

**BRAIN DRAIN IN CHINA: INTENTION TO STAY IN
MALAYSIA AMONG CHINA'S STUDENTS IN UNIVERSITI
UTARA MALAYSIA (UUM)**

SHI XUE

**UNIVERSITI UTARA MALAYSIA
2011**

**Brain Drain in China: Intention to Stay in Malaysia among China's
Students in Universiti Utara Malaysia (UUM)**

A thesis submitted to the College of Business in partial fulfillment of the requirements
for the degree
Master of Human Resource Management
Universiti Utara Malaysia

By

SHI XUE

© SHI XUE, 2011. All rights reserved.



KOLEJ PERNIAGAAN
(*College of Business*)
Universiti Utara Malaysia

PERAKUAN KERJA KERTAS PROJEK
(*Certification of Project Paper*)

Saya, mengaku bertandatangan, memperakukan bahawa
(*I, the undersigned, certify that*)

SHI XUE (806483)

Calon untuk Ijazah Sarjana
(*Candidate for the degree of*) **MASTER OF HUMAN RESOURCE MANAGEMENT**

telah mengemukakan kertas projek yang bertajuk
(*has presented his/her project paper of the following title*)

BRAIN DRAIN IN CHINA: INTENTION TO STAY IN MALAYSIA
AMONG CHINESE STUDENTS IN UNIVERSITI UTARA MALAYSIA

Seperti yang tercatat di muka surat tajuk dan kulit kertas projek
(*as it appears on the title page and front cover of the project paper*)

Bahawa kertas projek tersebut boleh diterima dari segi bentuk serta kandungan dan meliputi bidang ilmu dengan memuaskan.

(*that the project paper acceptable in the form and content and that a satisfactory knowledge of the field is covered by the project paper*).

Nama Penyelia : **MADAM NORIZAN BT HAJI AZIZAN**
(*Name of Supervisor*)

Tandatangan : 
(*Signature*)

Tarikh : **17 FEBRUARY 2011**
(*Date*)

PERMISSION TO USE

In representing this thesis in partial fulfillment of the post graduate degree from Universiti Utara Malaysia, I agree that the University Library make it freely available for inspection. I future agree that permission of copying of this thesis in any manner, in whole or in part, for scholarly purposes may be granted by my supervisors or, in their absence, by the Dean of College of Business. It is understood that any copying or publication or use of this thesis or parts thereof for financial gain shall not be allowed without my written permission. It is also understood that due recognition shall be given to me and to Universiti Utara Malaysia for any scholarly use which may be made of any material from my thesis.

Requests for permission to copy or to make other use of materials in this thesis, in whole or in part should be addressed to:

Dean of Research & Postgraduate Studies

College of Business

Universiti Utara Malaysia

06010 Sintok

Kedah Darul Aman

ABSTRACT

Intention to stay abroad is usually seen around the world by different groups of people. One major case of the intention to stay happens when students from one country studying in another country decide not to return home after their studies. This issue also leads to the concept of “brain drain” as a phenomenon that people of a high level of skills, qualifications, and competence, leave their countries and emigrate. In this study, we examined the factors affecting international students’ intention to stay in their host countries in a sample of 189 China’s students who came to study in UUM of Malaysia. The results support a three-fold model of factors that influenced this intention. Students’ perceptions of ethnic differences and labor markets, their adjustment process to the host country, and their family ties in host and home countries all affect their intention to stay.

Keywords: brain drain, intention to stay, China’s students.

ACKNOWLEDGEMENTS

I would like to extend my gratitude to my project supervisor, Madam Norizan bt. Haji Azizan for her valuable support, contribution and guidance.

I wish to thank Dr Ismail Lebai Othman for his input and advice during the Research Methodology class. Special thanks are also extended to all lecturers in the Human Resource Management Group, College of Business, Universiti Utara Malaysia who had helped me in getting through the hard time, also for their useful knowledge and information.

I am also wish to acknowledge the support of my respected parents. Their love, encouragement, support and sacrifice have been exemplary. Their concerns on my education as well as their continuous support had contributed in the success of this study.

Lastly, I am grateful for the encouragement that I received from all of my friends for the unconditional love in supporting my quest for knowledge has been extraordinary.

