

# DUAL DEGREE STRATEGY FOR THE FACULTY OF BUSINESS ADMINISTRATION

by

Catherine Clarke  
Bachelor of Arts, Simon Fraser University 1992

PROJECT SUBMITTED IN PARTIAL FULFILLMENT  
OF THE REQUIREMENTS FOR THE DEGREE OF

MASTER OF BUSINESS ADMINISTRATION

In the  
Faculty  
of  
Business Administration

Executive MBA

© Catherine Clarke 2007

SIMON FRASER UNIVERSITY



Summer 2007

All rights reserved. This work may not be reproduced in whole or in part,  
by photocopy or other means, without permission of the author.

# APPROVAL

**Name:** Catherine Clarke

**Degree:** Master of Business Administration

**Title of Project:** Dual Degree Strategy for the Faculty of Business Administration

**Supervisory Committee:**

---

**Dr. Neil R. Abramson**  
Senior Supervisor  
Associate Professor

---

**Dr. Mark N. Wexler**  
Second Reader  
Professor

**Date Approved:**

Aug 7, 2007

---



SIMON FRASER UNIVERSITY  
LIBRARY

## **Declaration of Partial Copyright Licence**

The author, whose copyright is declared on the title page of this work, has granted to Simon Fraser University the right to lend this thesis, project or extended essay to users of the Simon Fraser University Library, and to make partial or single copies only for such users or in response to a request from the library of any other university, or other educational institution, on its own behalf or for one of its users.

The author has further granted permission to Simon Fraser University to keep or make a digital copy for use in its circulating collection (currently available to the public at the "Institutional Repository" link of the SFU Library website <[www.lib.sfu.ca](http://www.lib.sfu.ca)> at: <<http://ir.lib.sfu.ca/handle/1892/112>>) and, without changing the content, to translate the thesis/project or extended essays, if technically possible, to any medium or format for the purpose of preservation of the digital work.

The author has further agreed that permission for multiple copying of this work for scholarly purposes may be granted by either the author or the Dean of Graduate Studies.

It is understood that copying or publication of this work for financial gain shall not be allowed without the author's written permission.

Permission for public performance, or limited permission for private scholarly use, of any multimedia materials forming part of this work, may have been granted by the author. This information may be found on the separately catalogued multimedia material and in the signed Partial Copyright Licence.

While licensing SFU to permit the above uses, the author retains copyright in the thesis, project or extended essays, including the right to change the work for subsequent purposes, including editing and publishing the work in whole or in part, and licensing other parties, as the author may desire.

The original Partial Copyright Licence attesting to these terms, and signed by this author, may be found in the original bound copy of this work, retained in the Simon Fraser University Archive.

Simon Fraser University Library  
Burnaby, BC, Canada



SIMON FRASER UNIVERSITY  
THINKING OF THE WORLD

## STATEMENT OF ETHICS APPROVAL

The author, whose name appears on the title page of this work, has obtained, for the research described in this work, either:

(a) Human research ethics approval from the Simon Fraser University Office of Research Ethics,

or

(b) Advance approval of the animal care protocol from the University Animal Care Committee of Simon Fraser University;

or has conducted the research

(c) as a co-investigator, in a research project approved in advance,

or

(d) as a member of a course approved in advance for minimal risk human research, by the Office of Research Ethics.

A copy of the approval letter has been filed at the Theses Office of the University Library at the time of submission of this thesis or project.

The original application for approval and letter of approval are filed with the relevant offices. Inquiries may be directed to those authorities.

Bennett Library  
Simon Fraser University  
Burnaby, BC, Canada

## **ABSTRACT**

International education contributes approximately \$2 billion annually to British Columbia's (B.C.) economy, with more than 150,000 international students enrolled in private and public institutions across the province. Competition is fierce in B.C. between three main universities and many colleges. In order to recruit and retain students for international programs, Simon Fraser University must create innovative programming that will attract students. By collaborating with other universities, a competitive advantage can be gained.

This paper analyzes a proposal for a dual degree between the Faculty of Business at Simon Fraser University and the Faculty of Business at Zhejiang University in Hangzhou, China. The dual degree will provide students with an education in business administration, while providing the opportunity for increased cross-cultural understanding and the acquisition of foreign language skills.

## **EXECUTIVE SUMMARY**

A dual degree program is a combination of two separate approved degree programs and is a degree option that students will be increasingly drawn to as they look for advantages in the global job market. Upon completion of a dual or joint-degree program, a student will be conferred with the two degrees included in the dual degree program. Requirements for these programs include all or most of the requirements of the two distinct academic degree programs included within the dual or joint degree.

Simon Fraser University (SFU) is a mid-size university located in Burnaby, Vancouver, and Surrey, British Columbia, with a total student body of over 25,000 students, 90,000 alumni and more than 700 tenure-track faculty members. SFU opened in 1965 and currently has six faculties, all with a demonstrated reputation of innovative teaching and research. The Faculty of Business, having created Canada's first Executive MBA in 1968, is recognized in Canada for its teaching and research.

Internationalization is a key strategy of SFU and is heavily supported by management through funds and administrative support. The first dual degree in B.C. was established between the Faculty of Computing Science at SFU and Zhejiang University in Hangzhou, China in 2004. Although this dual degree has been financially burdensome for SFU, it has shown academic value. The object of this paper is to assess the strength of creating a dual degree in business between SFU and Zhejiang University.

The post secondary market is extremely competitive in British Columbia, with three main universities and numerous colleges competing for students. Each school in question has a variety

of international programs that offer students differing degrees of international experience. The customers in the B.C. market have strong bargaining power due to the increasing number of seats available and, with the high bargaining power of suppliers, it makes it a difficult market in which to compete with international programs.

As a result of the analysis, nine key success factors for attracting students to international programs were identified:

1. Financial resources – Government funding is limited and therefore universities count their Full Time Equivalent (FTE's) very carefully to maximize funds. Other key sources of income include private donations and research funds. Universities need to have more than government funding as a financial resource, making private donations, research funds and corporate sponsorship necessary to compete successfully on the international market.
2. Human resources – Administrators and faculty members who are knowledgeable of Chinese culture and negotiating tactics.
3. Brand of the university and degree program – Each of the universities in B.C. have strong reputations, although UBC, in contrast to SFU, has spent larger amounts of money promoting their university and creating brand awareness.
4. Clear definition of formal relationship – For international relationships to be successful, the parameters of the relationship need to be clearly set out for both parties. Cultural differences may lead to misinterpretations in must be taken into account.
5. Strong suppliers with buy-in to program – Both universities and colleges have equal potential to have suppliers with buy-in to program.

6. Differentiate international student experiences – Differentiation of the international student experiences is key to success for either universities or colleges to attract students to their programs.
7. Recruit and retain students – The higher education industry has been changing and will continue to change over the next decade. The number of domestic students is decreasing and the number of immigrants is increasing.
8. Government regulation – Education is a regulated industry in both Canada and China, which creates a barrier to entry.
9. Cost – Substitutes have lower fixed costs than universities. In regards to dual degrees, colleges are not a strong threat. Even though colleges can offer a lower priced product, they are not as desired because their brand is not as strong internationally.

By using the strengths identified in the key success factors and targeting resources towards the threats, the SFU Faculty of Business could implement a successful dual degree with Zhejiang University in China.



## **DEDICATION**

I dedicate this project to my husband, Mitchell Stoddard, whose patience, love and understanding made this achievement possible. You shared the experience, provided support and kept me laughing, as always.

I dedicate this project to my daughter, Olivia Harrington Stoddard, who arrived in this world during this program. You were patient while I had to study and you rewarded me with your smile that melts my heart and your laugh that is the most beautiful sound.

## **ACKNOWLEDGEMENTS**

I especially thank my mother, Robin Clarke, and my father, Ray Clarke, for their love and support. Their strength of character and humour continue to inspire me.

I thank Dr. Neil R. Abramson for his guidance, feedback and mostly the patience that was necessary in completing this project. His comments and insightful information were integral in shaping this document.

I thank Diane Cross, Suzanne Schroeder and Terry Jones for their continued support throughout the degree.

Finally, I would like to thank my team members and classmates for making the EMBA program an exceptional experience.

# TABLE OF CONTENTS

<b>Approval</b> .....	<b>ii</b>
<b>Abstract</b> .....	<b>iii</b>
<b>Executive Summary</b> .....	<b>iv</b>
<b>Dedication</b> .....	<b>vii</b>
<b>Acknowledgements</b> .....	<b>viii</b>
<b>Table of Contents</b> .....	<b>ix</b>
<b>List of FIGURES</b> .....	<b>xi</b>
<b>Glossary</b> .....	<b>xii</b>
<b>1 Background and overview</b> .....	<b>1</b>
1.1 History and Background.....	2
1.2 International Education Market.....	7
1.3 International Education in British Columbia.....	8
1.4 Dual Degrees at Simon Fraser University .....	10
1.5 Corporate Strategy of Dual Degree .....	12
1.6 China as Dual Degree Location.....	14
1.7 Differentiation Strategy .....	16
1.8 Problem/Issue .....	18
<b>2 Five force analysis</b> .....	<b>19</b>
2.1 Threat of New Entry – Medium .....	19
2.1.1 Summary of Key Success Factors.....	23
2.2 Bargaining Power of Suppliers – High.....	23
2.2.1 Summary of Key Success Factors.....	25
2.3 Bargaining Power of Buyers – High .....	25
2.3.1 Summary of Key Success Factors.....	28
2.4 Threat of Substitutes – Low .....	28
2.4.1 Summary of Key Success Factors.....	29
2.5 Rivalry Among Existing Competitors – High .....	29
2.5.1 Summary of Key Success Factors.....	33
2.6 Summary of Five Force Analysis.....	33
2.6.1 Summary of Five Force Analysis.....	33
2.7 Determine Industry Attractiveness .....	35
2.8 Dual Degree Proposal.....	39
2.8.1 Buyers Criteria .....	42
<b>3 Internal analysis</b> .....	<b>44</b>
3.1 Strategic Alternatives .....	44
3.2 Management Preference .....	44
3.2.1 What Does Management Want to Accomplish? - Strong .....	44
3.2.2 Criteria for Judging Success – Moderate .....	48

3.2.3	Management Capabilities – Moderate .....	49
3.3	Organization – Moderate .....	50
3.3.1	Structure – Moderate .....	50
3.3.2	Systems – Weak .....	50
3.3.3	Culture – Strong .....	52
3.3.4	Supervision – Moderate to Strong .....	53
3.4	Resources .....	54
3.4.1	Human – Weak .....	54
3.4.2	Operational – Strong .....	55
3.4.3	Financial – Moderate .....	57
<b>4</b>	<b>Discussion and Conclusion .....</b>	<b>58</b>
4.1	Financial Resources .....	60
4.2	Brand .....	61
4.3	Recruitment and Retention of Students .....	62
4.4	Formal Relationship .....	62
4.5	Supplier Buy-in .....	63
4.6	Differentiate International Programs .....	63
4.7	Cultural Knowledge .....	64
4.8	Additional Key Success Factors .....	64
	<b>Reference List .....</b>	<b>65</b>

# LIST OF FIGURES

Figure 1.1 International Undergraduate Student Headcount - Fall only .....4

Figure 1.2 SFU Student Fees ..... 10

Figure 1.3 Visa Students by Country of Citizenship - Top Five Countries ..... 16

Figure 2.1 Comparative Analysis - Five-Point Scale Ranking Strength of KSF to  
Competitors .....37

Figure 2.2 Identify Strategic Threats and Opportunities.....38

Figure 2.3 Budget Projections for a Dual Degree .....43

Figure 3.1 Key Success Factors vs. Internal Capabilities .....59

## **GLOSSARY**

<b>SFU</b>	<b>Simon Fraser University</b>
<b>UBC</b>	<b>University of British Columbia</b>
<b>UVic</b>	<b>University of Victoria</b>
<b>FBA</b>	<b>Faculty of Business Administration</b>
<b>IBT</b>	<b>IBT Education Limited</b>
<b>FTE</b>	<b>Full Time Equivalent</b>
<b>MBA</b>	<b>Master of Business Administration</b>

# 1 BACKGROUND AND OVERVIEW

Internationalization is a mandate and key strategy for Simon Fraser University. The pursuit of international programs and the promotion of mobility are heavily supported both financially and administratively by the university. Over the past few years, dual degrees have been a specific strategy to enhance internationalization and the design of a dual degree by the Faculty of Business Administration (FBA) and Zhejiang University in China is a next step in the internationalization process. The dual degree will provide students with an education in business administration, as well as the opportunity for increased cross-cultural understanding and the acquisition of foreign language skills.

