a transparent and determined implementation period to show its effectiveness in the long run.

The importance of talent management is indisputable, as analysed above, but to China, it plays a vital role in solving tough issues on the way to become the world leader in economics, science and technology. Talent management includes three parts, respectively, talent attraction, talent development, and talent retention; and without one of them, all efforts for the others will be in vain.

4 Reasons behind brain drain in China

4.1 Why do many people leave China and never return?

The book “Harvard Girl” by Liu Weihua was first published in China in 2000 and became a phenomenon, a bestseller overnight. The book is about how the author as a mother raised and educated the main character, the “Harvard Girl” Liu Tiyang, her only daughter. Since Tiyang was a baby in foetus until she was accepted to Harvard University in 1999 at the age of 18 with a full scholarship, she was kept under strict disciplines given by her mother and step-father in order to cultivate kindness, benevolence, a good will and a pure soul over time. Liu Tiyang has become a symbol for young talents in China since 2000s, and also a motivator for them to achieve higher education overseas. After getting the B.A degree with honours in Applied Math at Harvard University, Liu Tiyang co-founded some organizations, worked for several big brands such as PepsiCo and Boston Consultant Group, and now she is the COO at Coalescence Partners, a U.S. based investment management company. She is considered one of China’s stars worldwide, however, the point here is she does not return to China after her studies. She is not alone, as there are many like her, who decide to achieve overseas education and never return. For example, according to data of Harvard University, the Chinese have become the most popular international student demographic in this prestigious school since 2012, and the number of enrolments from China is still on the rise.

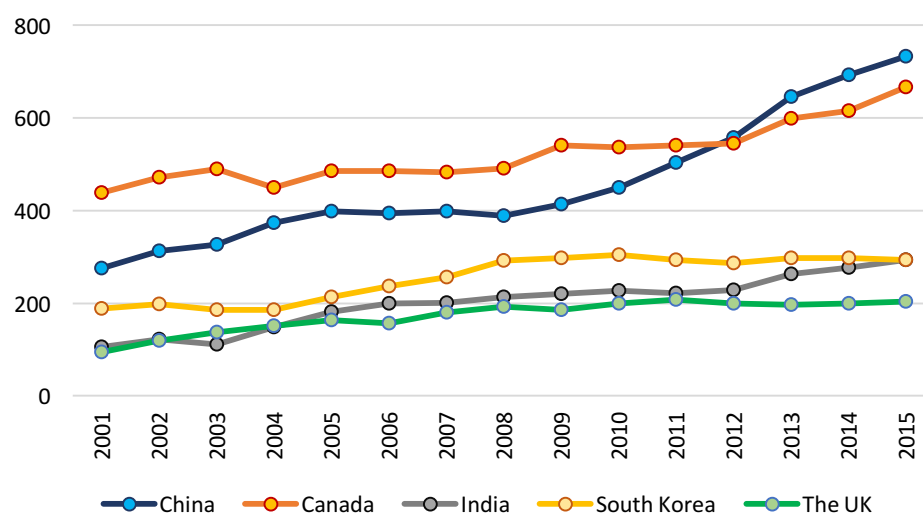


Figure 4: Top countries of enrolment at Harvard University (Source: Harvard University)

The reasons of the outflow of China's human capital vary and are different in every situation. Many want to raise a family to avoid the strict birth control of Chinese government, whilst some want to be out of the daily life in China covered by traditional rules and the rigid Confucianism. However, behind the severe issue of brain drain are six main causes that make Chinese people abroad stay away and urge more leaving each year, respectively, a low-level living standard, pollution, unattractive employment opportunities, an undemocratic political situation, a poor education system and cultural barriers. These concerns hit directly to talent management plans as a whole and dig deeper into brain drain in particular.

- The standard of living in China is not as high as in developed countries

People often have traditional dreams – having an interesting job, being in good shape, the opportunity to devote a lot of time to hobbies, a high level of education, having their own family and children, and of course, a high standard of living. The Chinese follow the essence of humankind, and they all seek for themselves places with better standards to fulfil the increasing need of their own. Being a developing country with the GDP per capita of \$8069 in 2015, according to World Bank's statistics (2017), there is still a far distance ahead for China to advance its own standard of living to be as high as that of developed countries.

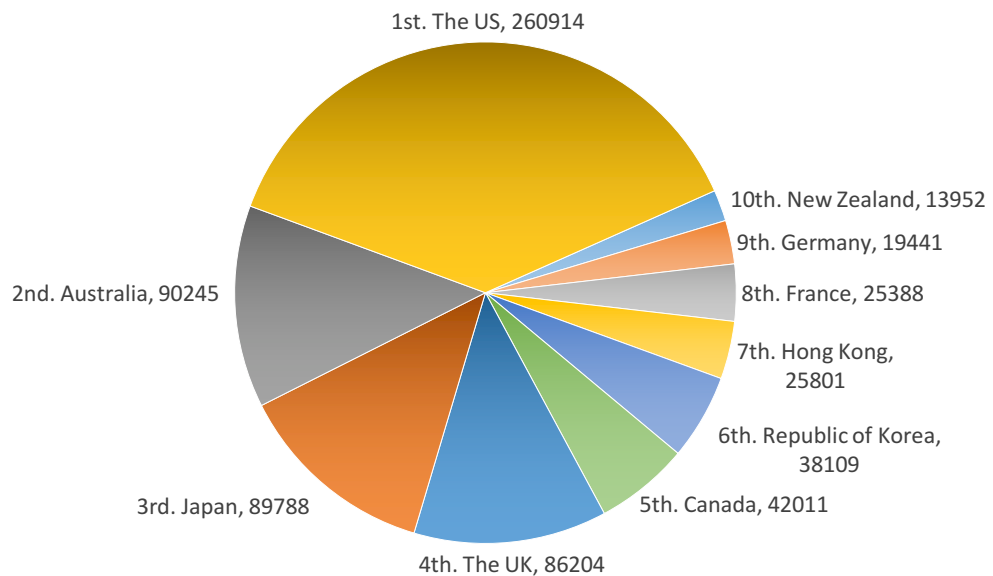


Figure 5: The top 10 countries where Chinese students study abroad 2015
(Source: Business Insider)

According to the Chinese Ministry of Education, there were over 500,000 Chinese students leaving their nation to study abroad in 2015. That is a record number, as usual, because every year the number of Chinese overseas students makes a new record for China as well as for all countries in the world. Business Insider has listed down the top 10 countries destination of Chinese students, in which the United States is their favourite one with 260,914 students in 2015. These countries are mostly developed countries (8/10), and the others (Hong Kong and Republic of Korea) also are advanced economies. It is not by chance that total amount of Chinese students in the top 10 countries (figure 3) is responsible for more than 90% of Chinese overseas students worldwide.

- Pollution in China is severe

In October 05, 2016, Expat Focus listed down stories about international expats to illustrate chief factors that made them leave China. Some blamed for a complicated bureaucracy and some for hierarchical interpersonal relationships, however, all shared a common reason of the notorious smog that forced them to leave. In a job fair at Beijing in March 2013, there was a unique poster by Meizu, a consumer electronics company based in Zhuhai, southern China, written that *“Do you dare to pursue a life with blue sky and white clouds?”* and *“Welcome to air you can breathe with a PM 2.5 reading 27”* (Ford 2013).

China may not be the worst country about pollution problems, but certainly one of the worst. According to the report Cancer and statistics in China (Wanqing Chen et al, 2015), it was estimated that China endured 2.8 million cancer deaths during 2015 and 4.3 million new cancer cases, with lung cancer the most common of all. The statistics explicitly highlights one severe facet of China’s recent reality: the health of Chinese citizens is seriously affected by pollution, which causes approximately 7500 deaths per day (Scutti 2016). Chief culprit is industrial waste that makes soil contamination, both the shortage of water and the lack of safe and clean water, as well as air pollution. The World Health Organization has rung the “red alert” about air pollution many times in big cities in China, where many toxic and dangerous emissions are far out of the level of safety.

China’s pollution directly makes it harder for recruitment to attract top talent to China, both foreign expatriates and nationals educated abroad (CBS News 2013). The U.S. Department of State Air Quality Monitoring Program at Beijing measured that the air quality of China’s capital city is often unhealthy and sometimes dangerous to health. It is not difficult to predict that children grow up with asthma and other respiratory illnesses

when people witness smog hanging heavy over Beijing's sky. If the situation continues without any signs of improvement, the country will not only find it tough to reverse brain drain, but businesses could fail to attract the best talent to key roles.

