A thesis submitted in fulfilment of the requirements for the

degree of

DOCTOR OF PHILOSOSPHY

MODELLING THE ECONOMIC IMPACT OF OVERSEAS

STUDENTS' SOCIAL NETWORKS ON

AUSTRALIA/THAILAND BILATERAL TRADE FLOWS

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# ABSTRACT

The exporting of education has become an integral part of the Australian economy and is now Australia's third largest export industry valued at over A$3.2 billion. The impact that these large flows of students into the Australian economy (for significant periods at a time) is having on Australia's bilateral trade relationships with these source countries, is now a pertinent issue. As the literature on immigration flows has identified, social network theory is an important tool in explaining how cross border flows of people can stimulate international trade activity. What impact are overseas students' social networks playing in stimulating trade activity between Australia and their home countries? This research on the economic impact of Thai overseas students on Australia/Thailand bilateral trade flows is a timely study undertaken to answer such questions.

Based on a review of the available literature on the ways in which overseas student flows can stimulate trade flows, and a thorough review of social network theory and the link between social networks and international trade activity; a conceptual framework is developed for the process through which overseas student flows stimulate international trade flows in Chapter Five. This conceptual framework provides the theoretical support to the 'International Education model of bilateral trade' that is developed in Chapter Six to quantify the long term economic impact of Thai overseas students on Australia/Thailand bilateral trade flows, as well as the design in Chapter Seven of the International survey targeted at Thai overseas students who have studied in Australia.

The findings of the research highlight the significant impact that overseas student flows from Thailand to Australia are having on Australia/Thailand bilateral trade flows, and

also identifies the significant lag time that exists between the time when the overseas student completes their study in Australia and the time when the overseas student initiates some form of business activity with Australia. It also provides support to the important role that social networks play in reducing the natural barriers to trade.

Finally, the research analyses some of the overseas student policy implications that arise from these research findings, and discusses possible directions and initiatives that the Australian government can consider implementing, to harness some of the possible trade benefits highlighted in this research.

## Key Words

Social network theory, trade flows, overseas students, gravity model of trade, economic impact of overseas students, Australia/Thailand trade relationship.

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Finally, I would like to thank my parents for their support over the period of my research. It has been an experience filled with ups and downs however you have always been there to support me and provide encouragement. Thank you very much for all your kindness.

# DECLARATION

This thesis contains no material which has been accepted for the award of any other degree or diploma in any university or other institution, and to the best of my knowledge, contains no material previously published or written by another person, except where due reference is made in the text of this thesis.
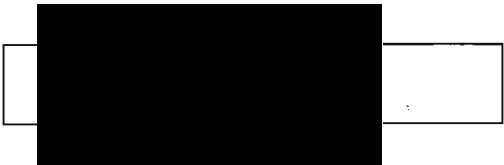
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# CHAPTER ONE

# INTRODUCTION

## 1.1    Introduction

The process of globalisation has forced many economies to open their markets to trade

with the rest of the world in order to attain economic growth and prosperity. All of

these factors have led to massive increases in world trade where world exports of

merchandise and services in 1998 totalled US$6.5 trillion and the ratio of trade to global

GDP has risen from 7% in 1950 to 23% in 1999 (World Trade Organisation, 1999).

This rapid increase in global trade has led to strong growth in a number of developing

economies particularly throughout the Asian region, that in turn has placed strong

pressure on these countries educational systems. Most of these economies have been

unable to meet the rise in demand for skilled labour as their educational systems have

lagged those of the developed economies, both in resources and competency. In

addition to this, as international education is a highly positive income elastic product, a

strong increase in demand has arisen for international education services, particularly

from developing countries. This has led to a common belief that the growth in world

trade and the globalisation of the world economy has been the engine driving the

increased demand for international education services. However, this thesis will

attempt to show that the process of sending students overseas to study, and therefore

enabling students to generate an international network of social and business contacts,

can then become an engine in itself, driving growth in world trade.

## 1.2    Overseas Students in Australia

The number of overseas students studying in Australia has undergone massive growth

over the past two decades. From around 2000 students in 1986, overseas student

numbers climbed to almost 70,000 in 1994, and to more than 150,000 in 1997 prior to the downturn caused by the Asian economic crisis (DEETYA, 1998)[1]. The Asian crisis impacted sharply on student numbers from the Asian region. However, this impact was a temporary one and numbers have continued to grow strongly since 1999, and totalled more than 180,000 students in the year 2000. The strong flow of overseas students to Australia has been affected by a number of general trends in the Asia-Pacific region. Rapid economic growth throughout a number of countries in this region led to uneven economic development between rural and urban sectors and between countries; rapid population growth and urbanisation was not matched by an increase in demand for education; as well as a growing disparity between the security and openness of Australia as opposed to the economic and political insecurity of a number of countries in the Asia-Pacific region. A number of key events have also affected the flow of students to Australia, including political conflicts and racial relations in a number of South East Asian neighbours, such as the ending of the Vietnam War, and the Tianamen Square uprising in 1989 (Nesdale, Simkin et al., 1995).

As a result of this strong growth, education exports are now Australia's fourth biggest export earner valued at over $3.2 billion (DEETYA, 1998). As awareness of the size and strength of this industry has grown, there have been numerous reports undertaken identifying the direct economic impact overseas students are having on the Australian economy in the form of tuition fees and living expenditure (Baker, 1996; Dockery, 1997; Duhs, 1997; Harris and Jarrett, 1990; Industry Commission, 1991; Jolley, 1997; Mazzarol, 1997; McKay, 1993; Hood and Metwally, 1993; Smart and Ang, 1993; Williams, 1989). However, scant attention has been paid to the long-term impact

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[1] This figure includes Higher education, secondary schools and ELICOS students.

overseas students studying in Australia may be having on Australia's trade relationships with these source countries.

This thesis focuses in detail on Thailand, one of the main source countries of overseas students to Australia, and a country that has shown massive growth in student numbers over the last decade. In 2002, Australia became the primary destination of Thai students seeking an international education, overtaking the United States which has traditionally held this mantle. Examination of the trade relationship between Thailand and Australia in relation to this strong increase in overseas student numbers from Thailand, is the objective of this thesis and is undertaken using two distinct but related methods.

First, a test to see whether a quantitative relationship exists between overseas student numbers and bilateral trade flows at an aggregate level is undertaken. Then an examination is conducted at a more micro level, through the use of an international survey, to identify what factors may link the process of a student studying in an overseas country and subsequent trade generation.

## 1.3    The International Education Model

To undertake the first part of the analysis, a test to identify evidence of a relationship between overseas student numbers and bilateral trade flows is undertaken through the generation of an 'International Education' model of international trade. This model will be based on the gravity model of international trade. Undoubtedly, the gravity model, which has been described regularly as the 'work horse' for empirical studies on bilateral trade flows, has been the dominant approach to analysing international trade flows. Its

success lies in its ability to explain variations in bilateral trade flows across a wide variety of countries and periods (Eichengreen & Irwin, 1996).

Tinbergen (1962) and Pohyonen (1963) were the first to develop econometric models of bilateral trade flows. Their models explained bilateral trade between two countries in terms of their Gross National Products, Y, and the distance between them, D as follows:

$$X_{ij} = A \frac{Y_i Y_j}{D_{ij}}$$

Where $X_{ij}$ is the value of exports from country i to country j, and A is a constant of proportionality.

The gravity model has its basic foundations in physics, inspired by Newton's law of universal gravitation that states that the force of attraction between two objects is proportionally related to the size of their masses and inversely related to the square of the distance between them (Lung & Gunawardana 2000). That is, bilateral trade between two countries will be a product of the size of the two countries (ie. the size of their economy) divided by the distance between the two countries. The extent to which physical distance between countries impedes international trade flows has lessened over time as advances in transportation and telecommunications have decreased the time and costs associated with moving goods between countries. Also, as is demonstrated in this thesis, international social networks can have a similar impact in lessening the extent to which distance, be it in the physical or cultural sense, impedes trade.

This thesis will use the gravity model as its base for analysing bilateral trade flows between Australia and Thailand in an attempt to identify what impact overseas student

flows can have on bilateral trade. The use of the gravity model is not unique in empirically testing the impact of various variables on bilateral trade flows. This technique has been used by a number of researchers in analysing the role of immigrants and their impact on bilateral trade flows (Gould, 1994; Head and Ries, 1998) and also the link between international travel and trade flows (Kulendran and Wilson, 1998). However, use of the gravity model in specifically analysing the impact of overseas student flows on trade patterns has been limited, with only two studies. McMahon (1992) looked at the role international study played in the acquisition and development of knowledge resources. It proposed the following two hypotheses:

1. That the flow of students out from a third world nation to the world at large varied directly with the level of the sending country's economic strength, its involvement in global trade, state emphasis on education, and lower levels of home educational opportunities; and

2. The flow of students to the United States varied directly with measures of the economic capacity of the sending nation relative to that of the U.S., levels of trade between the U.S. and the sending nation, the flow of U.S. foreign assistance to the sending nation, and levels of institutional support from the United States.

The study found that global trade is a positive factor in fuelling overseas study. McMahon proposed that this could be due to a number of factors including that greater economic involvement with the world system corresponded with greater academic involvement, and that higher levels of global trade may imply changes in the internal labour market that may generate greater demand for education and expertise not available through education in the home country. Importantly, McMahon also found

that the concentration of trade with the host nation made a positive and significant contribution to the size of the international student population. That is, a specific nation-to-nation trade linkage corresponds with a nation-to-nation academic linkage. McMahon called for individual case studies to be carried out to validate her general statistical research.

The second study which directly focuses on international student flows is a paper by Chen and Barnett (2000) who analysed international student flows from a macro perspective in order to determine the international student exchange network that exists in the larger context of global political and economic relationships. Sixty four countries that represent the largest number of international student exchanges is used in the study. The study described the international student exchange network, and its changes between 1985, 1989 and 1995 and addressed the following key questions:

1. What is the structure of the international students exchange network in 1985, 1989 and 1995 and does it follow World System Theory[2]? Who are the core, the semi-peripheral, and the peripheral countries in the international student exchange network?

2. How has the international student exchange network changed and have events such as the ending of the Cold War had any impact on the pattern of international student flows?

3. What is the relationship between a country's position in the international student exchange network and its level of economic development?

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[2] World System Theory analyses the long-term social changes by combining the study of intersocial relationships and the economic and political relations within one global system. It groups countries in terms of three types of structurally equivalent components: the core, the periphery and the semi-periphery depending on the type of products they produce and specialise in.

Their report found that most Western industrialised countries including the USA, UK, Germany, France and Canada, have stayed in the center of the international student exchange network and that the flow of international students has become more closely linked to economic development. These economically powerful countries which have comparative advantages in the production of higher education, receive international students in significant numbers, reinforcing their position in the center of the international student exchange network. A country's position in the international student exchange network is significantly related to its GNP per capita in that higher education is tightly connected with economic development. Given the previous extensive research on the export led hypothesis and its relationship with economic development, this raises the question - given that there are significant relationships between (1) export growth and economic development and (2) international student flows and economic development, what is the relationship between international student flows and export growth? This question will be answered in the following Chapters.

Clearly the use of overseas students as a key variable in modelling the trade relationship between Australia and Thailand will make this type of trade flow analysis unique and the results will greatly add to the sparse literature on this topic.

## 1.4    The Inclusion of the Overseas Student Variable

As mentioned earlier, overseas student flows are included as a variable in the 'International Education' gravity model on the assumption that overseas student flows are a conduit to the generation of international social networks which can lessen the detrimental impact of the distance between countries on international trade flows. Distance can mean more than the physical distance that exists between the two countries

and can also refer to cultural distance. The rationale for including overseas students in a trade flow analysis model comes from two sources. The first being, the abundant anecdotal evidence available detailing the trade links that have originated from 'old school ties' and membership of University Alumni organizations. Almost without fail, reports on the benefits that overseas students bring to Australia comment on the increased cultural understanding and long-term economic trade linkages which are developed through exposure of local students to overseas cultures and the international networks that are created. However, research that attempts to quantify and expand on these long-term anecdotal effects is extremely limited.

In summary, the reasons put forward in the literature as to why there may be a positive correlation between overseas students studying in Australia and Australia's trade flows with their respective home countries are as follows:

- Overseas students educated in Australia exhibit a preference for importing Australian-made commodities (Holdaway, Bryan et al., 1988; Harris and Rhall, 1993; Harris and Jarrett, 1990).

- Students become familiar with Australian standards and practices, which increases brand loyalty for Australian products (Industry Commission, 1991).

- The creation of positive attitudes by overseas students towards Australia (Kauffman, Weaver et al., 1992).

- The creation of personal and institutional relationships developed in Australia by overseas students who may be able to facilitate or influence trading liaisons with Australia in the future (Throsby, 1991; Industry Commission, 1991; Review Committee on Overseas Student Policy, 1984; Overseas Student Trust, 1981; Leslie, 1989; Sargent, 1992).

Parallel to these arguments, there is also literature that supports the role of overseas contacts and culture awareness in the success of the export process (Austrade, 2002; Bakalis and Maharani, 1999; Elbashier and Nicholls, 1983; Ellis and Pecotich, 2001; Graham, 1985; Liang, 1995; McCallum, 1995; Reid, 1981; Rosson and Ford, 1982).

The second reason for including overseas students as a key variable in modelling trade flows comes from the relatively new field of social network analysis which has attracted considerable interest over the past two decades from the social and behavioural science community and also, interestingly from economists. This interest by economists in social network analysis has arisen due to doubts regarding the practicality and usefulness of neoclassical theory in explaining numerous aspects of economic life (Ebenfield and Jussawalla, 1984; Biggart and Hamilton, 1992; Granovetter, 1992; Larson, 1992; Portes, 1995).

In particular economic sociology has focused on the ways in which social influences can modify the maximising behaviour of individuals assumed by neoclassical economists. By looking at economic actors as rational but not socially atomised, in the sense that social relationships enter every stage of the process, from the selection of economic goals to the organisation of relevant means, economic sociology research has generated predictions which differ markedly from more conventional economic models.

A social network as defined by Laumann, Galaskiewicz et al. (1978:458) is:

> *'a set of nodes (e.g. persons, organisations) linked by a set of social relationships (e.g., friendship, transfer of funds, overlapping membership) of a specified type.'*

The term network emphasises that each individual has ties with other individuals, each of whom has further ties with others, and so on. As Jackson and Wolinsky (1996) explains, informal social networks are used to communicate information and for the allocation of goods and services not traded on markets, and are the channels through which resources (either material or non material) can flow or be transferred (Wasserman and Faust, 1994).

The importance of social relations and institutions in facilitating the search process in situations of imperfect information and uncertainty has been recognised for some time (Nohria, 1992b). Information transfer through informal social contacts has been found to be a primary mechanism by which search proceeds in markets with imperfect information. Unfortunately, the research that has been done in this area almost solely focuses on family and ethnic ties, in particular, immigrant links, and no empirical analysis has looked at this issue in the context of overseas students. Hence a unique opportunity exists to apply social network analysis in the context of overseas student flows to determine the effect of such networks in generating and facilitating trade flows. Analysis of the extent to which social networks play a role in stimulating trade is obviously very difficult to quantify. In order to provide further support to this hypothesis, research is undertaken based on an international survey of Thai graduates who completed part or all of their study in Australia. The objective of this survey is to identify to what extent, this type of respondent has been involved in business activity with Australia and what factors may have preceded and/or facilitated this involvement. This analysis will enable determination of the extent to which overseas students' international social networks play a role in any subsequent form of business activity.

## 1.5    Structure of the Thesis

Because no research has undertaken an empirical analysis of bilateral trade flows using overseas students as a key variable, the focus of this thesis is to conduct such an analysis, by adapting the gravity model equation to incorporate the impact that the development and size of overseas students' social networks may have upon bilateral trade activity. This adaptation will take place within a network theory context using two distinct but related methods.

The research will first test to see whether a quantitative relationship can be found to exist between overseas student numbers and trade flows between Australia and Thailand. As mentioned earlier, this analysis will make use of the gravity model as well as incorporating overseas student flows into the model. From this a new 'International Education' gravity model will be developed. Cointegration analysis will be used to model the short and long term trends of this relationship and in particular attempt to identify the lag time between when a student studies, and when they may generate business activity.

The research will then seek to explain the relationship identified in the aggregate model by testing a number of qualitative variables identified from the International survey responses, to determine whether a relationship can be found between overseas students' social networks and trade flows. This will be determined by using a range of statistical tests on the survey data. To this end, the thesis is structured as follows.

In Chapter Two, a survey of the available literature is undertaken on the development of Australia's international education sector and concurrent growth in demand for

education in Thailand that has placed enormous pressure on the Thai education sector, and led to large increases in Thai students furthering their studies offshore. Then an examination is conducted of the direct economic impact international students have had on the Australian economy through a range of avenues including:

♦ The expenditure by students on fees and on goods and services;

♦ The provision of ancillary goods and services;

♦ The impact on the balance of payments;

♦ Labour market adjustments;

♦ Immigration issues;

♦ Long term trade impacts.

Chapter Three analyses the bilateral economic and trade relationships that exist between Australia and Thailand through analysis of the composition of trade between the two countries and discussion of the potential impacts of the recently finalised free trade agreement between Australia and Thailand.

In Chapter Four, attention is turned to the non-direct economic impact overseas students have on the Australian economy. A review of the economics of networks is given which has grown in importance over the last two decades. Literature on social network theory is reviewed in a context that sheds light on the manner in which the practice of studying in a foreign country may facilitate and stimulate trade activity between the two countries involved. A review of the literature is given on the link between immigration and trade flows which can be used to gain a better understanding as to the channels through which social networks can help lessen the natural barriers to trade. Then

identification is made of the key mechanisms through which overseas students may stimulate trade flows with the foreign country they studied in.

In Chapter Five examination takes place of the export decision making process, and in particular the social context in which the economic exchange occurs. Identification is made of the conditions and scenarios that lead to the creation of export exchange relationships, and how the existence of an international social network can play a role in this process. The importance of cultural awareness and foreign language ability in international exchange negotiations is analysed as well as the key benefits that overseas students derive from their international education experience. The Chapter concludes by developing a conceptual framework that is used to develop the quantitative and qualitative models to be tested later in this thesis.

In Chapter Six a macro model is developed to quantitatively analyse the apparent correlation between international student numbers and two-way trade flows between Australia and Thailand, to test whether a quantitative relationship exists between the two variables. A survey of previous empirical studies is also undertaken on trade flow analysis providing a framework for the quantitative model. This is done by developing an 'international education' gravity model, justifying the adaptations made to the standard gravity model. Three key models are developed: 1) an analysis of Australia's export relationship with Thailand and the impact of overseas students, 2) an analysis of Australia's import relationship with Thailand and the impact of overseas students and finally, 3) an analysis of Australia's bilateral trade relationship with Thailand and the impact of overseas students.

Chapter Seven details the survey design, questionnaire design and sampling methodology used for the international survey. The theoretical purpose of this survey is to provide a micro-level insight into the relationship between student flows and international business activity that, in turn, may be reinforced by the results of the macro-oriented time series set out in Chapter Six. Respondents to this questionnaire previously studied in Australia and are now residing in Thailand, and were sourced from various University Alumni and Australian Government databases. The structure of the International survey and the various hypotheses' to be tested are outlined. In particular, examination takes place of the extent that social networks have been used in any form of business activity conducted by questionnaire respondents, as well as the effects that conducting business within ones social network, have on the business transaction.

Chapter Eight then provides a descriptive overview of Thai overseas student's study experiences in Australia, their business activity with Australia, and the role that their social network played in facilitating this activity.

In Chapter Nine, analysis of the survey data is conducted to test the hypotheses listed in Chapter Seven. The data is separated into two groups, Entrepreneurs and Non-Entrepreneurs and a range of tests are conducted to determine if:

- The attitude of the respondent towards their study experience in Australia affects the likelihood that they will do some form of business activity with Australia.

- The extent to which the leisure time spent with Australians impacts on the likelihood that the student will return to travel in Australia after they completed their studies.

- The amount of contact the student has with Australia after they complete their studies, impacts on the likelihood that they will do some form of business activity with Australia and,

- The respondent's personal profile (age, sex and marital status) differs between respondents who did undertake some form of business activity with Australia and those that did not.

Chapter Ten presents a review of the thesis and provides an analysis of the results of the 'macro' and 'micro' models presented in Chapters Six and Chapters Seven through Nine respectively. Discussion of the results targets possible implications the findings may have on Government policies related to overseas student flows and the subsequent impact this could have on bilateral trade relationships from which these overseas students are being sourced from. Limitations to the thesis are reviewed and suggestions for directions of further study are provided.

## 1.6    Conclusion

A review of the literature reveals that there is a serious gap in research regarding the link between overseas student flows and subsequent trade activity. Anecdotal evidence is often cited in studies on overseas students that relates to the possible trade stimulation effect overseas students can have through utilisation of their networks and connections generated during their overseas study experience. As previously mentioned, only two quantitative studies by McMahon (1992) and Chen and Barnett (2000) directly focus on international student flows. This thesis is the first research that will model this phenomenon utilising both quantitative and qualitative analysis.

This thesis provides empirical evidence that the impact that overseas students are having on Australia's bilateral trade relationships with these countries is not minimal and deserves far more attention and research than is currently being undertaken. The notion that relationships and social networks are important in business relationships, particularly international ones is not a new idea. However, in the context of overseas students, and the significant size of the flow of students across international boundaries, it is quite reasonable to hypothesise that such a large flow of people between countries can be having a significant impact on the direction and composition of bilateral trade flows between source and host countries of overseas students.

# CHAPTER TWO

# SETTING THE SCENE – TRENDS IN INTERNATIONAL STUDENT FLOWS AND THE AUSTRALIAN GOVERNMENT'S INTERNATIONAL EDUCATION POLICY

## 2.1 Introduction

This Chapter will review the available literature on the growth and trends in international education over the last two centuries. In particular, focus will be placed on the Australian Government's international education policies, particularly since the 1980s, when the growth in overseas student numbers in Australia exploded. Analysis is provided of the direct economic impact to the Australian economy resulting from this large influx in overseas student numbers. Also, an examination is undertaken of Thailand's growth in demand for international education, one of the main markets driving this growth in overseas student numbers to Australia. Discussion of the reasons behind this massive growth in demand takes place as well as the policies implemented by the Thai Government to handle this situation. The Chapter concludes with a review of the economic impact that overseas students are having on the Australian economy as well as discussion of the costs and benefits associated with overseas student flows into Australia.

## 2.2 Trends in International Student Mobility

The post-war period has seen significant international trade reform accompanied by advancements in transport and telecommunications which has led to strong cross-fertilisation of cultures and convergence of consumer tastes around the world (Salvatore, 1998). Global competition has become an accepted part of a firm's business operations and has forced firms to match world best practice and to undertake

continuous innovation. Companies must now have in place policies of global sourcing of supply, international product development strategies and global marketing frameworks (Jolley, 1997). The process of globalisation has forced many economies to open their markets to trade with the rest of the world in order to attain economic growth and prosperity. All of these factors have led to significant increases in world trade where world exports of merchandise and services in 1998 totalled US$6.5 trillion and the ratio of trade to global GDP has risen from 7% in 1950 to 23% today (World Trade Organisation, 1999).

As international education is a highly positive income elastic product, this has led to massive demand for international education services, particularly from developing countries like Thailand as their economies have been unable to meet the increase in domestic demand for tertiary education. This has led to the common belief that the growth in world trade and the globalisation of the world economy are the engine driving the increased demand for international education services. However, as this thesis will attempt to show, the process of sending students overseas to study, therefore enabling students to generate an international network of social and business contacts, can then become an engine driving growth in world trade.

Students who decide to undertake their studies abroad have been widespread for centuries as learning from the curricula and faculties of other societies has long been considered an asset for both the individual and their country (Lakshamana, 1976). In the middle ages, there were so many foreign students at the Universities of Bologna and Paris that they were known as *studia generalia*, which translates to 'places resorted to by scholars from all parts' (Williams, 1989b). Some students were forced to study

abroad as they were unable to get a university education at home while others chose to study with more famous scholars abroad. The majority of foreign students in the 19th century chose to study in German or French universities that specialised in scientific research. However by the end of WWII, the United States had attained prominence in many fields of science and technology and hence the flow of students followed.