TABLE OF CONTENT

CHAPTER ONE: INTRODUCTION.....	1
1.1 Background	1
1.2 Problem Statement	5
1.3 Research Questions.....	8
1.4 Research Objective.....	8
1.5 Significance of Study.....	9
1.6 Organization of Chapters.....	11
1.7 Conclusion.....	12
CHAPTER TWO: LITRETURE REVIEW.....	13
2.1 Introduction.....	13
2.2 Intention.....	13
2.3 Intention to Stay.....	14
2.4 Brain Drain.....	15
2.5 Other Related Concepts.....	13
2.5.1 Demand and Supply.....	17
2.5.2 Push and Pull Factors.....	17

2.6 Brain Drain in the World.....	19
2.7 Factors Affecting Brain Drain in the United Kingdom and the United States.....	21
2.8 Research Hypotheses Development.....	23
2.8.1 Stratification.....	23
2.8.2 Family Ties.....	25
2.8.3 Career Perception.....	26
2.9 The research model.....	27
2.10 Conclusion.....	28

CHAPTER THREE: RESEARCH METHODOLOGY AND DESIGN.....29

3.1 Introduction.....	29
3.2 Research Design.....	29
3.3 Research Method.....	30
3.4 Sources of Data.....	30
3.4.1 Primary Data.....	30
3.4.2 Secondary Data.....	30
3.5 Population and Sampling.....	31
3.6 Data Collection.....	32
3.7 Questionnaire Design.....	33
3.8 Data Analysis Techniques.....	35

3.9 Conclusion.....	36
CHAPTER FOUR: FINDINGS..... 37	
4.1 Introduction.....	37
4.2 Overview of Collected Data.....	37
4.3 Respondents' Profiles.....	38
4.3.1 Gender.....	38
4.3.2 Marriage.....	39
4.3.3 Age.....	40
4.3.4 Education.....	42
4.3.5 Duration in Malaysia.....	43
4.3.6 Home Condition.....	44
4.3.7 Income.....	45
4.4 DESCRIPTIVE ANALYSIS.....	47
4.5 MAJOR FINDINGS.....	48
4.5.1 Pearson Correlation Coefficient.....	48
4.6 SUMMARY OF FINDINGS.....	52
4.7 CONCLUSION.....	53

CHAPTER FIVE: CONCLUSION AND RECOMMENDATION.....	54
5.1 Introduction.....	54
5.2 Overview of the study.....	54
5.3 Discussion.....	54
5.4 Limitation of the Study.....	56
5.4.1 Financial Constraints.....	56
5.4.2 Time Constraint.....	56
5.4.3 Lack of Experience.....	57
5.4.4 Lack of Experience.....	57
5.5 Theoretical and practical implications.....	58
5.6 Recommendation for Future Research.....	60
5.7 Conclusion.....	61
REFERENCES.....	62

LIST OF TABLE

No	Title	Page
	1.1 The Number of China's students in Malaysia.....	4
	3.1: Summary of Response Rate.....	33
	3.2: Questionnaire information.....	33
	3.3: Layout of the questionnaires.....	34
	4.1: Responses Rate.....	38
	4-2 Gender.....	39
	4-3 Marriage.....	40
	4-4 Age.....	41
	4-5 Education.....	42
	4-6 Duration in Malaysia.....	43
	4-7 Home Condition.....	44
	4-8 Income.....	46
	4-9: Descriptive Statistics of the Dependent and Independent Variables.....	47
	4-10: Person's correlation of the Dependent and Independent Variables.....	50
	4-11: Summary of Findings.....	52

LIST OF FIGURES

No	Title	Page
	2.1 Research Framework.....	28
	3.1 Summary of Response Rate.....	26
	4-1 Gender.....	39
	4-2 Marriage.....	40
	4-3 Age.....	41
	4-4 Education.....	42
	4-5 Duration in Malaysia.....	44
	4-6 Condition in China.....	45
	4-7 Income.....	46

LIST OF ABBREVIATIONS

Abbreviation	Description of Abbreviation
UUM	Universiti Utara Malaysia
USA	United States of America
UK	United Kingdom
SET	Social Exchange Theory
FT	Family Ties
CP	Career Perception
ITS	Intention To Stay

CHAPTER 1

INTRODUCTION

1.1 Background

For centuries, the international flow of talent is a noticeable phenomenon in the study of human resources management. In a long time, this flow acted as a one way flow which the talent moves from the sovereign states to the colonial states, from European countries to African, Asian and American countries, and from rich lands to poor lands. However, by the mid-20th century, this flow has been changed into a complex situation due to the current international system and environment (Wang, 2004). It can be characterized by three trends,

- 1) From the newly developed countries to the most developed countries. As several countries had great economic development forward into newly developed countries, more students went to the most developed countries and never come back. Huang (1995) indicates that from 1950 to 1988, Taiwan sent a total of 112,200 students study abroad, however, the return rate was only 11%.
- 2) From developing countries to developed countries. This kind of flow is more frequently appeared in most countries. By Thomason (1990) a research shows that only a decade from 1969-1979, the United States received 375,000 professional technicians from developing countries, and 50% of them are from Asia.
- 3) From developed countries to developed countries. After the World War II, the