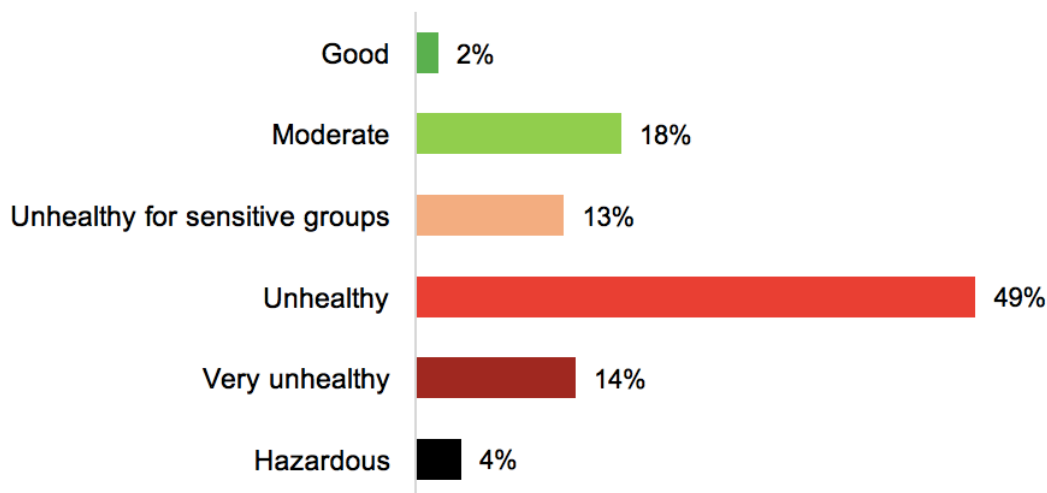


Figure 6: Beijing's air quality 2008-2015. Daily average air quality index at US Embassy, based on PM2.5 concentration readings. (Source: U.S. Department of State Air Quality Monitoring Program)

- China's political situation is not as stable and democratic

China is one of the few countries that are still loyal to communism. Since November 2012, when Xi Jinping became the 7th President of the Chinese government, the world has witnessed a significant effort of Chinese authorities in improving certain human right issues, such as women's rights, freedom of religion, sexual orientation and gender identity. However, the country still remains in the bottom globally on all human right indexes, as a consequence of massive violations, especially to the freedom of speech. News about Chinese activists imprisoned, legally baseless detention, torture and even murder of those who challenge the Chinese Communist Party are becoming usual in international daily papers (Morgan 2015). One of the most transparent evidences is the death of Liu Xiaobo, Nobel Peace Prize laureate in 2010, who called for political reforms and was involved in campaigns to end communist's single-rule (SCMP 2017). As a consequence, he was arrested in June 2009 for the crime of arousing subversion of the Chinese central government and prisoned in eleven years, a sentence that ultimately led to his death on 13th July 2017. Xi Jinping himself admitted during the visit to the UK in October, 2015 that "China has room for improvement on human rights" (Wilkinson 2015).

Chinese overseas students are those who know about the concern the most, as they have the comparison about democracy between their homeland and their country of study. People are often afraid of discussing about politics due to the fear of consequence in the future, so are the Chinese. Many Chinese overseas students have faced democratic dilemma when returning home after study, while the young in China is gradually aware of the lack of freedom and democracy in their country, which partly explains why the number of Chinese students leaving abroad annually is still escalating and overseas Chinese hesitate to return.

- Employment opportunities in China are not attractive

China now is known as a lucrative market for foreign investors due to the cheap labour and low material cost. Highly educated Chinese students from overseas can see tremendous employment opportunities in their nation, and in fact, for a long time the Chinese government has been trying to lure them back after graduation in many ways. The important question is, however, whether their paycheck is attractive enough, in relation to their country of study.

The unprecedented increase of Chinese economy has made the average income of Chinese employees soar relatively, since the reform of decentralisation in 1978 that transformed China from a centrally planned economy to a market-based one. The gap between salary in China and in other developed countries, however, is still big. For example, while a mechanical engineer earns an average \$68,268 per year in the United States, his colleague only receives RMB 171,760 (approximately \$24,926) in China, according to Pay Scale. Although Chinese government has offered some valuable benefits for some talented returnees, the average paycheck that one can get in China is humble in comparison to what he/ she can receive in their country of study, such the U.S. and the West.

- The Chinese believe that China's education system does not offer as many future opportunities to their children

Chinese students when coming to the concern of brain drain often consider education one of the major explanations for not returning to their homeland. They not only care for themselves but also care for their children in the future. Although China is developing and its education system has breakthroughs continuously, the country still faces a tremendous torrent of criticism about its emphasis on theoretical knowledge and

neglectfulness on creativity in unnatural teaching methods (Jackson 2015). Zheng Yefu (2013), a professor in the Department of Sociology at Peiking University, in his book "The Pathology of Chinese Education" wrote that "No one, after 12 years of Chinese education, has any chance to receive a Nobel prize, even if he or she goes to Harvard, Yale, Oxford, or Cambridge for college." What the professor stated in his book is evident, as since 1949 when the People's Republic of China was established until 2016, there are in total only three Chinese people who have won the Nobel Prize, and only one of them is about science, while the number of its neighbour Japan with a population of less than one tenth of China's is twenty-five in total. That means China's education system is not creative enough.

The Chinese government has put a great effort in building universities and investing in research and development. Although Peiking and Tsinghua Universities, often called the Harvard of M.I.T of China, have gained global prestige, in overall higher education environment in China is still much less developed than in Western countries (Gao 2014). That should be taken into account in terms of brain drain, as Chinese people who go abroad all want to have a comfortable place for their kids with educational tracks towards the world's best universities (Chow 2009).

- Cultural barriers

Until 2013, 92% of Chinese people with American PhDs still lived in the U.S. at least five years after graduation (The Economist 2013). According to Cong Cao (2008), China has failed to attract top talent, or the first-rate academics overseas, due to institutional factors. Those Chinese with doctoral degrees often spend at least five years abroad, it is possible that their links with Chinese local governments and institutions have become faint, which hinders them from performing their bests in a *Quanxi*-based society, where career success depends upon whom one knows rather than how one performs. For those high-end academics in China who want to have career success, there is a necessity to proactively engage with local politics. The low efficiency of the workplace, personal conflicts and loss of close contacts with international experts in the fields of sciences are opportunity costs for those academics who decide to return; however, as sometimes the opportunity cost for them is too high, especially when they are still young and able to foresee their bright future in a scientific career, young Chinese scientists would prefer to stay abroad rather than returning to their homeland.

Moreover, academic returnees face a culture shock not only in daily life where China's complicated bureaucracy is a big obstacle, but also at work, as there is an excessive impropriety in science, such as plagiarism, data fabrication, data falsification, and the exaggerating of scientific researches (Cao 2008). There is also an imbalance among fields of science as a result of restrictions for research in the social sciences. In terms of work-life balance, China is remarkable about exploitation of labour and the overwhelming workload, which results in a culture where people believe that one's work, success and career are of the utmost importance, and they only come when he/ she works hard. In this context, it is the working system and mechanism that make talents, especially those in fields of science, not want to return to China after completing their studies.

4.2 Why is the returning rate increasing?

Figure 2 shows a visible trend of Chinese students abroad. Although the number of students leaving China continues to become a record number every year, the returning rate has been increasing rapidly since 2007 until now, with the percentage of 2000 (23.39%), 2005 (29.52%), 2010 (47.42%) and 2015 (78.12%). The explanation for the trend is simple – Many things in China have changed a lot into better directions since the open-door policy 1978, in which the illuminating demonstration can be seen in the graphs about China's GDP and GDP per capita in the tables below, according to the statistics of the World Bank, 2016.

Firstly, the efforts of China's government in boosting the national economy show their effectiveness gradually after nearly four decades. While the average GDP per capita in China was only \$156.4 in 1978, the number in 2015 was \$8069.2, despite of the global economic recession and crisis in 2000s and 2008. Many economists forecast that the economy of China will take over that of the U.S. and become the world's largest economy before 2030 (Colvin 2017).

Secondly, to confront the environmental crisis with the most visible manifestation being dust and smog in the air causing millions of death annually, the Chinese government will re-assess in five-year periods its own targets to reduce factory emissions by 25% in 2021 (Climate Home 2016). It will do this through ways such as upgrading cleaner and more efficient use of coal as well as promoting the use of natural gas, electricity, wind, solar and bio power in place of fossil fuel.