A dual degree program is a combination of two separate approved degree programs. Upon completion of a dual or joint-degree program, a student will be conferred with the two degrees included in the dual degree program. Requirements for these programs include all or most of the requirements of the two distinct academic degree programs included within the dual or joint degree.

The purpose of the dual degree program is:

- To attract high quality undergraduate students to SFU who will become future graduate students and supporters of SFU.
- To add to the SFU reputation locally, nationally and internationally.
- To eventually make money for SFU.

SFU begun its first dual degree program in computing science with Zhejiang University in China and is developing a dual degree in the Faculty of Business Administration with the same university. A third dual degree program is set to begin in France in September 2007 with SFU'S Faculty of Education.

Dual degrees take international programs to a new level of partnership between countries and it is a new approach for Canadian universities. European universities have been doing dual degrees for several years with great success. These programs have been popular because they have been a tool to regulate post secondary education in the European Union. The dual degree creates a formal relationship that recognizes the credentials of other universities.

As the post secondary market becomes more competitive, collaboration is an important tool for universities to gain an advantage. The market is made up of universities, colleges and for-profit schools and the distinguishing features of each have diminished over the years, making new tools to compete necessary for success.

By completing a five-force analysis, this paper will look into the market of post-secondary education and specifically international programs and dual degrees. Once the key success factors are determined an internal analysis will gauge what internal capabilities are present and which are needed to ensure a competitive advantage in the market of international education. The external and internal analysis in this paper will look at the effectiveness of dual degrees as a strategy for internationalization and make recommendations for future dual degrees.

## **1.1 History and Background**

Simon Fraser University (SFU) is a mid size university located in Burnaby, Vancouver, and Surrey, British Columbia. After opening in 1965, SFU now has over 25,000 students, 90,000 alumni and more than 700 tenure-track faculty members. The University currently has six



faculties that span three campuses and has a reputation of innovative teaching and research, as well as a strong community connection. SFU has been rated as Canada's best comprehensive university by Maclean's magazine five times (in 1993, 1996, 1997, 1998 and 2000). SFU has not been rated as one of Canada's best comprehensive universities in the last seven years but, in 2006, SFU and 10 other Canadian universities withdrew their names from the Maclean's ratings. The administrations of the university did not feel that this was a rating system that accurately represented the quality of a university.

As Simon Fraser University's administration and faculties prepare academic plans, they propose to continue to provide:

- The best teaching and research in the liberal arts and sciences;
- The most innovative interdisciplinary and professional programs; and
- The most creative community outreach and partnership. (VPA3YearPlan, 2004)

One strategic focus of Simon Fraser University is internationalization. The University promotes programs to attract foreign students as well as establish its programs' reputations internationally. The University defines internationalization as a process "made up of a wide range of academic and professional activities, organizational policies, procedures, and strategies – which integrates an international dimension or perspective into the teaching, training, research and service functions of the university" (Ad Hoc Committee on International Activities, 2000). Internationalization is additionally described as "essential for the University to fulfil its mandate to create and share knowledge, and to provide a learning environment that prepares students, faculty, and staff to function effectively in an increasingly integrated, global environment" (Ad Hoc Committee on International Activities, 2000)

Although SFU has attempted to attract a minimum of 10 per cent international students, it has not yet reached its goal. The distribution of international students across faculties is also disproportionate. There are faculties such as the Faculty of Education that have less than 2 per cent international students while others that have a large foreign student population. For example, the Faculty of Business Administration (FBA) has been very successful in its international student programs. In the 2005-06 academic year, “business students accounted for 39 per cent of all SFU students going on exchanges and for 25 per cent of students coming to SFU on exchanges” (Report on International Activities Committee, 2005/06) The Faculty hopes to increase the number of students going on international exchanges from 50 in 2005/06 to 100 by 2010. The high percentage of foreign students shows the Faculty’s commitment to international students and therefore helps to attract more foreign students.

**Figure 1.1** International Undergraduate Student Headcount - Fall only

	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>
<b>Visa Students</b>	1,057	1,338	1,624	1,819	1,905
<b>Total students</b>	18,188	18,416	19,304	19,979	20,753
<b>% of total</b>	5.8%	7.3%	8.4%	9.1%	9.2%
<b>Business Admin</b>	1,562	1,681	1,783	2,026	2,420
<b>FBA Visa stds</b>	175	250	333	424	503
<b>% of total</b>	11.2%	14.9%	18.7%	20.9%	20.8%

*Source: Analytical Studies, SFU.ca.*

The University administration currently places limits on the number of foreign and domestic students that may be accepted into a faculty. With a desire to increase the number of international students to at least 10 per cent, it may provide a strategic advantage to allow faculties to admit a greater number of international students.

As part of the past and current University Three Year Plan, SFU has identified one of its main goals as expanding its role in international education. Goal seven in the 2004-2006 plan is ‘to maintain and enhance SFU’s standing as major international University.’ (Academic Plan,

2007) Outlined below are the measures of how SFU has enhanced its international standing. Based on the three-year plan, it is not clear if specific criteria are set for measuring the university's success in meeting this goal.

The Faculty of Business Administration has also singled out international program enhancement as part of its strategic planning. An increase in international course content, field schools, faculty exchanges and a dual degree program are part of the FBA's plan to keep the Faculty progressive and desirable for prospective students. The dual degree with Zhejiang University creates a new level of academic relationships for the Faculty and, if successful, will have strong marketing value for other SFU programs.

The reported progress of the University's Three Year Plan as of 2007 is as follows:

- Dual degrees have been planned or established with institutions in China, India, France and Australia.
- The School for International Studies has been established at the Vancouver Harbour Centre campus. Initial programs to include Special Cohort MA (International Leadership Program) as well as undergraduate major and minor program in International Studies have been implemented.
- Over 150 educational partnerships with other post-secondary institutions are in existence and over 130 SFU students go on international exchanges annually.
- International student enrolment is now at 9 per cent of total undergraduate enrolment.
- An agreement has been put in place with IBT Education Limited (IBT) in Australia to establish the Fraser International College and ensure a steady flow of international

students to SFU. The intention is for IBT to increase SFU's recruitment and retention rates of international students.

The enhancement of international programs and the development of the dual degree help support several of the goals that the administration has put forth in their three-year plans. (Office of the VPA, 2004) The presence of goals in the plan is beneficial but should be more measurable than those given below:

- Enhance research excellence and profile – The increase in international students and faculty aids in acquiring research funds as well as the international promotion of faculty research.
- Improve our ability to attract, retain and support outstanding faculty – Creating innovative international programming will increase the University's reputation and help attract top faculty.
- Attract, retain and support outstanding students and identify ways to enrich the learning experience of all students – Allowing students to participate in international programming and exposing students to a diverse student body increases the value of the academic experience at SFU.

Simon Fraser University aims to maintain and enhance its international standing, but certain challenges exist. Administrative obstacles prevent the expansion of international ventures, while additional barriers are created due to differing views within the University on the value of such ventures.

***Admission***– A significant challenge at the University is that, out the many expressions of prospective student interest, potential applicants are narrowed down dramatically by a series of steps that include first response, receipt of application, evaluation of prerequisites, acceptance,

processing of fees, visa application, etc. Through this series of steps, if University personnel delay in responding or potential students are not adequately supported, these interested applicants are lost to other post-secondary institutions. A weakness in the admission process can mean the difference between SFU meeting its projections or falling short.

*Language* – Discussion around language requirements is a topic at both the faculty and administrative level. Some believe that the language requirements are set too low for international students due to the University's desire to increase international student numbers because of the large fees that they pay. Some argue that low language requirements result in poor performance from this student population and lead to the diminished academic quality of courses. Regardless of this argument, studies have shown that progression rates for international students are only one per cent lower than those of domestic students (Reus, 2006).

*Student Support* – Additional student support is required for international students to be successful and to complete their academic career at the University. International students require support for challenges such as financial aid, language support, discrimination, isolation and other issues unique to their circumstances.

*Staff and Faculty Buy-in* – Although top administration promotes and supports international ventures, there are differing views on the value of such programming. There are Faculty that view the increase in international student numbers as having a negative impact on classes because of language and cultural barriers, and there are staff that view international ventures as using too much human and financial resources.

## **1.2 International Education Market**

Internationally, post-secondary education has become a financially attractive industry over the past 10 years. As a result, governments and private institutions are spending large amounts of

money to increase educational facilities and promote international students. The number of students leaving their home country for education is expected to grow and, by the year 2020, the number of students coming to English-speaking countries for post-secondary education is expected to be well over two million (Reus, 2006). “Transnational education is therefore a fact of life; the question is not whether to be involved, but to what extent” (Reus, 2006)

### **1.3 International Education in British Columbia**

International education has become a hot topic of discussion internationally and the B.C. government is working to compete in this lucrative market. International education in British Columbia is now responsible for injecting approximately \$510.9 million into the economy, almost as much as the computer and electronic manufacturing industry (Jamieson, 2006). In the 2004-05 academic year there were approximately 27,000 international students in B.C.’s post-secondary schools and about 80,000 international students registered across Canada. Because of its financial significance to the province, there has been an exploration of British Columbia’s post-secondary education system over the past year, with specific preparation for the B.C. school system planned to be implemented by the year 2020. Discussion papers and reports have been prepared for such strategies called Campus 2020.

Despite this basic financial impetus, there are many reasons for increasing the presence of international students at British Columbia’s post-secondary institutions:

***Generate income*** – The primary reason that international education has become such a hot topic is the income that it generates. International students are charged larger fees than local students and within post-secondary institutions they are seen as ‘cash cows’. International students pay more than three times the tuition of domestic students. This a strong market because these students not only bring student fees, but also attract research financing, require housing and spend money in the B.C. economy. Universities also seek these students because graduate international students attract research dollars and additional government funding. See Figure 1.2

***Cultural enhancement*** – Providing an opportunity for students to receive education abroad or have foreign students receive a local education increases cultural understanding, which can improve future business dealings among countries as well as political relations.

***Future leaders*** – Successful international alumni likely maintain a lifelong connection to their educational institution as well as that host country. Alumni tend to maintain fond connections to the host country of their education and if they immigrate to the country of the host educator, contribute to the economy through participation in the workforce after graduation.

***Alumni*** – This lifetime customer connection will bring potential financial contributors and future leaders that will enhance country and institution relationships. One of the strongest advancement efforts for universities is with alumni.

***Research*** – Strong international programming and an increased student population help to attract research dollars to universities. This is a strong incentive to attract international students because the trend in universities is to focus on research efforts, as opposed to just course offerings. This is one key feature that separates universities and colleges.

Universities are currently recognizing that, while the financial benefits are evident for attracting undergraduate students, the benefits for graduate students are reasons other than the income generated by tuition fees. As shown in Figure 1.2, the student fees for domestic graduate students and international graduate students are the same. Unlike international undergraduate students, who are charged three times the amount of domestic students and generate large student fee incomes, graduate students bring other benefits, such as the likely generation of research funds, which is a key focus for universities. This is becoming important because universities are focussing on creating research institutions instead of just teaching, and it is believed that excellence in research will attract additional students. There is great competition to admit the top graduate students who bring with them scholarships and research grants. Top graduate students publish research and also work as teaching assistants and sessional instructors, which is accepted as inexpensive labour for the university.

**Figure 1.2** Simon Fraser University Student Fees

<b>Year</b>	<b>Domestic Students</b>		<b>International Students</b>	
	<b>Undergraduate</b>	<b>Graduate</b>	<b>Undergraduate</b>	<b>Graduate</b>
1997/98	\$2,310	\$2,304	\$6,930	\$2,304
1998/99	\$2,310	\$2,304	\$6,930	\$2,304
1999/00	\$2,310	\$2,304	\$6,930	\$2,303
2000/01	\$2,310	\$2,304	\$6,930	\$2,304
2001/02	\$2,195	\$2,189	\$6,930	\$2,304
2002/03	\$2,853	\$2,845	\$8,559	\$2,845
2003/04	\$3,711	\$3,699	\$13,713	\$3,699
2004/05	\$4,269	\$4,254	\$14,271	\$4,254
2005/06	\$4,356	\$4,339	\$14,358	\$4,339
2006/07	\$4,443	\$4,426	\$14,445	\$4,426
2007/08	\$4,533	\$4,514	\$14,532	\$4,514

## **1.4 Dual Degrees at Simon Fraser University**

The first dual degree program began at SFU in 2004 when administrators signed a memorandum of understanding with Zhejiang University in Hangzhou, China. Administrators knew that they wanted to establish a dual degree that would provide a long-term relationship with a partnering university and create networking opportunities for both institutions. SFU’s decision to choose a country with whom to partner was influenced by a number of criteria, including the stipulations: that it would be in a growing market where additional partnerships could be developed; that language and cultural experiences were available; and, foremost, that the country also host top universities. Another deciding component in choosing a country was that the country had to have a politically and economically stable government. It was decided that China would be an ideal first location for the dual degree.