At this time, Governments of developed nations actively promoted the inflow of foreign students to their shores, incorporating these actions into their aid programs. The advantages of such policy were listed as the promotion of good relations with other countries in the hope of reducing international frictions and conflicts, the financial benefits to institutions in the form of fees, the contribution of student's expenditure to the economy, the spread or greater appreciation of the host country's language and culture, the promotion of exports as a consequence of familiarity with the standards and products of the host country acquired by foreign students, and the earnings of foreign exchange (Williams, 1989b; Nesdale, Simkin et al., 1995).The number of international tertiary students increased from approximately 240,000 in 1964 to 1.5 million in 1997 and an estimated 4.9 million by the year 2025 (Dockery, Thorpe et al., 1997). Although there is a bilateral flow of students between developing and developed countries, the majority of overseas students come from developing countries and study in developed countries. Jones (1986) estimated that somewhere between 25 to 30% of overseas students study in developing countries. However the patterns of overseas student flows are quite dynamic and are subject to change and are tied into other issues related to the internationalisation of higher education including the concentration of the world's research output in a small number of developed nations, the centralisation of public data

and transmission networks and the rise of English as the preferred language of commerce (Altbach, 1987).

Jolley (1997) argues that this rapid growth in international student numbers over the post-war period reflects a strong positive income elasticity of demand for international education. In particular, he claims that four key factors have contributed to this situation:

- The growing demand for language training and a wider cultural experience;

- The accelerating growth of specialist knowledge has created niche market opportunities for international education providers;

- The globalisation of many industries has created a desire to link educational experience with access to international networks; and

- Rising income levels in many developing countries have boosted the demand for tertiary education relative to the domestic supply of that education, after allowing for quality considerations.

In a paper on the impact of foreign study on academic institutions in both the 'host' and 'sending' countries as well as the economies of nations, Altbach (1991) argued that *'foreign students are at the centre of a complex network of international academic relationships. They are the human embodiments of a worldwide trend toward the internationalisation of knowledge and research in an integrated world economy.'* (pp. 305) . In order to better understand the complex and multidirectional flows of foreign students, Altbach identified a range of variables affecting the magnitude and direction of these flows in both the host and sending country. These variables are listed in Figure 2.0.1.

**Figure 2-0-1  Variables affecting the magnitude and direction of major flow patterns**

| Host Country Variables | Sending Country Variables |
| --- | --- |
| 1. Economic difficulties leading to restrictions on international students through measures such as higher tuition fees, e.g., United Kingdom, Australia | 1. Economic difficulties leading to reduction in available state funds as well as available foreign exchange, e.g., Nigeria, Venezuela |
| 2. Population changes leading to increases in available student places, e.g., some states in the United States | 2. Economic boom leading to expansion of demand for trained personnel and hence an increase in numbers of students going abroad, e.g., oil producing countries |
| 3. Changes in foreign policy leading to completion of bilateral agreements | 3. Economic policy changes leading to emphasis in areas with a dearth of requisite personnel and training facilities, hence necessitating that students go abroad, e.g., China |
| 4. Reemphasis on political commitments leading to an increase in inflow of international students from a given politically volatile region, e.g., Afghanistan | 4. Political changes (such as revolution) leading to change in foreign policy and hence changes in flow direction, e.g., Nicaragua |
| 5. Education policy changes leading to emphasis on international area and language studies and hence a greater commitment to study abroad programs, e.g., USA | 5. Educational changes such as completion of appropriate training facilities – thus reducing numbers of students abroad, e.g. India |

**Source: Altbach (1991) pp.309**

With these rapid increases in international student numbers came a change in attitude of Governments towards foreign students transforming from being one of a central feature of their country's aid program to developing countries, to that of an area where government expenditure needed to be significantly reduced. One by one, developed countries decided to institute new charging policies for foreign students as a means of reducing public expenditure on education. Governments moved away from subsidising foreign students to ultimately charging foreign students on a full fee basis. Attention now turns to the process which was undertaken by the Australian government which led

to the massive increase in foreign student flows to Australia and the creation of an important export industry for the Australian economy.

## 2.3 Overseas Students in Australia

Export of education services includes several distinct components such as students coming to Australia to study, correspondence courses for overseas students, the electronic transmission of lectures and courses overseas, and Australians travelling overseas to provide various forms of education. In this thesis, when discussing exports of education, this will only be referring to students coming to Australia to study. These students may be coming here to study either a *formal* or *non-formal* course. Formal courses comprise those provided by public and private secondary schools and Universities and Colleges of Technical and Further Education (TAFE). Non-formal courses include courses in commerce and related subjects as well as English language courses and a wide range of other subjects. These courses are offered by both public institutions such as Universities and TAFE colleges as well as private colleges and institutes (Industry Commission, 1991).

Australia has been exporting education services for most of the twentieth century. Overseas students have been coming to Australia as far back as 1904 (Williams, 1989b). Until the late 1940s, overseas students were able to study in Australia provided they could support themselves both for tuition fees and living expenses. During the 1950s and 1960s, the Colombo plan allowed students from South and South East Asia to undertake higher education in Australia by providing Australian Government sponsorship. This marked the first formal entry of the Australian Government into the direct sponsorship of overseas students for study in Australian institutions. The rationale

behind the Colombo Plan was to provide highly educated and skilled administrators, planners and policy makers, who would be able to lead Asian and Pacific Island nations from post-colonial independence to political and economic sovereignty and development (Australian Development Studies Network, 1995). The number of overseas students in Australia grew from 1000 in 1950 to about 5000 in 1965. This growth was a reflection of worldwide average increases of 7% in the number of students studying overseas between 1950 and 1985 (Baker, Robertson et al., 1996). Up until 1986, almost all of the students who came to Australia were either fully or partly subsidised by the Government through aid programs, and the number of students was controlled by an annual quota (Industry Commission, 1991).

Discussion relating to the level and subsidising of overseas students numbers in Australia prior to 1979 was almost non-existent as the total number of overseas students studying here was very small and their presence was not negatively impacting on places available for local students. Then in 1979, Britain introduced full cost fees for overseas students. This lead to a strong backlash in Asia against Britain to the extent that Malaysia implemented a campaign of "Buy British Last". This policy change by Britain, suddenly made Australia an extremely attractive English speaking alternative destination for parents in Asia to send their children to study. On top of this, rising expectations and average income levels within developing countries in East Asia meant that Australia was now faced with having to meet strong export demand for its education services. This forced the Australian government to acknowledge that overseas students were becoming an increasing financial burden.

In 1980, the Commonwealth Government introduced what was known then as an Overseas Student Charge. This fee varied according to the particular course an overseas student enrolled in, but by 1985 it recovered about 30% of the cost of higher education courses, still much lower than the full cost fees implemented by Britain a year earlier.

In 1984, the Jackson Report (1984) and the Goldring Report (1984) were released, commenting on aspects of the education of overseas students in Australia. The recommendations of the two reports varied quite markedly. The Jackson Report found that all post-secondary overseas students who were paying the Overseas Student Charge were in fact receiving a considerable subsidy as it covered only about one-third the average cost per annum of educating a post-secondary student. This hidden subsidy was estimated to total $70 million per year. However, as most overseas students were arriving from developing countries, the Jackson Committee regarded the subsidy as defensible in development terms. The Committee recommended the Government adopt a more market-based approach believing that Australia '*could make a much greater contribution to educational assistance for developing countries, and at the same time develop its educational institutions into a major export sector*' (para.6.22).

This recommendation by the Jackson Committee in 1984 was indeed quite visionary as the subsequent development of the Australian international education sector very much followed their recommendation.

The other main recommendations of the Jackson Committee were as follows:

♦ The hidden subsidy totalling $70 million per year should be made more transparent and given in the form of scholarships to selected students;

♦ To prevent students from developing countries being selected on income rather than ability and need, a three-tiered scholarship scheme should be implemented;

♦ A long term objective that foreign students should be accepted on the basis of available places, academic performance and full economic cost;

♦ No attempt be made to plan the disciplinary composition of the intake;

♦ Institutions should accrue fees paid by foreign students and create additional places to ensure that Australian students are not disadvantaged; and

♦ Expenditure on scholarships be gradually and substantially increased.

In contrast, the Goldring Report found that the then overseas student policy was a classic policy on the run and not a considered approach to the role of overseas students in Australia. The Goldring Committee believed that a market-based approach incorporating a full-fee system would:

• Discourage overseas students;

• Disadvantage overseas students of limited economic means; and

• Endanger academic standards and the quality of education offered to Australian students.

The Committee was particularly concerned that the increase in revenue obtained from full fee courses might encourage institutions to divert resources to these courses at the expense of courses for which they received Government funding, hence endangering places for Australian students.

The main recommendations of the Goldring Committee were as follows:

◆ The abolition of the existing system of guaranteed student quotas for different countries and regions;

◆ That numbers of overseas secondary school students be limited to 2000 and confined to senior years;

◆ A greater use of distance education, development of international institutions, student/staff exchange and the development of education services to be marketed outside Australia;

◆ The extension of overseas student support services to help those with problems of language, loneliness, finance and other pressures; and

◆ The involvement of overseas students in TAFE should be encouraged except where work experience is necessary because this would be at the expense of jobs for Australians (Industry Commission, 1991).

As mentioned earlier, up until 1986, Australia's involvement in international education was primarily linked to foreign aid programs with 20,000 international students studying in Australia in 1986 who were sponsored by the Australian Government or aid-based programs (Duhs, 1997). The recommendations of the Goldring Committee as well as the emergence of serious trade problems in 1986 sparked a rapid change in Government policy in this area. Overseas students were seen as a potential source of much needed earnings that could be used to reduce overseas debt as well as assist in financing the Australian education sector. To help stimulate exports, the Australian government removed all quotas on overseas students and allowed universities and other educational institutions to offer places to overseas students at full cost. The government set minimum course fees for overseas students to prevent institutions displacing Australian students with overseas students. At the same time, the government also

provided grants to higher education institutions to establish courses for overseas students and simplified student visa procedures to facilitate institutions in marketing their courses overseas.

These policy changes had an immediate and dramatic effect. Overseas student numbers more than doubled between 1986 and 1989. As Smart and Ang (1993) stated, the deregulated, competitive, market-driven model of full-fee foreign student recruitment introduced by the Government enabled tertiary institutions, starved of federal funding, to generate large amounts of new revenue and turned the education sector into one of Australia's most successful export industries. In the case of overseas student numbers from Thailand, numbers increased over this period from around 800 students in 1986 to more than 3,000 in 1989.

Australia's move to adopt a more commercial stance in the marketing of its education industry was not popular overseas. Ministries of Education throughout South East Asia objected to this commercial approach and to the linking of educational promotion with the trade and marketing offices of the Australian diplomatic missions (Back, Davis et al., 1996).

This new hard sell approach and the easing of visa restrictions clearly played a strong role in the dramatic increase in overseas student numbers but it also created problems including the financial collapse of some institutions, dubious recruiting practices by both institutions and private agents, and an immigration problem whereby foreigners who were interested in coming to Australia to work and/or overstay their visa were able to apply relatively easily for a student visa. This led to the government tightening

overseas student visa procedures which caused a dramatic decrease in the number of students enrolled in English Language Intensive Courses for Overseas Students (ELICOS) in 1990-91 and led to a number of students, particularly from China (PRC), having their visas refused despite already prepaying their course fees. This, coupled with a number of private institutions who had closed down taking with them overseas student's prepaid fees led the Australian Government to refund fees to more than 12,000 overseas students in an attempt to improve Australia's damaged reputation.

Australia then embarked on a process of 'internationalising' its education industry that reflected a growing willingness by the Australian Government to develop closer ties with its Asian neighbours and to get more Australians into Asia for research and education activities. In late 1994, the Government established the Australian International Education Foundation in a consultative and funding partnership with Australian education and training providers. This link between foreign student policy and a country's broader foreign policy goals and national interest is a common characteristic of all of the major host countries (Altbach, 1991). The Australian government was eager to strengthen its relationship with countries in the Asian region whose economies were growing rapidly, as it is recognised that foreign graduates will return to their home country having assimilated expertise in a particular field of study with the country in which they gained their qualification. The strong ties that foreign graduates hold can be economically beneficial to the host country in the future when graduates are in key management positions within the private or the public sector and their selection of an appropriate international supplier, investment location, tender, bidder and so forth may be influenced by their previous experience in the host country.

The government's decision to allow public and private education institutions to open their doors to full fee paying overseas students in volume terms has been an unmitigated success. From around 2000 students in 1986, overseas student numbers climbed to almost 70,000 in 1994, and to more than 150,000 in 1997 prior to the downturn caused by the Asian economic crisis (DEETYA, 1998). By 1995, the official value of export income from overseas students to Australia was A$1.9 billion and accounted for 9% of Australia's total service exports (Mazzarol, 1997). This has grown to more than A$3.2 billion in 2000.

A number of studies have identified the reasons behind the Asian student decision to study in Australia. In general, these include:

♦ More favorable work rights for students who are are allowed to work up to twenty hours a week to help finance their studies (Nesdale, Simkin et al., 1995);

♦ Restricted access to tertiary education in the home country;

♦ The availability of scholarships to study in Australia;

♦ A reasonably high level of personal safety and a favourable climate;

♦ A geographical location as an English speaking nation in the Asia-Pacific region (Industry Commission, 1991);

♦ The high standard of education and facilities in Australia;

♦ A flexible and pedagogical system of education (Dockery, Thorpe et al., 1997);

♦ The relatively low costs of study in Australia (Gillett, 1985; Dockery, Thorpe et al., 1997);

♦ The presence of family members already residing in Australia (Burke, 1986; Dockery, Thorpe et al., 1997);

The Asian economic crisis did have a strong negative impact on overseas student numbers in Australia as its Asian neighbours dealt with massive decreases in national income, collapsed property and share markets, and currencies which had depreciated sharply. Overseas student numbers fell by almost 3% from 1997 to 1998 and certain countries experienced quite sharp declines including South Korea (-39.3%), Thailand (-15.7%), Taiwan (-13.9%) and Japan (-8.5%). Overseas student numbers rebounded in 1999 by 7.3% however this was largely due to a sharp increase in the number of students studying outside Australia, in Australian university courses delivered offshore. Data from 1994-2000, shows the continuing upward trend in overseas student numbers in Australia. Preliminary data from the Department of Foreign Affairs and Trade's web site showed that as of the Year 2000:

♦ More than 180,000 international students study in Australian education and training institutions per year;

♦ More than 80% of these students are from Asia;

♦ More than 1000 institutions are registered to deliver courses to international students in Australia;

♦ About 3000 formal international agreements exist between Australian and overseas universities.

The extent of the overseas student impact on the Australian economy, relative to what is happening in other host economies, cannot be ignored. Australia now has the third largest number of international students in the English-speaking world behind the USA and the UK. As a percentage, Australia's involvement with international students is the third highest (12%) in the world and is only exceeded by two other countries – Luxemburg (30.5%) and Switzerland (15.9%) – both of which have large numbers of

non-fee paying academic exchange students from other European countries. Its impact

on Australian service exports is also relatively high compared to other countries. In the

year 2000, it is estimated that Australia's exports of education services were valued at

US$2155 million, approximately 11.8% of total exported services (Lawson, 2002).

This compares favourably with the value of education exports to the United States – the

number one provider of international education in the world – which totalled

US$10,280 million, 3.5% of exported services. For the United Kingdom, the number

two provider of international education in the world – education exports were US$3758

million, 3.2% of exported services. When one considers the comparative size of the

Australian economy with that of the United States and the United Kingdom, it is clear

that the education of export services in Australia has a major impact on the Australian

economy. It is also important to remember that these large numbers of student flows

represent people who are arriving and staying in Australia for a significant period of

time. All of whom are making contact with and meeting Australians every day,

developing their international social networks which can be tapped into, a significant

time period after the initial contact was made.

**Figure 2-0-2 Overseas Student Numbers, 1994 to 2000**
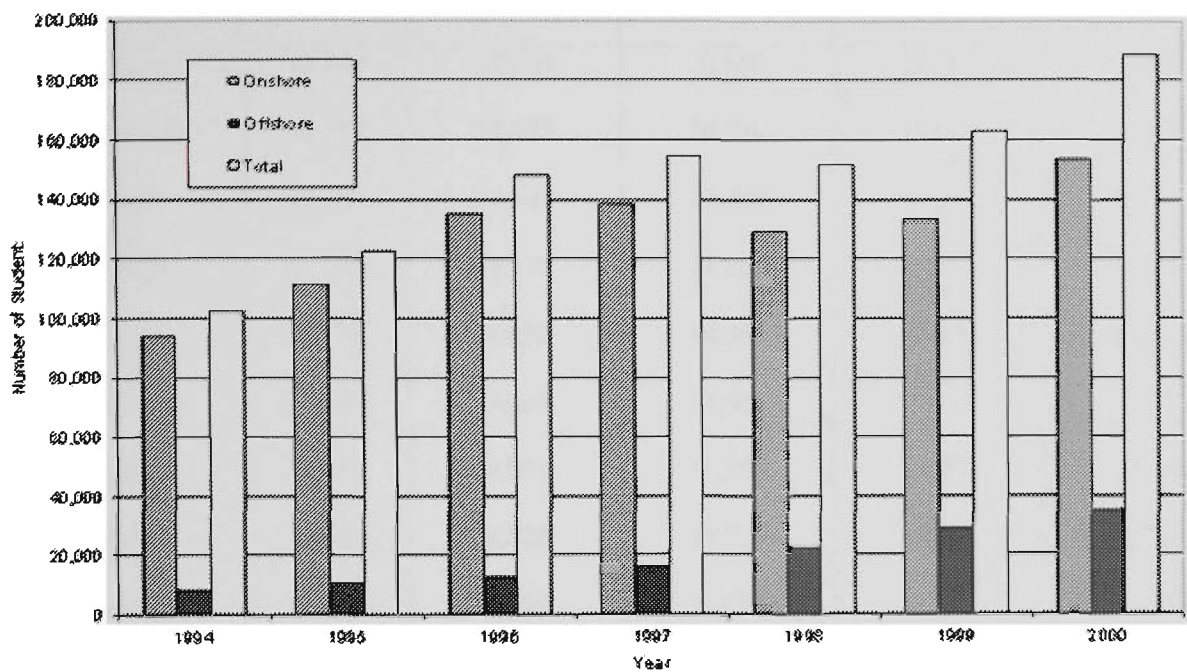


**Source: Australia Education International, Overseas Student Statistics 2000**

Table 2.0.1 illustrates that Thailand is Australia's ninth largest market for overseas students with 8,179 students studying in Australia in 2000. There are four key reasons as to why Thailand is the research focus of this thesis rather than one of Australia's other larger overseas student markets. Firstly, the numbers of Thai students studying in Australia fell dramatically after the Asian crisis. The collapse of the Thai baht (as measured against the Australian dollar) was more severe than in Hong Kong, Singapore and Malaysia. This significant fall in Thai students studying in Australia implies that as the Thai currency rebounds against the Australian dollar (it has recovered more than 50% of its value since 1998) there should be a strong increase in the number of Thai students studying in Australia. This is already occurring as Table 2.0.1 highlights. Growth in Thai student numbers in 1999 was 6.5%, increasing to 21.9% in 2000.

**Table 2-0-1 Top 10 Source Countries 1998 - 2000**

| Country | 1998 | 1999 | 2000 | % Change 1998 to 1999 | % Change 1999 to 2000 |
|---|---|---|---|---|---|
| Singapore | 16,509 | 19,207 | 20,866 | 16.3% | 8.6% |
| Hong Kong | 18,161 | 18,833 | 20,739 | 3.7% | 10.1% |
| Malaysia | 16,485 | 16,544 | 19,602 | 0.4% | 18.5% |
| Indonesia | 17,715 | 19,172 | 17,868 | 8.2% | -6.8% |
| China | 5,273 | 8,859 | 14,948 | 68.0% | 68.7% |
| South Korea | 11,150 | 9,633 | 11,485 | -13.6% | 19.2% |
| India | 8,073 | 9,581 | 10,572 | 18.7% | 10.3% |
| Japan | 10,739 | 9,828 | 10,220 | -8.5% | 4.0% |
| **Thailand** | **6,299** | **6,709** | **8,179** | **6.5%** | **21.9%** |
| Taiwan | 6,403 | 5,912 | 6,104 | -7.7% | 3.2% |
| **Sub-Total** | **116,807** | **124,278** | **140,583** | **6.4%** | **13.1%** |
| Other Countries | 34,637 | 38,587 | 47,694 | 11.4% | 23.6% |
| **Total** | **151,444** | **162,865** | **188,277** | **7.5%** | **15.6%** |

**Source: Australian Education International Overseas Student Statistics, 2000**

Secondly, in 2002, Australia became the primary destination for Thai students seeking an overseas education, overtaking the traditional primary source – the USA. The Australian education export sector is very important to the Thai economy's demand for skilled labour and graduates who are fluent in English. Table 2.0.2 displays the market share numbers for 2002 and reveals Australia's main competitors in the Thai market.

### Table 2-0-2   Market Share of Thai Overseas Students – March 2002

| Country | Market share |
|---|---|
| Australia | 35.6% |
| United States | 32.3% |
| Britain | 17.0% |
| New Zealand | 11.0% |
| Canada | 3.0% |

Source: Australian Education International, Bangkok Thailand

Thirdly, and perhaps most importantly, is the idea that bilateral trade between Australia and Thailand is much lower than it should be and strong potential lies for this relationship to be developed. Bilateral trade between the two nations, although showing strong growth over the last two decades (Australia's trade with Thailand grew at almost double the overall rate of Australian trade in the decade before the economic crisis in 1997 (DFAT, 2000) has not reached the level it should have given the close relationship between the two countries. A DFAT (1995) report into Australia's relations with Thailand made reference to a comment by Dr. Ann Kumar from the Australian National University, who commented that Australia's trade relationship with Thailand is disappointing and that Australian businesses have not taken advantage of the range of opportunities in Thailand. Also a recent Australian government report found that bilateral trade is well below that with some other East Asian economies (DFAT, 2002a). Australia's share of the Thai import market (1.9%) is well below that for Japan (3.9%), the Philippines (2.6%) and Indonesia (5%). The report also suggested that there is much scope for strengthening ties in specific sectors such as automobiles, processed food, and textiles and clothing. Australia's trade with Thailand is unique in that unlike other markets in the Asian region, it is dominated by manufactures (DFAT, 2001).

Finally, the recently announced Free Trade Agreement between Australian and Thailand which will commence in January 2005, will increase trading opportunities between the two countries. A joint scoping study undertaken by the Australian and Thai governments concluded that a free trade agreement would bring significant economic benefits to both countries. Figures generated by economic modelling quantifies these benefits as an increase to Australia's GDP of US$6.6 billion and an increase to Thailand's GDP of US$25.2 billion. Trade and investment between Australia and Thailand would expand substantially and the gains from these changes would by far outweigh the adjustment costs which would occur from such an agreement (DFAT, 2002a). This strengthening trade relationship between Australia and Thailand over the next decade will add significant value to individuals who possess market knowledge and experience in both markets. Overseas students from Thailand who study in Australia, will be positioned nicely to benefit from this strong increase in trade opportunities between the two countries.

Given the significant importance of Australia to Thailand's demand for international education, and the exposure of large numbers of Thai nationals to the Australian education system, culture and way of life, there lies strong potential for this growing relationship to be leveraged and for trade opportunities to be developed and realised.

## 2.4 Thai Students in Australia

As mentioned earlier, Thai students have been coming to study in Australia since the early part of the twentieth century. However, as Figure 2.0.3 illustrates, there was a

rapid increase in the flow of Thai students into Australia from 1986, that continued

strongly until the Asian crisis struck in 1997.