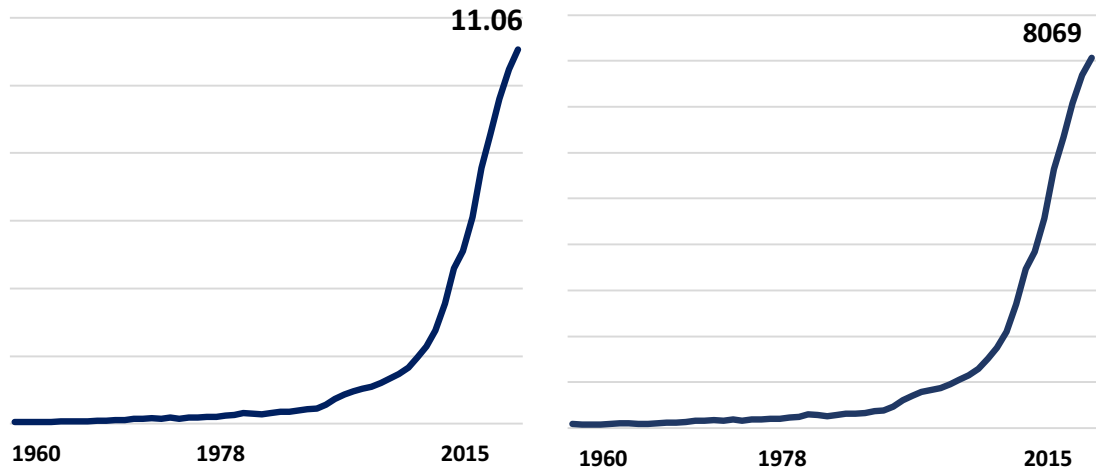


Figure 7: China's GDP (left, unit: USD Trillion) and GDP per capita 1960 – 2015 (right, unit: USD) (Source: World Bank)

While the economy is on the rise, the Chinese government has implemented many strategies based on talent management theories to attract talented and high educated students from overseas. Universities were built, the education qualities have been improved unstoppably, and the Chinese government does not hesitate to pour huge amounts of money into science and technology and to open its arms to welcome foreign experts. Together with the Chinese government's efforts, businesses and organizations also offer charming paychecks and benefits and create conditions for development to attract top academic talents into crucial roles, thus partly contributing to the reverse of brain drain in China. In less than a decade since the talent development programmes were implemented in 2008, the returning rate has been gradually converted from the minority to majority; however, whether brain drain is coming to an end in China is still questionable when all of the concerns in the previous section have not been solved completely.

5 Application of talent management theories in China

In early March 2017, internet users in China spread out a heartfelt message from a young scientist, who had overseas education and earned a doctoral degree at Peiking University. In the question-and-answer website Zhihu, he explained why he decided to leave China, although he had a firm position in China's Academy of Science. The mediocre income in comparison to the costly housing that counts for two-thirds of his salary and a lack of benefits for his family made him say goodbye to the capital city of China when his son reached school age (The Epoch Times 2017).

Brain drain has been considered an epidemic of China for almost four decades, but until now no one can foresee when or whether it comes to an end. In the long run, it causes more harm than good to China and hinders the most populous country on earth from becoming a talent pool, an innovation-oriented society and the world leader in economics, science and technology. To reverse brain drain, however, requires a nonstop effort from Chinese leaders to apply appropriate talent management theories in practice. A skilled individual who has several years of experience overseas is willing to leave his/her organisation or even leave China again if his/her demand is not fulfilled, deriving from the deficiency in at least one phase of talent management. Reality has shown countless examples of this. Talent attraction, talent development and talent retention must be implemented simultaneously and sometimes it's hard to differentiate and define among those three strategies. These three strategies supplement one another. Although brain drain has not yet been cured completely, the difference between the returning rate in 2005 (29.52%) and 2015 (78.12%) proves the effectiveness of China's talent management strategies and also China's leaders as assertive go-getters.

5.1 Talent attraction

About two decades after the Open-door policy in 1978, the data of the National Bureau of Statistics of China in 1995 showed that more than half of the post-graduate students did not return after their studies. "Brain drain" at that time was not severe enough, however, the Chinese government started to counter this issue by launching some "returnee policies" during the nineties. In 1994, the Chinese Academy of Sciences launched "One hundred Talents Programme", while the Natural Science Foundation of China offered the "Distinguished Young Scholars" with appealing benefits. In 1998, China's Ministry of Education gave 1 million RMB (€ 130,000) for prominent scientists,

an amount that was referred to as the highest academic award issued to an individual in higher education by the Chinese government. However, brain drain did not seem to have a positive change to China until 2007. During the global financial crisis 2007-2008, the Chinese Communist Party launched the comprehensive “One Thousand Talents Programme” to welcome Chinese gifted people from overseas, with the maximum award up to 6 million RMB (€ 800,000) with many other benefits and opportunities for career advancement. The programme immediately got great advocacies from many Chinese elite people worldwide. These policies are still in effect today (Bekkers 2017).

With nonstop efforts of the Chinese government in reversing brain drain via types of stimulus and a series of national-level plans to attract Chinese top talents worldwide, there has been a sharp change towards China’s goal. The prime illustrating evidence is that the number of people coming back with the title of professor between 2008 and 2016 was 20 times more than the total number of those who returned in the three decades between 1978 and 2008 (Xinying 2017).

Talent Programme	Year initiated	Agency in charge	Age limit (years old)
New Teaches Fund	1994	MOE	35
Cheung Kong Chair Professor	1994	MOE	45
Fund for Outstanding Youth Scholars	1994	NSFC	45
Hundred Talents Programme	1994	CAS	40
Fund for Young Scholars	1995	NSFC	35
Cheung Kong Lecture Professor	1998	MOE	55
Thousand Talents Programme	2008	ODCCP	55
Young Tip-Top Talent Programme	2011	ODCCP	35
Thousand Youth Talents Programme	2011	ODCCP	40
Fund for Excellent Young Scholars	2012	NSFC	40
S&T Innovation Leader Talents	2012	MOST	45
Scientist Workshops	2012	MOST	55

Table 2: Major financial aid projects for innovation talents in science & technology in China. Unit: Age limits (Y-axis) and year of implementation (X-axis). (Source: The Academic Executive Brief)

Note: ODCCP – The Organisation Department of the Chinese Communist Party, MOE – China’s Ministry of Education, CAS – Chinese Academy of Sciences, NSFC – The National Natural Science Foundation of China, MOST – China’ Ministry of Sciences and Technology

Until 2007, the returning rate of Chinese students annually was less than 30% (Appendix 1), while the number of those leaving continued to grow without signs of slowing down. From 2008, there have been nonstop increases in both the returning rate and number of returnees to China, and in 2015, 78% of Chinese students abroad came back to China, 409100 returnees in comparison to 523700 students leaving abroad (MOE n.d.). The explanation of this phenomenon is not only due to the sustainability of Chinese economics in the global financial crisis 2007-2008 when China's GDP in 2008 was still expanding at 9%, but also due to the great efforts of the Chinese government in luring Chinese talented people to come back to China via policies. The most comprehensive programme was launched in 2008, named "One Thousand Talents".

One Thousand Talents Plan is a short name of the Recruitment Programme of Global Experts initiated by China's Government in 2008. It includes both short-term and long-term recruitment programmes for Chinese entrepreneurs, young professionals from abroad and foreign experts. The successful applicants of the programme, who have full professorships from prestigious institutions or notable organisations worldwide, receive special treatments from the Government, such as senior titles, high pay and visa privileges. There has been a positive change towards the way that China implements the One Thousand Talents programme, together with a welcoming attitude.

Immediately after the campaign, China's government got sweet fruits. Dr. Shi Yigong, who was one of the most elite molecular biologists at Princeton University, is one of the pioneers returning to China in the One Thousand Talent Programme. At that time, he was a 42-year-old American citizen with 18 years of living in the U.S. However, in 2008 he refused a distinguished grant of \$10 million in the U.S. and instead came back to China (LaFraniere 2010) to become the principal of life sciences at Tsinghua University. According to Tsinghua's students, he was described as the most caring and intensively driven teacher. He said after that "I felt I owed China something".

It is seen in a different example that the best-selling Chinese feminist writer Liu Liu (Zhang Xin), who lived in Singapore, had been invited to join the Shanghai municipal government's Thousand Talents Programme in 2011 (Rui 2012). The important point is not because Liu Liu was a talented Chinese living abroad, but because she usually criticised Shanghai and China in many angles of life in her books. In an interview with Shanghai Evening News in November 2011 (Rui 2012), she revealed that she decided

to come back Shanghai because the city was willing to open its arms and genuinely welcome her.

Another instance is about Chen Xiao-Wei, who used to work at the University of Michigan as a biological scientist. After earning a doctorate in philosophy at Michigan in 2008, he had plenty of reasons to set up his own career in the U.S (Tang 2016). He was paid well, offered opportunities to work in prominent institutions, and he raised his family in happiness in the peaceful city of Ann Arbor. However, when the Chinese government attracted him by a chance to come back to China, finally he decided to join the One Thousand Talents programme and returned to his nation with his family in 2014. The reason is that the offer was too generous and it was far higher than his expectation. He received more than enough supports to start up research of his own and pursue his innovative ideas in biology, which he would not able to do in the U.S. due to the limitations on grants. In other words, there was an opportunity for him to generate a more considerable impact in China (Tang 2016).