The second decision was to choose a partnering university. SFU met with representatives from several of the top universities in China and made their final decision based on academic value, the location of the campus, the desire of the administration to establish a long term relationship and the desire of both universities to recognize each other’s academic credentials. Zhejiang met all the criteria and it was their university administrators who chose Computing



Science as the first dual degree program. Zhejiang's academic standing also played a role in its choice as SFU's first international partner university. Zhejiang is ranked as the 3<sup>rd</sup>, 4<sup>th</sup> or 5<sup>th</sup> best university in China, according to the World University Rankings published by Shanghai Jiaotong University. Zhejiang and Simon Fraser University are in the same grouping.

The criteria for the current dual degree were based on the following decisions and objectives:

- SFU decided that a dual degree was a desired program in September 2004
- SFU had to decide on type of location; they decided non-western and non-English
- SFU needed to find a location with amenable institution/country requirements and differences, culture, goals, contexts, interests and a University structure (semester, trimester) that would compliment SFU
- China was chosen as the best candidate for a host country
- Project champions went to China and narrowed SFU's options down to three universities. The University of Zhejiang (UZ) was interested and ranked as the 3<sup>rd</sup> top university in China.
- China is a huge growing market and education is a key focus.
- UZ decided that they wanted computing science as first dual degree because it is a hot market.

The advantage of the dual degree over other forms of international programming options was that the dual degree provided students with academic, cultural and language components that spanned the duration of their degree. The dual degree at SFU is the first in British Columbia and is promoted as an example of innovative programming . It was hoped that the dual degree would attract high quality and motivated students that would not have otherwise necessarily chosen SFU. Likewise, Zhejiang would be able to market the program to attract top Chinese students that wanted a strong international component to their degree.

## 1.5 Corporate Strategy of Dual Degree

**Rationale** – One of the mandates of Simon Fraser University is “to create and share knowledge and to provide a learning environment that prepares students, faculty, and staff to function effectively in an increasingly integrated, global environment” (International Report, 2005). Internationalization is used to fulfil this mandate. SFU believes that there is great value in cross-cultural student interaction and, in order to develop global citizens, there needs to be a real understanding of languages, foreign cultures and global processes. Most international post-secondary experiences are typically one or two semesters in length and do not give a student an opportunity to learn a new language or experience prolonged interaction with a new culture. The dual degree was designed to provide students with an international academic and cultural experience that extends for the duration of their degree.

**Location** – China was selected as the location for the dual degree in computing science, a decision that came from extensive background research and a specific list of priorities. Simon Fraser University had its first international exchange program with Jinan University in Guangzhou, China, in 1983 and numerous programs and exchanges have taken place in the country since then. Chinese post-secondary education has changed significantly since that time, however, and enrolment had grown to approximately 16 million by 2005, compared to an enrolment of 1 million in Canada

### **Risks**

- The program requires a considerable human resource commitment from the faculty to develop, design and implement the degree program. Faculty members are required to submit proposals and create courses as part of the dual degree, and the administration staff will need to promote the program, as well as admit and provide student services to its registrants.

- There is a considerable commitment required from the students. The students will not only need to meet the academic requirements of a degree but also learn a new language and live in China for two years. The courses needed to complete the degree require many hours of study in general, but to take required courses in a second language requires far more effort and time.
- Faculty commitment is needed from both universities to ensure that the students are fluent in both English and Chinese Mandarin after their first year of studies. Based on experience with the computing science dual degree, faculty members have found that one year of language courses before the students leave for China is not sufficient for the students to become fluent. Additional language courses have been offered and faculty members have committed extra time with the dual degree students to ensure their success in international courses.
- University and country documentation, such as Visas, are required for all students to complete their degree. This is greater problem for students from China coming to Canada because of the difficulty of obtaining the Visas.
- University administrations need to make a long-term financial commitment for students to complete their five-year degree
- The continuation of the program depends on positive and cooperative relations between Canada and China.

***Admission Standards*** - Students will first be admitted into their home university, then into the partner university at the end of their first year of studies. Admission into the partnering university will depend on the language skills requirements and both Chinese and Canadian students will be required to maintain a minimum academic standard. Should any of the students

fail to maintain the standards or decide to discontinue on with the program, they have the option of transferring to other programs in the university. The students spend their first year in their home country taking language courses that will prepare them for studying at the partnering university. Additional language courses to support fluency are taken at the host university in the second year.

**Tuition** - SFU students pay Canadian tuition fees throughout the program and the Chinese students pay Zhejiang fees in the first three years and international fees to SFU in the last two years. Canadian students also pay an additional \$700 annually to cover administrative costs at Zhejiang.

**Program** - In 2004, the initial proposal for the dual degree program in China was introduced. The plan was to have annual cohorts of approximately 50 students from Simon Fraser University and Zhejiang University that will study computing science and receive degrees from both universities. The program will be five years and the students will study in English while at SFU and study in Chinese (Mandarin) while at Zhejiang.

The students will study at their home university for the first year, in China for the next two years and their final two years in Canada. The choice of computing science was made by both universities primarily due to the rapid development of information technology in China and the large demand for those skills.

## **1.6 China as Dual Degree Location**

The new Zhejiang University was established in 1998 by the amalgamation of four universities and is currently a comprehensive university with 11 fields of study. The University has six campuses, over 40,000 full time students and over 1,200 full professors. Zhejiang promotes the importance of international partnerships with universities, governmental

organizations and businesses from around the world. The university has more than 2,000 foreign students from 90 countries and 300 international scholars teaching and conducting research.

In the early 1990's the Chinese government began a program called "the Project 211" which was a major initiative for the country's universities to achieve world-class status by the 21<sup>st</sup> century. The government provided financial support to universities based on the submission of proposals for strategic plans to make important contributions to China's post-secondary education system. To gain financial support, many universities formed mergers to create more comprehensive universities like Zhejiang.

China in particular is studying the international trends in education and investing heavily in making changes to their system. Some of the top universities are investing heavily in research and abandoning the traditional recitation in favour of classroom participation. Historically students in China are taught by recitation, or the repetition of a lesson headed by the teacher, instead of following the Western schooling style that encourages classroom participation. University enrolments tripled between 1998 and 2004 and the government is looking at education as a way to stimulate economic growth in China. In 1978, China first allowed students to travel abroad for education, and now the top students are openly encouraged to gain international educational experiences.

The current challenge that China is facing with the number of students travelling for education is brain drain. "Since 2002 more than 100,000 students have gone abroad to study annually, with only 20 to 30 per cent returning to China" (Sin, 2007). The dual degree helps to address this brain drain challenge that China faces. With international students travelling to China for education, the Chinese government can take advantage of this by creating incentives for foreign students to remain in China and gain employment upon completion of their degree.

As displayed in Figure 1.3, China is the largest source of international students attending Simon Fraser University. Increasing relationships with China by establishing a dual degree is an obvious and positive strategic move by the university.

**Figure 1.3** Visa Students by Country of Citizenship – Top 5 Countries

<b>Undergraduate Visa Students by country of Citizenship - top 5 countries</b>					
<b>Country</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>
China	250	415	602	674	714
Hong Kong	143	144	158	153	146
Taiwan	83	68	82	99	90
United States	62	79	86	81	94
Korea	65	98	127	170	183
Total Visa	1,057	1,338	1,624	1,819	1,904
Total UG	18,188	18,416	19,304	19,979	20,753
Percent Visa	5.8%	7.3%	8.4%	9.1%	9.2%
<b>Graduate Visa Students by country of Citizenship - top 5 countries</b>					
<b>Country</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>
China	96	121	137	195	200
Iran	20	33	49	63	63
India	16	23	27	27	25
United States	46	60	57	62	71
Japan	14	15	20	18	17
Total Visa	366	435	470	565	619
Total UG	3,496	3,429	3,401	3,666	4,089
Percent Visa	10.5%	12.7%	13.8%	15.4%	15.1%

Source: *Analytical Studies, SFU.ca.*

## 1.7 Differentiation Strategy

SFU differentiates itself strongly from college-level substitutes primarily by the fact that it is a research institute. Colleges are made up of faculty whose primary responsibility is to teach, whereas faculty at SFU are required to teach but are also required to do research and publish original material. The customers, or students, are able to see the advantages of SFU because they will have access to and the benefit of current research produced by the university.

This differentiation does not apply to the university competitors of SFU, such as the University of British Columbia (UBC) and the University of Victoria (UVic). These competitors are also research institutes and use the same differentiation strategy to compete against colleges. This same strategy poses a difficulty for SFU because UBC has access to greater amounts of research funds. Although SFU produces more research per faculty member than UBC, the larger proportion of research funds help UBC to strengthen its brand, which gives it an advantage.

One feature that differentiates universities in British Columbia is the programming and scheduling of course offerings. SFU differentiates itself from UBC and UVic by having a trimester system. The trimester system allows students significant flexibility in both course options and lifestyles. Some students have children or constraints related to employment and the trimester system allows a student to take courses at different times of year. For UBC students whose primary course load is in fall and spring semester, these students compete for employment in the summer, while students of SFU have the option of taking key courses in any of the semesters and entering the job market at any time. The trimester system also allows students to either take longer to complete their degree or speed it up if they choose. The trimester system is also an advantage for international students because they have the option of beginning their program at any of three times a year when classes begin. This can be a great advantage for recruitment because SFU can promote an international experience to Chinese students throughout the year.

Nevertheless, this form of differentiation does have financial resource implications. The tri-mester system is much more expensive to run. The university administration has to make standard semester arrangements three times per year instead of twice. Other universities have the summer semester to make institutional changes and plan for the fall, whereas SFU does not have a break in recruitment, admissions, course offerings or exams, all of which require human and

financial resources. These implications can also stand in the way of innovation because resources are focused on systematic needs.

## **1.8 Problem/Issue**

The paper will assess the competitive environment of Simon Fraser University and the use of dual degrees in the Faculty of Business Administration and Zhejiang University in China as a strategy to increase internationalization. The evaluation will determine the external environment of the post-secondary industry and determine the threats and opportunities in this market. This analysis will at a later point help to determine how the University and faculties such as Business should proceed with international dual degrees.

Chapter 2 of this paper will be a five force analysis of the post-secondary industry of which Simon Fraser is a member. Although SFU can be seen as a world player in the competition for post-secondary education, the analysis will focus primarily on the market in British Columbia. The external analysis will look at the threat of new entrants, the bargaining power of suppliers, the bargaining power of buyers, the threat of substitutes and rivalry among competitors. By analysing these forces I will determine the key success factors that are needed in the post-secondary education industry to create a distinct business degree with China.

Once the key success factors are determined, Chapter 3 will provide an internal analysis of Simon Fraser University and the Faculty of Business to identify the required organizational capabilities that are needed to implement the strategy. This chapter will also determine the capability gap and the required organizational changes to succeed in this market.

Finally, this paper will make recommendations to Simon Fraser University on dual degrees as an international strategy and the required changes to bridge the gap between the key success factors and the internal capabilities of the university.



## **2 FIVE FORCE ANALYSIS**

To help assess the value of dual degrees as a strategy for internationalization at Simon Fraser University and specifically within the Faculty of Business Administration, the external environment of the industry must be identified. The Five Force analysis was developed by Michael E. Porter (Porter, 1980) and provides a framework to determine the attractiveness of the post-secondary market as well as universities' competitive intensity. The analysis will look at the threat of new entry, bargaining power of suppliers, bargaining power of buyers, threat of substitutes and rivalry among competitors.

### **2.1 Threat of New Entry – Medium**

In order to determine the threat of new entry in this industry and assess the strengths of SFU as a competitor, the major barriers to entry in post-secondary education will be analyzed:

*Capital requirements* – Significant capital requirements are necessary to set up post-secondary education programs, and specifically international programs. Funds are required for not only program development and faculty but also for travel costs and international relations. In the past the threat of new entry has been moderate in B.C.'s post-secondary education sector, but it is increasingly becoming higher, in part due to the fact that over the past few years there has been an increase in options for students to achieve a post-secondary education. The cost to establish an educational institution is extremely high in regards to hiring faculty and establishing a location for programs, but for colleges that already have the infrastructure, it is not as significant of an investment.