**Figure 2-0-3 Thai Student Inflows into Australia**
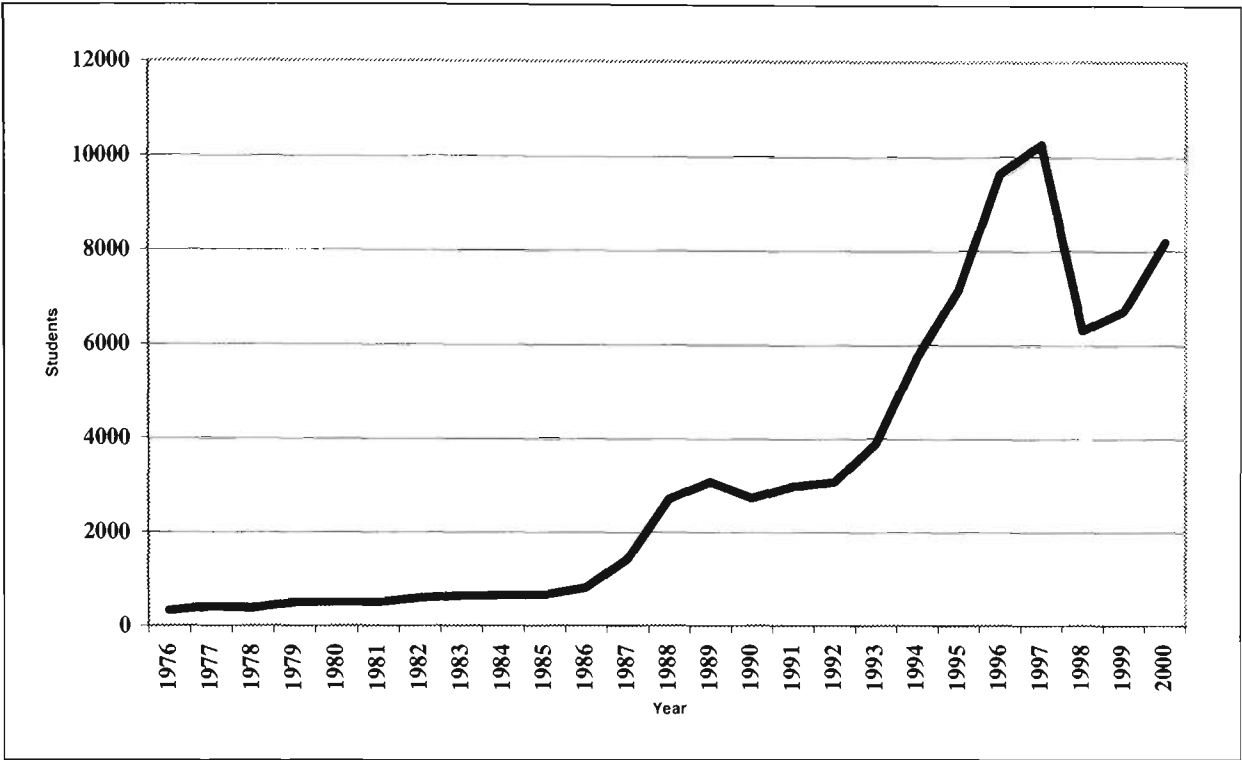


Traditionally, the top five destinations for study abroad for Thais have been the USA,

the UK, Australia, New Zealand and Canada, primarily because of the importance

placed upon instruction in the English language. The USA has been the most popular

market followed by Britain but a number of events over the last five years has shifted

(quite dramatically) the direction of overseas student flows from the Thai market.

The devaluation of the Thai baht in 1997 has put the cost of studying in the USA and

the UK out of reach for a lot of Thai families. Thais have been forced to look at more

price competitive markets such as Australia. Compounding this, the events of

September 11th, 2001 has resulted in a heightened concern about safety and security,

factors that have always been a competitive advantage Australia has over its

competitors in the international education market. These events have pushed more and

more students away from the USA, and redirected them towards the perceived safer markets in Australia and New Zealand (Siripunyawit, 2002). As mentioned earlier, Australia is now the primary destination for Thai students demanding an overseas education.

## 2.5 The growth in Thailand's Education Imports

The rapid industrialisation of the Thai economy since the late 1970s placed enormous pressure on the pool of skilled labour available to both local and foreign companies operating in Thailand. Prior to the Thai economy's decade of strong economic growth beginning in 1987, the demand for high-level technical skills was relatively small as most firms operating in Thailand were content utilising abundant local unskilled labour and natural resources. However as economic growth rates boomed post 1987, driven by strong levels of industrial development, the demand for skilled labour soared, leaving Thailand's education sector sorely exposed and incapable of satisfying market needs.

The Thai educational system consists of six years of primary education, three years at lower secondary and three years upper secondary education. This is followed by four to six years of higher education at the Bachelors degree level, and a further two to five years for the Master's degree and Doctorate levels. A UNESCO (1988) report discussed the development of the Thai higher education system and categorised it into three distinct phases. The first phase was the period prior to 1960, that was characterised by the training of specialised officers for Government services. All universities at this stage were located in the Bangkok Metropolitan area and were supervised by various Government ministries. The second phase incorporated the First

National Economic Development Plan (1961-1966) and the Second Plan (1967 – 1971). The objectives of these two Plans were to decentralise higher education out of Bangkok and into the provincial areas, to provide more open access to higher education, and to supply higher levels of manpower to meet rapid economic growth. The third phase up until 1986, saw a rapid expansion in the Thai higher education system with the establishment of the distance learning Open University as well as the upgrading of a number of government and private colleges into degree granting institutions. This expansion took place to meet the social and political demands of the Thai people. Social demand was fuelled by rapid population growth, people's attitudes that higher education is an avenue to upward social and economic mobility, the high rate of return for investment in higher education, and government policies developed in the belief that higher education is a means of building up human capital for development (UNESCO 1988).

It was at this time that the Thai Government first identified that science, technology and research and development (R&D) were crucial to the development of the Thai economy in the fifth National Development Plan (1981-1986). The Plan's objective was to improve both the quality and quantity of middle and higher-level human resources to meet the demands of the industrialisation of the Thai economy. The government also emphasised the need to expand linkages with countries where science and technology had reached advanced levels. Australia's level of economic development and close physical approximation to Thailand meant it was well positioned to take advantage of this change in policy direction.

However, by the mid 1980s it was clear that further efforts were required to develop science and technology. The Sixth Plan (1987-1991) highlighted that the international trading and industrial environment was becoming increasingly competitive and that human resources were inadequate and were not satisfying the demands of industry. It was estimated that there were only 100 persons involved in science and technology per 10,000 people, and that demand for computer engineers would increase substantially from 1987 to 1997 (Hewison, 1993).

The Government responded to this situation by releasing the Seventh Development Plan, which focused on human resources development, particularly training and education in science and technology. However, universities in Thailand, like most developing economies, lacked adequate educational resources, but had a surplus of students interested in higher degrees, attracted by the promise of individual advancement and much higher levels of remuneration.

## 2.6    The Direct Economic Impact of Overseas Students in Australia

The economic importance of overseas students to the Australian economy has grown significantly over the past two decades, to the point where the export of Australian education has become Australia's fourth biggest export earner worth over A$3.2billion. As awareness of the size and strength of this industry grew, increasing numbers of reports identifying the economic impact overseas students were having on the Australian economy in the form of tuition fees and living expenditure were undertaken. In its annual report on overseas student statistics, Australian Education International (2000) estimated that total overseas student expenditure in 1999 was more than A$3billion, a rise of almost 5% on the 1998 figure. The 1999 expenditure impact

comprised A$1.562 million (50.6%) on fees that were paid directly to institutions, and estimated expenditure of A$1,523 million (49.4%) on goods and services including accommodation, food and transportation. This is a large increase from a decade earlier when total overseas student expenditure was estimated at A$542 million (Australian Bureau of Statistics Cat No 5302.0).

A number of studies have analysed the economic impact of overseas students in terms of the costs and the benefits they generate. In undertaking such analysis, consideration was given to such factors as:

♦ The expenditure by students on fees and on goods and services;

♦ The provision of ancillary goods and services;

♦ The impact on the balance of payments;

♦ Labour market adjustments;

♦ Immigration issues;

♦ Long term trade impacts.

Overseas students should have a positive impact on the balance of payments with such a large inflow of foreign exchange earnings. However, as Kennedy and Sloan (1992) highlighted, the net impact on the balance of payments is unclear, as part of overseas student expenditure is on imports and the proportion is probably higher than that of Australian residents. Also, a large number of overseas students earn income in Australia working part-time whilst undertaking their studies. This is one of the marketing tools Australia uses to attract students to its shores.

A paper by Altbach (1991) argued that an overseas study experience can generate loyalty to host-country computers, scientific equipment, textbooks, and production processes and techniques. It can also build a network of ties that can facilitate business activities in the future and provide a means of communication through which information can flow.

Harris and Jarrett (1990) argued that although overseas students bring a substantial amount of foreign exchange that is an injection of expenditure into the domestic economy, this may not be good for the economy. If the economy were operating at below capacity, with under-utilised resources then this injection would indeed be welcome. However, if the economy is at full capacity then these additional injections may have negative inflationary outcomes.

An in depth study by the Industry Commission (1991) found that the benefits from exports of education are similar to those from the export of other goods and services, in that the net benefits to Australia come from the financial income of educational institutions and the expenditure of students on goods and services, less the cost of providing the educational and other goods and services purchased. However, the report went on to highlight that there are also a number of important differences that arise from the fact that most foreign consumers of the service reside in Australia, while they are educated. This means that overseas students:

♦ Consume goods and services that may be priced at less than their real cost (public services such as transport and health services);

♦ Contribute to taxation and tariff revenue;

♦ May obtain jobs which may impact on the remuneration and employment opportunities of Australians; and/or

♦ May overstay their visa.

The report also listed factors that need to be considered when assessing the economic cost/benefits of overseas students in Australia including the provision of education services, the provision of ancillary goods and services, balance of payments and immigration issues, trade and commercial benefits, political/diplomatic benefits, and cultural and educational benefits.

A study by Baker (1996) listed the benefits and costs associated with overseas students in Australia. These are displayed in Figure 2.0.4. Baker's study found that the annual net benefit from fee paying overseas students in the Australian economy was likely to be positive, ranging somewhere between A$551 million and A$677 million. However, these numbers were based on elements that were easily quantifiable and did not include some of the benefits and costs of overseas students previously listed.

**Figure 2-0-4 Benefits and Costs associated with Overseas Students in Australia**

| BENEFITS | COSTS |
|---|---|
| Education expenditure<br><br>Expenditure on other goods and services<br><br>Tax Revenue<br><br>Contribution to Research and teaching<br><br>Future trade opportunities<br><br>Educational Benefits<br><br>Social, cultural and political benefits<br><br>Post-study immigration<br><br>Tourism by relatives and tourists | Course provision<br><br>Financial Administration<br><br>Provision of ancillary goods and services<br><br>Government Administration<br><br>Aid Programs<br><br>Illegal overstay<br><br>Job displacement |

A paper by Hood and Metwally (1993) examined the multiplier effects of Wollongong overseas student expenditure on the Wollongong economy and predicted the likely national economic impacts. The paper estimated that in 1992, the 39,490 overseas students studying at Australian universities generated more than 30,000 jobs in the Australian economy. However, there has also been discussion of removing the working privileges attached to an education visa in Australia as the possible job dislocation of local Australians from jobs which could be taken by overseas students has been raised as an issue. However, there have been no in-depth studies into this allegation conducted in Australia.

In almost all of these studies into the economic impact of overseas students on the Australian economy, writers have commented on the possible benefits to the economy of future trade opportunities resulting from a student's positive attitude towards Australia, increased awareness of and preference for Australian made commodities, and

their contacts and networks they generated whilst studying in Australia. Despite this common belief, most studies alluded to the difficulty of quantifying this possible link and did not attempt doing so. In Chapter Four attention will be focused on this area in order to better understand what are the possible factors behind this supposed link between overseas student numbers and increased trade flows.

## 2.7 Conclusion

International student flows is not a recent phenomenon but the last two decades has seen a marked increase in both global overseas student flows and overseas student numbers in Australia. Most of this inflow has originated from Asia, and Thailand has been one market that has seen demand for international education in Australia increase strongly. Supply of international education is now a major export industry for the Australian economy.

This Chapter details the evolution of the Australian government's foreign student policy from one of aid, to trade, to internationalisation. The subsequent boom in the number of overseas students entering Australia brought with it a wide range of economic impacts including the expenditure by students on fees and goods and services, the provision of ancillary goods and services, the impact on Australia's balance of payments, labour market adjustments, immigration issues and long term trade impacts. In the following Chapters, examination of the issue of long term trade impacts is conducted in more detail by examining the link between overseas students and trade flows, and the role that social networks can play in creating and stimulating various forms of trade activity.

# CHAPTER THREE

# AUSTRALIA / THAILAND RELATIONS

## 3.1    Introduction

This Chapter will give a broad overview of Australia/Thailand relations and in

particular, analyse the bilateral trade relationship that exists between the two countries

in both the goods and services sectors.  As well, an in depth analysis is undertaken of

the proposed Free Trade Agreement that is scheduled to commence between the two

countries in January 2005, highlighting the industry sectors which will benefit from this

agreement.  The Chapter concludes with discussion of the foreign investment climate in

Thailand and a breakdown of trade in investment that exists between the two countries.

## 3.2    A Review of Australia/Thailand Bilateral Relations

Australia's relations with Thailand have been characterised as being 'friendly' for a

long period of time yet neither country has placed a high priority in dealings with the

other.  Australia's awareness of Thailand grew considerably after the death of some

2,800 Australian prisoners of war who died working on the construction of a railway

from Thanbyuzayat in Burma to Ban Pong in Thailand.  Many survivors recalled

accounts of kindness and assistance given to them by local Thai villagers that contrasted

sharply from the harsh treatment of the Japanese guards.  There are annual Anzac Day

ceremonies held in Kanchanaburi Cemetery and at Hellfire Pass in Thailand that are

enduring reminders of the strong relationship between the two countries.

Australia/Thailand bilateral relations spans trade and investment, defence, education,

narcotics control, tourism, refugee issues and development assistance. Australia has

been providing bilateral assistance to Thailand since 1951 in the forms of agricultural

and rural development, education and training and particularly in the 1960s and 1970s, military assistance to support Thailand as an anti-communist ally. Australia contributed US$1 billion to the IMF's stabilisation program for Thailand after the economic crisis in 1997 that also led Australia to rethink its Overseas Development Assistance (ODA) to Thailand that prior to the crisis Australia was planning to phase out. Australia decided to extend its ODA program with Thailand to beyond 2000-01. In 1998-99, total ODA flows to Thailand were $A25.2 million making Thailand the eighth largest recipient of Australian ODA. This funding, as well as assisting Thailand's recovery from the crisis, was focused on support for good governance, assisting economic and financial reform and mitigating the social impact on the poor and disadvantaged (AUSAID, 2000).

Throughout the 1980s and 1990s, political relations between the two countries have been close in part due to Thailand's support of then Foreign Minister Gareth Evans peace proposals within ASEAN and Cambodia. This was symbolised by the construction of the "Friendship bridge' over the Mekong river completed in April 1994, which provided a direct road link between Thailand and Laos (Hewison, 1993).

In 2002, the Australian Government signed a Memorandum of Understanding (MOU) with the Thai Government on cooperation in the fight against international terrorism. The MOU builds on the existing strong links between Australian and Thai law enforcement, defence and security agencies. Under the MOU, Australian and Thai agencies will exchange information and intelligence on international terrorist activities and related transnational organised crime. Agencies will also focus on combating the financing of terrorism and countering money laundering. The MOU also provides a framework for Australia and Thailand to improve border controls, combat identity fraud

and eliminate illegal traffic in arms and explosives. In addition, it provides for the strengthening of counter-terrorist capabilities through training, seminars and exchange visits by officials and specialists (DFAT, 2002b).

Trade and economic relations are covered by four bilateral agreements and four Memorandums of Understanding. These include the 1979 Trade Agreement, the 1990 Economic Cooperation Agreement, the Agreement on Double Taxation, and the Agreement on Development Cooperation as well as MOUs on Scientific and Technical Cooperation, Health Cooperation, Educational Cooperation and Cooperation in Intellectual Property (DFAT, 1997). The 1979 Trade Agreement, provides for annual meetings of senior officials from both countries to review bilateral trade issues and provide a forum for problem resolution. Secondly, the 1990 Economic Cooperation Agreement provides for an economic commission made up of officials and private sector representatives to exchange information and identify possible areas of cooperation and investment.

The Australian and Thai economies both play pivotal roles in East Asia. Australia is the fourth largest economy in the region with a GDP of almost US$400 billion. Thailand's GDP of US$122 billion places it as the second largest economy behind Indonesia in the ASEAN group. As well as the Australian economy being more than three times the size of Thailand's, the two economies are also distinguished by quite large differences in economic and social development (DFAT, 2002a). These differences are presented in Table 3.0.1.

Table 3-0-1   A Snapshot of the Thai and Australian Economy

| | Australia | Thailand |
|---|---|---|
| Population (million, 2000) | 19 | 62 |
| Surface Area ('000s square km) | 7,741 | 513 |
| GDP (US$ billion, 2000 current prices) | 395 | 122 |
| GNP-PPP (US$ billion, 1999) | 426.4 | 345.4 |
| GDP Growth (average annual,%)<br>1980-1995<br>1995-2000 | 3.1<br>4.1 | 8.1<br>0.4 |
| Exports goods and services (US$ billion, 2000) | 82.3 | 80.9 |
| Imports goods and services (US$ billion, 2000) | 86.8 | 71.0 |
| Per Capita GDP (US$/person, 2000, current prices) | 19,906 | 1,954 |
| Per capita GNP-PPP (US$/person, 1999) | 22,448 | 5,599 |
| Secondary School Enrolment Ratio | 96 | 48 |
| Public Expenditure on Health (% GDP) | 5.5 | 1.7 |
| Infant Mortality rate (per 1000 live births, 1998) | 5 | 29 |

Source: DFAT (2002a)

Bilateral trade between the two nations has shown strong growth over the last two decades (Australia's trade with Thailand grew at almost double the overall rate of Australian trade in the decade before the economic crisis in 1997 (DFAT, 2000). However, since 1996 Australian total export growth of 10.4% has exceeded export growth to Thailand of 6.4%. This slowdown in export growth may be reversing as exports to Thailand rose by 16.8% between 2000 and 2001 well above total export growth of 11% (ANZ, 2002). Bilateral merchandise trade between Australia and Thailand in 2001 was valued at A$4.9 billion, with Thailand now Australia's fourteenth

largest export market and thirteenth largest source of imports (DFAT, 2002a). Thailand has large trade surpluses in elaborately transformed manufactures (ETMs) and both processed and unprocessed food, while Australia has surpluses in agricultural raw materials, minerals, metals and fuels. In 2000, Australia's trade with Thailand was unique in that unlike other markets in the Asian region, it is dominated by manufactures (DFAT, 2001).

Is trade between Thailand and Australia as strong as it could be? Has trade reached the level it should have given the close relationship between the two countries or is there some underlying potential that has yet to be untapped? A DFAT (1995) report into Australia's relations with Thailand made reference to a comment by Dr Ann Kumar from the Australian National University who commented that Australia's trade relationship with Thailand is disappointing and that Australian businesses have not taken advantage of the range of opportunities in Thailand. Officials from the Department of Foreign Affairs and Trade in Australia and the Department of Business Economics, Ministry of Commerce in Thailand completed a study commissioned by both the Thai and Australian Governments into a bilateral trade agreement between the two governments. This study was forwarded to Ministers in the Australian and Thai Governments in April 2002 (DFAT, 2002a). This study found that trade between the two economies was stronger than would be expected from the size of their import markets. Australia's merchandise exports to Thailand total approximately 1.9% of its exports to all countries, or double the share that might be predicted from Thailand's share of world imports. This implies that bilateral trade between the two countries is reaching its potential, yet the study went on to highlight that bilateral trade is well below that with some other East Asian economies. Australia's share of the Thai import

market (1.9%) is well below that for Japan (3.9%), the Philippines (2.6%) and Indonesia (5%). The report suggested that there is much scope for strengthening ties in specific sectors such as automobiles, processed food, and textiles and clothing. Given this, it is not unreasonable to assume that bilateral trade between the two countries could be stimulated further given the strong relations between the two countries and the complementary nature of their economies.

## 3.3 Proposed Free Trade Agreement Between Australia and Thailand

As mentioned above, a recent initiative between the two countries commenced in November 2001 when Australia's Trade Minister, Mark Vaile, and Thailand's Minister for Commerce, Dr Adisai Bodharamik, announced that work had commenced on a joint scoping study on a bilateral free trade agreement between the two countries. Officials from the Department of Foreign Affairs and Trade in Australia and the Department of Business Economics, Ministry of Commerce in Thailand completed this study in May 2002. In October, 2003 both governments announced that negotiations had successfully finished and that the free trade agreement between Australia and Thailand would commence in January, 2005.

The aim of the joint scoping study was to analyse and assess the benefits and costs, through economic modelling, of entering into negotiations to establish a preferential, bilateral free trade agreement between the two countries. The study was commissioned under the guidelines that the study should examine not only preferential trade but also a number of other issues, which may enable the development of closer relations. These issues included such areas as standards and conformance, e-commerce, competition

policy, anti-dumping, quarantine, government procurement, intellectual property, financial sector cooperation, transportation, joint ventures and technology transfer.

The study concluded that a free trade agreement would bring significant economic benefits to both countries. Figures generated by economic modelling quantifies these benefits as an increase to Australia's GDP of US$6.6 billion and an increase to Thailand's GDP of US$25.2 billion. Trade and investment between Australia and Thailand would expand substantially and the gains from these changes would by far outweigh the adjustment costs which would occur from such an agreement (DFAT, 2002a).

The report found that although both economies have undertaken substantial trade liberalisation over the previous decade, there still exists important barriers to trade and investment. As mentioned earlier, Australia has significant tariff barriers in sectors such as passenger motor vehicles, textiles, clothing and footwear while Thailand has high tariff barriers in areas such as motor vehicles and a range of agricultural and manufactured products. Trade in services also faces significant barriers. Investment in both directions is low with Australia's investment in Thailand extremely low relative to its investment in other East Asian economies.

The report also identified specific export areas that would benefit the most from a free trade agreement. Australian exports to Thailand could be expected to increase significantly in areas such as dairy and other agricultural products, pharmaceutical

goods, aluminium and large passenger motor vehicles and components. Thailand could increase its exports significantly in areas such as small motor vehicles (both passenger and commercial), plastic products, iron and steel products, pulp and paper products and agricultural products.

However, gains from trade would not only be confined to increased trade in goods. The gains from liberalising the services sector would also be significant. In particular, Australian firms could benefit from being able to operate freely in areas such as banking and professional services that could help stimulate investment, growth and competitiveness in the Thai economy. Areas such as insurance and professional services would also be attractive for Australian firms to enter. This would provide Thai firms with added access to capital, management expertise and technology.

Case studies were prepared on agri-business and processed foods, automobiles and auto parts, textiles and clothing and selected services. These studies confirmed substantial gains from a free trade agreement. In agriculture, lowering tariffs would provide Australian exporters with significant market access improvements while the Thai food processing industry would have access to cheaper inputs, increasing its competitiveness and helping to stimulate export growth.

The auto sector would benefit from closer integration of the two markets leading to significant economies of scale. As well, the auto parts sector in both countries could be expected to benefit strongly. Thailand could expect to see growth in its exports of tyres, radio broadcast receivers, and lighting/signalling equipment while Australian

manufacturers could increase exports of engines, transmissions, brakes, mirrors, lighting equipment, wheels and seat belts.

A free trade agreement would open up new opportunities in textiles and clothing. It is expected that Thai exporters would benefit most from a free trade agreement with increased exports in Thai clothing. This would strengthen business links between Australian clothing wholesalers and retailers, and Thai textile and clothing makers. This increase in Thai exports would lead to an increase in demand for Australian raw materials such as wool and cotton and would open up the Thai market for niche, lifestyle products such as swimwear clothing. It could also increase demand for Australian fashion design services to the Thai market.

The study noted that Australia and Thailand already have strong education and tourism links with Australia now the primary destination for Thai students. A free trade agreement could encourage Australian educational institutions to increase their presence in Thailand by removing existing impediments to establishing and operating in Thailand. Recent initiatives by the Thai government to allow public universities to link with overseas institutions to offer international programs in the Thai market will also stimulate activity in this area. There has been significantly increased activity by Australian universities and colleges in the Thai market in the 2002/2003 period and this looks set to continue into the near future. Bilateral tourism flows would be expected to increase due to an increased awareness of each other's markets that would arise as a flow on from increased economic ties.

Importantly, the study found that the adjustment costs associated with the free trade agreement would be minimal given that the value of international trade between the two countries is only 2% of the total international trade of each other, and that the two economies are relatively complementary allowing for more trade creation and less trade diversion. However, the report did note that the adjustment costs although small, would be born more heavily by Thailand.

Undoubtedly, when the free trade agreement does eventuate, it will lead to a much stronger economic and political relationship between the two countries. This could only increase the value of the knowledge and networks that overseas students who have studied in Australia possess and provide more opportunity for them to utilise such skills and assets to their advantage.

## 3.4    A Closer Examination of Australia and Thailand Trade

Having outlined the bilateral relations between the two countries in the previous section it is now pertinent to attempt to examine in more detail, the trade relationship between Australia and Thailand and the development of each of these country's export sectors.

### 3.4.1   The Development of Australia's Export Sector

Up until the 1950s, Australia's international trade flows were relatively stable and not surprisingly, Great Britain was the primary market for both exports and imports. However, Australia's reliance on the production and trade of agricultural and mineral products led to its position as a leading trading nation to fall dramatically throughout the 1970s and 1980s as demand for agricultural and primary products fell behind that of growth in manufactured goods. Australia's ranking as an exporting nation slipped from

twelfth in 1973, to twenty-second in 1990. This ranking continued to fall throughout the 1990s and by 2000 Australia's ranking had fallen to twenty-fifth in the world (WTO, 2001).