Businesses have their own way to attract talents from overseas. One of the effective tools is job fairs, where Chinese firms raise astonishing slogans to awake attention from Chinese students. In a job fair in Tokyo, 2010, some Chinese companies launched banners declaring a “Welcome Home Package” with generous conditions. For example, Qiu Zhaohua, who had studied and worked for a tech company in Japan for two years, was persuaded to return China with an offer of \$29,000 a year as the starting salary, together with alluring opportunities to work in the tech-hub Dalian, which is claimed as “China’s Silicon Valley”. (Huffington Post, 2010). Multinational companies and local businesses have created the race to hunt for skilled employees in the scarcity of talent in China by offering utopian packages. Procter & Gamble, for example, promises to triple one’s salary in three years, together with a housing allowance, company car, and interest-free loans when hunting for senior positions. However, the American conglomerate sometimes fails to attract talent, as it cannot give potential candidates huge amounts of stock that some Chinese companies are willing to offer. (Dodyk, Richardson & Wu 2012), a situation that implicitly indicates that candidates are rewarded even much better than what they can have at big international companies such as Procter & Gamble.

Monetary incentives as an application of talent attraction are the most visible of all. Salary increase is witnessed nowhere clearer than China in Asian scope, according to Hays

Guide Salary. In 2016, employers in China raised more than 10% salary for 13% of all employees, while the percentages of employees who receive the same treatment in Hong Kong (8%), Japan (4%), Malaysia (8%) and Singapore (5%) were much humbler.

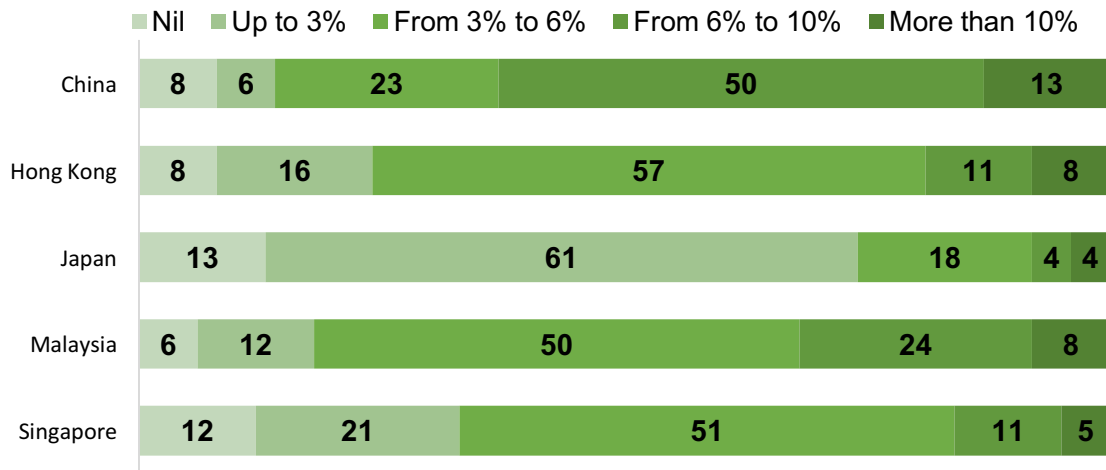


Figure 8: Average % increases from last reviews across countries
(Source: Hays Salary Guide 2016)

However, money is not the panacea. Many talents in millions of Chinese living abroad, who left China not because of money, will probably not return China because of monetary incentives. They have reasons to believe that the severe problems in China such as education, air pollution and cultural barriers will not be cured in the short term. To some Chinese, the dream of a better living in a place where air is pure and where there are more human rights surpasses all other desires. Many people still want to join the waves of Chinese deserting the mainland, transporting their family and assets out of China. According to the 2014 China-based Hurun Report (CNN, 2014), 64% of the rich in the Chinese population had said they were either emigrating or planning to do so next year. Some Chinese people even do not hesitate to invest in other developed countries as a means to have a visa and move their family there. After submitting her application for an investor scheme to the Canadian embassy in China, a businesswoman, Li, told the Xinhua news agency that “Canada remains my top choice. The United States and Australia are also good options.” (CNN, 2014). A Chinese person such as Li, after moving abroad and setting a living there, probably has no plans to move back to China just because of enticing incentives from the Chinese government and businesses.

Moreover, the “Thousand Talents” programme has not met its true objective. The central core of the programme was to target the best Chinese people overseas, the high-end academics at foreign institutions. In China’s reports about the programme’s result,

impressive numbers of recipients seem that “Thousand Talents” is really a breakthrough in efforts of China’s government in luring talented people back to the mainland. Nevertheless, most of the recipients in the program have been businesspeople, who are more willing to return than others. Chinese academics who have a PhD accounts for a small fraction in the program. David Zweig, director of the Centre on China’s Transnational Relations, at the Hong Kong University of Science and Technology, said that “The return rate among Chinese who received their PhDs in the United States is shockingly low. The problem was that the Thousand Talents was really targeting the very best and the very best aren’t the ones coming back.” (University World News, 2013). “Are Chinese people who have returned the mainland permanent returnees?” is an equally important question to assess the viability of the programme. Its answer significantly depends on China’s talent development and retention strategies.

Dr. Shi, writer Liu Liu and Dr. Chen were only three of the 160 leading figures to take part in the programme, and in total the Chinese government had welcomed 1510 talented people in many fields back to China, within just three years 2008-2011. The number of successful applicants in the programme was more than 6000 in 2015 (Tang 2016). People such as Qiu Zhaohua with know-how who decided to come back China and contribute their expertise to Chinese firms are also not rare. China has made the effort to reverse brain drain, or talent attraction, by theory-based acts. They are attractive offers in comprehensive talent-oriented strategies backed strongly by China’s government and businesses. They are also concrete evidence of “China’s Harvard”, “China’s MIT”, “China’s Silicon Valley”, and many other world-class destinations. Although the number of returnees is a small piece of total Chinese people living overseas and there are still concerns about the effectiveness of China’s talent attraction, China’s efforts leverage the effect by awaking patriotism and national pride of Chinese living overseas. Since then, the majority of the Chinese who decide to remain abroad after their studies gradually become the minority.

5.2 Talent development

For a long time, China has wanted to move away from the stigma of being “the factory of the world”. Chinese leaders know that China cannot rely on cheap labour in the long run but instead on a knowledge-based economy. There are no other choices but for a transformation, or revolution in education so that the country can raise its people’s knowledge and awareness. This would ensure the sustainability of China and solve many

concerns that China has been dealing with, including brain drain. Attracting talents back to China from developed countries is a hard calculation, but developing talent is another tough one. It requires more than stimulus packages and opportunities for career advancement. People with expertise who return to China demand an appropriate environment, forcing China to build a comprehensive national plan to reform education from within and invest nonstop in science and technology. There must be a change in both the educational system and the mechanism in China.

Within 10 years from 2005 to 2015, in total there were 766 new universities built in China (Statista 2017), which means that on average *China opened a new university in every five days*. Nearly seven million university students graduated in 2015, doubling the number of 2005 (Statista 2017). These impressive numbers clearly illustrate the ambitious aim of China's leaders to popularise education to everyone, transforming China from the world's factory to the world's innovation centre in the future. China's talent development plan becomes more transparent when tracing back its history, from 1995. In 1995, China launched the first implementation of its talent development plan, "Project 211", followed by "Project 985" in 1998 (The University of Kentucky International Center [UKIC], n.d.).

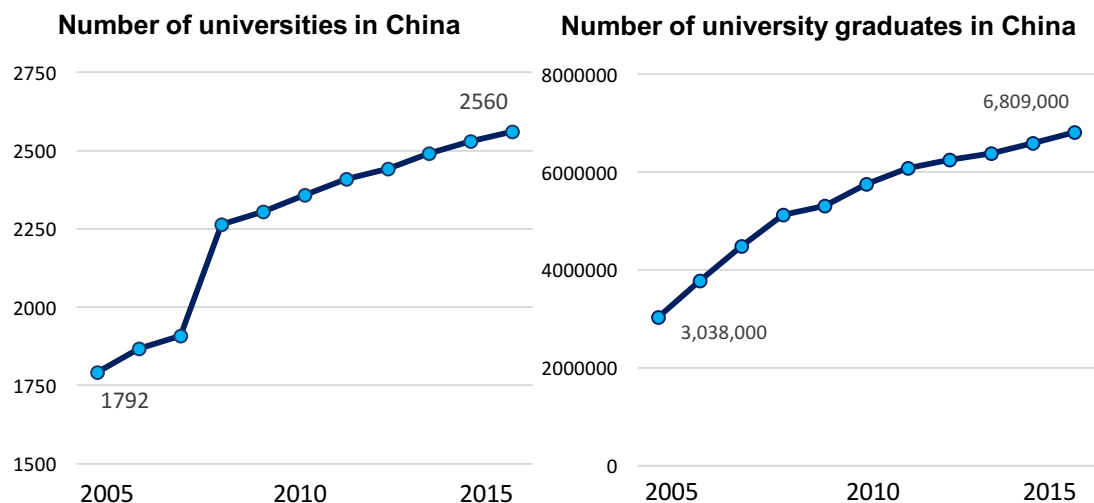


Figure 9: Number of universities in China (left) and number of university graduates (right) in China, 2005-2015 (Source: Statista)

In 1995, China's Ministry of Education initiated the "Project 211", which is a starting point for talent development in China. The intent of Project 211 was to raise the research standards of high-level universities and to cultivate strategies for socio/economic development. During the first paces of the project, the Chinese government poured tons

of money into universities and institutions, and the amount from 1996 to 2000 was up to US \$2.2 billion ([UKIC] n.d.). Three years after “Project 211” first launched, in the 100th anniversary of Peiking University on May 4th, 1998, Chinese former President Jiang Zemin announced “Project 985” to promote the development and reputation the Chinese higher education system to the world. Large amounts of funding went to build new research centres, improve facilities, organise international conferences, and attract world renowned faculties.