Significant costs are required to operate such degree programs and the majority of funding is provided by the provincial government based on the enrolment levels of the university or college. This government funding is limited, however, and colleges and universities often limit enrolment to spread out the funding to different programs throughout the institution. Because government funding is limited in this way, universities look for other sources of revenue and the registration of international students has been a popular solution. International students pay fees more frequently and at higher rates than domestic students, so universities and colleges actively look for ways to attract these customers. The competitive environment to attract international students is so strong that significant funding is needed to develop innovative programming, market to students and establish relationships in other countries.

- Key success factor is financial resources

*Cultural barriers* - National culture is a barrier to entry in international education.

Chinese students and their families view education and approach it with different expectations than their Canadian counterparts. For example, Chinese students are not accustomed to participating in the classroom; it is the professor that is seen as the expert and it is they who are expected to speak. Chinese students are not graded on participation in a classroom in the same way as they are in Western countries, and women in particular are not encouraged to speak up. This difference in expectations can lead to discrimination when Chinese students come to study in Western countries.

One advantage that Simon Fraser University has over its competitors in British Columbia, and especially over other universities in Canada and the United States, is that there are already a large percentage of domestic students with an Asian background and therefore many faculties are accustomed to the different approach to participation in the classroom. Faculty members that know about the cultural differences are more sensitive to grading this criterion and

are less likely to put these students at a disadvantage. The large percentage of students with an Asian background already at SFU also increases the likelihood that the student body will welcome international students from China. International students are more likely to be successful and complete their degree at the university if they are well received by the student body and university community.

The cultural barrier to entry also incorporates negotiations among potential partners. Negotiation tactics in the Chinese culture differ significantly from Western negotiation tactics. Universities that do not have administration or faculty members with experience and understanding of dealing with the Chinese culture have a distinct disadvantage in creating partnerships. The secret of success may be *guanxi*, a personal connection with the administrators of the Chinese universities. This connection is built over time with a series of interactions that will show the benefit of the relationship to both parties. Much time needs to be taken to build up trust and cooperation and identify mutual goals, all of which Chinese administrators recognize as values that are needed to build a long-term relationship.

- Key success factor is enlisting administrators and faculty that are knowledgeable of Chinese culture and negotiating tactics.

***Government policy*** – Historically the strongest barrier to entry in post-secondary education has been government policy. In the past, the government has limited the types of institutions that are able to grant degrees, but in the past few years that has changed in British Columbia. Government regulation dictates how post-secondary institutions are branded, either with a college or university label. Internationally, universities have a much stronger brand recognition than colleges.

The barrier to entry posed by government policy originates in the complication of getting a program accredited according to either of these potential brands. Without proper accreditation, a

program would have a difficult time recruiting students. This should lessen the threat of new entry, but in British Columbia there are very loose regulations on what constitutes a university and the government has allowed many post-secondary institutions to grant degrees. The lack of regulation means that any business can easily define itself as an educational institution and claim that it has competencies. It has become a problem in B.C. because this weakness is known internationally and can deter foreign students from coming to our province for an education.

The concern for unsavoury educational practices and lack of regulation is also a concern in China, where education is highly regulated. The state propaganda department controls the Chinese Ministry of Education and joint ventures and publication of Western educational material is highly monitored.

In both Canada and China the government controls the Visa access for foreign students. The government can at any time limit the number of students that are given student Visas that can influence student numbers. For example, during the SARS crisis the number of students given the required documentation was limited.

- Key success factor is government regulation.

***Branding*** – Top Chinese universities have gained a strong reputation in the world education market and are likely to establish a long-term relationship with other universities that have comparable brand recognition. The brand of an institution can also act as a form of differentiation among institutions and help determine what school a student chooses. A student is more likely to choose a business program that has a strong reputation in order to help them secure job placement once their degree is completed. Similarly, a strong reputation is also needed to attract partnering universities.

- Key success factor is the brand of university and program.

*Economies of scale* – Larger institutions in B.C. promote the advantages of an education that has a large scale because of the variety of programs; smaller colleges make the opposite claim, namely that smaller colleges provide a more personalized education. This is not a significant barrier because both claims can be argued and both possess a kernel of truth.

### **2.1.1 Summary of Key Success Factors**

The key success factors that relate to the threat of new entry in this industry vary from financial resources, cultural knowledge and government regulations to university branding. Post-secondary education requires significant financial resources to break into the market and it is difficult to exit the market due to the high fixed costs, which is also a strong deterrent to entrance. For a post-secondary institution to successfully establish a relationship and negotiate a dual degree with a Chinese university, knowledge of their culture and negotiating tactics is required. Government regulations in both Canada and China also play a role in the higher education industry. Finally, the branding of the university must be not only strong, but of the type that they have credibility internationally.

## **2.2 Bargaining Power of Suppliers – High**

*Universities as suppliers of services* – Universities supply services to the partnering university of an international program as well as the students that enrol. Student services begin their work with students long before they are admitted, focussing on recruitment, and continuing on with the hopes of retention. Regardless of the quality of an international program, if there is poor recruitment protocol, there will not be sufficient numbers to carry out a program. As well, the university student services department needs to participate in attempting to retain the students for the duration of their degree. Universities should not recruit students that it cannot later support.

In the current demographic of post-secondary education, there is an increase in spaces at colleges and universities but a diminishing number of 18 – 20-year-olds. This changing demographic means that universities need to work harder at not just recruiting students but also retaining them. In 2006, SFU lost 25 per cent of their first year students and UBC lost 20 per cent. Some of the reasons for SFU having lower retention rates are that UBC has professional law and medical schools and they are known to have a stronger sense of community by having sororities and fraternities.

- Key success factor is the recruitment and retention of students.

*Degree of differentiation of inputs* – The bargaining power of suppliers in the market of dual degrees is moderate. The suppliers of the programs are the university partners, and the input of each partner needs to be formally defined. Ambiguity in how to settle issues and come to agreements can shift the power of the partners. Each partner in the dual degree may have different reasons for entering in the relationship; for example, one may have financial reasons while another may be looking to improve their reputation.

- Key success factor is clear definition of a formal relationship.

*Presence of substitute inputs* - The bargaining power of suppliers at the institution level is moderate. The suppliers of education are the professors that teach the programs. Tenured faculty members have some power in the implementation of educational programs and can therefore affect programs. Faculty with experience in Chinese business relationships and culture would have more power than other substitute suppliers. The success of the current dual degree and future success in these types of programs are in part reliant on faculty support and buy-in. Part of the design of the current dual degrees involves faculty members also taking part in the exchange and teaching in the partnered university.

- Key success factor is strong suppliers with buy-in to program.

*Supplier concentration* - The other group of suppliers at universities and in business schools that has power is the unionized personnel. This group of suppliers also has bargaining power. The university is supported by full time CUPE staff for administrative assistance. When labour issues occur, these unionized groups of employees have the power to shut the program down. Although this group of suppliers has power during labour disputes, at other times they have limited bargaining power, such as when it comes to affecting the daily operations of the programs. With time substitute suppliers could be found to carry on with programmatic needs.

### **2.2.1 Summary of Key Success Factors**

The strength of suppliers in the implementation of dual degrees is high. The key success factors are a clear definition of the formal relationship between the university partners and strong suppliers with buy-in to the program. The most important key success factor is the recruitment and retention of students.

## **2.3 Bargaining Power of Buyers – High**

The customers in this industry are local students, international students and universities. The bargaining power of this group is very high. Currently universities are actively trying to recruit the top students and incentives are offered to encourage students to select the specific supplier. UBC offers to cover \$500 worth of books for top students and SFU offers scholarships and the ability to register early. Universities try to recruit the best students because they are more likely to complete their degree and move on to graduate programs, which build the universities' reputations, helps to attract grants and helps to retain faculty. Of the students that began in September 1999, only 43 per cent of those with a grade point of 3.0 had completed their degree within seven years but of the students with a grade point average of 3.75 and above, 81 per cent had completed their degree within the same time period.

As customers, international students provide greater revenue for universities than their domestic counterparts. SFU has made recruitment of international students a priority and has the goal to have at least 10 per cent of the student body from international locations. To date SFU has not been able to achieve this goal, although certain faculties like Business Administration have more than 20 per cent international students. The University of British Columbia and the University of Victoria also have goals to increase the recruitment of international students for the benefit of university revenue.

**Canadian Students** – The first customer segment is the Canadian student who is interested in an international component to their business education. These business students recognize that academic, language and cultural education in China will strengthen the value of their university degree. China is huge market with many business ties with British Columbia and students can gain an advantage in the job market by having this component to their degree. There are many options for students in British Columbia to achieve an international component to their degree. Both colleges and universities in the province offer different options to students to attend field schools or complete a practicum in China. The volume of customers is high and their switching costs are low, which increases the need for differentiation of products. The students know that the cost of having a component of their degree in China is high, making their price sensitivity low.

Currently Chinese are the third largest demographic in Canada with the strongest concentrations in Toronto and Vancouver. This demographic may have a language or cultural familiarity with an understanding of the market ties between Canada and China. These students are a segment of the market with potential interest.

- Key success factor is to differentiate international student experiences.

**Chinese Students** - Like Canadian students, students in China seeking a business degree with experience and curriculum in a Western country are also buyers in this market. These customers recognize that the business environment in China is geared towards joint ventures with Western partners. These customers also have many options to choose from and Chinese students value



brand; they are more likely to look for a university than a college and will value one with a strong reputation and they have an easier time acquiring Visas from Canada than the United States due to security issues. Chinese students are not highly sensitive to price but are sensitive to brand.

- Key success factor is the brand of the university.

*Universities* - The final customers are the Canadian and Chinese universities. Universities that create international partnerships do so for strategic reasons and partnerships therefore are selected carefully. Universities try to attract partners that add to the reputation of the institution and the ability to sell to students. The universities will not only look for strong brand recognition but also research per faculty ratios, numbers of graduate students, university ranking and the many factors involved in the location of the campus.

- Key success factor is the brand of the university.

Over the past decade, there was a high demand for business education and therefore the bargaining power of the students interested in these programs was relatively weak with the increased demand on enrolment, student fees went up. Currently, the demand for business education is still high but the number of seats has also increased, enough so that the demand no longer surpasses the supply. Business schools now actively pursue students and develop programs to attract a varying demographic of students. Even though the number of available seats for international students is limited, there are many institutions from which students can choose in Canada.

The bargaining power of international students also relates to their desire and ability to choose a Canadian university over one in another country. One government change that has made Canada more attractive to international students is that, in 2006, employment regulations were changed and foreign students who have completed a year of university without failing a class are now eligible to apply for work.

### **2.3.1 Summary of Key Success Factors**

The bargaining power of buyers is strong. International education is a growing market with colleges and universities targeting students by heavily recruiting and designing distinctly attractive programs. The key success factors in this category are to differentiate the international student experiences and, more importantly, the strength of the university brand.

### **2.4 Threat of Substitutes – Low**

Substitutes in this market are the colleges and for-profit educators that offer international business programs with a component of the degree in China. Substitutes offer programs other than dual degrees that provide the student with a substitute feature.

*Fixed Costs* - Colleges and for-profit institutions have a distinct advantage in cost over universities. Universities have extremely high fixed and variable costs in comparison to colleges and therefore need to charge higher student fees. Although colleges have a fixed cost advantage over universities, their student fees have risen as fast as university fees.

- Key success factor are fixed costs.

Despite the differences between colleges and universities, the threat of substitutes for any post-secondary undergraduate degree has increased over the past 10 years and is now moderate, because colleges are offering four-year degrees when they used to offer only certificates and the first two years of a degree. Another factor is the greater appeal of small colleges because they cater to community needs and students do not have to travel far for their education. Similarly, parents are heavily involved in planning their children's education, so they also influence enrolment locations and may prefer community colleges because they will not have to send their student as far. It is recognized that this generation wants to keep kids close to home as opposed to past generations when parents expected to send their kids away to university. Parents are now

more attracted to the smaller community colleges because they can provide a more intimate post-secondary experience. This threat is only valid for domestic students that are price sensitive, students that want an international experience are more concerned with the brand value of the degree. Colleges do not have strong brand recognition internationally and Chinese students that are price sensitive are more likely to get their education in China as opposed to overseas.

For-profit education providers may also be an attractive option to the student because they can choose programs that may be shorter and more customized to a student's experience and individual needs. In addition, these institutions have different academic standards and it may be easier to gain admittance into their programs. Universities have traditionally focussed not only on coursework but also developing the skills of learning. In contrast, the for-profit institutions focus on getting a student in and out of the program quickly to both service more customers and also to offer the student an opportunity to get into the workforce as quickly as possible. The focus of many students is now to get an education that will specifically get them prepared for a job and hired quickly, as opposed to pursuing scholarship as a goal in and of itself.