The contents of
the thesis is for
internal user
only

REFERENCES

- Ackers, L., & Bryony, G. (2005). Attracting and retaining 'early career' researchers in English higher education institutions. *Innovation: The European Journal of Social Sciences*, 18: 277–299.
- Ajzen, I., & Fishbein, M. (1975). *Belief, attitude, intention, and behavior: An introduction to theory and research*. Reading: Addison-Wesley.
- Ajzen, I., & Fishbein, M. (1980). *Understanding attitudes and predicting social behavior*. Englewood Cliffs, NJ: Prentice-Hall.
- Altbach, P. G., & Bassett, R. M. (2004). The brain trade. *Foreign Policy*, 30–31.
- Arthur, M. G., & Rousseau, D. M. (1996). *The boundaryless career*. New York: Oxford University Press.
- Baruch, Y. (1995). Business globalization—the human resource management aspect. *Human System Management*, 14: 313–326.
- Baruch, Y. (2004). *Managing careers: Theory and practice*. Harlow: FT-Prentice Hall/Pearson.
- Beine, M., Docquier, F., & Rapoport, H. (2008). Brain drain and human capital formation in developing countries: winners and losers, *Economic Journal*, 118 (528), 515-843.
- Bjorkman, I., & Fan, X. C. (2002). Human resource management and the performance

of Western firms in China. *International Journal of Human Resource Management*, 13: 853–864.

Black, J.S. & Stevens, G.K. (1989). The influence of spouse on expatriate adjustment and intent to stay in overseas assignments. *International Journal of Human Resource Management*. 3 (3): 585-592.

Blau, P.M. (1964). *Exchange and power in social life*. New York: John Wiley and Sons.

Bunderson, J.S. (2001). How work ideologies shape the psychological contracts of professional employees: doctors' responses to perceived breach. *Journal of Organizational Behavior*. 22: 717-741.

Carr, S. C., Inkson, K., & Thorn, K. (2005). From global careers to talent flow: Reinterpreting 'brain drain'. *Journal of World Business*, 40: 386–398.

Carrington, W. J., & Detragiache, E. (1999). International migration and the 'brain drain'. *Journal of Social Political and Economic Studies*, 24: 163–171.

Carsten, J.M. & Spector, P.E., (1987). Unemployment, job satisfaction and employment turnover: A metaanalytic test of the Muchinsky Model. *Journal of Applied Psychology*. 72(2): 374-381.

Chang, P., & Deng, Z. (1999). The Chinese brain drain and policy options. *Studies in Comparative International Development*, 27: 44–60.

Chen, J. (2002). Research on the Problem of Our Country's Brain Gain. *China Ocean University Graduation Paper.*

Chen, S. (2006). Analyzing the course of the brain drain of the high-tech enterprise and countermeasure[J]. *Era Handlers.* (In Chinese)

Commander, S., Kangasniemi, M., & Winters, L.A (2004). The brain drain: curse or boon? A survey of the literature, in R. Baldwin and L.A. Winters (Eds): *Challenges to Globalization*, NBER and University of Chicago Press, Chapter 7.

Cooper, D. R., & Schindler, P. S. (2008). *Business Research Methods*. New York: McGraw Hill Companies, Inc.

Coyle-Shapiro, J.A. & Kessler, I. (2000). Consequences of the psychological contract for the employment relationship: A large scale survey. *The Journal of Management Studies*. 37: 904-930.

Dalessio, A., Silverman, W. & Schuck, J. (1986). Paths to turnover: a re-analysis and review of existing data on the Mobley, Horner, and Hollingsworth's turnover model. *Human Relations*. 39: 245-264.

Davenport, S. (2004). Panic and panacea: Brain drain and science and technology human capital policy, *Research Policy*, 33: 617-630.

Davis, J.A. (1971). *Elementary Survey Analysis*. New Jersey: Prentice-Hall.

Deal, T. E., & Kennedy, A. A. (1988). *Corporate cultures*. London: Penguin Books.

Department of Academic Affairs. (2010). *Statistics of international students*. Universiti Utara Malaysia.

Embassy of the People's Republic of China in Malaysia. (2007). *Statistics of China's students in Malaysia*. Kuala Lumpur.

Hall, D. T. (1976). *Career in organizations*. Pacific Palisades: Goodyear.

Hall, D. T. (2002). *Careers in and out of the organization*. Thousand Oaks: Sage.