Project 211 and Project 985 clearly boosted the quality and reputation of top universities in China. In a closer look, however, they do not look as impressive as they do on paper. Both projects have significantly improved about 100 universities and institutions in China because of receiving huge amounts of money and many other benefits, while they had no impact on more than 2000 other public universities. The obvious consequence of these two projects is the widening gap of education between different regions, or between two classes of universities in China – the universities that received tremendous support and the universities that did not receive anything. In the list of sponsored universities in Project 985, many universities were also in the list of Project 211. Universities in poor provinces became poorer and degraded academically, while universities in more privileged regions became richer and their academic levels improved. Clearly, the projects were not comprehensive enough to transform China’s higher education.

The two projects, therefore, did not show a real change and brain drain was still a severe problem in China until 2008s. The Chinese central government decided to launch the first national comprehensive programme in China’s history of national human capital, “*the National Medium- and Long-term Talent Development Plan (2010–2020)*”. It is perhaps the most visible application of talent management to the prevention of many concerns in China, including brain drain.

In China, *rencai* (人才) is understood as educated and skilled individuals, who create beautiful values to society. In the China’s National Talent Development Plan 2010-2020, the word *rencai* is perhaps repeated the most. In the speech on June 6th, 2010, China’s former President Hu Jintao emphasised that developing talent or nurturing *rencai* was vitally important to China, not only in the next decade but also beyond (Wang 2010). The plan, unlike the previous ones that focused only on higher education, covers the whole educational system in China and raises it into new standards, both quality and quantity.

It is a plan from the root. Talent development must be sustainable, so the ten-year plan aims to reform education from preschool, narrow the rural-urban gap and cultivate ethnic minorities, in which higher education is the heart. They created thousands of research centres as talent pools and positioned the fresh forces from overseas into colleges and universities, raising the research level of these institutions and greatly influencing the cultivation of innovation talents. This welcoming and unwavering attitude results in that, for example, in 1999, there were fewer than 30 foreign R&D centres in China, but the number quickly blossomed to more than 1200 ones in 2014 (Abrami, Kirby & McFarlan 2014). In the writing “Why China can’t innovate”, authors at Harvard Business School claimed that China will yield the world’s biggest workforce in academic fields, with a surpassing number of PhDs in the near future. China’s goal is clear: the country wants to boost its current scientific level, because only innovations and breakthroughs in science and technology can increase China’s productivity (Abrami, Kirby & McFarlan 2014).

A typical example of the Talent Development Plan 2010-2020 is the “Double World-Class Project” initiated in 2015. It is claimed to be more equitable and have more ambitious aims than its predecessors. The final list of the project seems disappointing because most of the names in the list also happened in the Project 211 and Project 985. In fact, it does have some differences from other talent development projects in the past. The Double World-Class Project, compared with the two projects in the 1990s, has more concrete goals and a specific road map for milestones of 2020, 2030 and 2050. The universities and institutions are selected not only by their academic performance, but also by a control from the central government, so that a balanced geographical distribution of universities at a national level is carefully taken into consideration. Moreover, the selection of recipients in the project also relates to Marxism, Chinese culture and history, the development of local economies and the policies on minorities (University World News, 2017). Therefore, the Chinese government has illustrated this project not only as a comprehensive and ambitious talent development programme, but also as a means to highlight Chinese characteristics.

In business context, talent development is a process, a chain of supportive programmes towards skilled and potential employees. It is literally to nurture and develop key talents to become the next generation of managers and leaders. As all firms are competing for talent acquisition while international expatriates hesitate to work in China (Chapter 4.1),

multinational groups have considered localisation an inevitable trend. In a research about China's talent management in the context of business, Dr. Richard et al (2012) found that developing leaders and employees is the greatest challenge facing Chinese organisations now and in the future when he interviewed many HR managers at Chinese enterprises, from state-owned (SOEs), foreign-owned (FOEs) to private-owned (POEs) ones. In the rating of importance with 5-pt scale, "*Developing leaders and employees for key future roles 3.5 years from now*" gets highest position in all three types of business in China, SOEs (4.21), FOEs (3.99) and POEs (3.87). Therefore, there are more and more developmental programmes launched in order to foster talents. They are the actions playing the central roles of talent management in China. American Standard Asia Pacific, for example, sets talent development as a top priority of all. The company often selects groups of managers with five to 10-year experience and offers them an 18-months series of development initiatives. One of the programmes aforementioned is called "CEO for a day", when each chosen one has to run managers' meetings or business presentations in a certain area, with the observation of the real CEO and HR professionals. They finally provide feedback, identify development needs and concrete action plans for the participant (Duke Corporate Education 2011).

Talents in China, thanks to development programmes, do not need to find an educational institution or a workplace outside Chinese border to listen to lectures from the most prominent scientists in many fields, or to work in big companies full of development opportunities. They can find ideal places that directly fulfil their talents in China. In other words, to tackle the shortage of skilled labour in general and brain drain in particular, China has approached this issue with an effective talent development programme and therefore proving that talent can be nurtured and developed from within.

5.3 Talent retention

HR managers at multinational companies often get headaches when dealing with talent management in China, as they gradually perceive that what works in the West and in America does not guarantee its effectiveness in China. Over four thousand years of history, China is still able to reserve its traditional core values and apply them into every aspect of life, including in the business environment. It is a "Shame culture", where people keep "face" in social networks and appreciate utmost dignity, self-respect, and prestige, considering them the cornerstone of the central factors for all relationships.

Therefore, to retain talents in China requires managers to master soft skills and deeply understand what really increases the loyalty of Chinese talented individuals. However, a different culture does not mean that talent management in particular and HRM as a whole need to be controlled in a totally distinct way. Chinese people share basic human instincts, therefore, it is possible to apply retention tools (Cai and Klyushina 2009), but only in the Chinese context.

Extrinsic incentives	Intrinsic incentive
Performance-related payment	Training & Development
Stock options	Career opportunities
Retirement provisions	Employer Branding
Facilities	Corporate culture
	Work-life Balance
	Feedback, Supervise & Mentoring
	Job tailoring & Job rotation

Table 3: Retention tools. (Source: Cai and Klyushina 2009)

In general, employers often use two types of retention tools to satisfy their staff members' psychological needs, namely, extrinsic and intrinsic incentives. While the former are often monetary rewards, the later refer to non-monetary things such as reputation and working environment. An organisation is able to retain its employees in general and its potential ones in particular when and only when both extrinsic and intrinsic incentives are provided simultaneously, which says that money, what China is abundant in, is essential but not sufficient for talents' expectations.

- Provide professional development opportunities

While China's booming economy and a wise talent attraction strategy have driven Chinese elite people with overseas education to give up their dream of building up a career in their countries of study, whether China is able to retain them depends much on how each organisation in China provides career advancement opportunities to them. The Chinese government and businesses alike have soon realised the importance of this intrinsic incentive and had different approaches.

The fierce battle for skilled labour in China has forced companies to be more generous and persistent in persuading talented individuals to stay put. In addition to salary

increase, they establish new policies and new positions in order to consolidate key employees' loyalty. Shell in China, for example, "has appointed career stewards who meet regularly with emerging leaders, assess their level of engagement, help them set realistic career expectations, and make sure they're getting the right development opportunities" (Paine 2010). The Swedish industrial company Atlas Copco has chosen a slightly different way. It provides each employee about 40 hours of equal training per year to fulfil the lack of experience to everyone. However, according to HR manager Leo Zhang in Atlas Copco China, the company especially focuses on a small quantity of qualified employees and name them into the group of "Local High Potential" (Cai and Klyushina 2009).