This has led to Australia's reliance on exports of primary products falling from 75% in 1983-84 to just over 56% in 1999. At the same time, Australia has developed its manufacturing industries particularly in the area of sophisticated manufactures (or elaborately transformed manufactures) that have averaged an annual average growth rate of 13% over the last ten years. Exports of goods and services averaged 7% growth over the past five years and by 1999, merchandise exports totalled A$87 billion and service exports A$27 billion. This accounts for 19% of GDP, compared with around 15% in the mid 1980s (DFAT, 2001).

Not only has the composition of Australia's exports changed, so has the direction of its export flows. Over the last three decades, there has been a gradual change in Australia's main export markets away from Europe, to countries in the Asia-Pacific region. Now seven Asian markets are positioned in Australia's top 10 export markets. They are Japan, Korea, Taiwan, China, Singapore, Hong Kong and Indonesia. As mentioned earlier, Thailand is Australia's twelfth largest export market. These changes in the direction of Australia's exports can be attributed in part to Australia's geographical proximity in the region as well as significant complementarity in the type of goods and services exchanged (Feaver and Mahmood, 1997).

It was this export dependence on the Asian region which placed significant pressure on Australian exporters during the Asian crisis. Their ability to seek out new export

markets during the Asian crisis enabled Australia to escape relatively unscathed from the regions economic downturn.

Australia's trade policy integrates multilateral, regional and bilateral approaches in an attempt to ensure the best possible trading environment for Australian exporters. Given Australia's small, trade dependant economy it is vital for Australia that the world trading system can be opened through an effective World Trade Organisation (WTO). Australia's trade and environment policy is based on the position that an open, equitable and non-discriminatory multilateral trading system delivers increased living standards and makes a vital contribution to efforts to protect and conserve environmental resources and promote sustainable development (Australian Government, 2002). Australia's main objective in the current WTO round of negotiations is to secure substantial improvements in market access across the board in agriculture, industrial products and services.

As well as being a strong supporter of the multilateral trading system, Australia is actively pursuing regional and bilateral initiatives which can speed up the process of trade liberalisation, particularly on a regional level. Such initiatives include free trade agreements with Thailand as previously discussed, Singapore, and possibly the United States. As well, developing initiatives directed at improving economic relations with Japan and China, and continuing to push APEC's agenda and the AFTA – CER Closer Economic Relationship Partnership initiative (Australian Government, 2002).

The customs tariff remains Australia's main trade policy instrument yet it contributes only 2.3% of total tax revenues. Most of Australia's tariffs are bound (96.2%) which

enables a high level of predictability to the tariff rates. The average applied Most Favored Nation (MFN) tariff is 4.3% while the average MFN tariff for agricultural products is only 1.2% compared to4.7% for industrial products (World Trade Organisation, 2002). More than 80% of all tariff lines are at or below 5% with approximately 45% having a zero tariff. Australia's average tariff rate is only 4.4% (3.0% for developing countries and 1.72% for Least Developed Countries).

Despite Australia's overall low tariff structure, there are two key industry sectors which still maintain high tariffs, passenger motor vehicles, and textiles and clothing and footwear. The tariffs on these industry sectors are two to three times higher than the average for industrial products. However, Australia is currently implementing a program to significantly reduce tariff protection in these industries through to 2005.

### 3.4.2 Australia's Exports to Thailand

Australian exports to Thailand have grown from US$103 million in 1978 to A$1.96 billion in the year 2000. Thailand is also an important market for Australian services, with service exports totalling A$476 million. As can be seen in Figure 3.0.1, Australian exports to Thailand showed strong growth in the years preceding Thailand's economic crisis. This is not surprising given that Thailand led the world in average GNP per capita growth from 1985-1994 at more than 8% a year. Thailand has opened itself to the global economy and by 1999 its ratio of trade to GDP had climbed to 82% from 39% in 1977.
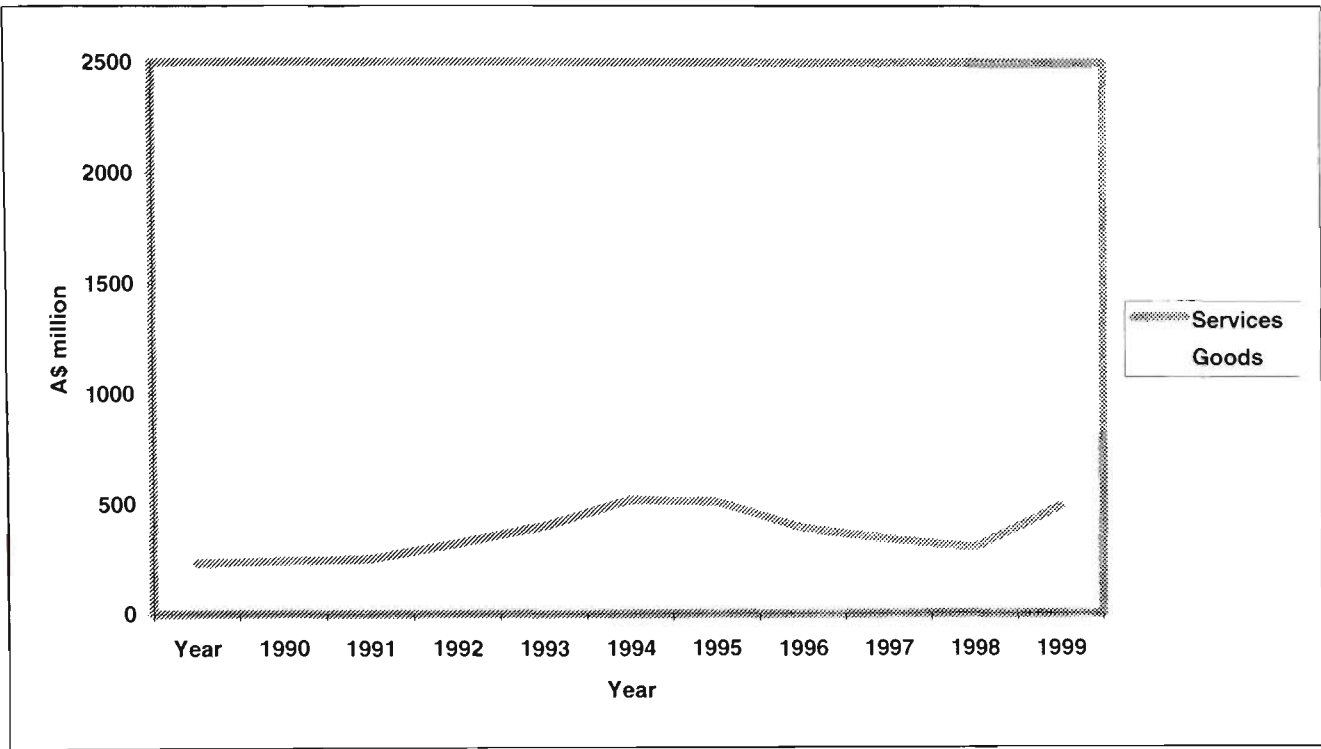
**Figure 3-0-1   Australian exports of goods and services to Thailand**

Despite the rapid growth in Australia's exports to Thailand, Australia's market share of Thailand's imports has shown modest growth. From around 1.7% in 1985, it has only managed to increase to 2.0% in 1999 much smaller than the market share Australia enjoys in other Asian markets including Indonesia (6.1%), The Republic of Korea (3.9%) and Japan (4.1%). Thailand is now Australia's twelfth largest export market. Australia's major exports to Thailand are aluminium, crude petroleum and dairy products such as milk, powder and butter, pearls and some precious stones, paints, varnishes and pigments, and a significant amount of wool.

Australian service exports likewise showed strong growth preceding the economic crisis in 1997 showing an average 22% growth reaching A$516 million in 1996. However, the economic crisis caused Australian exports of services to Thailand to slump by 19% in 1997 and a further 7% in 1998. Exports of services recovered slightly in 1999 to

reach A$374 million. Australia's most important service exports to Thailand are in the tourism, transport and education industry.

Australia has run a trade deficit with Thailand since the Asian crisis and by 2000 the deficit totalled almost A$1075 million. This was primarily due to the Asian crisis affecting Thailand's demand for Australian imports and at the same time, the huge depreciation in the Thai currency against the Australian currency contributed to strong growth in Australian demand for Thai exports. Table 3.0.2 presents the trade balances in merchandise trade and services between Australia and Thailand.

**Table 3-0-2  Trade Balances in Merchandise Trade and Services between Australia and Thailand**

|  | 1991 | 1996 | 1997 | 1998 | 1999 | 2000 |
|---|---|---|---|---|---|---|
| **Exports** | 906 | 2,194 | 2,058 | 1,634 | 1,715 | 2,435 |
| **Imports** | 887 | 1,504 | 1,766 | 2,200 | 2,773 | 3,510 |
| **Trade Balance** | 19 | 690 | 292 | -566 | -1,058 | -1,075 |

**Source: DFAT(2002a)**

A key finding of the Joint Scoping Study into the proposed Bilateral Free Trade Agreement between Australia and Thailand is that Australia Thailand trade is quite complementary. Thailand has a large surplus in trade in elaborately transformed manufactures (ETMs), while Australia has a surplus in agricultural raw materials, minerals, metals and fuels. Thailand also maintains a surplus in trade of both unprocessed and processed food.

The strong growth in Australian exports to Thailand since the mid 1980s can be explained by a number of factors. Firstly, the massive growth in the Thai economy with

GDP growth rates from 1986-1996 averaging in excess of 10%. Secondly, the growing regionalisation of Australia's trade into the Asia-Pacific region where the flow of Australian exports to the APEC region increased from 67.5% of total exports in 1984 to 77% in 1994. Thirdly, Australia's willingness, particularly during the Keating years, to attempt to strengthen ties with its Asian neighbours has contributed to the strong growth in exports to Thailand. And finally, as is made clear in this thesis, the incredible growth in overseas student numbers from Thailand has stimulated trade between the two countries.

### 3.4.3 Australian Merchandise Exports to Thailand by Sector and Product

Traditionally, Australian exports to Thailand have been dominated by manufacturing products. In 1996, manufactures totaled more than 50% of merchandise exports while just over 25% were primary products. The Asian crisis affected manufactures much more than primary products and by 2000, manufactured exports were only modestly above pre-crisis levels. As a consequence of this, primary products now account for over 40% of total exports. Table 3.0.3 shows Australia's exports to Thailand by major category.

Table 3-0-3 Australia's exports to Thailand by major category

| Item | 1991 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 |
|---|---|---|---|---|---|---|---|
| Unprocessed food | 38.0 | 14.6 | 16.2 | 19.2 | 15.8 | 17.6 | 33.7 |
| Processed food | 51.7 | 143.4 | 191.6 | 173.7 | 184.9 | 191.6 | 205.3 |
| Other rural | 63.5 | 139.1 | 148.1 | 181.8 | 240.5 | 260.6 | 306.7 |
| Minerals | 10.8 | 50.8 | 53.2 | 45.8 | 45.5 | 71.2 | 98.8 |
| Fuels | 44.3 | 40.3 | 55.5 | 159.4 | 13.9 | 31.3 | 170.8 |
| STMs* | 208.5 | 453.1 | 390.9 | 346.9 | 272.8 | 300.5 | 425.5 |
| ETMs* | 214.1 | 547.2 | 482.5 | 450.9 | 248.2 | 315.3 | 418.4 |
| Other Exports | 63.6 | 349.0 | 340.2 | 273.6 | 258.8 | 253.5 | 299.5 |
| All Merch. Exports | 694.5 | 1737.5 | 1,678.3 | 1,651.4 | 1,280.5 | 1,441.6 | 1,958.5 |

STMs are simply transformed manufacturers, while ETMs are elaborately transformed manufacturers

Source: DFAT (2002a)

Table 3.0.3 highlights the large impact the Thai economic crisis had on Australian exports as well as the subsequent rebound that has taken place in 1999-2000. Strong growth has occurred in minerals, fuels, STM and ETM exports since 1991.

The top Australian exports to Thailand by specific products are listed in Tables 3.0.4 and 3.0.5. Products showing strong growth include cotton, medicaments, and telecommunications and equipment. After collapsing at the time of the Asian crisis, exports of passenger motor vehicles have recovered to show strong growth since 1999.

**Table 3-0-4 Australia's top 10 rural and mineral exports (A$ million)**

| Item | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 |
|------|------|------|------|------|------|------|
| Cotton | 74.7 | 96.1 | 173.0 | 188.4 | 221.5 | 247.8 |
| Crude Petroleum | 43.7 | 147.2 | 6.9 | 26.0 | 160.9 | 150.8 |
| Milk & Cream | 111.7 | 100.4 | 105.3 | 98.6 | 102.5 | 108.5 |
| Other Ores | 44.3 | 40.4 | 38.8 | 63.5 | 85.1 | 75.4 |
| Wool | 63.2 | 76.4 | 52.2 | 57.6 | 69.1 | 71.0 |
| Food & Live Animals | n.a. | 18.2 | 15.5 | 17.5 | 18.5 | 24.5 |
| Cereal Preparations | 10.5 | 9.4 | 20.8 | 21.0 | 26.0 | 44.9 |
| Butter | 32.3 | 23.8 | 20.8 | 26.3 | 22.6 | 23.6 |
| Raw Hides & Skins | 6.8 | 4.5 | 10.6 | 8.2 | 10.4 | 20.3 |
| Vegetables & Fruit | Na | 14.1 | 8.6 | 9.5 | 15.2 | 17.2 |

**Table 3-0-5 Australia's top 10 manufactured exports (A$ million)**

| Item | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 |
|------|------|------|------|------|------|------|
| Aluminums | 238.7 | 196.7 | 168.6 | 152.2 | 242.2 | 377.2 |
| Copper | 38.4 | 38.2 | 7.4 | 31.1 | 73.4 | 106.0 |
| Medicaments | 29.7 | 37.0 | 27.6 | 42.6 | 64.4 | 107.2 |
| Telecommunications Equipment | 7.7 | 12.2 | 7.8 | 13.3 | 47.3 | 33.3 |
| Pigments, paints, varnishes | 23.7 | 24.7 | 16.2 | 25.7 | 36.4 | 36.7 |
| Passenger motor vehicles | 31.4 | 14.6 | 1.6 | 28.7 | 32.7 | 26.1 |
| Toy games and sporting goods | 2.9 | 1.6 | 1.5 | 1.6 | 9.5 | 28.1 |
| Leather | 13.1 | 8.5 | 10.7 | 31.2 | 20.3 | 18.2 |
| Electricity distribution equipment | 24.7 | 21.9 | 7.9 | 0.7 | 1.7 | 13.8 |
| Electrical equipment for circuits | 8.5 | 9.1 | 3.2 | 2.5 | 5.8 | 13.3 |

The Thai government is committed to free trade. Prior to the economic crisis, Thailand commenced restructuring and reducing tariff levels in order to fulfil its commitments to the WTO and AFTA agreements. By 1997 the Government had completed its objective of reducing manufacturing trade barriers and tariff band numbers from thirty-nine to six. It now plans to further reduce the number of tariff bands down to three. Despite Thailand's simple average tariff rate declining from 44% in 1991 to 17% in 1997, Thailand's market remains relatively protected compared to other growing economies in the Asian region. In 1999, Thailand, along with China, had the regions highest simple average tariff rate. The Thai rate was double Malaysia's rate and 60-70% higher than the Phillipine and Indonesian tariffs (East Asian Analytical Unit, 2000). Thailand's six

band tariff system operates on the basis of the higher the import's foreign value-added component, the higher the tariff rate applied.

The six bands are:

1. 0% for most industrial raw materials and essential goods, such as medical equipment;

2. 1% for selected raw materials, electronic parts and vehicles for international transport;

3. 5% for primary and capital goods;

4. 10% for intermediate goods;

5. 20% for finished products;

6. 30% for goods needing special protection.


The Thai government is currently considering revamping this existing tariff structure and replacing it with a new simplified system where products will be placed into four different categories: 1) raw tariffs which would attract a tariff of 1%, 2) semi-finished products 5%, 3) finished products 10% and 4) 'products under special control' 20%. This clearly illustrates the trade possibilities available to Australian exporters as the Thai market continues to open itself to foreign producers.


Australian exporters generally face tariff barriers higher than those suggested above as certain sectors or sub-sectors are exempt from this tariff structure. Because of this, Thailand's simple average tariff rate of 18% is comparatively high compared to other East Asian countries. Currently, there are a number of import lines where tariffs exceed 30%, particularly in areas of Australian export specialisation. For example, automotive

components (from 5 to 40% for parts), fruit (30%), wine (55.2%), rice (52%), beef (60%), fish (60%) and dairy products (216%) (DFAT, 2002a).

### 3.4.4 Australian Service Exports to Thailand

Throughout the 1990s up until the Asian crisis, there was strong growth in Australian service exports to Thailand and by 1995 Australian service exports totalled A$526 million. The Asian crisis had a significant negative impact on Australian service exports to Thailand and by the end of 1998 exports had slumped to A$354 million, more than 30% lower than in 1995. As the Thai economy slowly recovered, growth in Australian exports of services to Thailand improved and by 2000 totalled A$476 million. This accounts for 1.5% of total Australian services exports. This figure is composed of $290 million worth of travel services, A$132 million worth of transportation services, and A$54 million of other services to Thailand. Education-related travel exports totalled A$142 million in 1999-2000 reflecting Australia's popularity as an education destination for Thai students. As mentioned earlier, Australia is now the preferred overseas destination for Thais seeking an overseas education, overtaking the United States in 2002.
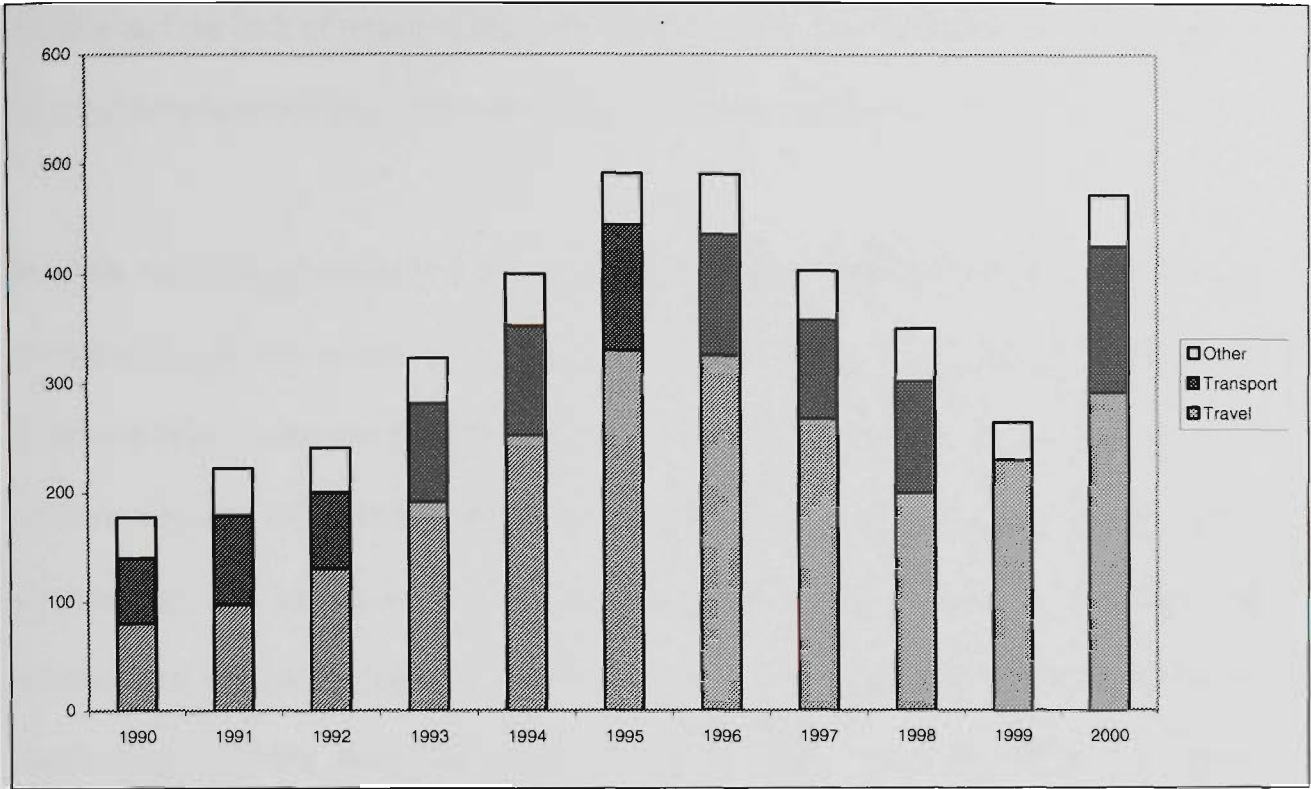
**Figure 3-0-2   Australian exports of services by type**

**Source: DFAT(2002a)**

Australian companies provide a wide range of services to Thailand including engineering, construction services and materials, manufacturing, agriculture and foodstuffs, banking and insurance, education, transport, and legal services. However, many service sectors still remain strongly protected despite the relaxation of laws during the 1997 financial crisis. Thailand is slowly opening up its financial services sector to foreign investment as part of its obligations to the World Trade Organisation's General Agreement of Trade in Services (GATS).

A review of the trade policies and practices of Thailand undertaken by the Trade Policy Review Body of the WTO in 1996, stated that Thailand had appeared to be taking a cautious and restrictive approach to opening market access for services and that the limit on foreign equity holdings were regarded as excessively strict for areas such as banking and insurance (World Trade Organisation, 1996). The collapse of the private Bangkok Bank of Commerce in June 1996, which cost taxpayers more than $2 billion,

highlighted the lack of transparency in the country's financial institutions and the failure

of regulators to police the system adequately (Business Monitor, 1996).

In 1999, the Thai government introduced a new Foreign Business Act allowing foreign

investors improved access to Thailand's service sectors, reducing the number of

restricted business sectors from 63 to 43 and importantly, allowing for foreign investors

to have majority ownership of shares in a range of sectors including accounting, legal,

engineering and architectural services, tourism and hotel business, retailing and

wholesaling, brokerage, and construction. Table 3.0.6 highlights the limitations on

market access facing Australian firms wishing to enter a range of Thailand's service

sectors.

Table 3-0-6 Limitations on Market Access in Thailand's Service Sectors

| Sector | Domestic Regulation |
|--------|---------------------|
| Banking | The banking sector has been liberalised as a result of the 1997 crisis, so that foreign investors can in effect hold up to 100% of equity for a transitional period of 10 years. However, foreign bank branches are subject to operational restrictions, including limitations on personnel (a limitation of six professionals in full branches) in their use of automatic teller machines and in terms of the number of branches they operate (a limit of 3, with no more than 1 in Bangkok). |
| Insurance | Foreign Insurance companies operate extensively in Thailand, but require a licence to do so. Foreign participation in Thai companies is restricted, with a 25% equity limit (legislation to raise this limit to 49% has not yet been approved). Extensive regulations limit the operations of insurance companies and the products they can offer. |
| Business Services | Accounting (auditing), civil engineering, architectural services and brokerage are among services which are closed to foreign professionals (though it is possible for them to operate as advisers and consultants under some circumstances). |
| Accountancy | There are restrictions on foreign equity participation (majority ownership requires special approval) and foreign individuals cannot be licensed as certified public accountants. |
| Legal Services | Majority equity participation in Thai companies requires special approval. Foreign nationals cannot practise law. |
| Education | Foreign institutions are required to collaborate with Thai partners in the establishment of in-country operations and foreign equity is restricted to a ceiling of 49%. There is a growing presence of Australian universities entering into twinning program arrangements with Thai Educational institutions allowing for part of the student's overseas degree to be studied in |

| | Thailand. There are no restrictions on Thai students studying abroad. |
|---|---|
| **Air Transport** | Limitations apply to foreign equity investment (currently capped at 30%). Servicing is limited to local suppliers for larger aircraft. There are significant restrictions on foreign courier services. |
| **Energy Services** | Foreign companies can particiate in the energy sector as independent power producers in partnership with Thai companies, but are not currently able to supply electricity direct to consumers in either retail or wholesale markets. |

**Source: DFAT (2002a)**

## 3.5   The Development of Thailand's Export Sector

Prior to World War II, Thailand's economy was agrarian based. By 1950, Thailand was regarded as one of the poorest countries in the world, having just completed a century of zero growth of output per head of population. In 1960, the Government implemented the first of its National Economic and Social Development Plans (1961-1966) This and subsequent plans were intended to provide direction and stimulus to various sectors of the Thai economy and the aggregate economy as a whole. The first two plans prior to 1971, concentrated on the rural sector and the expansion of agricultural production as well as the manufacturing sector through investment in areas such as transport, power generation, irrigation projects and communications (DFAT, 1995). This led to significant export markets in crops such as cassava, sugar cane and pineapples as well as in manufactured goods such as textiles and clothing.