#### **2.4.1 Summary of Key Success Factors**

For dual degrees and international experiences in a business degree, the threat of substitutes is low because the brand value of a college remains far lower than that of a university. For British Columbian students, the substitutes may have appeal due to the lower cost offered by colleges and this makes cost a key success factor. For Chinese students, however, the key success factor has lower strength because these students are more likely to value the university brand.

### **2.5 Rivalry Among Existing Competitors – High**

The intensity of competitive rivalry of universities and the international programs offered is high. There are three main competitors in the British Columbia market but these universities compete with universities throughout Canada and the United States. The main competitors in

British Columbia are Simon Fraser University, the University of Victoria and the University of British Columbia.

**Brand Equity** - The competitors in B.C. all have similar course offerings and provide international experience in China, albeit to differing degrees. The main feature that distinguishes competitors in B.C., and which is promoted internationally, is the university brand awareness. Regarding domestic and international students, many are not price sensitive and if the courses are not very distinct, then the main selling feature is the university's brand.

- Key success factor is the brand of the university.

**Price competition** – Price competition plays little role in the rivalry among universities. The student fees and tuition do vary among universities but I believe that students choose post-secondary education based on the university and desired program. Any international component to a degree will have an added cost and the customers looking at these products are generally not prohibited by costs. Student fees are therefore not a key success factor.

**High costs** – All the competitors in the British Columbia market have high fixed costs and high exit barriers. Each university has heavily invested in property and resources and cannot exit the market easily. The competitors that are better financed can better withstand the fluctuations in student enrolment and can increase resources to attract new students. Many forms of resources are needed to increase university course and research offerings. Government funding is not sufficient to compete successfully in this market.

- Key success factor is financial resources from multiple sources.

**Intermittent Industry Overcapacity** - Ten years ago B.C. universities had far more students than available seats and financial incentives were provided for recruiting the best students. At the time, the deadline for fall admission was set in July, three months before the start

of classes, but with increased competition, B.C. universities moved their deadline up to May and based registration on interim grades. B.C. universities were forced to move this deadline up because of the early admission deadlines for other schools. The post-secondary environment changed from a seller's market to a buyer's market during this time.

Currently, B.C. universities are competing for students in a market where there are more competitors than ever before. Based on figures by BC Stats, the population of post-secondary school age students will increase over the next five years, with international migration projected to account for approximately 64 per cent of this increase. The kindergarten to grade 12 population will decrease over the next 10 years and post-secondary schools will need to be prepared for the future enrolment drop-off this will cause. Students that may be interested in a dual degree will no longer be domestic students who may have little international experience, but instead may be immigrants that have grown up in the B.C. school system. Despite the projected decrease in domestic K-12 students in B.C., the post-secondary education market is expected to remain aggressively competitive and the same is true on an international scale as well.

Competition is focussed on resources, students and faculty from universities, colleges and for-profit education providers. Adding to the level of competition is the fact that key B.C. competitors, SFU, UBC and UVic, have all increased the number of seats available and therefore must actively recruit to fill those seats.

- Key success factor is the recruitment and retention of students.

*Differentiation* – With universities competing for students to enrol in international programs and to attract international students, there is a corresponding need for competitors to differentiate their products. SFU has a competitive advantage for international educational experiences with China and specifically with its dual degree. The established relationship that SFU already has with China helped administrators in their strategic approach to other Chinese

universities. Chinese universities have been seeking international relationships and SFU was willing to follow through quickly and establish a partnership.

One strategy used to differentiate at Simon Fraser University was to create the dual degree program. Although all the major post secondary institutions offer international experiences, SFU created an alternative that extended for the duration of a student's international experience as part of their academic career at the university. The University of British Columbia and the University of Victoria are the strongest competitors for Simon Fraser University, but neither have a dual degree option for students. Currently, SFU has only one international dual degree option with Zhejiang University in China through the Computing Science Faculty. The Faculty of Business is developing an undergraduate dual degree with that same university.

The majority of Canada's universities have business faculties that offer undergraduate business degrees and more than half have master's-level business programs. The rivalry among business schools is not just to attract students but also to attract faculty and research grants. At an undergraduate level there is very little difference among business schools; therefore universities face the challenge of differentiating themselves. Another threat of competition comes from the fact that despite there currently being many applicants to fill Canadian business programs, students can easily and with no cost switch from one institution to another. Business programs need to make sure that they are well promoted and maintain a solid reputation, in order for the faculty to compete for the best students and not just admit the lowest students for the purpose of filling seats.

Universities also differentiate on the quality of research that is done by faculty. The quality and number of articles published by a faculty is a measure of the quality of a faculty. In 2004, the *Management International Review Journal* released rankings of international business schools based on faculty publication. In the 1991-1995 time period Simon Fraser University was

ranked as 3rd in International Business research in Canada and 25<sup>th</sup> in the world. In the 1996-2000 time period SFU was ranked 20<sup>th</sup>. University of British Columbia and University of Victoria were not in the top 40 (Kumar and Kundu, 2004). As part of FBA's faculty are well published international faculty, among them is Rosalie Tung who is in the top 10 international researchers in the world (Abramson, 2007). SFU is ranked higher on research quality and UVic is ranked higher than UBC on international placement programs and international business general focus.

- Key success factor is to differentiate international program experiences.

### **2.5.1 Summary of Key Success Factors**

The rivalry among competitors is high and the key success factors are the differentiation of international programs, the ability to recruit and retain students, the ability to create a strong brand for the university and to acquire resources from multiple sources.

## **2.6 Summary of Five Force Analysis**

Threat of New Entry – Medium

Bargaining Power of Suppliers – High

Bargaining Power of Buyers – High

Threat of Substitutes – Low

Rivalry Among Existing Competitors - High

### **2.6.1 Summary of Five Force Analysis**

The universities in B.C. have the potential for gaining strong financial resources from both government and private funding sources. Government funding is limited and therefore universities count their Full Time Equivalent (FTE) very carefully to maximize government funds. Other key sources of revenue include private donations and research funds. Colleges also have government and private funds available, but are limited in research funds. For-profit

institutions are limited in government funding but charge students and operate their schools in order to generate a profit. Universities need to have more than government funding as a financial resource. Private donations, research funds and corporate sponsorship are required to compete successfully.

SFU's Faculty of Business has a strong international ranking of top international researchers. A key success factor is attracting and retaining administrators and faculty that are knowledgeable of Chinese culture and negotiating tactics, and having their buy-in and support for a dual degree. This knowledgeable faculty can support administration with helping to negotiate and define a formal relationship with Zhejiang University. For international relationships to be successful, parameters of the relationship need to be clearly set out for both parties. With international partners, contracts must be clear because cultural differences may lead to misinterpretations.

The brand of the university and faculty can influence the success of a dual degree program. Each of the universities in B.C. has strong reputations, although UBC has spent larger amounts of money on promoting their university and creating brand awareness. Specific programs with the universities and colleges have greater reputation than others. SFU has a stronger reputation in international business research than both UBC and UVic. Brand recognition significantly affects the ability of colleges to compete. Although they have fixed cost advantages over universities they have limited brand strength internationally.

Recruitment and retention is a key success factor for the dual degree. The industry has been changing and will continue to change over the next decade. The number of domestic students is decreasing and the number of immigrants is increasing. Success of a dual degree will rely on the recruitment and retention of international students. The ability to recruit will also be influenced by government regulation that creates a barrier to entry by how post-secondary institutions are branded and whether foreign students can obtain Visas.



Finally, differentiation of the international student experiences is key to success for either universities or colleges to attract students to their programs. SFU has created the dual degree to include features that differentiate it from programs at other universities.

## **2.7 Determine Industry Attractiveness**

In British Columbia, education is a growing industry with the international market being a key area of focus. More than \$4 billion is put into the economy through the province's universities, colleges and technical institutes and this provides B.C. with a skilled workforce. In 2005, post-secondary schools in British Columbia provided almost 170,000 seats for students at the five main universities. The provincial government has set a goal to create 25,000 new seats in post-secondary institutions by 2010 and at this point they are almost half way there. But although the government has made a commitment to fund additional post-secondary seats, this funding does not cover the complete cost for gaining additional students. To increase the number of students, a university needs to consider associated administrative and infrastructure costs. With the increased government funding for education, universities have the opportunity to increase their share of the market place if a strategic plan is set in place.

The key components to the challenges of the industry are the bargaining power of buyers, the threat of substitutes and competitors, all of which are very high. Even though these threats are very high it is evident that businesses believe that there are ample number of customers, because the market for post secondary education has grown. Regardless of the risks, the post-secondary industry remains attractive, which is the reason that the province is seeing an expansion of courses offered by colleges and an increase in for-profit education providers. The attractiveness of the industry is also encouraging out-of-province and out-of-country education providers to promote their course offerings to a wider market in Canada.

The current environment in this industry promotes international education and therefore this is a very good time for SFU and the Faculty of Business to promote a dual degree and target a new area of the market. Currently, SFU has the only dual degree in the province. The dual degree is a way for SFU to differentiate itself in the market and find a growth segment for students that are looking for a different experience that will give them a distinct competitive advantage upon graduation. The dual degree will not only have the potential to bring additional students to SFU, but will also better quality students who are later more likely to become graduate students. Recruiting higher quality students increases the customer lifetime value of each student for SFU.

The attractiveness of the dual degree in China is that it gives students experience in one of the fastest growing economies and a degree from two universities with comparably high reputations. Recruiting students from China and establishing strategic relationships with this country provide a strong new market. For the 1992-2003 period, China was ranked 9<sup>th</sup> in the world in research output (Canada was 6<sup>th</sup>) by a report from the Institute for Scientific Information. Universities in China have showed rapid development and therefore this is a market that should have a strong focus from international partners. Zhejiang University is ranked 3<sup>rd</sup> in the China and only the top 3 per cent of students are admitted. Other universities in China are high ranking and have strong reputations and are keen to establish academic relationships with universities in the West.

### **Competitive Analysis**

As shown in Figure 2.1, the main key success factors that pose a threat to Simon Fraser University are financial resources and brand. UBC ranks higher than SFU on the general strength of the university brand but not on the brand of international business. The Faculty of Business has a strong reputation for international research and faculty members that are known worldwide. The areas where SFU has an opportunity to move ahead are cultural knowledge and supplier buy-in.

The other key success factors place the three universities at an equal standing, but SFU must at least maintain the current standing so as not to fall behind in these key success factors.

**Figure 2.1** Competitive Analysis – Five Point Scale-Ranking Strength of KSF to Competitor

<b>Key Success Factor</b>	<b>SFU</b>	<b>UBC</b>	<b>UVic</b>
Financial Resources	3	5	3
Cultural knowledge	5	4	4
Brand (General)	3	5	2
Brand (International Business)	5	2	4
Formal Relationship	4	4	4
Supplier buy-in	4	3	3
Differentiate Int'l	5	4	4
Recruitment and retention	4	4	4
Government regulation	5	5	5
Fixed Cost	2	2	2

The university struggles with recruiting and retaining international and domestic students and this could lead to a lack of success for the FBA’S dual degree. “The figures show that a staggering 40 per cent of those recruited from international high schools drop out of SFU within their first year” (Harder, 2006) The main reasons for international students dropping out of the university is due to language and cultural barriers. Regardless of the quality of a degree, international students will not be retained without support from the university to help them adjust.

The key success factors present opportunities and threats to the FBA for implementing a dual degree in China. Figure 2.2 identifies the areas that will present an opportunity or threat for the faculty. Once these areas are identified a proposal can be made.

Figure 2.2 Identify Strategic Threats and Opportunities

Key Success Factor	Opportunities	Threats
Financial resources		Reduction in government funding puts pressure on securing funds from other sources. UBC has the strongest source of funding.
Cultural knowledge	SFU has first BC dual degree with China. SFU has had programs with China for many years. There are FBA professors who do China based research.	
Brand	FBA is acknowledged leader in Canada on international business research. FBA is 25 <sup>th</sup> in world. UBC is not ranked in the top 40. (Kumar and Kundu, 2004)	UBC currently has strong brand recognition in China of the three universities. In 2007 SFU focussed on increasing their brand.
Formal relationship	SFU currently has a successful relationship with Zhejiang.	
Supplier buy-in	<ul style="list-style-type: none"> <li>- China has spent large amounts of money on education and therefore is incentive to make partnerships successful.</li> <li>- There is faculty support for FBA dual degree.</li> </ul> <p>Rosalie Tung is a world acclaimed top scholar on China.</p>	

<b>Key Success Factors</b>	<b>Opportunities</b>	<b>Threats</b>
Differentiate Int'l program	Choice of cities for dual is attractive to students. SFU has multiple campus locations, which is strength in promoting and differentiating the program to the Chinese market.	
Recruitment and retention of students	All competitors are dealing with difficulty in recruitment and retention	UBC has greater access to resources to deal with issue

The pursuit of dual degrees at Simon Fraser University is an attractive strategy based on the current post-secondary market. China is a growing market in education and there are a large number of customers that could be attracted. Although it is currently not a program that will achieve financial gains, it is a program that will improve SFU's international reputation as a university with innovative pursuits and a leader in international ventures.