While many other companies in China are struggling to retain key employees and promising ones, Microsoft has done something right. They have numerous programmes as development opportunities for potential employees. They use two main methods to do this. The first is to give Chinese managers international exposure – both by bringing top U.S. managers to China to work side-by-side with local employees and provide developmental coaching, and the second is to send Chinese managers to the U.S. for several months at a time, to gain a deeper understanding of the headquarters' operations and to absorb valuable experience of working in a foreign environment. According to Richard Sprague, Microsoft principal group programme manager in Beijing, "retention is less of an issue, partly because we have so many developmental programmes like these." (Dodyk, Richardson & Wu 2012).

After several years of experience in foreign countries, the Chinese have become long-sighted and precise in choosing the most appropriate destination for themselves. That is nowhere better illustrated more clearly than in the report of Manpower China (2010), when "*facilitating long-term career development*" was rated at the highest ranking with 59% of responses, followed by "*Corporate culture and environment*" (48%) and "*compensation and benefit package*" (43%). Therefore, providing foreign-educated Chinese workers with professional development opportunities is the prerequisite for retaining them and exploiting their expertise for further contribution in the future.

- Create a work-life balance

Li Jianhua, a Chinese banking regulator, died at the age of 48 while rushing to finish a monthly report, after 26 years of working himself to death, literally (Oster 2014). In 2010 at Foxconn, the huge contract electronic manufacturer in China, 18 workers jumped off a tall building in the factory, causing 14 deaths. The situation went worse until 2012, when 150 workers of the company threatened to commit a mass-suicide to protest their work conditions (Moore 2012). The terrible news shocked the world at that moment, though, it was very common in China, as in average 600,000 Chinese people die from working too hard every year, i.e. 1600 deaths a day (Oster 2014). Wang Chuanfu, head of BYD, a Chinese automobile manufacturer, said that "In the western world, life is number one and work is number two ... but in China, work is number one and life is number two." Due to the stressful workload, 20-30 percent of all Chinese employees quit their job annually (Waldmeir 2012). In the large number people who leave, it is likely that there are potential talents who want to contribute their expertise to another place where they are able to have a reasonable balance between work and life.

HR managers in China know about a famous example about Chao Cheng, the founder of SinoStep China Consulting, who earned the BA certificate at RMIT University in Melbourne, Australia, decided to quit his job in 2003 in order to have more time with family. According to Cheng, although his current income is less than one-fifth of his full-time job salary, he feels much happier and better as a freelancer than as a diligent employee in several leading internet technology companies in China between 1999 and 2002 (Jin 2017). Those businesses succeeded in attracting and developing Chao Cheng, but failed in retaining him. It is one of the main cultural barriers that are discussed in the section 3 of the thesis.

The Chinese returnees from abroad are more or less affected by the western culture. Therefore, when these generations enter the workforce, the priority is not always work first and life second. Managers in China are gradually aware of this trend and have made changes to meet the increasing demand in order to retain key employees. Zhang Yong, the founder of the Chinese national restaurant chain Hai Di Lao, is a good example. He has appropriate policies applied from talent management theories for his business. Once he spots talents, he tries to recruit and develop them. In order to retain them and exploit the know-how in the long term, even permanently, he enables them to create a work-life balance by offering incentives such as trips to foreign countries, accommodation and

benefits for potential employees' family. Yong's talent management strategy work, and he considers it a key success factor for his Hai Di Lao (Michael and Hout 2014).

- Create a diverse environment

China is no doubt very competitive, but there are question marks about whether it is really international. Chinese talented individuals go abroad for many reasons, and one of those reasons is for a search of a more diverse culture. Therefore, China has implemented a very wise move for talent retention by creating a diverse and international environment within the country. Chinese President Xi Jinping noted that "the Chinese nation has the fine tradition of respecting and cherishing talent. Now we need to open a wider road for inviting talent worldwide than at any time in history. A more open policy for talent should be adopted." (Bengang 2017) in a meeting with foreign experts in Shanghai in 2014. The leaders of Chinese Communist Party strongly stated this strategy in 2014, however, China has welcomed foreign talent flow silently for a long time ago.

The Chinese government has gradually enticed foreign academic experts by sending attractive signals to them. For example, in the 1990s, Mr. Jeffrey Lehman began visiting Beijing and received an invitation to work in China. At that time Jeffrey was the dean of the Law School at the University of Michigan, and he refused the invitation from China as he had never expected to work there before. However, leaders of Peiking University have taken the advantage of the long and strong relationship with him over the years, so he decided to help them establish a school teaching American law to Chinese students. Mr. Lehman finally became the principal of the school, called the Peiking University School of Transnational Law. In addition to Mr. Lehman, the number of foreign experts at the law school has increased, in which seven out of nine permanent faculties are American, German, British and South Korean academics. (Gooch 2012). The same thing was applied with Guanghua School of Management, when it lured a new dean from Harvard University in an effort to reform its entire working culture and system, with the first revolutionary movement utilising the use of the learning materials from Harvard Business School and London Business School (Dodyk, Richardson & Wu 2012). The inflow of foreign human capital to China has become more intense since the Thousand Foreign Experts programme started in late 2011, which was in its self an extension of the Thousand Talent Programme from 2008. This programme is designed to attract foreign entrepreneurs and academics in the period 2011-2020 to help boost innovation and research in China.

Not only luring foreign experts, China also offers generous scholars to international students in the progress of transforming the country as a world-class destination for higher education, science and technology. According to statistics of China’s Ministry of Education, in total there are 397,635 foreign students from 202 countries and territories studying in over 800 universities and research institutes and other educational institutions in China in 2015. The numbers and percentages of international students in China are demonstrated in the next two graphs.

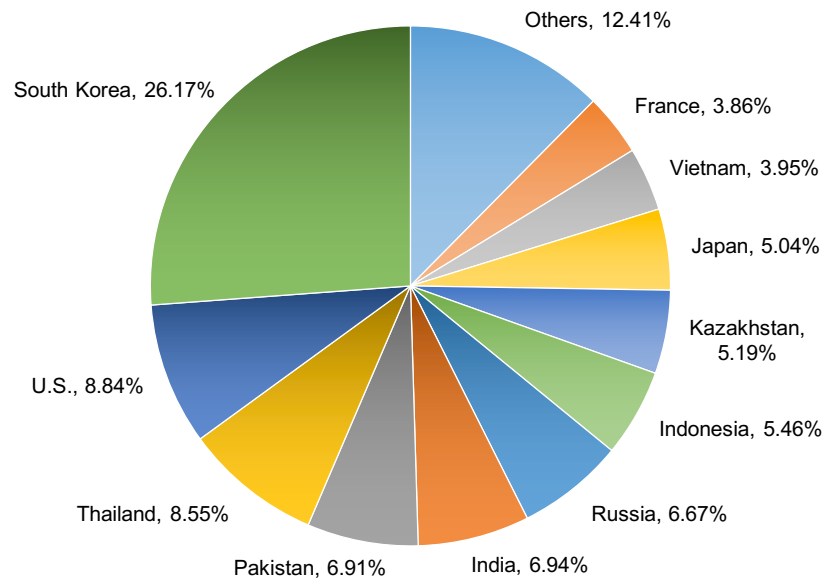


Figure 10: Origin of international students in China, 2016 (Source: MOE)

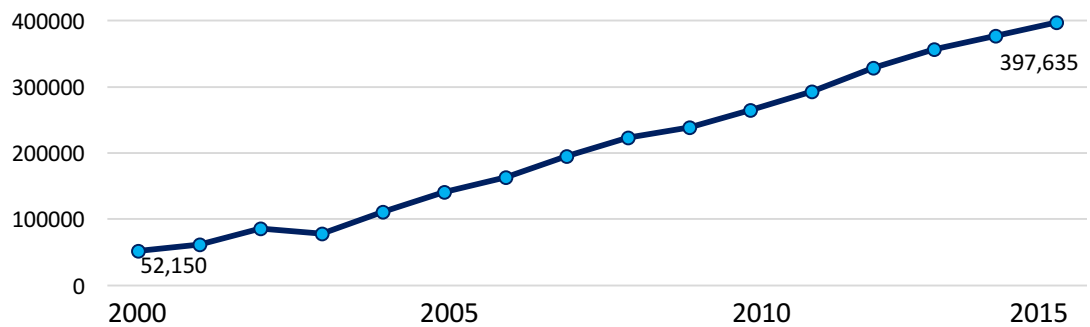


Figure 11: Number of international students in China 2000-2015 (Source: MOE)

The assertive move in creating a diverse environment is clearly visible in most fields, not only in the white-collar work force. By using their huge wealth, Chinese tycoons do not

hesitate to pour tons of money in order to lure star players from the most attractive leagues in the worlds, continuously breaking transfer records. In football, for example, outstanding world-class players who are playing in Chinese clubs are not rare. Carlos Tevez, who used to play for the world's most famous clubs such as Manchester United and Juventus, is the highest-paid footballer in 2016 with a salary of £615,000 per week in a two-year contract with Shanghai Shenhua, 20 times his previous earnings (The Guardian 2016). Although the country may not produce "Chinese Messi", its ambition to entice foreign well-known footballers together with the large-scale investment in sports academies is likely to awaken the nation's interest in the game and improve the level of Chinese football. Chinese excellent players, therefore, are invisibly retained in China to dedicate their talents and form a new shape of Chinese sportmanship.