Since the mid-1970s, Thailand has implemented export-oriented trade strategies. Foreign Direct Investment (FDI) flows flooded Thailand from countries such as Japan, Taiwan, Singapore, Hong Kong, Korea and the United States, who were attracted to the low labour costs in Thailand. This led to an explosion in exports of labour intensive

manufactures. By 1987, Thailand's economy was no longer dependent on the export of commodities but on the export of light industrial products and processed foods.

The rapid development of the Thai export sector can to a large extent be contributed to the boom in foreign investment it received during the mid to late 1980s. Between 1989 and 1995, the annual net inflow of foreign investment multiplied ten times. The inflow of the last three years of the 1980s was greater than the total foreign investment of the previous thirty (Baker and Phongpaichit, 1996). Two-thirds of this investment came from Japan and the four 'tiger' economies in Asia – Hong Kong, Korea, Taiwan and Singapore, and consisted of classic cheap-labour industries such as textiles and garments. By 1990, the textile and garment industry employed almost a million people and textile and garment exports had multiplied eleven times over the 1980s. The Government's decision in 1986 to raise foreign equity holdings paid handsome dividends in the three years, 1986-1989. Approximately 40-50% of the investments approved by the Board of Investment were for projects that would export 80-100% of their output (Parnwell, 1996).

Investment was also made in labour-intensive assembly portions of the electrical, and automotive industries. Foreign companies, which had previously come to Thailand to supply the Thai domestic market and circumvent the high tariff barriers, were now expanding their production base to satisfy export markets.

Investment by Japanese companies in the period 1988-1993 totalled approximately US$3.8 billion while Hong Kong, Korea, Taiwan and Singapore invested a further US$4 billion. A large portion of this investment went into major infrastructure projects

and medium tech industries such as the semiconductor sector (Citibank, 1996).

Between 1989 and 1995, total exports in the semiconductor sector tripled to 50 billion

baht. Growth in the manufacturing of computer parts increased at an even faster rate.

From an almost negligible export base in the mid 1980s, by 1995 exports exceeded 90

billion baht which more than doubled the value of rice exports.

This huge influx of foreign investment sparked a boom in domestic corporate

investment, which grew six times in the late 1980s to reach 700 billion baht a year in

the early 1990s, equal to around 25% of GDP (Baker and Phongpaichit, 1996). A

number of the larger Thai conglomerates entered into joint-venture arrangements with

foreign companies which enabled them to move into more sophisticated, capital-

intensive projects.

However this process was not only restricted to the large Thai conglomerates, in fact it

was the small to medium sized companies that took advantage of the huge inflows in

foreign capital. Many of these companies developed export potential using cheap

labour combined with locally available raw materials such as fruit and vegetables,

woods, gems, seafood and leather products.

In 1996 cracks began appearing in the seemingly indestructible Thai economy. GDP

growth fell to 6.7%, much of this due to a slowdown in export growth. Rising labour

costs, a lack of skilled labour and new technologies, and a strong baht that was pegged

to the US currency, was weakening Thailand's competitive advantage. As Thailand's

current account deficit grew, creditors lost confidence in the Thai economy and

speculators began attacking the baht, leading to a devaluation of the Thai baht in July 1997 and the onset of Thailand's economic crisis.

During the crisis, exports suffered much less than other parts of the economy mainly due to the large fall in the value of the baht that at one stage fell to 56 baht per US dollar, a 55% decline. Exports fell by 3.8% in 1997 and 6.8% in 1998. But by 1999, exports had recovered quickly growing by over 7% and slowly lead the economy to a mild recovery.

### 3.5.1 Australian Imports from Thailand

The strong growth in Thai exports is reflected in Thailand's exports to Australia, which have grown from US$37 million in 1978 to A$2.81 billion in the year 2000. Australia now accounts for 2% of Thailand's total exports and is Thailand's eleventh largest export market. Since the collapse of the Thai baht in 1997, that led to a 35% depreciation against the Australian currency, Australia's imports of merchandise and services has grown rapidly.

### 3.5.2 Merchandise Exports by Sector and Product

Thailand's merchandise exports to Australia are dominated by manufactured goods. Between 1998 and 2000, manufactured products made up approximately 69-74% of total merchandise exports compared to agricultural products which made up approximately 6-11%.

As Table 3.0.7 and 3.0.8 illustrates, exports of manufactured and mineral goods have been growing strongly and made up 82% of total merchandise trade between Australia

and Thailand in 2000. Conversely, over the period 1996 to 2000, exports of agricultural and agro-industrial products have been declining and their proportion of total Thai exports has fallen from 33% in 1996 to 17% in 2000.

Table 3-0-7  Structure of Thailand's exports to Australia (A$ milllion)

| Item | 1991 | 1996 | 1997 | 1998 | 1999 | 2000 |
|---|---|---|---|---|---|---|
| Agricultural products | 55 | 100 | 115 | 108 | 110 | 98 |
| Agro-Industrial products | 115 | 178 | 180 | 163 | 192 | 183 |
| Manufacturing products | 269 | 524 | 625 | 682 | 980 | 1,224 |
| Mineral products and fuel | 23 | 39 | 13 | 22 | 26 | 124 |
| Others | 4 | 3 | 15 | 5 | 8 | 7 |
| Total | 466 | 844 | 948 | 980 | 1,316 | 1,636 |

Table 3-0-8  Structure of Thailand's exports to Australia (Proportion%)

| Item | 1991 | 1996 | 1997 | 1998 | 1999 | 2000 |
|---|---|---|---|---|---|---|
| Agricultural products | 11.72 | 11.88 | 12.12 | 11.02 | 8.36 | 5.98 |
| Agro-Industrial products | 24.67 | 21.09 | 18.95 | 16.63 | 14.58 | 11.16 |
| Manufacturing products | 57.68 | 62.09 | 65.92 | 69.93 | 74.44 | 74.78 |
| Mineral products and fuel | 4.91 | 4.59 | 1.36 | 2.22 | 2.02 | 7.58 |
| Others | 1.03 | 0.44 | 1.65 | 0.55 | 0.61 | 0.47 |

Source: DFAT (2002a)

Thailand's major export products include motor vehicles for the transport of goods (Australia is now the major export market for Thai fully built-up passenger cars and light commercial vehicles), heating and cooling equipment, prepared seafood, computers, and television and telecommunications equipment. Tables 3.0.9 and 3.0.10 display Thailand's principal agricultural and manufacturing exports respectively.

Table 3-0-9 Thailand's Major Agricultural Exports to Australia (US$ million)

| Item | 1997 | 1998 | 1999 | 2000 | 2001 |
|---|---|---|---|---|---|
| Frozen Shrimp | 55.2 | 60.4 | 57.8 | 42.7 | 54.0 |
| Canned Fish | 65.8 | 57.5 | 75.9 | 65.5 | 45.4 |
| Pet food | 24.3 | 18.5 | 20.4 | 15.7 | 20.7 |
| Prepared fish and shellfish | 12.0 | 11.2 | 13.3 | 11.7 | 15.4 |
| Rice | 19.4 | 15.2 | 17.9 | 21.6 | 14.3 |
| Wheat Products | 13.1 | 13.7 | 13.1 | 12.1 | 12.7 |
| Prepared and preserved fruits | 12.8 | 10.9 | 14.6 | 13.9 | 10.1 |
| Rice products | 3.2 | 4.8 | 7.9 | 10.3 | 8.8 |
| Sauces | 8.9 | 7.6 | 8.2 | 8.2 | 8.7 |
| Frozen cuttle fish, squid and octopus | 5.9 | 4.8 | 5.4 | 5.3 | 7.5 |

Table 3-0-10 Thailand's Major Manufacturing Exports to Australia (US$ million)

| Item | 1997 | 1998 | 1999 | 2000 | 2001 |
|---|---|---|---|---|---|
| Vehicles | 74.4 | 96.0 | 331.2 | 444.7 | 305.2 |
| Air-conditioners | 49.6 | 72.4 | 62.8 | 78.6 | 93.7 |
| Crude Oil | 0.0 | 3.9 | 7.7 | 92.8 | 87.4 |
| Computers | 69.8 | 64.2 | 63.6 | 82.5 | 53.7 |
| Chemicals | 10.2 | 15.8 | 19.9 | 40.0 | 42.1 |
| Iron and steel products | 23.1 | 28.2 | 37.7 | 53.1 | 39.7 |
| Plastic products | 42.4 | 37.7 | 38.6 | 40.2 | 39.6 |
| Paper and pulp | 13.2 | 15.0 | 23.5 | 27.6 | 34.6 |
| Televisions | 54.3 | 46.8 | 39.2 | 36.8 | 31.9 |
| Rubber products | 20.6 | 23.3 | 22.2 | 27.1 | 31.2 |

Source: DFAT (2002a)

Factors explaining the strong increase in imports from Thailand are the strong reduction in tariff barriers in the Australian market, the influx of FDI flows into the Thai economy throughout the mid to late 1980s which in turn caused the rapid growth in labour intensive exports in goods including cars, telecommunications and computer equipment; and this thesis argues that the large increase in student numbers from Thailand studying in Australia has facilitated trade expansion between the two countries. Thai exporters have relatively few barriers to overcome in accessing the Australian market. However, the Thai government has expressed concern about Australian quarantine procedures, particularly in relation to fresh fruit and frozen prawn imports (East Asian Analytical Unit, 2000). Australian tariffs are much lower than those in Thailand with 85% of Australian tariffs between 0 to 5% and the simple average tariff at 4.4%. However, as is the case with Thailand's tariff system, tariff rates can fluctuate significantly between sectors. The three main sectors with the highest tariff rates are textiles (25%), clothing and footwear (15%) and automobiles (15%). Of Thailand's main export products, the following tariff rates apply: air conditioners, televisions and microwave ovens (5%); automotive air conditioners (15%); jewellery and accessories (0 – 5%); and fruit and vegetable juice (5%) (DFAT, 2002a).

Apart from tariff barriers, a common criticism targeted at Australia's trade policy is its extremely strict quarantine regime. This can often make it difficult for Thai exporters to access the Australian market in a range of agricultural and food products including mango, durian, pineapples, mangosteen, frozen chicken, boiled chicken and shrimp. The Australian government argues that it is necessary to maintain such a conservative quarantine regime to provide appropriate security against the entry of unwanted pests and diseases which could threaten agricultural production and the natural ecosystems

which are so important to the Australian economy. The government also contends that Australia's quarantine regime has been developed in accordance with its international rights and obligations derived from the WTO Agreement on the Application of Sanitary and Phytosanitary Measures (SPS). The SPS Agreement defines the basic rights and obligations of WTO member countries to use measures necessary to protect human, animal or plant life including measures to test, diagnose, control, isolate and eradicate pests and diseases (Department of Agriculture, 1998).

### 3.5.3 Thailand Service Exports to Australia

As Thailand is a developing economy, its economy has traditionally relied upon agricultural-based products. Over the last twenty years, Thailand has also developed a comparative advantage in manufacturing. Hence, the services component of the Thai economy is relatively small and has fluctuated between 15-20% over the past decade. Trade in services between Thailand and Australia is composed of tourism, transport, cultural and recreational services. In 1999-2000, exports of services to Australia totalled US$318 million or 2.1% of total Australian services exports. Service exports to Australia have been trending up over the past decade and are becoming a more important component of total trade between the two countries. Thailand's service exports to Australia are dominated by travel services (US$209 million), followed by transport (US$90 million), and other services (US$19 million) (DFAT, 2002a).

One of the sectors identified by the Thai government which they believe has strong potential is health-related services encompassing the herbal industry and spa resort providers who offer spa treatment and massage services to clients. Thailand is seeking to develop exports of services in comprehensive medical training, clinical practice and

research into alternative medicine. Thailand is currently well advanced in its research on an AIDS vaccine and is positioning itself as a regional hub in this particular field. As in many economies, Australia restricts access to its mainstream health services through registration and service standards criteria. However, Thai therapists and health instructors, will be well positioned to benefit from the liberalisation of the Australian services sector, arising from the Free Trade Agreement between Australia and Thailand, scheduled to commence in 2005.

Thailand has also expressed a desire to position itself as a regional hub for education and training services. A key component to the success of this policy is for Thai institutions to develop effective linkages and partnerships with overseas educational institutions to enhance the quality of services it can offer within the region. Australian institutions are actively seeking to develop offshore programs in the Thai market which will assist Thailand in achieving their stated objective. As mentioned earlier, a recent policy change by the Thai government is now actively encouraging public Thai universities to offer international degree programs in conjunction with overseas institutions. This should assist Thailand developing into a regional education hub.

Traditionally, most economies have been relatively slow to open their markets to overseas service providers. This is not surprising, because the GATT agreement did not cover trade in services until the creation of the General Agreement on Trade in Services (GATS) in 1994. Although Australia has been quite active in liberalising certain service sectors such as banking and finance, and its telecommunications sectors, there still remains significant barriers to entry in a wide range of service sectors. Figure 3.0.3 details Australia's limitations on market access in a range of service sectors.

**Figure 3-0-3 Limitations on market access in service sectors in Australia**

| Sector/Subsector | Domestic Regulation |
|---|---|
| **Business Services**<br><br>**Professional Services** | Legal Services: People practising foreign law in the States of New South Wales and Victoria and in the Northern Territory may do so on their own account or in partnership with local lawyers and may employ local lawyers. In the States of Western Australia and Queensland, there are no regulations regulating the practice of foreign law by foreign lawyers. In South Australia foreign lawyers are permitted to practise foreign law.<br><br>Accounting, auditing and book-keeping services: Only natural persons may be registered as auditors and liquidators |
| **Financial Services**<br><br>**Insurance and**<br><br>**insurance-related**<br><br>**services** | Approval of non-resident life insurers is restricted to subsidiaries<br><br>Registered foreign life insurance companies are required to have a principle officer resident in Australia<br><br>An authorised insurance company operating in Australia as a non-incorporated entity must appoint an Australian resident as agent of the insurer.<br><br>Most State and Territory Governments maintain restrictions, by way of monopolies or licensing provisions and associated controls on premiums and other terms of policies, in the same areas of insurance. |
| **Banking and other**<br><br>**Financial Services** | A foreign bank located overseas is able to offer its services to Australian enterprises, but is not allowed to raise funds in Australia or undertake business within Australia unless it is an authorised bank (or establishes a money market corporation, subsidiary etc.).<br><br>Foreign exchange transactions within Australia (including foreign exchange derivations) may be effected through a licensed foreign currency dealer, however this is not necessary where the transaction is settled immediately, or where the person is dealing on their own account.<br><br>Foreign banks may undertake banking operations in Australia through an |

| | |
|---|---|
| | authorised branch, however, a branch may not accept "retail" deposits. A foreign bank wishing ton accept "retail" deposits must seek authorisation as a locally-incorporated subsidiary for that purpose. Foreign bank branches may accept deposits (and other funds) in any amount from incorporated entities, non-residents and their own employees. Deposits (and other funds) may only be accepted from other sources where the initial deposit (or other funds) is greater than A$250,000. Deposit-taking outside of this is considered to be "retail" banking business.<br><br>Any person (foreign or domestic) wishing to control or hold a stake of greater than 15% in a financial sector company (which includes banks, general insurers and life insurers) would require the Treasurer's approval as governed by the *Financial Sector (Shareholdings) Act 1998* |
| **Transport Services**<br><br>**Maritime transport**<br><br>**services** | Liner Shipping: Part X of the *Trade Practices Act 1974* requires that every ocean carrier which provides international liner cargo shipping services to and from Australia, shall at all times, be represented for the purpose of the Act, by a person who is an individual resident in Australia; has been appointed by the ocean carrier's agent for the purposes of the Act; and is specified in the register of the ocean carrier agents as the ocean carrier's agent.<br><br>*Establishment of registered company for the purpose of operating a fleet under the national flag of Australia*: nationality requirements for ownership and registration of vessels as defined by the *Shipping Registration Act 1981*. A ship can be registered in Australia if more than half the shares are owned by Australian nationals or if it is on demise (bare boat) charter to an Australian-based operator. |
| **Coastal Shipping** | Authorisation to carry coastal cargo is subject to compliance with legislation requiring, inter alia, that the crews of licensed vessels engaging in coastal trades are paid Australian wage rates and that such vessels are not in receipt of subsidies from foreign governments. Unlicensed vessels must obtain a |

| | |
|---|---|
| | Coasting Trade permit before being allowed to carry Australian domestic cargo. Such permits are issued only where no licensed ship is available, and where it is in the public interest.<br><br>Other important provisions include: Australian resident crew members to be subject to Australian income tax; vessels operating on the coast to be imported or have a coasting trade permit; crew operating on the coast to be subject to normal migration rules; Australian standards of safety and rehabilitation apply; and customs duty to be paid on items used on board coastal trading vessels. |
| **Air transport services** | Foreign airlines flying into Australia may acquire up to 25% of equity in a domestic carrier individually or up to 40% on aggregate. Australia's Foreign investment Review Board sectoral guidelines allow foreign persons (including foreign airlines) to acquire 100% of the equity of an Australian domestic airline, unless this is contrary to the national interest. In the case of international Australian carriers except Qantas, foreign airlines may acquire up to 25% of the equity individually or up to 35% on aggregate. In the case of international Australian carriers except Qantas, foreign interests (including foreign airlines) may acquire up to 48% of equity. In the case of Qantas, total foreign ownership may not exceed 49%, with individual and aggregate holdings by foreign airlines limited to 25% and 35% respectively. |

**Source: DFAT (2002a)**

Figure 3.0.3 highlights the openness of the Australian service sector compared to that of the Thai economy. It is much easier for Thai firms to provide services to the Australian market, than it is for Australian firms to operate in the Thai market.

## 3.6    Foreign Investment in Thailand

There are few economies in the world that have been transformed so dramatically and so rapidly by foreign investment flows as the Thai economy during the decade 1986-1996. As discussed earlier in this Chapter, the annual net inflow of foreign investment

into Thailand multiplied ten times between 1989 and 1995. The inflow of the last three years of the 1980s was greater than the total foreign investment of the previous thirty years (Baker and Phongpaichit, 1996). Most of this investment was coming from Japan and the 'tiger' economies, with relatively little investment flowing from Australian companies. The Thai Government's decision in 1986 to raise foreign equity holdings paid handsome dividends in the three years 1986-1989. Approximately 40-50% of investments approved by the Board of Investment were for projects that would export more than 80% of their output (Parnwell, 1996).

A large portion of this investment went into major infrastructure projects and medium tech industries such as the semiconductor sector (Citibank, 1996). Between 1989 and 1995, total exports in the semiconductor sector tripled to 50 billion baht. Growth in the manufacturing of computer parts increased at an even faster rate. From an almost negligible export base in the mid 1980s, by 1995 exports exceeded 90 billion baht which more than double the value of rice exports.

However, by the mid 1990s, FDI flows into Thailand began to slow and the Thai economy weakened. This decline in foreign investment was a result of the growing structural imbalances created by the speed of development over the past decade (Business Monitor, 1996). Education, infrastructure and environmental development have failed to keep up with the rapid changes in the economy. The lack of adequate transport and skilled graduates, combined with traffic congestion and poor air quality, has made Bangkok less attractive to foreign investors. It has been estimated that the cost of Bangkok's jammed roads may amount to 60% of the capital's regional product (Parnwell, 1996).

As a result of the Thai economic crisis and in an attempt to stimulate FDI flows back into the Thai economy, the Thai government has undertaken a series of policy concessions to liberalize its investment regime, granting to all foreigners the same privileges granted to American investors within 10 years. These privileges are outlined in the U.S. – Thai Treaty of Amity and Economic Relations which allows U.S. citizens and businesses incorporated in the U.S. to engage in business on the same basis as Thais (Morrison, 2003). The treaty exempts U.S. businesses operating in Thailand from most foreign exchange restrictions imposed by the Alien Business Decree. The only areas where Thailand restricts American investment is communications, transport, fiduciary functions, banking, the exploitation of land or other natural resources and domestic trade in agricultural products.

### 3.6.1 How Did Thailand Attract Foreign Investment

Why was Thailand able to attract all of this foreign investment? How did it attract foreign investment away from countries like Malaysia whose infrastructure and investment incentives were more attractive, or Indonesia whose resource base was much greater and labor costs lower than Thailand's? There are a number of reasons why Thailand was able to do this. Serious attention by the government to structural economic problems, supported by the World Bank and IMF, and prudent monetary and fiscal policies, enabled Thailand to avoid getting into difficulties during the structural adjustment period of the early to mid 1980's. When the world economy recovered, Thailand was in a position to take full advantage of the changes that had occurred (Parnwell, 1996). Importantly, Thailand was perceived as a good place to do business, as Thai firms were strong partners and responsive suppliers. Also the governments fairly liberal attitude towards foreign investment, highlighted by the few restrictions it

placed on capital inflows and the private sector's ability to operate relatively free of government interference were also deciding factors. All of these factors combined, enabled Thailand to lead the world in average GNP per capita growth from 1985-1994 at more than 8% a year (Citibank, 1996).

**Figure 3-0-4   Thailand Real GDP Growth Rates 1985-1995**
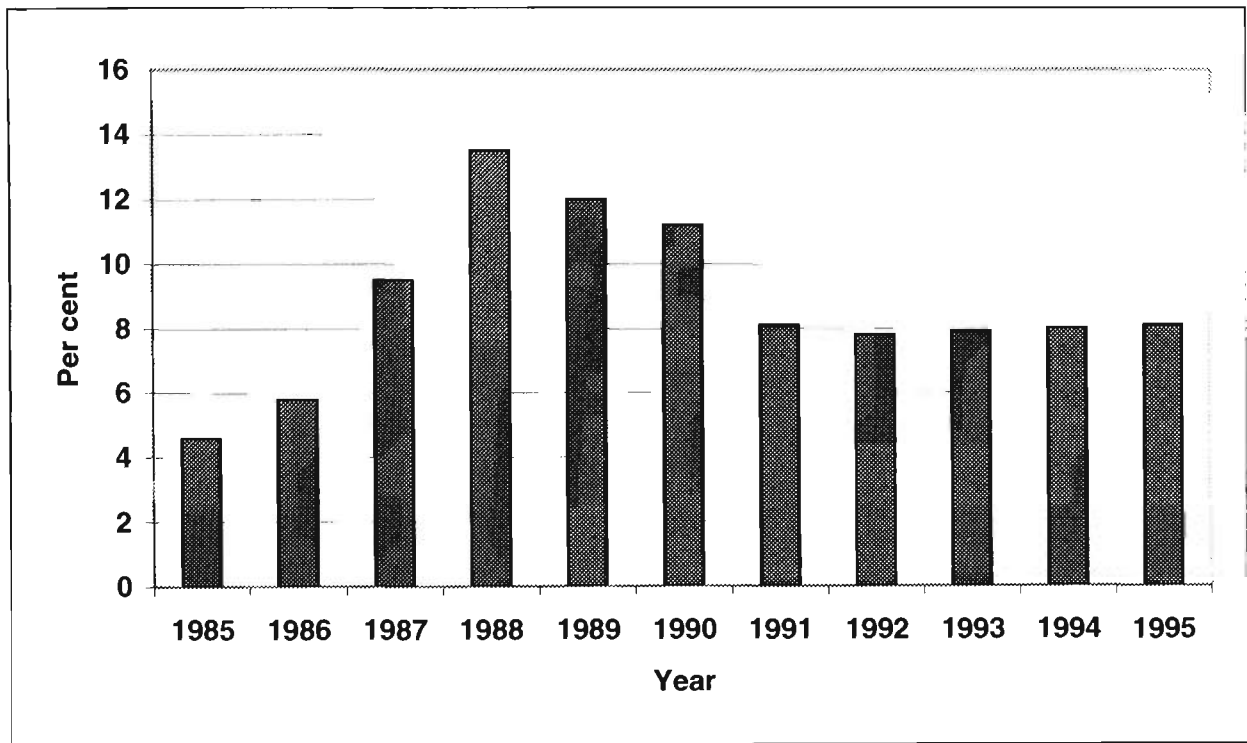


3.6.2   **Present Foreign Investment Regulation in Thailand**

The Board of Investment (BOI) is the main government agency responsible for providing incentives to stimulate investment in Thailand and is governed by the Investment Promotion Act of 1977 which was amended in 1991. The BOI provides support to both foreign and Thai businesses, that are either planning to invest, or have already committed to invest in the Thai economy.

The BOI promotes projects which:

• strengthen Thailand's industrial and technological capability,

• use domestic resources,

- create employment opportunities,

- develop basic and support industries,

- earn foreign exchange,

- contribute to the economic growth of regions outside Bangkok,

- develop infrastructure that conserve natural resources,

- reduce environmental problems (Thailand Board of Investment, 1997).