## **2.8 Dual Degree Proposal**

*Proposal* – Design a dual degree in business with Zhejiang University with curriculum that gives students an experience unlike those offered by SFU's competitors. The degree should provide students with language, cultural and academic components. An added feature of the dual degree is to provide an option for undergraduate students to continue on and complete a master's degree in business. SFU should build on the key success factors of cultural knowledge and experience in China. SFU's Faculty of Business has had great success with the Executive Master's of Business Administration (EMBA) and there is a huge demand for executive business programs in China. The Faculty of Business at SFU also has a strong reputation for international

research and the dual degree can take advantage of this strength. The FBA brand for international programs is stronger than its competitors in B.C.

By designing an undergraduate dual degree with China, SFU can create a relationship with students that can prepare them for a graduate degree. The benefit of having these students carry on with an MBA after their undergraduate degree is high tuition fees for executive programs and research grants for other Master's programs

Zhejiang University is ideal to start the first dual degree in business because of the computing science degree that already exists. The appeal of this university for SFU is that it was rated the third top university in China. Although this is a good university to start with, relationships with other universities should be explored throughout China. The strategy for the dual degree is also to increase the reputation of the Faculty of Business as well as attract top students to SFU. Key selling points for management and students include:

- Broader experience for students
- International employment opportunities for alumni
- Extended expertise in Chinese culture
- Obtaining foreign accreditation
- Brand advantage for recruiting
- Increasing the Universities reputation

***Strength of Market*** - There is a growing demand in China for post-secondary business education and many Western universities are taking advantage of that fact. Executive business education as well as undergraduate degrees are marketable products in the workforce and the

competition is becoming strong as Chinese students look for Western-style programs. “The China Europe International Business School (CEIBS), a joint venture between the European Union and the Chinese government, already boasts the largest executive MBA (eMBA) programme in the world, turning out 550 graduates a year” (Economist, 2005). Western universities are realizing that they can compete in this market because of their resources and reputations; the cost of setting up programs is cheaper in China due to labour and property costs, but student fees are as high as in Western countries. The executive programs have become so popular that they account for approximately 90 per cent of the MBAs in China (Economist, 2005).

There is a growth in post secondary education in China due to the matching increase in the supply of potential students. “In the 1980s, only 2-3 per cent of school-leavers went to university. In 2003, the figure was 17 per cent. The watershed year was 1999, when the number of students enrolled jumped by almost half” (Economist, 2005). The government is investing heavily by offering research funds and higher salaries and recruiting PhDs from Western countries. Chinese universities are being run like businesses and many are creating joint ventures with Western countries to gain a competitive advantage.

*Customers* - The customers are business students from Canada who seek post-secondary education with an academic, cultural and language component of their degree in China. The customers are also business students from China who seek an academic, cultural and language component of their degree in an English-speaking Western country. The students from both China and Canada are customers that recognize the value of an international component to their education and see it as a tool in the job market. These students are likely ambitious and will look to find a degree and university that will have the strongest reputation within their price point. This is a major edge working with the world’s fastest growing economy and 2<sup>nd</sup> largest economy in the world measured on purchasing power parity (CIA Factbook, 2006).

### 2.8.1 Buyers Criteria

**Language** - With a growing market interaction between China and Western destinations, particularly the province of British Columbia, there is an advantage in the job market for people who can speak multiple languages. Students gaining experience with full immersion will learn a language much faster and with more competence.

**Culture** – The cultural differences between China and Canada are vast. Students with knowledge and first-hand experience in how cultural differences can affect business and how to negotiate across cultures will be far more marketable.

**Academic** – For Chinese students in particular there is a large demand for business courses with a Western focus.

**Faculty member** – Retention of students in any program is a challenge, but is especially salient for international students. Culturally sensitive and academically strong faculty members will likely aid in retaining students.

**Integration** – Canadian and Chinese students will be at the partnering university for two years and therefore integration into the student body is an important feature of the dual degree. SFU has a large population of students from Asian countries, which is a selling point for promoting the university to Chinese students.

**Brand** – These students are looking for a university and program that has strong brand value. These are career-oriented students and will want an education that will become a marketing advantage for their job search post-graduation.

**Price** – Price is likely not the deciding factor for these students when choosing a program. The prices vary between competitors, but not enough to be a deciding factor.

**Features** – The dual degree is a cohort-based program that will admit students from SFU and Zhejiang University. First year students will be at their home university taking first-year courses, including language courses to prepare for immersion. Second and third year students will



attend Zhejiang University, taking courses in both Chinese and English. All students take their fourth and fifth year at SFU taking courses in English.

*Cost* - Currently, Computing Science dual degree students from SFU pay the standard domestic fee plus a \$700 program fee, in addition to travel, accommodation and living expenses. As noted in earlier sections, this fee is not sufficient to cover the administrative costs of the program. A larger fee will be required. Figure 2.3 shows an estimated budget for 32 SFU students spending 3 years of the degree at the SFU campus and 2 years at the Zhejiang campus.

**Figure 2.3**

**Budget Projections for a Dual Degree  
SFU for 3yrs and Zhejiang University for 2 yrs**

32 students

	Per yr at SFU	Per yr at ZU	Total
<b>Salary</b>			
Coordinator (.5 position)	\$35,829	\$35,829	
Faculty	\$69,612	\$11,602	
Support Staff	\$37,939	\$37,939	
Benefits	\$31,544	\$31,544	
Honorarium	<u>\$1,200</u>	<u>\$1,200</u>	
	\$176,124	\$118,114	<b>\$764,600</b>
<b>Operating</b>			
Orientation and Field Travel	\$5,000	\$15,000	
Administrative expenses	\$10,000	\$10,000	
Student exp (Air, Accommodation)	<u>\$-</u>	<u>\$30,000</u>	
	\$15,000	\$55,000	<b>\$155,000</b>
<b>Revenue</b>			
Student fees (\$7,000 per semester)	\$448,000	\$448,000	<b>\$2,240,000</b>
<b>Total Salary and Operating</b>	<b>\$919,600</b>		
<b>Plus 15% Overhead</b>	<b><u>\$137,940</u></b>		
<b>Total</b>	<b>\$1,057,540</b>		
<b>Revenue</b>	<b>\$2,240,000</b>		
<b>Profit</b>	<b>\$1,182,460</b>		

### **3 INTERNAL ANALYSIS**

The next step will be to assess if the internal capabilities are present for SFU to pursue dual degrees with China in Business Administration.

#### **3.1 Strategic Alternatives**

The strategic alternatives for dual degrees at Simon Fraser University are developed by the upper administrators of the university as well as the upper management of faculties. Based on discussions with key personnel in the implementation of dual degrees at Simon Fraser University, the following strategic alternatives are being assessed:

1. Complete first cohort of dual degree in China and make adjustments to program based on current evaluation.
2. Pursue additional dual degrees in China for the Faculty of Business.

Based on the key successes determined in Chapter 2, I will determine if the internal capabilities are present to implement the second strategic alternative: to pursue additional dual degrees in China for the Faculty of Business. Each section is rated as either “strong”, “moderate” or “weak” to identify the strength of the internal capability to support the proposal.

#### **3.2 Management Preference**

##### **3.2.1 What Does Management Want to Accomplish? - Strong**

Management at SFU has promoted and emphasized international education as part of the University’s strategy and focus. Internationalization is encouraged through the attempted increase

in foreign students registered at SFU as well as international experiences for SFU students abroad. Creating innovative programs is part of a strategy that increases SFU's reputation locally, nationally and abroad. SFU International defines internationalization as "a process made up of a wide range of academic and professional activities, organizational policies, procedures, and strategies – which integrates an international dimension or perspective into the teaching, training, research, and service functions of the university" (SFU International Strategic Plan, 2004).

The first dual degree in Computing Science is currently underway and has been successful in terms of student ratings and increased relationship with China. The problem with this degree is that it has been extremely costly. The tuition fees do not cover the cost of the program. Management has showed support for this program but it is unlikely that the support will continue if the dual degree cannot generate funds.

A dual degree in business can generate more funds because traditionally business programs have been able to charge much higher fees. MBA's and executive programs, for example are able to charge more than \$40,000. The dual degree can emulate this. Figure 2.3 shows a sample budget based on student fees that are more comparable to executive business programs. Because this segment of business students are not price sensitive and the dual degree is very practical and differentiated among its competition these fees are likely attainable. The increase in student fees eliminates the concern that the dual degree is not financially viable.

***Top Students*** - By establishing the first dual degree and supporting additional programs, senior management ultimately hopes to attract higher quality students to the SFU. The attraction of higher quality students is a clear and attainable goal based on the first cohort that began the program in Computing Science. Management has noted that both students and parents see the distinct advantage that the dual degree will provide to the students. The hope is that some of these students will continue on with graduate programs and later become supporters of SFU.

**Brand** - The attraction of high quality students will also increase the reputation of the university. Management marketed the first dual degree heavily throughout Vancouver and used the program to promote the SFU brand. A dual degree in business would be more valuable in increasing brand recognition. The dual degree could be used as a tool by management to market the SFU brand to Vancouver businesses. The fact that Asian trade is much higher in British Columbia than Ontario also increases the marketability.

The new Dean of the Faculty of Business that will begin in January 2008 has stated that one of his top priorities for the faculty is to increase brand value.

**Finance** - The desire to use dual degrees as a strategy to improve financials for the university may not be as easy to attain for all faculties. The cost to develop the program before any students can even be admitted is significant. It is unclear if management was aware of the required amount of time and international visits that would be required to develop the original dual degree program and curriculum. Currently, management hopes to break even on the next cohort of Computing Science students. Perhaps in several years this program could make money for the University, but with the creation of a new dual degree in business, the development costs continue to be high. Each faculty that develops a dual degree must go through the program creation costs that take significant human and financial resources. The Faculty of Business will have heavy up-front costs to develop the dual degree but the tuition that can be charged is much higher than what is currently being charged by Computing Science. In addition to receiving high tuition fees the faculty can also benefit from the relationship built with Zhejiang by using it to promote and create other joint SFU degrees such as executive MBAs. The current upper management at SFU are very supportive of this international initiative, but if there are major changes in upper management it is questionable if the dual degree program would continue to have great support. This potential change in management support requires that the dual degree be financially viable.

There are certain things that the University would like to achieve with the current and future dual degrees:

- Network building and alliances.
- Long-term relationships
- Create consortia to get into countries, especially ones with growing markets.
- Align with top institutions.
- Develop the long-term big picture and strategic alliances of the University.
- Build hard (academic) and soft (more tolerance) skills in students.
- Increase University reputation.

*How should it be done?* The success of the dual degree in Business Administration will rely on the FBA addressing some of the threats and, if successful, will in turn make some of the threats into opportunities. The dual degree needs to be financially feasible. Unlike the Computing Science dual degree, the business degree can charge a larger fee because these students are not price sensitive. The value of the degree will in part rely on branding of the degree as well as the increased branding of SFU and the Faculty of Business.

The promotion of internationalization should be accomplished by increased awareness throughout the SFU community as well as in the University's promotion and branding. The creation of innovative programs is key to this success. Management has been willing to move quickly on new programs but with China, time must be taken to establish a long-term relationship. The ability for the international office to see opportunities for new international

programs and the ability to move quickly is an advantage for SFU. SFU is currently the first university in British Columbia to have a dual degree and this can be strongly promoted.

A key success factor is knowledge of cultural practices and negotiation styles of the Chinese, and this is strength of the Faculty of Business. The negotiations and development of the relationship with Zhejiang should be done with the support of business faculty members that have specific experience in dealings with China. For administrators who do not have experience with China, establishing this relationship could delay the development of the degree

The dual degree in business can learn from the experiences of Computing Science. An initial assessment should be made to determine if anything is currently missing. For example, after the first year of the dual degree in China, the organizers of the program have decided that the Canadian students need more language courses before leaving for China to help prepare them for classes.