After a short time in China, the highest-paid football player in the world gave a hurtful criticism on the Chinese football league. Carlos Tevez claimed that Chinese football would not be improved and would not reach the top, "even in 50 years" (ESPN FC, 2017). Once getting used to Chinese culture and realising the unfairness in hidden corners of Chinese sport, he broke the silence.

In fact, China's Foreign Talent Programme, part of the One Thousand Talent Programme, has shown a mediocre result. Italian physicist Giulio Chiribella refused a position in a Canadian Institute to join the programme in 2011 and then moved to Beijing. In China, he received a high payment and incredible supports for housing, medical and personal benefit. The physicist also married a young and talented Chinese woman, a computer scientist. However, according to the South China Morning Post, the physicist revealed three major reasons that forced him to leave China. He had no information about previous experience of the programme and felt unguaranteed about the next steps in his future, because the programme itself was so vague to him. Moreover, Chiribella could not integrate into Chinese culture because of cultural differences. Therefore, after fulfilling the minimum period of three years at Tsinghua University, Chiribella decided to move to Hong Kong and started a new chapter in his life there, and had to plan to come back to the mainland. In the case of the Italian physicist, the Foreign Talent programme is considered a failure. It succeeded in luring him from the West to China as a means to boost China's academic credentials, but failed in retaining him in China. In general, there are certain causes for the poor attractiveness of China's Talent programme to foreign academics. First and foremost, the Westerners' inability to learn Chinese and the unpopularity of English in local people make scientists from developed countries so hard

to set up a living and truly integrate into Chinese culture, leading to certain difficulties in the work environment. Secondly, China has a very complicated bureaucracy that is totally unfit for the Western style. Alberto Macho, a Spanish biologist, complained that China' annoying bureaucratic procedures resulted in several purchase delays to his chemistry laboratory in Shanghai. (SCMP, 2016). Last but not least, to work in China requires foreign scientists to have a deep understanding about hierarchical interpersonal relationships. Without getting used to this culture, foreign academics are likely to face some day-to-day challenges in daily life and at work. Therefore, for many talented foreigners, especially those in scientific fields, moving to China seems like a big risk, no matter how attractive the offer from the Chinese government could be.

Moreover, there are disputes about China's talent programme. A prominent abuse about physicist Leonhardt, who worked at South China University after the call from the Chinese government, raised questions about the dignity of the programme. Although invitations to him were very attractive on paper, Leonhardt knew he was somehow cheated. In reality however, he did not receive all of the amounts that he was previously promised to receive on paper. After a short time in China, he even realised that the English version of his employment contract is different from that of the Chinese version (Chodorow Law Offices, 2014). Another similar story happened to Geoff Gadd, a British geo-microbiologist. He had no idea about who administered the grant, or even what and how they were doing with the grant application process. He also received no details about any procedures (SCMP, 2014). The stories of Leonhardt and Geoff Gadd show an ignorance of foreign grantees about the grant conditions and cast strong doubts on China's Talent Programme's transparency, raising a big question mark about China's vulnerability in retaining foreign scientists.

The diversity of race, skin colours and the most important, the diversity of thought, show the effectiveness in solving brain drain in the long run. It gradually breaks cultural barriers as China is more open, giving individuals more spaces and nurturing a more creative environment. There are exemplary images of successful countries, regions and organisations in which diversity is an essential contributor, such as Singapore, where foreign immigrants formed a huge 40% of the population, or Silicon Valley, where most of the nationalities on earth were gathering together and building up the world's centre of technology. Although there is clear evidence of the lack of transparency in Talent programmes, the efforts that China has been implementing to make a diverse environment show that the country has a great ambition to do the same.

5.4 Company case: Alibaba Group

“Success and profitability are outcomes of focusing on customers and employees, not objectives.”
- Jack Ma -

Founded in 1999, Alibaba Group, China’s answer to eBay and Amazon, has become one of the biggest companies in China as well as in the world, making its founder Jack Ma the richest man in Asia with the net worth up to \$31 billion in May 2017 (Ge 2017). Alibaba is true literally with its name, as people have witnessed it says “Open Sesame” to unlock to world of e-commerce since the very first days. Until the 1st quarter of 2017, there were approximately 454 million customers using its services in over 200 countries and territories on earth, making it the world’s largest retailer since April 2016, contributing to its annual revenue of \$15.7 billion – 33% increase in comparison to the fiscal year 2015 (Lim 2016). These impressive indicators illustrate the simple fact that the China-based e-commerce giant has been soaring. One of the main explanations for its success nowadays is an effective talent management that Jack and his co-partners have for a long time paid a special attention to.

Although Jack Ma was not a good student and he failed the college entrance exams two times, he wants to hire the most brilliant minds from top-notch universities worldwide. Alibaba has gradually established comprehensive talent management strategies that guarantee the effective path in all phases, from talent attraction, talent development, to talent retention. Jack’s sayings on leadership, employees and the focus on the young aforementioned always go together with concrete actions, which work as a contagious phenomenon to urge the young and talented to join the company and contribute their expertise to Alibaba.

In 2010, when the average GDP per capital of China was only approximately \$3,600 per year (World Bank, n.d.), Alibaba was willing to offer up to \$100,000 annually together with many other benefits for an electronic information job during international job fairs to attract Chinese talented students with overseas education (Liang 2010). Who doesn’t want this generous package, that even in the U.S. and the West is hard to earn immediately after graduation? The fact is that many were persuaded by Alibaba under Jack’s leadership and they decided to return China to join Alibaba’s workforce. One of them is Juan Lin, who possesses the MBA certificate of Keele University in the U.K and used to work in several companies in Europe in senior positions. Now, he is a Director

who undertakes the International Air tickets business development of Alibaba, in Guangzhou city, China.

Together with alluring monetary offers, Alibaba has figured out a comprehensive plan to attract and develop talent in the global scale. In May 2016, the e-commerce giant launched “Alibaba Global Leadership Academy” (AGLA), an employee recruitment and training programme with the aim to seek the top talent from major markets outside China, for 16 months of training at Alibaba’s headquarters in Hangzhou, China, fostering them to become future international leaders of Alibaba (AGLA 2017). After five months, in October 2016, Alibaba continued its plan by the programme called “Global E-commerce Talent” (GET) in India (ET Retail News 2016). GET involves partnering with universities, colleges, business schools and training centres in different states throughout India, where Alibaba considers a hugely potential market now and in the future (Misfits News 2016). The company also acquires talent worldwide in an effort of building up a strong team of leaders. For example, the former Goldman Sachs Group’s vice president Michael Evans was hired to work as strategy executive, and also Target Corporation’s Chief Human Resources Officer Jodee Kozlak became Alibaba’s Global Senior Vice President of Human Resources (Alizila News 2016). These programmes and concrete actions proved that the company’s hunger to talents are links in a series of moves by Alibaba in the push of globalisation, in which talent management is considered a crucial factor for the e-commerce firm’s sustainability, success and prosperity.

Jack Ma and Alibaba’s managers has mastered the art of talent retention. They have created an innovative culture of participation, energy and fun, where all employees are promised to work together as a family with minimal bureaucracy and politics, what for long have burdened skilled individuals in particular and all Chinese people in general. The company defines for itself only six fundamental values, in which the last one clearly demonstrates its appreciation to its people “Employees who demonstrate perseverance and excellence are richly rewarded. Nothing should be taken lightly as we encourage our people to ‘work happily, and live seriously’.” Since 2007, Jack has painted a vivid image of the ideal work environment for all working staffs at his Alibaba with main factors - Blue Sky (蓝蓝的天), Solid Ground (踏实的大地), Free-flowing Ocean (流动的大海), Green Forest (绿色的森林), and Harmonious Community (和谐的社区) (Financial Times 2007) – where employees can feel changes, challenges and growth in every single working day. In addition to this, Alibaba is well-known as a company that cares about its personnel. During 2002-2004, when SARS epidemic conquered China, Jack Ma and members in

the board of directors decided to have all employees working from home due to only one suspected case. In 2013, together with the movie star – martial artists Jet Li, Jack Ma opened a tai chi school in Hangzhou, China, to popularise the beauty of martial arts, a symbol of Chinese culture and tradition to the world (South China Morning Post 2013). The important point in the talent management context is that he offers tai chi training for free to all Alibaba's employees, which highlights his care to people. According to Lily Li, Director of Sales Research Department at Alibaba, she came to the company as she is offered the chance to make a bigger impact by upgrading advanced methods of doing business, while Echo Lu, Alibaba's Director of Organization and People Development, who left YUM in 2006 and joined Jack Ma's community, said that the company gives him a sense of ownership and an entrepreneurship spirit (Financial Times 2007). During his presences and in his personal blogs, Jack often motivates employees by simple but inspirational words such as "Sacrifice", "Contribution", "Dreams" and "Happiness", emphasising that their works are for an ultimate goal of bringing values to society. His motivation sayings are costless to him but priceless to all employees, which proves that Jack Ma has mastered talent retention skills in offering them intrinsic incentives to boost their loyalty and retain them forever with his Alibaba.