The BOI is allowed to grant a number of fiscal and non-fiscal incentives and guarantees to investment projects that meet national economic development goals. In addition to investment incentives, the BOI also offers business-related services to investors and potential investors. These services include working with investors to help them obtain the appropriate licenses and permits, and identifying attractive investment projects and joint-venture partners.

Table 3.0.11 lists some of the incentives given to investors under the 1977 Investment Promotion Act.

Table 3-0-11 Incentives given in the 1977 Investment Promotion Act

| Non-tax Incentives | |
|---|---|
| Guarantees | • Against Nationalization<br><br>• Against state monopolization of the sale of products similar to those produced by the promoted project<br><br>• Against price controls<br><br>• Against tax-exempt imports by government agencies or state enterprises<br><br>• Permission to export |
| Permissions | • To bring in foreign nationals to undertake investment feasibility studies<br><br>• To bring in foreign technicians and experts to work on promoted projects<br><br>• To own land to carry out promoted activities<br><br>• To take or remit foreign currency abroad |
| Protection Measures | • Imposition of a surcharge on imports at a rate not exceeding 50% of the CIF value for a period not more than one year at a time<br><br>• Import ban on competitive products<br><br>• Authority by the Chairman to order any helpful actions or tax relief measures for the benefit of promoted projects |

### 3.6.3 Foreign Ownership Controls

The BOI's qualifications relating to foreign ownership are detailed in the Alien Business Law, which prohibits foreigners from holding controlling interests in businesses engaged in a limited number of agricultural and commercial activities (Citibank, 1996). It is hoped that in the near future Thailand will relax further the regulations pertaining to foreign ownership to permit more extensive foreign ownership.

The BOI is authorized to examine on a case-by-case basis the amount of foreign ownership in certain investments of special importance to national development. American companies, as detailed before, also qualify for special exemptions under the Treaty of Amity and Economic Relations between Thailand and the United States.

The Thai government uses a number of criteria when considering approval of foreign investment in a wholly foreign-owned project, or foreign equity participation in a joint venture project to which investment promotion has been granted.

For investment projects in agriculture, animal husbandry, fishery, mineral exploration and mining, or in the service sector, Thai nationals must own at least 51% of the registered capital. However, for projects with investment capital over 1,000 million baht, foreign investors may initially hold a majority or all of the shares but Thai nationals must acquire at least 51% of the registered capital within five years of starting operations.

For manufacturing projects, if the production is mainly for the domestic market, Thai nationals are required to own at least 51% of the registered capital, except for projects which are located outside metropolitan Bangkok, where majority or wholly-owned foreign projects are allowed.

### 3.6.4 Foreign Investment Flows Between Australia and Thailand

Both Australian investment in Thailand and Thai investment in Australia is relatively small. Cumulative Australian investment into Thailand as at June 2000 totaled A$482 million. Australian direct investment inflows into Thailand in 2000 represented only

1% of total Australian FDI abroad and placed Australia tenth among countries providing foreign direct investment into Thailand. To gain an understanding of the relatively small amount of foreign direct investment Australian companies are providing Thailand, one can compare Australia's foreign investment flows into Singapore which equate to 20 times the size of that in Thailand. There are a number of reasons for this, primarily being that the Singapore government is more favorable to foreign direct investment flows while Australian companies have difficulties in the Thai market with work permit and visa problems. It could also reflect a lack of awareness by Australian companies of investment opportunities in the Thai market.

Table 3-0-12 Stock of Australian Investment Abroad (A$ million)

| Country | 1997/98 | 1998/99 | 1999/2000 |
|---|---|---|---|
| USA | 103,223 | 111,334 | 156,672 |
| EU | 82,939 | 79,785 | 101,788 |
| UK | 56,800 | 52,336 | 65,046 |
| Germany | 5,610 | 5,111 | 7,604 |
| Japan | 10,127 | 15,569 | 22,773 |
| New Zealand | 14,483 | 16,636 | 19,815 |
| ASEAN | 7,154 | 10,178 | 14,691 |
| Singapore | 3,716 | 4,851 | 9,676 |
| Indonesia | 1,066 | 2,478 | 2,619 |
| Malaysia | 803 | 1,044 | 671 |
| Phillipines | 535 | 598 | 642 |
| Thailand | 604 | 677 | 482 |
| Others | 69,044 | 65,523 | 60,152 |
| Total | 286,970 | 299,025 | 375,891 |

Source: DFAT (2002a)

The Australian companies that are investing in Thailand operate in a fairly diverse range of sectors including engineering, construction materials and services, manufacturing,

agriculture and foodstuffs, banking and insurance, education, transport, and legal and accounting services. However most Australian investment lies in the manufacturing sector.

Data on Thai foreign direct investment in Australia shows that Thai companies had invested A$115 million in Australia by June 2000. However, as is highlighted in the questionnaire discussed in Chapter Eight of this thesis, there may be a significantly large number of small investments in Australia (primarily property) that would not be captured by official Government data.

## 3.7 Conclusion

In this Chapter analysis was conducted on the bilateral economic relationship between Australia and Thailand with a complete breakdown of flows in goods and services between the two countries. Recent discussions by the Australian and Thai governments and the subsequent agreement to develop a Free Trade Agreement between the two countries will not only stimulate trade between the two countries, but will also stimulate even further the flow of Thai students to Australia and quite likely the flow of Australian students to Thailand. As the Joint Scoping Study into the Free Trade Agreement found, bilateral trade between Australia and Thailand as well as investment flows is much lower than most of Australia's other bilateral trade relationships with East Asian countries, hence there exists a need to examine why such a potential gap exists, and possibly what role development of existing networks between Australia and Thailand can be exploited for bilateral trade to reach its full potential.

# CHAPTER FOUR

# THE INDIRECT ECONOMIC IMPACT OF OVERSEAS STUDENTS - THE LINK BETWEEN OVERSEAS STUDENTS AND TRADE FLOWS

## 4.1 Introduction

Unfortunately, research on the indirect economic effect overseas students have on Australia is limited. As was discussed earlier in Chapter Two, reports on the benefits that overseas students bring to Australia are numerous, including the increased cultural understanding and long-term economic trade linkages that are developed through exposure of local students to overseas cultures. However, research that attempts to quantify and expand on these long-term effects is extremely limited. In this Chapter, attention is focused on the non-direct economic impacts overseas students can have, and in particular the role that network analysis can play, in helping to explain this phenomenon.

## 4.2 The Link Between Overseas Students and Trade Flows

In summary, the reasons put forward in the literature as to why there may be a positive correlation between overseas students studying in Australia and Australia's trade flows with their respective home countries are as follows:

- Overseas students educated in Australia exhibit a preference for importing Australian-made commodities (Holdaway, Bryan et al., 1988; Harris and Rhall, 1993);

- An existence of a pro-Australian attitude;

- Training in Australia emphasises ways of doing things which require the purchase of Australian equipment (Harris and Jarrett, 1990; Altbach, 1991);

- Students become familiar with Australian standards and practices, which increases brand loyalty for Australian products (Altbach, 1991; Industry Commission, 1991);

- The creation of positive attitudes by overseas students towards Australia (Kauffman, Weaver et al., 1992);

- The creation of personal and institutional relationships developed in Australia by overseas students who may be able to facilitate or influence trading liaisons with Australia in the future (Throsby, 1991; Industry Commission, 1991; Review Committee on Overseas Student Policy, 1984; Overseas Student Trust, 1981; Leslie, 1989; Altbach, 1991; Sargent, 1992).

Putting a value on these future trade opportunities has been difficult. In 1983, the Goldring Committee estimated the contribution of foreign students to increased trade, to be less than $3 million per annum. However, given that the total number of overseas students in Australia has increased from 13,800 in 1982, to more than 180,000 in 2000, more than a thirteen-fold increase, if it is assumed that a similar increase in trade flows resulting from foreign students has occurred, this would now approximate at least $40 million.

A UK study (Overseas Student Trust, 1981) undertaken by the Board of Trade in 1969, found that three quarters of the firms responding to a survey of export-oriented enterprises believed that 'training of overseas personnel' was valuable to their exports. The study titled 'Exports and the Industrial Training of People from Overseas' examined on the job industrial training of overseas nationals by British firms in a number of different work disciplines. However, this study was not primarily concerned

with overseas students as only 19% of the 6000 overseas trainees identified in the survey were enrolled in Higher Education courses.

In 1980, The Overseas Student Trust in conjunction with the UK Department of Trade, decided to seek evidence abroad through its own members about the value to them of overseas nationals who had studied in the UK. In particular, an assessment of the benefit to overseas trading operations of the presence in business or government of individuals who had been educated in the UK.

A letter was sent to fifty companies inviting comments on the following questions:

1. What view is taken of the value to your firm's overseas operations of local personnel who have been educated in the UK?

2. Are such people a factor in your company's relations with the local Government, or with your customers or suppliers in the public or private sectors?

3. Can they and do they affect the attitude of the media towards the UK and therefore your relations with the general public in that country?

4. Do competing firms from other trading nations adopt a stance in this matter?

The results from 42 companies that gave substantive replies revealed that 36 out of 42 surveyed companies reported positive benefits to their company, which they believed to be the result of overseas students studying in the United Kingdom. What clearly emerged from the respondents' replies was that UK-educated individuals in the middle and upper levels of Government and business, had a strong cultural affection for the UK, that implied a basic sympathy towards trading links with Britain and was a key factor in securing business. In the narrower context of an export order, the Trust made

the point that price, quality, delivery date, and after-sales service will all influence the

purchaser's decision.  All these factors being equal, a familiarity with a British product,

arising from a period of study in the UK, may be enough to tip the scales in favour of

the British exporter.

A study by Blaug (1981) applied cost-benefit analysis to overseas students in Britain to

determine whether their benefits were indeed greater than their costs.  Blaug identified

that the short and long-run economic benefits fell into four key areas: (i) the market

value of scientific research that some overseas students carry out; (ii) the contribution

that some overseas students subsequently make to British exports; (iii) the contribution

of the spending of all overseas students on the balance of payments; and (iv) the

contribution that all overseas students make to aggregate demand for British goods and

services.  Of interest, is the second category identified by Blaug and the process he used

to see if any relationship exists between overseas student numbers and British exports.

Blaug used data on British exports by countries of sale to determine if any systematic

correlation existed between the number of overseas students coming from a particular

country and the value of UK exports sold to that country $x$ years later.  Blaug calculated

a simple correlation coefficient ($R^2$) between the average growth rate of overseas

students coming to Britain for every country in the world and the average growth rate of

British exports.  Blaug's $R^2$ value of +0.37 implied a relatively strong relationship

between the two variables.  Blaug summed up his research by stating that given the

complex set of factors that influence the country composition of exports, it is not easy to

determine the significance of overseas student numbers on subsequent export flows.

However, he did suggest that it may be possible to analyse the problem using

multivariate regression techniques which would allow the overseas student variable to be singled out whilst other factors are held constant.

A report of the Committee of Review of Private Overseas Student Policy (1984) discussed at length the possible trade and commercial benefits arising from the presence of overseas students in Australia. The Committee was presented with evidence from a wide range of submissions which highlighted these possible trade benefits. As the Committee stated:

> *'It is common sense that in terms of bilateral dealings between particular individuals and organisations there are advantages in dealing with people who have been educated in Australia.'* Page 70 (Committee of Review of Overseas Student Policy, 1984)

The Committee received examples in submissions of how Australian-educated people had played an important role in decisions to award contracts to Australian firms where there did not seem to be any major differences between competitors. One particular overseas mission said it had personal knowledge of occurrences where returned students of that country (or those with family studying in Australia) had been able to influence decisions involving various projects worth approximately A$100m per year, or about 25% of the total value of Australia's exports to that country.

Other submissions detailed the influence that Australian-educated people had on the development in their home country of standards and regulations in the areas of agricultural and engineering. One example highlighted by the Committee concerned a submission by an Australian mission in Asia that provided details relating to the head

and a number of officers of a local government Department, who had all been trained in Australia. These people developed veterinary standards and new regulations on the import of fresh foods into their country, that were very similar to Australian standards. This gave Australian exporters a strong head start into successfully entering this market.

The Committee also highlighted the contacts made by overseas students while studying in Australia that had helped promote opportunities for Australian consultants in overseas countries. It also proposed that investment flows and tourism numbers may be related to overseas student numbers. An interesting point was made by the Bureau of Labour Market Research which claimed that both anecdotal evidence and the Australian Bureau of Statistics data (available to it on international travel flows) revealed that a significant component of tourism business was directly generated by overseas students, and that this benefit could even exceed the value of commodity trade with certain countries.

The Committee found that the successful handling of the overseas student program is likely to bring substantial commercial and trading benefits to Australia in both the short and long-term. Although most of the Committee's comments are based on anecdotal evidence, it is through this social network development process (that seems to be real and valid although very difficult to quantify through empirical research) that seemingly trade is generated through this mechanism.

The Industry Commission's (1991) report into the export of Australian education services discussed the trade and commercial benefits generated by overseas students that can arise from a number of factors, including: students acquiring brand loyalties to

Australian products whilst they are studying in Australia leading to greater future demand; increased facilitation of trade between countries as a result of personal and institutional relationships developed in Australia by overseas students able to facilitate or influence trading networks with Australia in the future; and Australian-educated people may also influence the development in their home country of import standards and regulations, that are compatible with Australian standards.

Similar findings arose from Harris and Jarrett's (1990) study which claimed that significant trade benefits probably do occur as a result of overseas students studying in Australia. Their report argued that former students educated in Australia exhibit a preference for importing Australian-made commodities and that training in Australia emphasised ways of doing things that require the purchase of Australian equipment. This argument was also put forward by Altbach (1991), who stated that a foreign student's overseas study experience builds strong links to the country in which they earned their degree. These links can be beneficial not only in terms of the good relations it generates between important elites in both the private and public sectors, but also through loyalty the foreign graduate can show towards host-country computers, scientific equipment and textbooks.

It seems quite surprising that over the past two decades, no substantive econometric study has looked into the connection between trade and overseas students in Australia, as the flow of overseas students into Australia has increased dramatically. Understandably, the difficulties associated with quantifying any trade benefits generated by overseas students is quite a challenge; yet given the possible size of the impact this relationship may have, it is important to research and explore this issue further.

One area of research, which is receiving increasing attention in an ever increasing networked global economy, and is important in helping to explain what impact overseas students have on bilateral trade flows, is the economics of networks. Attention is now turned to this field of study.

## 4.3     The Economics of Networks

Network industries play a dominant role in most economies in the world today. The transportation, railroad, communication and information networks dominate economic activity and continue to grow in importance. In particular, the last two types of networks, information and communication, are driving the so-called new economy, or knowledge economy. These network technologies which are spreading their reach into almost all facets of the economy and society are valuable because they are interconnected. There are also many important non-network industries that share many essential economic features with network industries as well (Economides, 1996). Due to this, the economics of networks has been an area well researched and documented.

Markets for network products distinguish themselves from markets for more traditional products such as wheat, by possessing a number of common characteristics:

- Complementarity, compatibility, and standards,

- Consumption Externalities,

- Switching costs and lock-in,

- Significant economies of scale in production.

The notion of a network implies nodes and links. Many components of a network are required for the provision of a typical service so network components are complementary to each other. For example, computers can not be used without being

attached to a monitor or mobile phones without a mobile phone network. These types of products are called complements and when consumers wish to buy such products they are actually looking at purchasing systems rather than individual products. These products must also be compatible meaning that the complementary products must operate on the same standard. Figure 4.0.1 shows a information superhighway network and its range of complementary products.
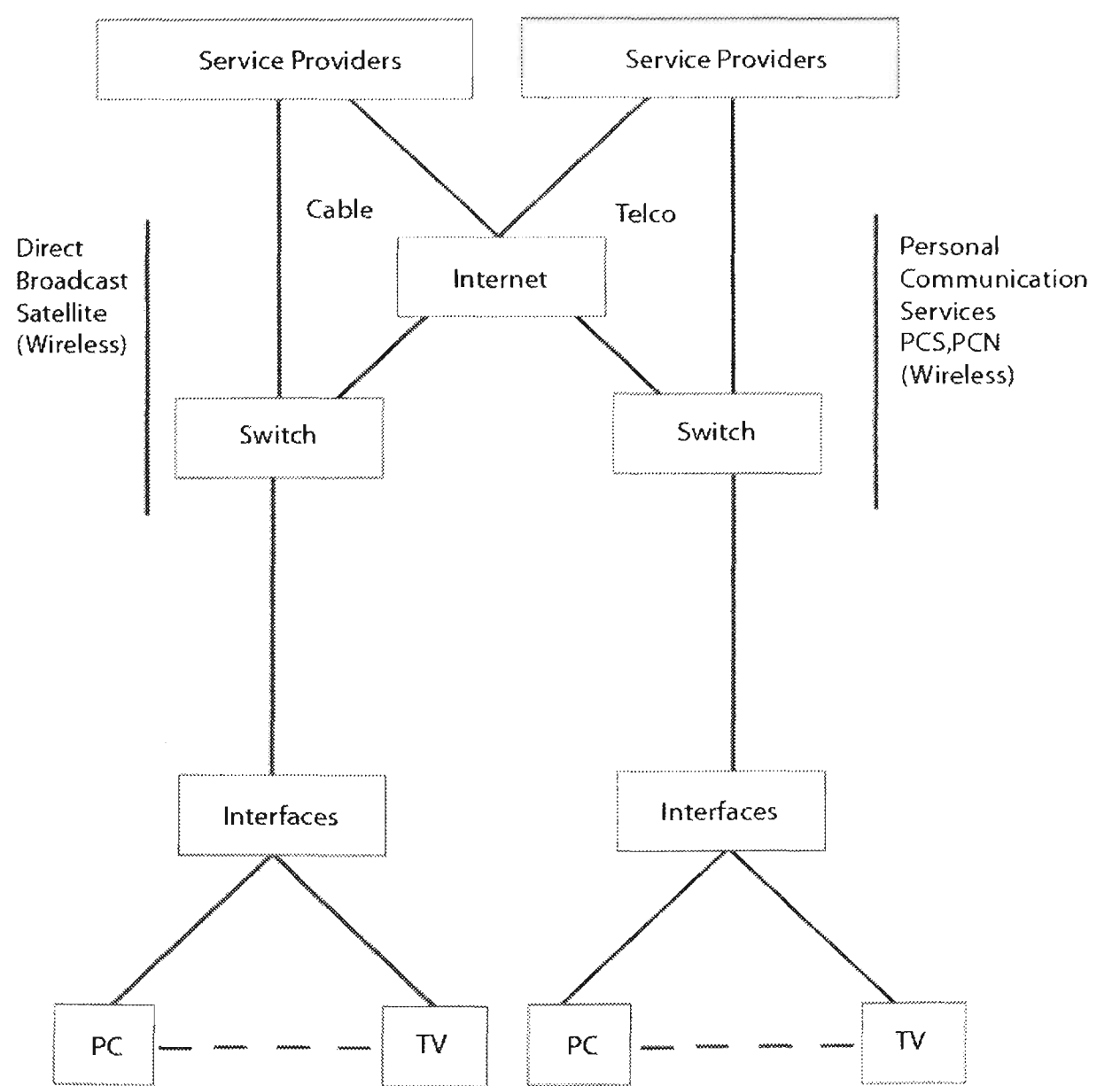
Source: (Economides, 1996)

Figure 4-0-1 An Information Super Highway Network

Networks exhibit positive consumption and production externalities. A positive consumption externality (or network externality) means the value of a unit of the good increases with the number of units sold (Economides, 1996). If a consumer purchases a fax machine, and no one else in the economy has a fax machine then the value of their purchase is zero. However, as more and more units of fax machines are sold in the economy the value of the consumer's purchase increases as they are able to send and receive faxes to a much larger population. The use of email is another good example. Even though the first email message was sent in 1969, it wasn't until the mid 1990s that this type of communication became popular, and the purchase of an internet connection became more and more valuable. Hence, large networks are more attractive to users than small ones. These externalities are referred to as adoption or network externalities and are the basis for what is known as Metcalfe's law which states that if there are n people in a network, and the value of the network to each of them is proportional to the number of other users, then the total value of the network (to all the other users) is proportionate to $n \times (n-1) = n^2 - n$. This implies that a tenfold increase in the size of a network leads to a hundredfold increase in its value (Shapiro and Varian, 1999).

The role of networks has seemingly become much more prevalent and important in today's global economy due to the shift that has taken place in both the business world and society where knowledge and information (key areas where networks can play a facilitating role) are now central to many industrialised economies. These paradigm shifts in economic and social structures can take place over long periods of time. Drucker (1993) described the current paradigm shift which he believes commenced around 1960 and will continue through until 2010 or 2020 as a process in which the traditional economic resources of land, labor and capital are being overshadowed by

knowledge and knowledge workers. The advancement of economies throughout the world from agriculture based to manufacturing and services has been analysed extensively in the literature. This new phase is now shifting an increasing number of economies into information and knowledge-based industries and activities.

These industries have a number of distinct characteristics identified by Skyrme (1999):

1. Every industry is becoming more knowledge intensive. Even in agriculture, knowledge adds value. By combining knowledge about the effect of a fertilizer, soil condition, the state of plant growth (using information from satellite photographs), and the forecast weather conditions, farmers can use 40% less fertilizer on their crops, yet achieve the same results. A new generation of combine harvesters automatically measures the weight and moisture content of the corn and calculates yields per acre. Every industry has comparable examples.

2. Smart products. Another manifestation of knowledge intensity comes in so-called 'smart products'. These use information or knowledge to provide better functionality or service that can command premium prices. There is a smart tyre that senses the load it has to carry and adjusts its pressure accordingly. Services can be enhanced through better customer knowledge. Marriott hotels, for example, keeps track of individual preferences so that it can offer superior service when their customers check in.

3. Higher information to weight ratios. The value of electronics in cars now exceeds that of the value of the metal chassis, which itself, through better knowledge of structures, is significantly lighter than that of its predecessors. An indication of this trend at the macroeconomic level is the trend in weight

and value of US exports. At the start of the twentieth century this ratio was roughly equal however today the financial value is twenty times higher, while the physical weight of goods exported is about the same.

4.  Value in intangibles. The market value of most companies is several times higher than the value of their physical assets as recorded in their balance sheets. In June 1997, the average market to book value for companies in the Dow Jones industrial index was over five. For more knowledge intensive businesses, such as software and pharmaceutical companies, this ratio is often more than ten. This difference is largely accounted for by intangibles, such as know-how, information systems, patents and brands, whose value is not recorded by traditional accounting methods.

5.  Trade in intangibles. The ultimate in information to weight ratios is the weightless product or service. There is a growing range of these intangibles that are traded in their own right. For example, the value of licenses from patents in the US has increased from $3 billion in 1980 to over $100 billion today. Financial markets are almost wholly intangible. Futures options and complex derivatives are perhaps the ultimate intangible knowledge product, having been created through human ingenuity.

Why does the evolution of economies from a base of agricultural, manufactured or service goods to a knowledge and information base, increase the importance of networks in the economy? The answer lies in the structure of a network and the design of the knowledge economy where connections and collaborations add value.

A network is made up of nodes and links. Nodes can be individuals, teams, or even organizations. Nodes within the network can both provide and store knowledge. In an organizational perspective, the links within a network are various connecting and co-ordinating mechanisms, such as workflow procedures, meetings or formal company gatherings (Skyrme, 1999). As information is transmitted across such links, new knowledge is created at the nodes. Often such transmitted information is not circulating through public channels, thus increasing its importance and usefulness within the network (Powell and Smith-Doerr, 1994).

Because in the knowledge economy, connections and collaborations are critical, the importance of networks in the overall economy is heightened. When a number of people are connected together, multiple pathways are created for knowledge to flow between. By combining such knowledge flows between those connected within this network, new knowledge can be developed and transmitted through the links of the network, to create new knowledge at the nodes. It is within these exchanges that knowledge can be shared and hopefully new knowledge created which can be used to benefit the organization.

It is through this process that business today can build competitive advantages over their rivals and succeed in an international marketplace. It is not the explicit information and data (which is easily codified and stored) upon which businesses can build such advantages over their competitors. It is the complex, context-sensitive, knowledge that lies in individuals, communities of interest and their connections where firms acquire competitive advantages, so critical to success in international business (Krebs, 1998). Figure 4.0.2 illustrates this process of knowledge creation within a network structure.