### **3.2.2 Criteria for Judging Success – Moderate**

Although SFU has not reached its target for international students, the number of students from China has increased significantly over recent years. According to Analytical Studies at SFU, the number of students from China increased from 356 in 2002 to 914 in 2007. Although the number has been increasing, the past two years the growth has slowed down due to pressure from the Chinese government to keep students at home. Criteria for judging dual degrees should be done both independently and in conjunction with the partnering university so that both are achieving their long-term goals. The Faculty of Business rejects international students because it does not have the space. If the administration would allow the FBA to increase the number of international students the university could reach its target goal of 10 percent.

Judging success of new international programs needs to be done on an ongoing basis and needs to have a quantitative component. The first cohort of the computing science dual degree

will not be finished until 2010 and therefore waiting until the end of the program is too late. Milestone and progress reports need to be done regularly so that new programs do not have to wait until the first is completed. Criteria for success for the business dual degree may have certain criteria that differ from the computing science program and must therefore also be incorporated into any strategic planning.

The measure of the dual degree can be on the progressive accomplishments of both soft and hard skills. There is evidence that the Faculty of Computing Science has made some changes to the dual degree based on the results of the first year. It is unclear at this point how the International Office of SFU will judge success on an ongoing basis.

***Solution*** - the Faculty of Business should measure:

1. Financial success - the dual degree should be able to secure a profit with student fees comparable to executive programs.
2. Student numbers – there should be sufficient numbers of students to fill a cohort. The FBA should not be in the position of accepting anyone who applies; there should be admittance requirements that filter out the best students for enrolment.
3. Language skills – After the first year in China, the FBA should determine if the language component of the degree is sufficient for the students be competent in the language and if they are able to successfully complete their courses in Chinese.
4. Relationships – The FBA should determine if they have built a relationship with Zhejiang and other universities in China that will enable them to create additional programs in China. The FBA should also assess whether or not the dual degree has supported new relationships with the business communities in B.C. and China.

### **3.2.3 Management Capabilities – Moderate**

The main component of the management capabilities is that there is significant buy-in from upper management for international programs at SFU and the Faculty of Business. Without this

top level buy-in no expertise could make these programs happen. The Faculty's management has the capabilities to design and implement the dual degree, assuming that it uses the resources of the faculty members. There are faculty members in the FBA that have specific experience in dealing and negotiating in China and this expertise is necessary.

### **3.3 Organization – Moderate**

This section looks at the organizational capabilities that exist at SFU and the Faculty of Business in relation to the dual degree. Such capabilities are structure, systems and, culture.

#### **3.3.1 Structure – Moderate to Strong**

The structure of the academic year for SFU is very conducive for international programs. The trimester system allows students to enter the University at any time of year. The Faculty of Business can design intake of the dual degree so that it attracts the most students from both B.C. and China. The weakness in the structure of Simon Fraser University leads to a lack of community. The University has many part-time students and three campuses and therefore it is very difficult to create a community life. This lack of community has been a weakness for domestic students but it may not be the case for students from China. Because of the large number of student at SFU from China the dual degree students may find it easier to integrate into the student body. The advantage of a dual degree that has a cohort is that these students will have classmates that they will have gotten to know closely, and therefore are more likely to feel at home within the SFU community.

#### **3.3.2 Systems – Weak**

The weakness in the organization related to systems is that, although there is the structure and buy-in from top administration, there is a weakness in the registration of the students. SFU lacks strength in recruitment of both local and international students and the systems are weak for



following through with international students that wish to register. Regardless of the design of the program, if students are not able to receive confirmed acceptance to the university in time for them to make plans or to choose SFU over other institutions, then all other steps are wasted. Students need to be notified in a timely manner so that we do not lose them to other universities. As well, once students accept the offer to the University, they need to receive the proper Visa documentation so that they are able to either study at SFU or abroad. Simon Fraser University needs to establish better protocol and systems for students to receive the right documentation for travel Visas. This has been a problem at the University and students have not come to SFU because of such problems. The FBA will need to ensure that they can follow through directly with interested students.

Another obstacle is the current lack of compatibility between accreditation systems of different countries. The business dual degree gets around this problem with recognizing credits from other institutions by developing the entire undergraduate program with all course credits from start to finish. If future dual degrees give students options with some of the courses that they take then the partnering universities will have to recognize those courses towards the final degree.

The primary systems challenge for dual degrees is the development and compatibility of the program. Each course within the business dual degree program must be assessed for its compatibility to the partnering university. Each university has minimum requirements that need to be satisfied before a degree can be issued. For example, to graduate from SFU, a student is required to take a minimum of 120 credits that include the University requirements of Writing, Breadth and Quantitative (WBQ) courses. At Zhejiang, students are required to take 150 credits that include military training in their first year. As a result, simply knowing that the partnering university has a course of the same name and level does not mean that the course content is similar. For example, SFU may require a lower level microeconomics course for business degree requirements, but even though Zhejiang University offers a lower level microeconomics course, they may have completely different course content. This is definitely a weakness that requires

both universities to spend the time to evaluate each course taken during the degree to ensure that students meet all the requirements.

**Solutions** – The first systems weakness is related to recruitment and retention of students. For the dual degree both the faculty and the SFU administration needs do the recruitment of students. The faculty should be given resources so that the majority of contact to recruit the students for the dual degree is done by the faculty so that no errors are made in maintaining contact with these students. The retention of students needs to be a joined effort so that students are well supported not only in their faculty but also throughout the university. Student Services at SFU have been revamped over the past year with hope to increase the recruitment and retention rates of students. In 2006, \$1.1 million was added to the Student Services Budget, with another \$1 million to be added over the next few years. The department has been reorganized with a new Registrar in place as well as additional employees added to recruitment and advising. This increase is to support domestic and international students.

The difficulty in designing the dual degree can only be resolved by an increase in human resources at the faculty level. FBA will need to allocate either faculty or administrative staff to ensure the compatibility between the courses at SFU and Zhejiang University.

### **3.3.3 Culture – Strong**

The culture at SFU is set from the bottom up and the top down. The culture is displayed by the diversity of students, the mix of part-time and full-time registrants and by local and international students. At the same time, upper management influences SFU's culture by promoting the University to keep pace with the global changes of education and stressing that internationalization is needed to fulfil SFU's mandate to create, share and provide knowledge. The mandate is also to prepare students in an increasingly global environment.

The culture at SFU strongly supports new programs and for the most part so do the staff and faculty. There are some faculties that are more open to international students than others. The

weakness in the culture at SFU is that innovative programs are not celebrated and promoted throughout the university. Faculties are often unaware of successful programs that are happening on campus. The senior management needs to set up a better infrastructure that would allow and encourage the promotion of activities that are going on at SFU.

The strength of the culture at Simon Fraser University is the desire and openness of the administration, staff and students to incorporate and welcome new programs. The weakness is in the administration's effort to set up events and opportunities that create a shared culture and sense of community between all members of the university. Administration could design a marketing plan that is directed not just to the Vancouver community but also to the SFU community specifically. Scheduled events and updates that inform and welcome university members to learn about what is taking place on the campuses could also strengthen the shared culture.

#### **3.3.4 Supervision – Moderate to Strong**

The Faculty of Business has many faculty members that are well qualified to work on international programs and with the students associated with these. The success of dual degrees relies heavily on the expertise of faculty members as well as their support and buy-in. Specifically, SFU has staff and faculty members that have already worked with international programs with China.

A key component to the success of the dual degree is based on the success of the students. Zhejiang University only accepts the top three per cent of students so the students from SFU may have difficulty keeping up with these high calibre students. The challenge will be for SFU and Zhejiang faculty to ensure that students are able to adapt to the different styles of learning in each country. Students in China are primarily taught to learn from the contents of books, they are told specifically what to learn and they are not encouraged to participate in the classroom. Students from Canada are taught to learn beyond books and to apply knowledge and

are graded on participation. If a faculty member does not know about these cultural differences, the students from China may be discriminated against, or vice versa.

Based on completion of the first year of the dual degree in Computing Science, management have discovered that the Canadian students will need additional support, specifically with language skills. For the next cohort of students, there will be an additional language course before the students arrive in China. Management also discovered that the students found the courses in China to be very challenging and therefore will now accept only high calibre students for the next cohort. The FBA can ensure that the business dual degree has sufficient supervision to ensure student success.

***Solution*** – The Faculty of Business should appoint a coordinator to the dual degree program that can ensure that the students are progressing with the language skills and the academic requirements for the students while they are at the partnering university. Additional language courses or tutoring should be available.

### **3.4 Resources**

The internal human, operational and financial resources will be assessed to determine the areas that support the dual degree and look for solutions to the areas that do not support the program.

#### **3.4.1 Human – Weak**

The human resources available for a dual degree in the Faculty of Business and the student services of the university is questionable. Currently the University has limited the number of new staff that can be hired due to financial limitations and therefore any new dual degrees that are started will require that the human resources be thoroughly considered. If additional staff is needed, then the FBA will have to fund the position. Alternatively, the University will need to re-

allocate human resource assignments in order to cover the program. In order to coordinate dual degree development, the university hired a manager to monitor and provide information to faculties, but because each dual degree in each faculty will have different programmatic needs and requirements. Each faculty will have to provide staff to develop and monitor the program. Increased funding will be required to accomplish this.

Due to the limited number of staff the challenge is to find the significant amount of time that is required to develop the business dual degree program. To develop a dual degree a faculty must look at each course of the partnering university to determine if the content is compatible and would meet university graduation requirements.

**Solution** – Once the program design has been negotiated between SFU and Zhejiang a marketing and clerical staff need to be appointed. In addition, faculty time will need to be negotiated with other departmental areas of the FBA. This negotiation of time can often be difficult but with the closing of the SMBA there is course time available for faculty with an international business focus.

### **3.4.2 Operational – Strong**

All SFU campuses are in attractive locations and market well to foreign students. The technology focus of the Surrey campus and Segal Business School in downtown Vancouver are also strong selling points. In order to accommodate an increase in international students, the University will have to allocate sufficient space. There are often rooms available evenings and weekends so scheduling should be adjusted to better even out the use of rooms. If the administration permitted the Faculty of Business could increase the number of international students to increase the occupancy at the university and make use of this operational strength. With the new Segal School of Business, the Faculty can work at promoting the brand.

One of the disadvantages of having the three locations is that the campuses are separated geographically; public transportation from campus to campus is not very convenient and if a cohort is located at one of the smaller campuses, they may not experience campus life. One way to avoid this is to ensure that the cohorts have the opportunity to take courses at each campus and have a support person to ensure that they get to know the university. This is an issue for not just international students but all students at SFU. During a student's first year there should be more opportunities to get to know the university. An information or visitor centre could be established for new and prospective students to learn about campus life. This type of office may already exist but if it does, it is obviously not well publicized because having been an undergraduate, graduate and employee of Simon Fraser University, I am not aware of it.

For a dual degree, both partnering universities must meet operational requirements such as:

- Curriculum development
- Admissions and registration of students
- Qualified faculty
- Practical placements for co-op students
- Final exams and final thesis defence for graduate programs
- Scholarship or bursary recognition

### ***Marketing***

Differentiating the dual degree for Chinese students against universities in the United States will be easier than differentiating from those competitors in British Columbia, so this should be the first step in marketing. SFU's Faculty of Business will be able to promote their dual degree as more affordable than comparable products in the United States. A lower crime rate is also a feature that will interest the students in China. Specifically, SFU can promote a larger multicultural student population than comparable universities in the United States. Students wanting to work in a global market will see this as an advantage.

### **3.4.3 Financial – Moderate**

Financial resources are currently limited at Simon Fraser University and this is the largest threat identified in the key success factors. Within the current upper level administration there is strong support for international programs, and in particular dual degrees, even though they have not shown to be financially attractive. If upper management changes over the coming years, the financial support could alter and the University could have a new focus.

***Solution*** - The foreign students that will come to SFU for the business dual degrees pay on the international fee structure that is three times higher than those students whose home university is SFU. For the domestic students that enrol in the dual degree, they can be charged at a rate of approximately \$7,000 per semester that is comparable to executive business programs.

Based on the internal analysis, the Faculty of Business has many threats in the pursuit of a dual degree in China. To achieve a stronger position with dual degrees, the University will need to differentiate the dual degree from the international experiences offered by competitors, secure a sufficient number of international student seats and ensure that required financial resources are available to continue on with program development. Another key success that the Faculty will need to overcome is the strength of the SFU brand internationally.

## 4 DISCUSSION AND CONCLUSION

International education contributes approximately \$2 billion annually to British Columbia's economy, with more than 150,000 international students enrolled in private and public institutions across the province. The objective of providing international curriculum is to provide students with skills that will enable them to work competitively in the global market. These skills also benefit British Columbia by educating a workforce that can support international trade and business. Universities will continue to find it challenging to secure government funding over the next decade and that will also make attracting international students more and more important. The strategy to establish dual degrees is an effective way of creating long-term relationships that will benefit both the University and the students.