Hall, D. T. (2004). The protean career: A quarter-century journey. *Journal of Vocational Behavior*, 65(1): 1–13.

Hall, D. T., & Moss, J. E. (1998). The new protean career contract, helping organizations and employees adapt. *Organizational Dynamics*, 26(3): 22–37.

Hewitt Associates. (2004). *Strategies for Cost Management of the HR Function*. Timely Topics Survey Results,

Hillmert, S. (2002). Labour market integration and institutions: An Anglo-German comparison. *Work, Employment & Society*, 16: 675–701.

Hofstede, G. (1980). *Culture's consequences: International differences in work-related values*. Beverly Hills: Sage Publications.

Hofstede, G. (1984). The cultural relativity of the quality of life concept. *Academy of Management Review*, 9: 389–398.

Huang W. (1995). The governs research on higher learning brain drain for our country regular institution. *Tongji University Graduation Paper*.

Igharia, I. & Greenhaus, J.(1992). The career advancement prospects of managers and professionals. *Decision Sciences*. 23(2): 478-500.

Iredale, R. (2001). The migration of professionals: Theories and typologies. *International Migration*, 39(5): 7–26.

Iverson, R.D. (1996). Employee acceptance of organizational change: the role of organizational commitment. *The International Journal of Human Resource Management*. 7 (1): 122-49.

Kar-tyiu, W., & Chong, K. Y. (1999). Education, economic growth, and brain drain. *Journal of Economic Dynamics and Control*, 23: 699–725.

Kesselman, J. R. (2001). Policies to stem the brain drain-without Americanizing Canada. *Canadian Public Policy*, 27(1): 77–93.

Kim, S., Price, J.L., Mueller, C.W. & Watson, T.W. (1996). The determinants of career intent among physicians at a U.S. Air Force hospital. *Human Relations*. 49(7): 947-976.

Koser, K., & Salt, J. (1997). The geography of highly skilled international migration—research review. *International Journal of Population Geography*, 3: 285–303.

- Lee, T. W., & Mauer, S. (1999). The effects of family structure on organizational commitment, intention to leave and voluntary turnover. *Journal of Management Issues*, 11: 493–513.
- Lenartowicz, T., & Roth, K. (1999). A framework for culture assessment. *Journal of International Business Studies*, 30: 781–798.
- Lianos, T. P., Asteriou, D., & Agiomirgianakis, G. M. (2004). Foreign university graduates in the Greek labour market: Employment, salaries and over education. *International Journal of Finance & Economics*, 9: 151–164.
- Martin, N. K., & Dixon, P. N. (1994). The effects of Freshman orientation and locus of control on adjustment to college: A follow-up study. *Social Behavior and personality: An International Journal*, 22(2): 201–208.
- Ma, Q. (2005). Manage Stat.—Data obtain, Stat. Theory, SPSS Tool and Application study[M]. Beijing: Science Publishing. (In Chinese)
- Mazzarol, T., & Soutar, G. (2002). Push-pull factors influencing the international student destination choice. *The International Journal of Educational Management*, 16(2): 82–90.
- Mahroum, S. (2000). Highly skilled globetrotters: Mapping the international migration of human capital. *R&D Management*, 30: 23–31.
- Monro, A. (2004). A migration that nobody objects to. *New Statesman*, 133: 34–35

- Mossholder, K.W., Settoon, R.P. & Henagan, S.C. (2005). A relational perspective on turnover: Examining structural, attitudinal and behavioral predictors. *Academy of Management Journal*. 48(4): 807-818.
- Nichols, T., Cam, S., Chou, W-C.G., Chun, S., Zhao, W., & Feng, T. (2004). Factory regimes and the dismantling of established labour in Asia: A review of cases from large manufacturing plants in China, South Korea and Taiwan. *Work, Employment & Society*, 18: 663–685.
- Nunnally, J. O. (1978). *Psychometric theory*. New York: McGraw-Hill.
- Osland, J. S., & Bird, A. (2000). Beyond sophisticated stereotyping: Cultural sensemaking in context. *Academy of Management Executive*, 14: 65–79.
- Richardson, J., & Mallon, M. (2005). Career interrupted? The case of the self-directed expatriate. *Journal of World Business*, 40: 409–420.
- Rhoades, L. & Eisenberger, R. (2002). Perceived organizational support: A review of the literature. *Journal of Applied Psychology*. 87: 698-714.
- Rosenblatt, Z., & Sheaffer, Z. (2001). Brain drain in declining organizations: Toward a research agenda. *Journal of Organizational Behavior*, 22: 409–424.
- Roth, P. L., & BeVier, C. A. (1998). Response rates in HRM/OB survey research: Norms and correlates, 1990–1994. *Journal of Management*, 24: 97–118.