**Figure 4-0-2  The Creation of Knowledge Within a Network Structure**
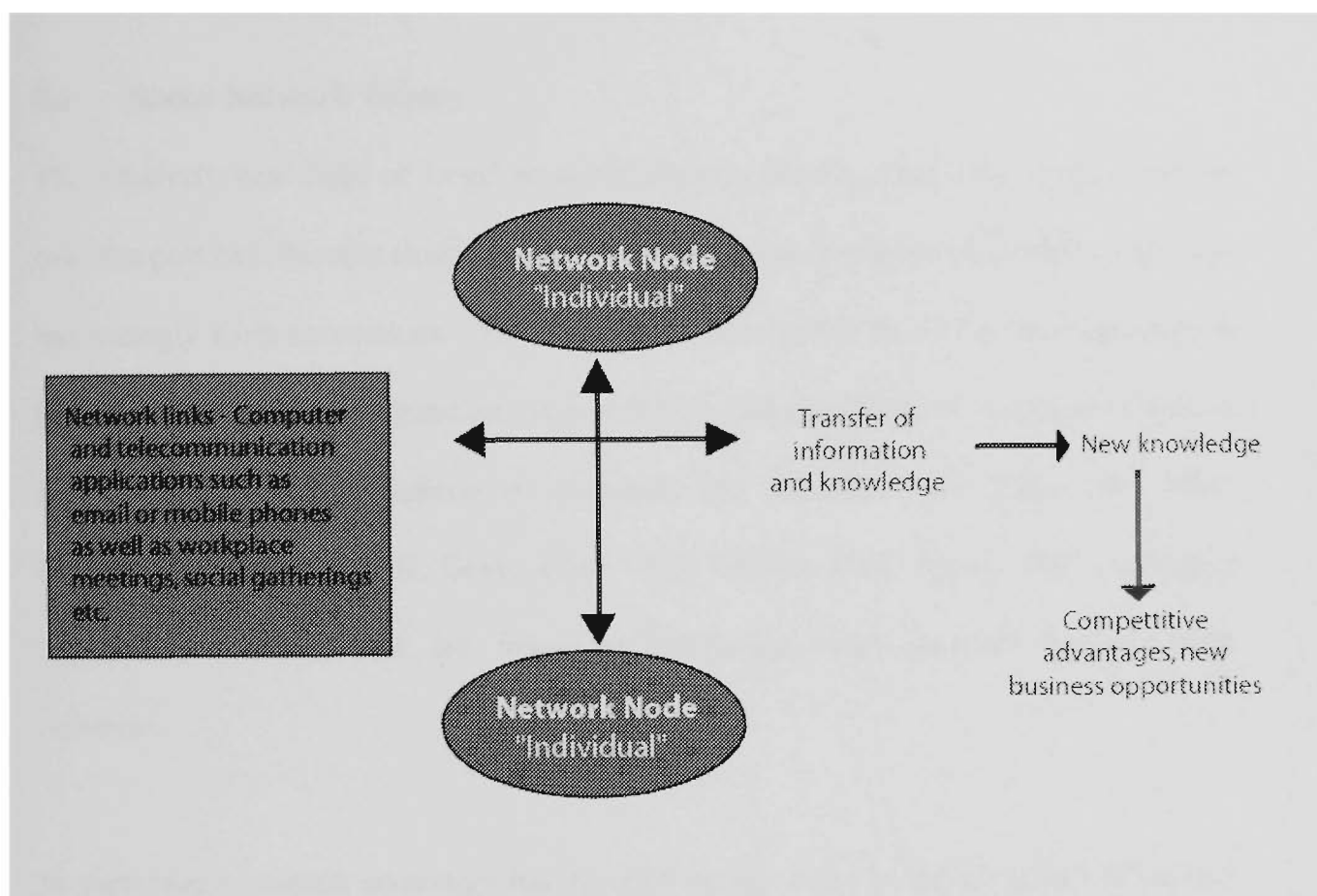


The physical infrastructure of computer and telecommunication networks and their applications such as e-mail and mobile phones are simply facilitating the process in which people can utilize connections they have within their own personal network. It is through people's social networks that knowledge, information, opportunities and ideas can be shared and thus acted upon.

And it is here that lies the key argument to the hypothesis in this thesis, that the generation of international overseas networks that occur when students study overseas can play an important role in stimulating trade flows. The knowledge and information that can be transmitted through these international social networks can generate knowledge and awareness of business opportunities in overseas markets. Attention is

now turned to this area of social network theory, in order to better understand how social networks play such a role.

## 4.4 Social Network Theory

The relatively new field of social network analysis has attracted considerable interest over the past two decades from the social and behavioural science community and also, interestingly from economists. This interest by economists in social network analysis has arisen due to doubts regarding the practicality and usefulness of neoclassical theory in explaining numerous aspects of economic life (Ebenfield and Jussawalla, 1984; Biggart and Hamilton, 1992; Granovetter, 1992; Larson, 1992; Portes, 1995) and more importantly because there are important increasing return benefits realised from networks.

In particular economic sociology has focused on the ways in which social influences can modify the maximising behaviour of individuals assumed by neoclassical economists. By looking at economic actors as rational but not socially atomised, in the sense that social relationships enter every stage of the process, from the selection of economic goals to the organisation of relevant means, economic sociology research has generated predictions which differ markedly from more conventional economic models.

Classical and neoclassical economists believed that the fact that actors may have social relations with one another was no more than a frictional drag that impeded competitive markets. As Granovetter (1995) explains, the view of traditional development theory that embeddedness of economic action in non-economic obligations, inhibits economic expansion, and that existing economic institutions have evolved in some efficient way

to solve economic problems, has been replaced by a more sociological perspective. That is, that the organisation of economic activity around kin and friends can be a clever solution for difficult problems.

Granovetter (1992) argues that the ability of economic sociology to improve on the explanations of economic action and institutions offered by neoclassical economists arises from three fundamental reasons: (1) the pursuit of economic goals is typically accompanied by non-economic ones such as sociability, approval, status, and power. (2) Economic action is socially situated and cannot be explained by reference to individual motives alone. It is embedded in ongoing networks of personal relationships rather than carried out by atomised actors. (3) Economic institutions do not rise automatically in some form made inevitable by external circumstances; rather they are socially constructed. Granovetter also found that one of the main reasons why people conduct their economic activity through personal networks is that sociability, approval, status, and power are central human motives and since economic activity is a dominant component of most people's lives, they cannot be expected to close themselves off from the world which allows them to achieve these desired motives.

Likewise, Swedberg (1994) argues that the market represents one of the most important economic institutions in the modern world and that it needs to be looked at as a specific type of social structure rather than merely a price-making mechanism. He defines social structure as some kind of recurrent and patterned interaction between agents that are maintained through sanctions.

A social network as defined by Laumann, Galaskiewicz et al. (1978:458) is:

*'a set of nodes (e.g. persons, organisations) linked by a set of social relationships (e.g., friendship, transfer of funds, overlapping membership) of a specified type.'*

The term network emphasises that each individual has ties with other individuals, each of whom has further ties with others, and so on. In business, it is a simple way of labelling the complex set of business strategies and choices that firms make to facilitate their business operations. This form of business networking will often extend beyond national boundaries (and can be more useful when this happens) as the need for accurate and trusted information is typically greater in international business dealings.

A common approach used by network studies which attempts to analyse the structural principles of social life such as community relations, kinship and family ties, has been to employ mathematical techniques to assist in determining why individuals choose particular courses of action and how such relationships are activated.

In the following sections, an examination is undertaken of some of the benefits that social networks can generate and how these are used by firms to assist their business dealings.

## 4.5    Social Network Theory and Information Flows

The move away from the neoclassical depiction of economic relations as impersonal to incorporating sociology and pre-existing ties as a key determinant in economic exchange, has flourished because of the importance of accessing new and valuable information, and reducing transaction costs in a firm/entrepreneur's operations.

Information has always been essential to economic activity, and the advancement of interactive telecommunication based networks including telephone, fax and the Internet have been engines driving the new information economy (Shapiro and Varian, 1999). However, these telecommunication-based networks are similar to traditional social networks that have been generated through friendship and business relations, all of which are interactive, and require social activity to function successfully.

The key to these information networks, and any other form of network is its ability to allow for interconnection. An interactive network allows movement from any one point on the network to any other point. Interactive information networks such as these provide for both the collection and dissemination of information at any one point, providing an optimal framework for information exchange (Schrader, 1992). It is important to remember that information, like any other good can be bought and sold. However, it differs in the sense that typically it cannot be displayed to potential buyers as then the buyer would have no need to purchase the information. Also, information can be reproduced at little cost meaning it can be difficult for the seller of information to maintain exclusivity of their product. Information that is exclusive is generally more valuable to a buyer. Hence buyers and sellers of information face difficulties in undertaking transactions due to difficulties in fixing a price and sourcing the right information. Given these problems it can be difficult to undertake a market transaction in information.

However, some of these problems can be lessened or eliminated when information is exchanged rather than sold, particularly within the channels of a social network. The difficulty in determining a price is eliminated but the exchange of information from one

party to another will imply the need for a reciprocal exchange of information sometime in the future. The value of the information being exchanged to the receiver will determine the amount or the value of the information which needs to be reciprocated in the future. If future exchanges do not equate in value, then that particular member of the social network will gradually be ostracised from the network and will be unable to receive further information flows (Macdonald, 1992). Herein lies one of the strengths of a social network in assisting information flows. Members of the network are bounded to ongoing network transactions of information. If a member fails to do so, or the information that they are supplying is of less value than the information they are receiving from the network, they will be removed from the network. Network members have an incentive to supply useful and valuable information as it implies that in the future they will likely receive the same type of information in return.

This process of facilitating and stimulating the flow of information assumes greater significance as economies become more service and knowledge base oriented, where information typically becomes a more valuable asset. In particular, as identified by Macdonald (1992) the importance of information exchange is striking in high technology industries, since their business activities are particularly dependant on exploiting large quantities of new information.

Macdonald also highlighted an interesting example of how the use of personal and informal networks are actively encouraged in high technology industries to enable information to flow fully and swiftly, an aspect which is critical for high technology firms who constantly require information external to their firm in order to survive in such a competitive and rapidly changing industry. Macdonald provided an example of

how a firm could actually welcome the departure of a key employee who will then work for a rival company. If the employee leaves the company on a positive note, they are likely to maintain an open channel with their former work colleagues hence providing an information link between the two rival companies. This new information link could be more valuable to the old-employer than having the services of the ex-employee.

A study by Everett (1982) analysed information transfer in the semiconductor industry and found that even though formal channels existed for the exchange of technical information 'the most valuable information is communicated mainly via informal channels. The gains from transmitting this information are greatest when groups have information sets that are disjoint, that are relevant to one another, and that can be learned by the other group at a low cost (Lazear, 1998b).

As Jackson and Wolinsky (1996) explained, informal social networks are used to communicate information and for the allocation of goods and services not traded on markets and are the channels in which resources (either material or non material) can flow or be transferred (Wasserman and Faust, 1994).

The importance of social relations and institutions in facilitating the search process in situations of imperfect information and uncertainty has been recognised for some time (Nohria, 1992a). Information transfer through informal social contacts has been found to be a primary mechanism by which search proceeds in markets with imperfect information. Nohria (1992a) analysed the role that various social institutions play in facilitating search under conditions of imperfect information. In particular, this study focused on an institution called the 128 Venture Group located in the Route 28 high-

technology region encircling Boston in the United States. This group runs a monthly forum for entrepreneurs, venture capitalists, managers and professionals who are interested in creating new high-technology ventures. The primary function of this forum is to assist participants in the search for information. Desired information in this forum can be identifying potential new business opportunities, being updated on present and emerging technology and market trends, identification of competitor's activities and the seeking out of partners with which one can collectively build a new venture.

Nohria found that the search for information functioned extremely well in this imperfect-information setting for two key reasons: 1) the Group was the only institution explicitly geared towards facilitating information flows related to the creation of new ventures and 2) a large number of the social ties created were weak and therefore potentially bridging ties. As Nohria states, it can be advantageous for an individual to develop weak ties as they are exposed to a wide variety of viewpoints and activities and are able to develop a cognitive flexibility and a cosmopolitan outlook that is of great value in the business-venturing process.

Another significant benefit that information flow amongst social networks can achieve is to substantially reduce transaction costs incurred during the exchange of information. A study by Schrader (1990) analysed informal technology transfer between firms arising from information trading. The primary benefit of these informal flows of information according to Schrader was to reduce transaction costs associated with more formal transfer mechanisms that require complex legal constructs. These informal flows require no lengthy negotiations and no costly legal institutions are necessary to oversee the exchange of information.

## 4.6    Social Network Theory and Overseas Students

Undoubtedly social networks enable the transmission of information that is not available through public channels as well as reducing the transaction costs associated with international transactions. How can the benefits of social networks be linked to the role that overseas students can play in stimulating bilateral trade flows? As there is very little research on this issue, it is feasible to hypothesise, and to also look for suitable proxy processes, that can be used to help explain the process of social networks within an overseas student context. This is undertaken in the following section. The channels through which overseas students social networks can play an important trade role is discussed as well as the analysis of immigration flows, which exhibits a number of similarities to the flow of overseas students.

Firstly, in what way can overseas student flows lead to increased information flows and possible trade and business opportunities? A similarity can be drawn between the objectives of the 128 Venture Group and of University Overseas Alumni organizations where the primary objective is to facilitate networking opportunities and facilitate the spread of useful information between participants. In fact, the key marketing tool that University Alumni organisations across the globe use to attract former students to their Alumni associations is to highlight the possible commercial benefits that may be realised by members tapping into the Alumni network. The key objective of such Alumni functions is for members to gather and to provide useful information and contacts which may lead to business and employment opportunities. As such, it would seem highly credible that these forms of University activities should play a critical role in stimulating any trade '*flow on*' effects that exists between overseas students and trade flows.

## 4.7 The Role of Networks in International Trade Flows – The Immigration Connection

Unfortunately, literature discussing the role networks play in stimulating trade flows in the context of overseas students is almost non-existent. However, there is a large pool of research that has documented the use of co-ethnic ties in international trade, in particular that of immigrants who are able to facilitate trade between their host country and their country of origin.

Given the similarities between the categories of people that are immigrants and overseas students, insights gained from studying the relationship between migration and trade flows can be equally applied to the study of overseas students and trade. However there are a number of key differences which need to be considered including:

1) The temporary nature of overseas student flows (although given the small number of overseas students who seek to remain in Australia permanently after completing their study here this difference is partly mitigated) compared to that permanent migration of immigrants to Australia.

2) The differing objectives in coming to Australia. Overseas students come to Australia to further their study to enable them to return to their home country and be better positioned to obtain attractive working careers. Immigrants will migrate to Australia for a wide range of reasons including family reasons, desire for a higher standard of living, and improved work opportunities.

3) The impact of immigrants on the local labour and welfare systems. Overseas students who study in Australia may work a maximum of 20 hours per week and are not entitled to any welfare support from the Australian Government.

Immigrants to Australia are able to enter the work force and are also eligible to welfare benefits after a certain period of time in the country.

The relationship between immigration and trade flows has only recently attracted the attention of researchers. A study by Mim (1990) into activities of Korean immigrant entrepreneurs in the United States found that the most common occupation was trading activities with Korea. Min explained this as a function of the advantages these Korean entrepreneurs held over Native American business people including their language and ethnic background, which enabled them to establish import businesses in Korean-imported goods.

A report by the Office of Multicultural Affairs (1994) examined the trade relationship between the growth in Australia's multicultural population and the direction, volume and composition of Australia's exports of goods and services. The report acknowledged the considerable progress made in recent years into understanding how trade can be generated under imperfect market conditions in relation to knowledge imperfections and product differentiation. It proposed that trade flows between Australia and emigrant source countries could be stimulated by higher levels of knowledge arising from personal familiarity with cultural, linguistic, religious, geographic and national differences between markets as well as retained networks. These links may be able to recognise trade opportunities based on market niches.

The report highlighted the impediments to trade which can occur based on a lack of understanding of a country's trading system or a failure to recognise opportunities, and went on to propose that an Australian resident with foreign cultural links may be able to

overcome these barriers and contribute directly to Australian exports in a number of ways, including:

1. Act as an exporting agent taking advantage of an understanding of a country's trading system and the opportunities to export back to their former homeland;

2. Be an employee who facilitates trade for an employer company by using trade and language skills and cultural knowledge

3. Be a producer drawing on the strengths of an ethnic enclave to manufacture here and export abroad; and/or

4. Be part of a family-oriented, multinational firm that uses cultural contacts and international networks to promote trade.

The report attempted to identify an association based on these theoretical considerations by examining:

a) the growth in export flows to particular countries and the growth in importance of those countries as a source of population growth for Australia; and

b) the growth in certain commodity flows to particular countries and the size of that birthplace grouping in the Australian population.

The report used both graphical and statistical analysis of the data including rank correlation and standard ordinary least squares regression. Most of the results were fairly inconclusive with little evidence to support the hypothesis that the presence of cultural groups in Australia can stimulate exports with the countries of origin. However, the Report argued that this could be a result of the method of examination employed by the study and also the inadequate data used.

Despite the data not supporting any association, the Report argued that the hypothesis that the presence of cultural groups in Australia can stimulate exports with countries of origin may be true in particular cases but not, apparently, in general. Also while association may currently not exist because of impediments preventing cultural groups from participating fully in business and trade opportunities, by removing such impediments and an active policy of encouraging cultural groups to participate in business, could generate an association over time.

Interestingly, the Report also argued that one of the reasons that an association was not found could be a result of, both the presence of and the absence of, an export culture within a firm. The presence of an export culture may predispose firms to examine all potential markets to identify the optimum trading opportunity which could weaken any association between cultural diversity and export growth. At the same time, an absence of an export culture could result in a failure to exploit specific export opportunities arising from knowledge derived from cultural, linguistic and other ties to a particular country. Potential exporters without this knowledge are forced to incur costs in order to obtain it, or as occurs in Australia, this cost may be shared with Government organisations such as the Australian Trade Commission. The Report argued that through encouraging the better utilisation of Australia's cultural, family, linguistic and other ties (such as overseas student ties) with potential export markets may be a cheaper, and more effective method, of facilitating the export development process.

In the first econometric study quantifying the impact extended family and ethnic ties have on international trade, Gould (1994) highlighted the substantial descriptive literature that exists on the impact of immigration on international labour migration, and

the almost non-existent analysis of any formal economic impact. Gould argues that most formal economic models of immigration treat immigrants as no different to residents and examines the impact of immigrants on national welfare. As well, the literature also assumed the economic consequences of immigrants do not differ depending on the immigrants' country of origin. Gould argues that this ignores other important aspects of immigration including the close ties or links that immigrants maintain with their home country. His study argues that that immigrant links can play an important role in determining U.S. bilateral trade flows in two key ways.

1. Immigrants tend to bring with them a preference for home-country products; and

2. Immigrants bring with them foreign market information and contacts that lower the transaction costs of trade

The first point could lead to an increase in the host country's imports through immigrant consumption, and the second point could increase both import and export flows between the host and home countries, through a decrease in transaction costs caused by obtaining market information.

Gould goes on to argue that immigrant links can decrease the transaction costs associated with trade in a number of ways. There would be a larger group of individuals in the host country who are bilingual in the languages of the host and home countries, that reduces the trading costs caused by communication problems. As immigrants bring information about their home country products and preferences, the cost of obtaining foreign market information in the host country decreases. Secondly, if products are differentiated across countries, and immigrants bring information about their home country products and preferences, the costs of obtaining market information relevant to these products will be diminished. Finally, the development of trust through

immigrant links can decrease the costs associated with negotiating and enforcing trade contracts. Interestingly, Gould observed that this would impact more on trade between developed and developing countries, as formal trade contracting is less developed and institutionalised in developing economies.

The strength of this impact would depend on the initial amount of foreign market information immigrants bring with them and their ability to communicate this information to people within their social networks. Obviously the ability to do this will be impacted by a wide range of factors including the immigrants educational level, the length of time they have been in the host country, and the size of their ethnic community in the host country. Gould goes on to argue that a decrease in transaction costs may not begin until a critical level in immigration is achieved, and then the rise may slow until all the information benefits are exhausted.

In an attempt to analyse the relationship between international trade and international migration from the perspective of receiving countries, Globerman (1995) highlighted the potential linkages between trade and immigration in Canada. His main argument as to why immigration may lead to increased trade pertained to the costs associated with international trade. Such costs include government-imposed costs such as tariff and non-tariff barriers, conventional transportation costs, and transaction costs which Globerman defines as the overhead costs associated with organising and carrying out international transactions. In practice, such transaction costs would include market identification, making relevant contacts in both domestic and overseas markets to facilitate transportation, the possible establishment of facilities or agents in overseas markets, compliance with local laws and customs, and translation costs when dealing

with a market which uses a foreign language. Obviously such costs are larger when the transaction takes place between countries with significant differences in their cultures.

Globerman states that immigrants can reduce transaction costs associated with international trade by bringing with them information about the markets in their home countries, as well as social contacts that they have which helps links their country of immigration with their country of emigration. However, his study was unable to find any empirical evidence to support this hypothesis, and Globerman suggested that this casts doubt on the usefulness of immigration programs such as the investor and entrepreneur programs used in Canada to promote trade with specific regions of the world. Globerman did admit that a possible criticism of his study was that it did not evaluate the potential linkage between trade and immigration over a sufficient length of time.

This finding differed to a more recent study by Head and Ries (1998) which examined the link between immigration and trade creation. They observed that despite the increase in the ratio of international trade to world GDP since WWII, international trade flows remain at levels well below what would prevail if the world economy were fully integrated. Given that most formal barriers to international trade have already been removed, the most common explanation as to why trade remains largely within national borders was due to transportation and transaction costs. Head and Ries questioned the validity of assuming transportation costs still negatively impact on trade flow activity and highlighted a finding by McCallum's (1995) study that found Canadian provinces trade twenty times as much with other provinces as they do with equally distant states in the United States.

Hence their study assumed that transaction costs were the primary reason why international trade volume was not as high as a fully integrated world economy would suggest they should be. From this, they argue that immigrants could play a significant role as trade intermediaries. Like Gould (1994) they argued that immigrants, by virtue of their home country links could lower costs associated with international trade and also, bring with them preferences for certain varieties of foreign products. Immigrants could lower the transaction costs associated by international trade through the knowledge they have of their home economies. Immigrants who possess such market knowledge regarding local customs, laws, and business practices as well as home-country language skills can reduce transaction costs from the point of view of both the importer and exporter. The exporter needs to identify overseas market opportunities, undertake market research and gain access to appropriate distribution channels in a foreign market. The importer on the other hand, needs to identify a reliable source of supply. Immigrants with such knowledge can reduce the transaction costs associated with these difficulties. Head and Ries argued that immigrants can have a direct impact on imports because of their preferences for goods produced in their country of origin. They found that immigration had a significant positive relationship with Canadian bilateral trade such that a 10% increase in immigrants leads to a 1% increase in exports and a 3% increase in imports. These findings were consistent with their hypothesis that immigrant knowledge and networks with their home country significantly lower the transaction costs associated with international trade.

## 4.8    Link Between Immigration Flows and Overseas Student Flows

In 1999-2000, there were 92,272 immigrant arrivals to Australia of which 35.1% were skilled immigrants and their families, and 21.7% were family settlers and humanitarian

arrivals (Migration Information Source, 2003). Given that the number of overseas students that flow into Australia each year - 188,000 in the year 2000 (Australian Education International, 2002) is much larger than the flow of immigrants, it seems quite curious that the Government has commissioned research to be undertaken into the relationship between immigration flows into Australia and Australia's export competitiveness, yet no substantial study has examined this in the context of overseas students.

It is quite clear from the literature that there are a number of similarities between immigration and overseas student flows in terms of the trade impact they can have on the respective countries involved. Both parties bring with them to Australian shores their preferences and tastes for products from their home countries stimulating import demand for these products. As well as this, they both bring with them typically an ability to speak a foreign language, knowledge of a foreign market and networks of contacts in a foreign market which they can link with in order to conduct business activity. Given these similarities, it is reasonable to then assume that a number of the previous studies discussed that have found immigrants do have an impact on bilateral trade flows with their home and host countries could equally apply to the flow of overseas students.

Another interesting parallel that can be drawn between the two types of people flows is the impact of networks in determining the direction of these flows. A study by Massey (1988) on immigration flows argued that migrations build networks that then facilitate the very migrations that produced them. These immigrant networks are the family and friends of a particular ethnic or nationality group that can assist the migrant's passage to

their new host country. Organising travel arrangements, accommodation and even job placements are the roles of these networks. As Gould (1994) argues, it is these immigration networks that can also create ties between the home and host countries, which can facilitate trading activity, and the exchange of foreign market information.

It is highly likely that such a hypothesis can be applied to overseas student flows where it is quite common for students to decide on their country of choice by listening to recommendations from family and friends who have previously studied overseas. What this means is that whatever economic conditions or criteria that may have initially caused student flows from a home country to a host country may become almost irrelevant over time, as the expanding flow in overseas student numbers becomes more independent of those original causal factors.