The recommendation for pursuing a dual degree in business between SFU and Zhejiang University faces challenges that relate to the key success factors and their relationship to the internal capabilities of the University, but these barriers can be overcome. The internal capabilities of the Faculty of Business and SFU's administration can take advantage of the opportunities found in the key success factors and use the dual degree to strengthen the threats.

Figure 3.1 Summarizes the key success factors identified in Chapter 2 and compare them to the internal capabilities from Chapter 3. I have identified that the dual degree in business between SFU and Zhejiang has significant merit if internal capabilities are improved. By comparing these factors together solutions are identified to bridge the gap where capabilities are weak and improvements where the capabilities are moderate.



Figure 3.1 Key Success Factors vs. Internal Capabilities

	Management Preference	Organization	Resources	Solutions
<b>Financial resources</b>	<b>Strong</b> Management support international programs and have been supporting programs that are not financially successful	<b>Strong</b> The current student fees for international students are more than three times that of domestic students.	<b>Weak</b> Financial resources are limited but directed towards international, but could change with changes in management	Tuition for business dual degree needs to be at a rate comparable to executive business programs. These students are not price sensitive.
<b>Cultural knowledge</b>	<b>Strong</b> Management support for increased cultural knowledge at SFU and in FBA		<b>Strong</b> FBA has faculty members with first hand experience in China	Administration needs to take advantage faculty with international business focus in China when negotiating
<b>Brand</b>	<b>Weak to Moderate</b> Management have only just begun to focus on the university brand.	<b>Moderate</b> The culture of SFU has been to promote successes within the university but has lacked promotion in national and international community.	<b>Moderate</b> Financial resources have just begun to be geared towards marketing and promotion.	New Dean of Business has a goal to increase brand. FBA already has reputation in IB research. SFU management need to strengthen SFU brand internationally
<b>Recruitment and retention of students</b>	<b>Moderate</b> Current management are attempting to target this issue	<b>Weak</b> The management goal of recruiting and retaining is not passed down through organization	<b>Moderate</b> Up until recently there have been little resources devoted towards recruitment and retention. Current budget has resources geared towards issue.	Student Services has reorganized department and injected funds. FBA needs to establish protocol and hire staff to follow through with dual degree students.

	Management Preference	Organization	Resources	Solutions
<b>Supplier buy-in</b>	<b>Weak</b> Not clear on their preference.	<b>Moderate</b> Development efforts were made for dual degree but not clear if business faculty expertise were utilized	<b>Strong</b> Support from faculty and current international partnerships.	Faculty will be needed to not only show support but also be willing to commit to developing and teaching courses.
<b>Differentiate int'l programs</b>	<b>Strong</b> SFU differentiates well between the different international programs.	<b>Strong</b> Dual degree can be developed to have distinct offerings that are not in other international programs.	<b>Weak</b> Resources have been focused on first dual degree but limited university resources may be geared towards business degree	A marketing plan needs to be developed to promote the benefits of the dual degree and show students the advantages over other international programs. Funds need to be committed to marketing.

#### 4.1 Financial Resources

Currently the management preference and strategy at SFU is to focus financial resources on international programs and dual degrees. This focus is beneficial for most international programs because it is profitable, but that is currently not the case for dual degrees. The design of the dual degree in computing science is very costly because it is a cohort model and there are many expenses for designing, developing and implementing a program of this type. Much expense was incurred for ensuring that the partnering university approves the courses in the program, and many international trips had to be made for this to happen. The design of the current dual degree also required both universities to spend a lot of money on language training. The financial implications of this design are huge.

Even though the dual degree brings many positive side effects to the university, it is not realistic for the university to continue with a program that will continually cost more than it makes. The dual degree in business could be redesigned to make it more financially feasible. For a business degree it may be realistic that students are willing to pay more because their final degree will be a strong tool for marketing themselves in the job market and they are not a price sensitive customer segment.

## **4.2 Brand**

Internal capabilities must be geared towards both the brand of the dual degree in business as well as that of the faculty and the university. Even though there may be a strategy to enhance the reputation of SFU, it is not made clear to the employees of the university. There needs to be a clear strategy that is passed down to the employees of the university so that there is an understanding of what the administration is hoping to promote.

Simon Fraser University needs to work with other universities and colleges in the province to provide a coordinated marketing plan for B.C. Currently, each institution does their own marketing to attract students but a coordinated effort would send out a message internationally that would demonstrate to foreign students the high calibre and quality of post-secondary education in B.C. The provincial and federal governments also need to play a role in enhancing the reputation of education in this province, as seen in the international market.

Related to SFU's reputation in the international education market an increase in regulations that need to be in place to ensure foreign students are not taken advantage of in regards to the service they receive or their education. Although there is some regulation in place, there have been incidences over the past few years that have diminished the reputation of post-secondary education in British Columbia. SFU needs to encourage that a regulatory system be in place so that private educators do not take actions that lessens the reputation of all educators in B.C.

### **4.3 Recruitment and Retention of Students**

Simon Fraser University is currently in a similar position as its competitors in relation to recruitment and retention of students. There has been a decrease in students and an increase in university and college seats that has led to heavy competition in the market. SFU and its competitors have struggled to recruit students and the rate at which students are lost in their first year is over 20 per cent. SFU has increased funds to student services to help with this issue as well as approved an increase in staffing. For the dual degree in business to be successful, resources to support international and domestic students are needed.

### **4.4 Formal Relationship**

When the new dual degree in business is formed, there needs to be a clear understanding of what each party is trying to accomplish in forming the partnership, as well as how they intend to deal with operational issues along the way. There are many reasons for establishing international partnerships and it is essential to know the motivation of each party. Knowing such details will help with defining how disputes will be resolved, not only between institutions, but between students and the universities.

When defining the relationship, administrative issues need to be very clear. Throughout the duration of the students' academic careers, there will be many interactions between student services at each university. It is my understanding that there are student service issues that continue to arise with international students. For example, when an international student with a learning or physical disability requests services at SFU, disputes occasionally arise as to how the student is accommodated. A domestic student with a disability by law receives accommodations from the university at the university or government's expense, but when an international student requests these services it is not clear who will pay. This becomes an important issue when partnering with countries like China because students with disabilities in China do not receive

accommodations at the post-secondary level and therefore coming to Canada is very attractive for these students.

Faculties that are looking to partner with countries such as China, where there are cultural differences in the way that business is done, need to be sensitive to the different ways of interacting. The way in which business relationships are developed and contracts are negotiated is very different in China and this must be considered.

#### **4.5 Supplier Buy-in**

Faculty support to new international programs and dual degrees will increase the likelihood of success. Faculty members are needed to design courses with international content and their familiarity with cultural issues of other countries increases the success of the foreign students. Although all faculties have faculty members that do not strongly support international programs, overall Simon Fraser University has a supportive environment and culture. The student body is made up of many cultures and it is very difficult for anyone to distinguish, which students are domestic and which are foreign.

#### **4.6 Differentiate International Programs**

Apart from the financial requirements to continue with dual degrees as a strategy for internationalization at SFU, differentiating the programs is essential. Attracting students to the program and to the university is a highly competitive task and therefore there needs to be a clear marketing plan to distinguish the SFU dual degree from the many other international post-secondary options that students have to choose from. This differentiation can be done by promoting to students the benefit of gaining cultural knowledge and skills from the partnering country. Students will have an advantage when looking for jobs upon graduation because they will have an understanding of the cultural differences of doing business in the global market.

## **4.7 Cultural Knowledge**

The Faculty of Business has faculty members with first hand experience in China. The use and support of these faculty members is essential for the development and success of the program

## **4.8 Additional Key Success Factors**

Additional key success factors, such as the differentiation of international degrees, government regulations and fixed costs, are also important to the success of the dual degree but only to the extent that the current levels are not diminished. When designing additional dual degrees, faculties need to ensure basic institutional values and processes are not compromised. Faculties will need to ensure that the partnering university has compatible values. The partners do not need to have the same goals, but need to respect the different values that may be present.

Simon Fraser University's management has strong support for international programming. This focus is a good strategy for the increasingly competitive market of post-secondary education and in the long run will also benefit British Columbia by training students to work in a competitive global market. The dual degrees can be a useful as part of this strategy.

## REFERENCE LIST

- Abramson, Neil, Manager Associate Professor. Personal Interview July 20, 2007
- Angerelli, Nello. Associate Vice President. Personal Interview April 3, 2007
- CIA Factbook. (2007) China. Retrieved July 21, 2007  
<https://www.cia.gov/library/publications/the-world-factbook/geos/ch.html>
- Crossan, Mary M., Fry, Joseph N. and Killing, J. Peter (2005). *Strategic Analysis and Action, Sixth Edition*, Toronto, Pearson Prentice-Hall.
- Fizzell, Maureen, Associate Dean. Personal Interview March 28, 2007
- Harder, Derrick. (2006) "Official letters of concern in regards to IBT – From the SFSS" SFU e.Peak. February 6, 2006 Retrieved 04/07/2007 from [www.peak.sfu.ca/the-peak/2006-1/issue5/le-ibt2.html](http://www.peak.sfu.ca/the-peak/2006-1/issue5/le-ibt2.html)
- Ad Hoc Committee on International Activities. (2000) Simon Fraser University "Internationalization for the New Millennium". June 2000. Internal document. Retrieved April 2007 from [www.sfu.ca/international/files/PDF/internationalization.pdf](http://www.sfu.ca/international/files/PDF/internationalization.pdf)
- Jamieson, Jim. (2006) "International Students Stir the Economy" The Province. November 14, 2006.
- Jin, Yan, Manager SFU Dual Degree Program. Personal Interview March 15, 2007
- Kumar, V. and Kundu, S.K. (2004). Ranking the international business schools: Faculty publication as the measure. *Management International Review*. 44(2) page 224.
- Martin, Randy, Director Global Initiatives. Personal Interview March 15, 2007 and June 8, 2007
- "News from the Schools" (2005) Economist, Nov 4th 2005. Retrieved 15/06/2007  
[www.economist.com/business/globalexecutive/displaystory.cfm?story\\_id=E1\\_VTRJGOD](http://www.economist.com/business/globalexecutive/displaystory.cfm?story_id=E1_VTRJGOD)
- Office of the Vice President Academic (VPA). Simon Fraser University Academic Plan 2007-2010. Appendix 1 Retrieved May 2007 from [www.sfu.ca/vpacademic/files/FAS\\_2007-2010.pdf](http://www.sfu.ca/vpacademic/files/FAS_2007-2010.pdf)
- Office of the Vice President Academic (VPA) Simon Fraser University. Three Year Academic Plan 2004-2007. May 12, 2004 Retrieved May 2007 from [www.sfu.ca/vpacademic/files/VPA3YearPlan.pdf](http://www.sfu.ca/vpacademic/files/VPA3YearPlan.pdf)
- Porter, Michael E., (1980) "*Competitive Strategy*", The Free Press, New York

Report on International Activities Committee, Academic Year 2005/06.

Reus, Karel (2006) "International Post-Secondary Education: the Education Gateway  
"Speculative Discussion Paper in Campus 20/20 An Examination of British Columbia's Post-  
Secondary Education System. 2006

SFU International "Strategic Plan", July 2004 to June 2006. Version 2 Simon Fraser University.

SFU Office of Analytical Studies (2007) *Undergraduate Visa Students by Country of Citizenship  
– Fall only Table D-22* Retrieved 06/07/2007 from  
<http://www.sfu.ca/analytical-studies/FactBook/d-student/sectd.visa.html>

SFU Office of Analytical Studies (2007) *Graduate Visa Students by Country of Citizenship – Fall  
only Table D-23* Retrieved 06/07/2007 from  
<http://www.sfu.ca/analytical-studies/FactBook/d-student/sectd.visa.html>

SFU Office of Analytical Studies (2007) *International Student Headcount by Semester and Visa  
Type. Table D-24* Retrieved 06/07/2007 from  
<http://www.sfu.ca/analytical-studies/FactBook/d-student/sectd.visa.html>

Sin, Lena. (2007) "Canada Named a Culprit in China's Brain Drain". CanWest News. Don Mills,  
Ontario: March 4, 2007

"World of Opportunity, A" (2005) *The Economist* print edition Sep 8th 2005  
Developing countries see the point of higher education Retrieved 28/06/2007 from  
[http://www.economist.com/surveys/displaystory.cfm?story\\_id=E1\\_QPQDDDV](http://www.economist.com/surveys/displaystory.cfm?story_id=E1_QPQDDDV)