It is clear that Alibaba's talent management has worked well. As a result, the talent flow pours strongly into the company, consolidating its cornerstone in the crisis for skilled labour in China. It is likely that in the inflow of talent there are Chinese students overseas, and if the company continues with its flexible talent management strategies, the number of people such as Juan Lin accelerates as a matter of course. Brain drain, therefore, is not a real issue to Alibaba.

6 Conclusion

China does not hesitate to show the world its fervent ambition – to become the world's leader in economics, science, technology and many other fields. On the way to achieve those ambitious goals, China is challenged by internal and external factors, in which brain drain happens to be among the toughest ones. The country has been bled by brain drain in four decades since the Open Door policy 1978, which results in that there are millions of Chinese people with expertise living abroad in advanced economies, while China has been facing a serious problem of skilled labour shortage. Since 2007, the Chinese government launched the “One Thousand Talent programme”, which was comprehensively designed to cure the issue, including reasonable implementations in talent attraction, talent development and talent retention. Chinese businesses also pay a special attention to talent acquisition and try to be more competitive in the Chinese rigid labour market. Therefore, the inflow of Chinese “Sea turtles” from overseas and the rate between returnees and leaving have increased considerably.

As brain drain itself is a multi-dimensional issue, China has approached it via different angles and perspectives. Talent management is exploited maximally in three aforementioned steps. With ceaseless incentive financial aid projects and eye-opening monetary offers, together with the most generous salary increases in Asia from Chinese employers, China is quite successful in talent attraction by the clear evidence that millions of Chinese people have returned to China in recent years, including graduates and high-end academics. To develop talent, however, requires a transformation of education. The Chinese government has poured a huge investment in sciences and technology to reform both education system and mechanism, while businesses have launched many developmental programmes. Last but not least, the Chinese government and Chinese companies have both strived to retain talents by exploiting both extrinsic and intrinsic incentives, such as providing professional development opportunities and creating a work-life balance and a diverse environment. Alibaba Group, for example, has succeeded in dealing with brain drain by applying skilfully talent management strategies in practice.

In East Asian culture in general and in Chinese culture in particular, people penetrate their children with an idea that a good man is a success if he goes far in life and achieves glories in youth and then returns home to contribute his ability to his nation. They use

the metaphorical images from nature to describe beliefs, rules and principles in life. In this particular case, Chinese people believe that an adventurer in his youth must return to his homeland when he is old, in the same way leaves fall to the root of the tree to nurture the ground. Their responsibility to pay back what they owe their nation is evaluated via their contribution to the future generations of their kind and kin, their care to aged parents, and their help to friends. The Chinese government understands deeply this spiritual responsibility of “Sea turtles” and uses it as a foundation for all talent management strategies. Therefore, that Dr. Shi Yigong refused a grant of 10 million dollars (mentioned in section 5.1) may surprise many people, but not the Chinese. Chinese people take that action for granted.

As analysed earlier, the effects of talent management strategies in China have been evident since 2007-2008, when China’s government and businesses such as Alibaba started implementing decisive actions to attract Chinese talents from overseas. At that time, when the global financial crisis was considered a disaster in Europe and the United States, China still thrived with admirable economic indicators. Talent attraction programmes implemented since that time were a circumspect and wise move, leveraging the country image in Chinese people overseas and making a turning point in the progress to reverse brain drain. Many Chinese students who found it difficult to earn a good paycheck after graduating from universities in the West saw positive signals from their country, signals that they had never seen before. On one hand, the Chinese government enticed them by monetary incentives when they were in trouble during the financial crisis in developed countries; on the other hand, Chinese leaders praised them and called their return “patriotism”. For thousands of years, Chinese people always believe that a strategy will succeed if it meets three factors: right time (天时), right place (地利) and right people (人和). “One Thousand Talent Programme” once again reinforces their belief, playing a major role in talent management that China use to cure brain drain.

Although China’s talent management via One Thousand Talent Programme seems impressive in curing brain drain, it is also strongly criticised for the moderate progress, the lack of transparency and the vulnerability in retaining talents. Firstly, China’s talent attraction in the form of monetary incentives actually does not work with Chinese overseas, who found ways to leave China not because of money, but because of other reasons. Secondly, the majority of the elite Chinese returnees, who joined the Talent programme, are not academic, but rather businesspeople, who are more willing to return to China after achieving certain successes in developed countries. Understood in this

way, One Thousand Talent Programme has not reached its true goal, as Chinese leaders launched the programme early in 2008 as a means to lure the most prominent Chinese scientists overseas in order to lift up China's education in general and China's academic level in particular. Thirdly, China's talent development projects, such as Project 211 and Project 985 in the 1990s and the Double World-Class Project in 2005, unwittingly widen the education gap between different regions as well as universities in China. The intense focus on top academic institutions and the neglectfulness to universities in local regions have resulted in some universities being strongly boosted while others severely degraded. Last but not least, the lack of transparency in implementing programmes, such as the Foreign Talent programme, has led to some notorious disputes that seriously degrade the image of China's Talent programmes, making foreign scientists stay away from the country. Not only elite Chinese people overseas but also foreign experts hesitate to move to China, despite of eye-opening offers. Those Chinese living abroad who returned to China and those foreigners who came to China as a result of attractive invitations are willing to leave the country, and in fact many people left China only after a short time. For these reasons, the result of China's efforts in talent management is considered a poor return on investment.

Therefore, whether China can completely end brain drain is a different story. Statistics have shown that both the torrents into and out of China have accelerated, with the former's speed being a little more rapid. Although applications of talent management theories are used as recipes to relieve the brain drain epidemic of China, they have not been able to kill the roots of the issue. When there is still a big gap between Chinese standards of living, education system and employment opportunities and those of developed countries, there are still Chinese people who want to pursue a better life on the other side of the Chinese border. Additionally, the Chinese unstable and undemocratic political situations and the cultural barriers still hinder Chinese people abroad from returning to their homeland. The ever increasing levels of pollution also have been shown to be one of the major factors that force both international expatriates and Chinese people to leave China. In other words, talent management strategies are effective but not enough to completely prevent China's brain drain. Talent management will leverage its effect when it goes hand in hand with social movements to attract, nurture and retain talent in China. Once the root causes are stubbed and talent management is fostered, brain drain will no longer be an issue to China.

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Appendix 1

Chinese students leaving for and returning from overseas destinations each year, 1978 - 2015.

Year	Leavings	Returnees	Rate (%)
1978	860	248	28.84%
1979	1777	231	13.00%
1980	2124	162	7.63%
1981	2922	1143	39.12%
1982	2326	2116	90.97%
1983	2633	2303	87.47%
1984	3073	2290	74.52%
1985	4888	1424	29.13%
1986	4676	1388	29.68%
1987	4703	1605	34.13%
1988	3786	3000	79.24%
1989	3329	1753	52.66%
1990	2950	1593	54.00%
1991	2900	2069	71.34%
1992	6540	3611	55.21%
1993	10742	5128	47.74%
1994	19071	4230	22.18%
1995	20381	5750	28.21%
1996	20905	6570	31.43%
1997	22410	7130	31.82%
1998	17622	7379	41.87%
1999	23749	7748	32.62%
2000	38989	9121	23.39%
2001	83973	12243	14.58%
2002	125179	17945	14.34%
2003	117307	20152	17.18%
2004	114682	24726	21.56%
2005	118515	34987	29.52%
2006	134000	42000	31.34%
2007	144000	44000	30.56%

2008	179800	69300	38.54%
2009	229300	108300	47.23%
2010	284700	135000	47.42%
2011	339700	186200	54.81%
2012	399600	272900	68.29%
2013	413900	353500	85.41%
2014	459800	364800	79.34%
2015	523700	409100	78.12%

Source: Globalization and Transnational Academic Mobility: The Experiences of Chinese Academic Returnees

Appendix 2:

MOE Organizations with programming meant to encourage Returnees

(Source: Zweig, D. 2006)