Russell, H., & O'Connell, P. J. (2001). Getting a job in Europe: The transition from unemployment to work among young people in nine European countries. *Work, Employment & Society*, 15: 1–24.

Sekaran, U. (1992). *Research methods for business - a skill-building approach*. New York: John Wiley.

Seibert, S. E., Kraimer, M. L., & Crant, J. M. (2002). What do proactive people do? A longitudinal model linking proactive personality and career success. *Personnel Psychology*, 54: 845–874.

Shay, J. P., & Baack, S. A. (2004). Expatriate assignments adjustment and effectiveness: An empirical examination of the big picture. *Journal of International Business Studies*, 35: 216–233.

Shenkar, O. (2001). Cultural distance revisited: Towards a more rigorous conceptualization and measurement of cultural differences. *Journal of International Business Studies*, 32: 519–535.

Shenkar, O. (2004). One more time: International business in a global economy. *Journal of International Business Studies*, 35: 161–171.

Simonin, B. L. (2004). An empirical investigation of the process of knowledge transfer in international strategic alliances. *Journal of International Business Studies*, 35: 407–427.

Spector, P. E. (1994). Using self-report questionnaires in OB research: A comment on the use of a controversial method. *Journal of Organizational Behavior*, 15: 385–392.

Stalker, P. (2000). *Workers without frontiers: The impact of globalization on international migration*. Boulder: Lynne Reiner.

Stahl, G. K., Miller, E. L., & Tung, R. L. (2002). Towards the boundary less career: a closer look at the expatriate career concept and the perceived implications of an international assignment. *Journal of World Business*, 37: 216–227.

Steel, R.P. & Ovalle N.K. (1984). A review and meta analysis of research on the relationship between behavioral intentions and employee turnover. *Journal of Applied Psychology*. 69: 673-686.

Suutari, V., & Brewster, C. (2000). Making their own way: International experience through self-initiated foreign assignments. *Journal of World Business*, 35: 417–436.

Tan, Y. (2006). *Quantitative analysis*. Beijing:Renmin University Press. The Economist (2004). Britain:Newangels on degrees, 371:May 8, 32.

Tansel, A., & Gungor, N. D. (2003). Brain drain from Turkey: Survey evidence of student non-return. *Career Development International*, 8: 52–69.

Tett, R.P. & Meyer, J.P. (1993). Job satisfaction, organizational commitment,

turnover intention, and turnover: Path analyses based on meta-analytic findings.
Personnel Psychology. 46(2): 259-293.

Thibaut, J.W. & Kelley, H.H., (1959). *The Social Psychology of Groups*. New York: John Wiley and Sons, Inc.

Thomason, A. (1990). China's Brain Drain: A Study of the Factors Affecting China's students' and Scholars' Decisions to Remain in the United States and not to Return to China. *Boston University File*, 90(2): 12-18.

Touliatos, J., Perlmutter, B. F., & Strauss, M. A. (2001). Handbook of family measurement techniques. Newbury Park: Sage.

Tsuda, T. (1999). The motivation to migrate: The ethnic and sociocultural constitution of the Japanese–Brazilian return–migration system. *Economic Development and Cultural Change*, 48: 1–31.

Tung, R. L. (1998). American expatriates abroad: From neophytes to cosmopolitans. *Journal of World Business*, 33: 125–144.

Tung, R. L., & Lazarova, M. B. (2006). Brain drain versus brain gain: An exploratory study of ex-host country nationals in central and east Europe. *International Journal of Human Resource Management*, 17: 1853–1872.

Van Dick, R., Christ, O., Stellmacher, J., Wagner, U., Ahlswede, O., Grubba, C., Hauptmeier, M., Hohfeld, C., Moltzen, K., & Tissington, P. A. (2004). Should I

stay or should I go? Explaining turnover intentions with organisational identification and job satisfaction. *British Journal of Management*, 15: 351–360.

Wang, J. (2004). The Research on the Phenomenon of China's Study Abroad, Brain Drain and Return. *Zhejiang University of Technology Graduation Paper*.

Warner, M. (2003). *Management and culture and management in Asia*. London: Curzon Press.

Wilson, B. (1990). *System: Concepts, Methodologies, and Applications*. New York: John Wiley & Sons Inc.

Wingrove, N. (1995). More U.S. graduates returning to China. *Research Technology Management*, 38(4): 3–4.

Zhang, S. (2006). “Why the Talent Loss from State-owned Units”, *China Statistics*, pp52-56.