Thought must also be given to the benefits and costs arising from immigrant flows as opposed to those from overseas students. That is, the net economic impact that each flow has on the overall economy. If it is assumed for the moment, that the stimulus to bilateral trade is similar for immigrants and overseas students, and the other social benefits arising from an exposure to new cultures, then it is necessary to focus on the costs of the two types of flows.

The key difference between immigrant and overseas student flows is the substantially smaller drain that overseas students put on the Australian Government in terms of the services they utilise. Unlike immigrants, overseas students receive no welfare support from the Australian Government. They are unable to receive any type of social security payment and they are prohibited from using the public health system. Even their ability

to access public transport systems is charged at a higher rate than local residents. And obviously the fees they are charged for education are higher than those that are incurred by immigrants.

The minimal impact on the public system is an attractive benefit of overseas students, as is the ability of overseas students to effectively transfer knowledge and technology between their country of study and their home country. Given that close to 60% of overseas students will return to their country with either a bachelors, masters or doctorate degree, their exposure to a modern economy and educational system positions them favourably to transfer knowledge and technology to their home country (Australian Education International, 2003). In this new era of electronic communication, information can be shared rapidly via e-mail communication, and overseas students are in a position to do this whilst they are studying in Australia. Also, many who have prior work experience before coming to Australia can add to the knowledge and skill of local students who benefit from studying with them and learning from their international experience.

Given that overseas students are self sufficient and place considerably less burden on the economy compared to immigrants, whilst still generating the economic benefits such as increased trade and cultural awareness that accrue from immigrant flows, it is important to quantify whether overseas students have similar positive effects on the economy as those generated by immigrants.

Chapters Six and Chapters Seven through Nine of this thesis will seek to address these issues in an attempt to quantify the impact that overseas students are having on long term trade flows.

## 4.9 The Role of Networks and Trade Flows

The key role that networks play in stimulating trade flows is their ability to help overcome informal barriers to trade. Such informal barriers to trade include weak enforcement of international contracts and inadequate information about international trading opportunities. Rauch has spent almost a decade examining the links between networks and international trade. His excellent review of the literature pertaining to the role of business and social networks in international trade (Rauch, 2001) makes several remarks. Rauch states that there is strong evidence (through various statistical and case studies) that business and social networks promote international trade by minimising problems associated with contract enforcement, and providing information about international trading opportunities. Rauch argues that the efficiency implications are quite apparent: networks improve the allocation of resources by creating trade and they generate a surplus from cooperation by their members.

Some of Rauch's earlier work examined the role networks and ties have on the volume and direction of trade flows. Rauch's (Rauch, 1996a; 1996b) studies developed a network/search view of international trade to counter the standard theory of international trade in differentiated products. This theory assumes monopolistic competition equilibrium and also that producers of a product, regardless of country of origin, are automatically matched to the consumers for whom this product is closest to their ideal, again regardless of location. As Rauch argues, this theory suggests that

buyers and sellers are connected to an abstract "international market', a black box that serves to costlessly match buyers to sellers. Rauch's network/search view of trade rejects this analogy because buyers are not aware of all available varieties of products and their characteristics, and sellers do not know how to reach all the buyers that make up their target market. Instead, buyers and sellers must undertake a costly search process in order to identify an appropriate match. It is through this search process that immigrant, ethnic, family, or friendship ties play an important role in establishing connections between buyers and sellers. The reason being that such ties can reduce or eliminate the problem of trust in international transactions and can also be a valuable source of information about potential buyers and sellers.

Rauch has been involved in a number of other studies that have followed along a similar vein of reasoning to demonstrate the effect "ties" can have on determining the volume and direction of trade flows. A paper by Casella and Rauch (1997) showed that when trade involves differentiated products, preferential ties to a group settled abroad facilitate an exporter's entry into the foreign market by providing information and access to distribution channels. That is, co-ethnic societies, business groups operating across international borders, or institutions devoted to the creation of better information channels in foreign markets, are valuable. Importantly though, their research stressed that under most circumstances, those excluded from these information channels, or those who may be somehow less able to exploit them, will suffer.

More recently, Rauch and Trindade (1999) confirm that informal barriers to trade, such as incomplete information and communication barriers are quantitatively important. Moreover, the ethnic Chinese business and social networks promote bilateral trade

primarily by providing market information and by supplying matching and referral services.  Examples of this could be helping producers find the right distributors for their consumer goods, or assemblers to find the right suppliers for their components in international trade.  For differentiated products within Southeast Asia, they estimated that ethnic Chinese networks increased bilateral trade by more than 150 percent.

Similar studies have also been undertaken analysing the effect of various forms of networks and pre-existing ties  on overcoming the problems of incomplete information in international markets (Gould, 1994; Hughes and Weidenbaum, 1996; Lazear, 1998a).

Another major difficulty in conducting international trade is contract enforcement. Hughes and Weidenbaum (1996) argue that the extensive trading among overseas Chinese is a direct response to the high transaction costs inherent in many economies in Southeast Asia where many markets are underdeveloped and law is often unpredictable. The Chinese informal networks have become the preferred vehicle for complex transactions as they allow for:

> "...the flexible and efficient transmission of information, finance goods,
> and capital in what are often informal agreements and transactions.
> Confidence and trust replace contracts as the major guarantees that
> commitments will be met satisfactorily....In a region where capital
> markets are rudimentary, financial disclosure is limited, and contract
> law very weak, interpersonal networks are critical to moving economic
> resources across political boundaries"  (Hughes and Weidenbaum,
> 1996:54).

The success of Chinese businessman has attracted a lot of research to determine what factors can be attributed to their dominance, in an environment which was often hostile and insecure in colonial and post-war Southeast Asia. One of the most comprehensive and revealing studies into this fascinating area of business/trade/social dynamic process was conducted by Menkhoff (1993). Menkhoff chose to focus on this topic due to the evolution of the Chinese business community in Southeast Asia and their Chinese 'business success', and to gain a better understanding of the commonly used term 'doing business the Chinese way'. The study concentrated on the external economic dealings of Singaporean Chinese family trading firms and associated social relationships, in particular constructs such as 'familism', 'trading networks' and 'trust'. The formation of such networks and personal relationships and the ability to use these connections, are common reasons cited why the Chinese have been more successful in business, compared to other indigenous groups (Yoshihara, 1988). Information for Menkhoff's study was sourced primarily from half-structured interviews with representatives of 33 trading firms in Singapore, Malaysia and Indonesia as well as other representatives of Singapore's business community.

Menkhoff hypothesised that small firms are disadvantaged compared to larger firms in terms of international business risks such as cultural gaps, different trading laws, risks of capital loss, insufficient information and so forth. As a result of this, Menkhoff found it was crucial for small firms to establish trusted 'trading networks' to minimise business risks and uncertainties in external economic dealings. Trading networks as defined by Menkhoff (1993:38):

> *"refers to the merchants commercial and social connections or ties to*
>
> *trading partners abroad, the evolution and cultivation of trading*

*arrangements and other social relationships (local or international) which may facilitate commercial connections".*

From the interviews conducted in Menkhoff's study it was revealed that the business connections of Chinese merchants in Singapore to overseas counterparts differed according to the degree of intimacy, familiarity, trust, reciprocity, intensity and frequency of interactions. Importantly, the endurance of business relationships was seen as an important condition for business survival and commercial success. Menkhoff argues that the embeddedness in such networks provides businessmen with important tangible and intangible resources, and provides a degree of predictability to a merchant's operations. In questioning Singaporean trading merchants, Menkhoff found that the friendships, contacts and ties numerous merchants had formed whilst studying overseas had been, and still are, of strategic importance to their business operations.

## 4.10 The Importance of Trust

As mentioned previously, international trade encompasses much higher risk given that the business transaction is conducted typically over a large geographical distance across international borders involving different legal systems. As a result of this, it is often quite difficult to source information regarding the other party to a transaction and hence the importance of being able to trust this party becomes even more critical. Compounding this issue, is the risk that if problems do occur with overseas clients, it can be extremely difficult to resolve such issues given possible differences in languages and legal systems. All of these factors make it important that an overseas client be trusted? So how can this trust be gained?

Wellman (1988) and Evers (1988) argue that forming long-standing trading or credit relationships between traders over a longer period than that of the specific transaction, is an effective way to try and build trust and reduce the associated risks of an international transaction. A key finding of Menkhoff's study was the importance of trust or trustworthiness, which was found to be a central mechanism and lubricant in trading networks. As Menkhoff (1993:40) states:

> "Trust is the 'social cement' that holds trading networks together...trust turned out to be the basis for a particular type of business strategy emphasising personalistic, non-contractual economic relations and the maximisation of long-term benefits of cooperation".

Interview responses found that the representatives of those trading firms whose management was run by father-son combinations stressed that there exists more trust among core family members than among unrelated business partners. This facilitated business negotiations far more than with non-kin partners or friends. Importantly, respondents also emphasised that power struggles were more likely to arise the more distant kinsman were involved in business activities.

Undoubtedly trust plays a critical role in reducing trading risks, the possible violation of business commitments and breach costs with regard to delivery, payment or quality and has been well documented in a number of other studies (Granovetter, 1985; Egan and Mody, 1992; Nohria, 1992; Hughes and Weidenbaum, 1996). Gould (1994) argues that as trade often depends on contracts for delivery and payment, the development of trust through overseas contacts can decrease the costs associated with negotiating international business contracts and importantly the costs of enforcing such contracts.

In an interesting study, Rauch and Trindade (forthcoming) examine the trade-creating effects of the overseas Chinese and tried to distinguish the trust and business opportunity impacts of the overseas Chinese network on bilateral trade by estimating separate gravity equations for commodities that have 'reference prices' and commodities that do not. Rauch and Trindade argue that there is an economically and statistically greater impact of the overseas Chinese network on bilateral trade in commodities without reference prices than in commodities with them. This argument, gives grounds for the presumption that this network has a quantitatively important effect by matching traders with business opportunities. This is in addition to its effect through building or substituting for trust. The results of their study are presented in Table 4.0.1

**Table 4-0-1 Percentage increases in bilateral trade attributable to overseas Chinese networks and to colonial ties**

| Year | | Homogeneous products | Differentiated products |
|------|---|----------------------|-------------------------|
| | Overseas Chinese Network, both countries with ethnic Chinese population shares >1% in 1980 | 95.8 | 177.8 |
| 1980 | Overseas Chinese network, all other country pairs | 4.1 | 6.2 |
| | Direct and indirect colonial ties | 8.6 | 18.6 |
| | Overseas Chinese Network, both countries with ethnic Chinese population shares > 1% in 1990 | 32.0 | 59.2 |
| 1990 | Chinese overseas network, all other country pairs | 1.7 | 5.5 |
| | Direct and indirect colonial ties | 5.2 | 13.8 |

**Source: Computations based on unpublished estimates from Rauch and Trindade (forthcoming) for the 'conservative aggregation.'**

Table 4.0.1 shows that the overseas Chinese network is much more important for international trade in differentiated products than homogeneous products. Rauch and Trindade argue that commodities that do not possess reference prices are taken to be

sufficiently differentiated that prices are unable to convey enough information relevant for international trade – ie. Does an opportunity exist to profitably trade these products internationally? Hence, buyers and sellers must be matched in characteristics which allow for the relevant information possessed by the overseas Chinese network to become pivotal.

Another interesting question that these results raise is whether or not networks are becoming more or less important in international trade. Clearly, Rauch and Trindade's results in Table 4.0.1 suggest that networks are becoming less important. The impact on bilateral trade of both the overseas Chinese network and the direct and indirect colonial ties is lower in 1990 than in 1980 for both homogeneous and differentiated products. Intuitively, it is reasonable to assume that the importance of informal barriers to trade such as contract enforcement, language and culture differences and inadequate information about international trading opportunities are lessening, as economies develop, and the globalisation process marches forward. Rauch (2001) identified some key factors on both the supply side and the demand side that he argues can both increase and reduce the quantitative importance of network effects on international trade. Table 4.0.2 lists these effects.

**Table 4-0-2 Demand and Supply determinants impacting on network trade effects**

| Demand Side | Impact |
|---|---|
| International commercial arbitration | Lessens risk of difficulties in international trade disputes |
| Letters of credit | Lessens risk of contract payment |
| Technological improvements in communication | Internet search engines may reduce the problem of inadequate information about international trading opportunities<br><br>May strengthen the effectiveness of international networks to be utilised through the use of e-mail |
| **Supply Side** | |
| Increase migration flows and Increased FDI flows | Creating new international networks |

Undoubtedly, international trade contract enforcement has improved over the last twenty years and continues to develop as economies develop. This economic development brings a stronger, more transparent legal system which can lessen the risks involved with contract enforcement. Also institutional developments such as international arbitration and letters of credit have lessened to some extent the legal and payment risks associated with international trade (Rauch and Trindade, 2002). The impact of the spread of English as the language of commerce clearly lessens one of the key advantages networks can provide in trading relations. However, this process is certainly not complete and the ability to communicate in both the home and source market language is still a valuable asset. The impact of the Internet on the importance of networks in international trade has yet to be revealed. Given the vast amounts of information that can be sourced from the Internet, it is difficult to argue that the internet will not make networks less important in international trade given that one of networks'

main strengths is its ability to assist with inadequate information about international trade opportunities. However, as Rauch points out, information appears to still be an 'experience good' and that face to face contact is still useful in building trust into a business relationship. Also, at the same time, the Internet enables people to communicate easily from all parts of the world. This could strengthen communication between existing international networks and increase the information flow that arises from such relationships, thus reducing the probability that such networks will decay as the issue of distance, and hence lack of contact, eats away at the network. It is still too early to conclude whether advances in communication technologies will have a net increase or decrease in the importance of networks to international trade.

## 4.11 Conclusion

This Chapter has identified the process through which overseas student flows can stimulate international trade activity between host and source countries. A review of the literature reveals that there is very little direct research which supports this link. However, there is a large pool of literature in similar areas such as immigration flows that can be used to explain such a hypothesis. By examining the economics of networks and applying social network theory in the context of overseas student flows, a vehicle is created through which the overseas study experience can generate business linkages that can lead to significant international business activity some time after the overseas study experience took place. This provides a basis of theoretical support to a phenomenon which although recognized in the literature, has been largely ignored and left unexplained.

Throughout this Chapter, an importance was placed on immigration flow research that has provided an insight into the link between the movement of people across international borders and any subsequent trade related activities. This related research can be used to overcome the very small amount of direct research conducted on overseas student flows. Much of the immigrant experience, particularly in a social context, can be correlated with the experience of an overseas student. By building upon the social network and immigration trade literature, a model of overseas student and trade promotion has been developed.

In the following Chapter, attention turns to the role that an overseas student can play in the micro dimensions of international trade – the social dynamics that are embedded in international business dealings including the importance of cultural awareness and understanding.

# CHAPTER FIVE

# THE IMPORT AND EXPORT PROCESS - WHAT ROLE CAN OVERSEAS STUDENTS PLAY?

## 5.1    Introduction

In this Chapter, attention is focused on the microeconomic dynamics of bilateral trade flows, the import and export process. A review of the literature on the factors that influence both export and import initiation is undertaken in an attempt to identify what role overseas students have in facilitating international business activity. To do this, focus is placed on the social dynamics that are embedded in international exchanges and the importance of cultural awareness and understanding, which are the "natural" trade barriers of the $21^{st}$ century. International trade theories such as the theory of comparative advantage and H-O theory, base their analysis at an aggregate level, that is that countries trade with other countries. However, as highlighted by Porter's work in this area (Porter, 1990) international trade is composed of firms in one country, trading with firms in another country. The objective of this Chapter is to show that international trade is the result of micro, enterprise based decisions, and in such a context, networks matter and can play an important role in facilitating international trade activity. From this, a conceptual framework is developed illustrating how overseas student flows and their social networks can stimulate international trade flows. This conceptual framework is tested using both quantitative and qualitative methods in the following Chapters.

## 5.2 The Export Initiation Factors

Quite an extensive pool of research exists on export practices of firms and their export performance. It was thought that by examining the practices of successful exporters that information may be gathered on these firms' activities and approaches to their export decision making processes, that could then be applied to develop general guidelines for export marketing management.

One of the surprising revelations of the literature review on export practice is the lack of consistency in the findings from such studies. As Aaby and Slater (1989) observed there has been an unwillingness by researchers to combine empirical export research into a consistent conceptual framework. An early study by Bilkey (1978) reviewed 43 studies on export behaviour of firms from eleven countries. The findings of which can be summarised as follows:

- The importance of a profit motivation for export behaviour is unclear;

- Non-exporters who have explored export opportunities perceive greater obstacles than do exporting firms;

- Common obstacles include insufficient finances, foreign government restrictions, insufficient knowledge about foreign selling opportunities, inadequate product distribution abroad, and a lack of foreign connections;

- Exporting firms tend to have better management than non-exporting firms;

- Very small firms tend not to export; beyond some point exporting is not correlated with size;

- Exporting is a development process that may be conceptualised either as a learning sequence or as export stages;

- The importance of various factors that influence export success depends on the stage that the company is in;

- Export profiles could be used by government agencies, by banks, by export agents, to identify non-exporters with a high potential for becoming exporters.

From this work and a related study by Bilkey and Tesar (1977) a model of the export process was developed signifying that exporting is a developmental and learning function, made up of a number of key stages being:

Stage 1: Management shows no interest in exporting and would reject any unsolicited export orders;

Stage 2: Management is not active in exploring export opportunities but will fill any unsolicited export orders received;

Stage 3: Management actively commences exploring export opportunities;

Stage 4: The firm exports to a relatively 'easy' market;

Stage 5: The firm becomes an experienced exporter to that market;

Stage 6: Management looks at newer and more difficult export markets to expand their export business.

It was a further decade before a similar attempt to solidify the export literature was made by Aaby and Slater (1989) who examined the properties of 55 export studies conducted in 8 countries, primarily in the United States. A key point in their study was the division of export knowledge into two broad levels – firstly, the external environment level which includes macro-economic, social, physical, cultural and political aspects that impact on export behaviour and performance, and secondly, the firm business strategy and functional level which includes business policies and

capabilities required for successful export activity. Their study focused on the second level incorporating firm characteristics, firm competencies and firm strategy.

Aaby and Slater found that there was no definitive clear cut formulae for developing a successful export programme. However, their review enabled them to make a number of general conclusions including:

- Company size by itself is not an important factor unless it is linked to aspects such as financial strength or the ability to generate economies of scale;

- The export performance of companies who have a management committed to export tends to be higher;

- Firms that plan export activities and have better management systems tend to be more successful exporters;

- Export experience is important;

- Competencies are more important than firm characteristics;

- Technology, may or may not be important for success;

- Non-exporters tend to perceive export to be risky, to require more resources, export assistance and tax incentives than may be required.

A growing amount of research to further develop export marketing theory has focussed on the internationalisation differences between exporting firms. Internationalisation as defined by Piercy (1981) is the degree and type of commitment of a company and its management to business gained from sources external to the domestic market. Research by Johanson and Vahine (1977) developed the concept of a continuous process of internationalisation, where they found that the internationalisation of the firm is a function of a series of closely-related incremental decisions, involving the gradual

acquisition, integration and use of knowledge and information about foreign markets and operations, that brings an increasing commitment to overseas business activities within the firm.

A recent model for exporter development was developed by Dr. Chris Styles in an Australian Trade Commission report analysing the Australian exporter community (Austrade, 2002). Styles' framework titled "The stairway to export success" is shown in Figure 5.0.1 and is based on an exporter's ability, attitude, available stimuli and ability to learn.

**Figure 5-0-1 The stairway to export success**
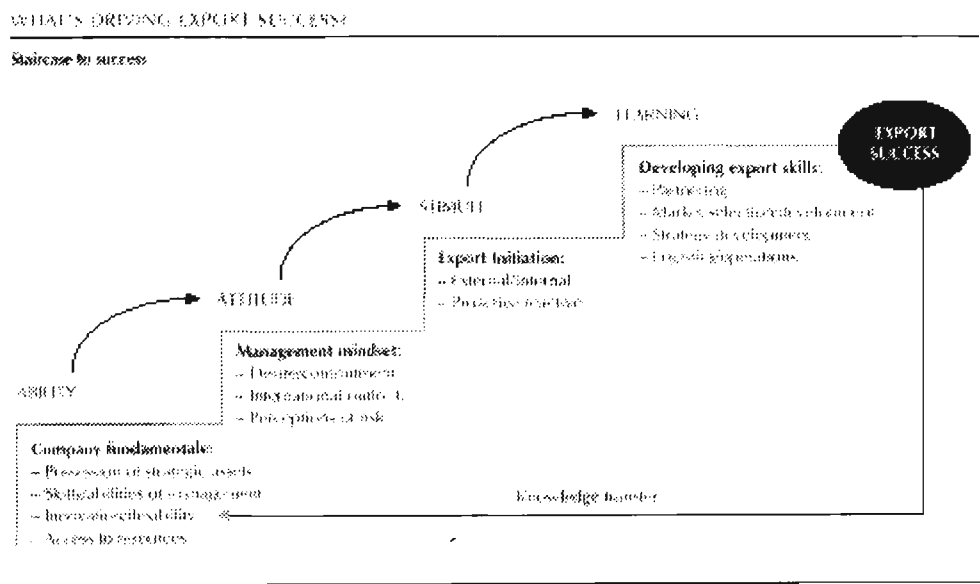
**Source: Austrade (2002)**

Obviously a firm needs to be internationally competitive to be able to successfully sell its product or service in overseas markets. If a product can fill a market gap and is of high quality then export success can follow. The firm must also have the resources to be able to operate in export markets. This can be both financial and human. Many small firms lack both the finances and adequately skilled staff to oversee their international business dealings. Styles also found that successful exporters are more

likely to adopt good business practices, such as business planning, budgeting and networking. Despite sounding obvious, a firm that has good basic management and marketing skills is better able to become a successful exporter.

The second step to export success as determined by Styles lies in management's mindset towards exporting. This positive attitude towards exporting typically resonates from a management team that has international experience. This may have come from a sustained period of living in a foreign country through a job placement, or possibly from an overseas study experience. This type of management is more open to travelling overseas to trade fairs and exhibitions, to try and identify new markets for its firms' business. This initial openness towards an export culture is critical in allowing a firm to develop an export business. This is a key benefit of the flow of overseas students around the world. It exposes them to an overseas experience and shapes them to become more likely to enter exporting in the future, particularly if they are involved in the management of a firm.

One of the main barriers to firms initially developing their export business is the perception within management that exporting is a very high risk business venture, and thus should be avoided to minimise the risk to the firm. This perception of risk is a function of a lack of understanding and knowledge of the export process, and can quickly be reduced once a firm starts exporting. In fact, exporting can be viewed as a risk minimising option. By diversifying the firms' markets they are decreasing the exposure the firm has to any one particular market, thus decreasing the risk the firm faces when difficult trading conditions arise.

Styles found that stimuli are a key component towards export success. With large numbers of first time exporters moving into exporting accidentally, the way a firm reacts to an unsolicited export order is important. If management is able to grasp the chance that an unsolicited export order presents to the firm, they can build a strong export business without ever intending to do so. Again if management has some international experience and/or has been exposed to an extended period in an overseas country this generates an increased desire to act proactively on export opportunities that may arise through chance encounters. This international experience typically implies that management will possess some form of international social network that can be utilised to source strategic information relating to overseas market opportunities.

Finally, and most importantly, Styles framework for export success identifies knowledge about the export process, and access to international networks, as critical variables in the ability of a firm to successfully become an exporter. Through such international networks, management can acquire knowledge on the export process, and develop export skills much faster than otherwise would be the case. The ability to be able to network effectively in overseas markets is also deemed important.

Discussion is now directed to this final point. In what way can access to international networks facilitate a firms' initial foray into exporting, and in particular what role do social factors play in the export process.

## 5.3    Social factors in the export process

The idea that overseas students can play a role in stimulating trade flows depends to a large extent on the premise that international trade is an exchange process that arises

through the process of matching a product with a perceived market need (Toyne, 1989; Rauch, 1996a; Liang and Parkhe, 1997). It is within this process that the existence of social networks, particularly international ones, can facilitate the flow of this type of information between interested parties.

It has been found that the matching of a product to a foreign market need is quite often established by an outside party and that often export activity is initiated through an unsolicited order from an external source. An Austrade study (Austrade, 2002) found that 70% of new exporters are what is termed 'accidental exporters', that is exporters who received unsolicited export orders.

This implies that most initial export activity does not follow the dominant thought process proposed by the mainstream marketing literature, that suggests that export decisions are the rational response to conditions in the market, and are based on information that has been gathered objectively and systematically by the exporting firm through market research (Ellis and Pecotich, 2001). To try and explain the decision making process of export behaviour which ignores the social context in which the exchange quite often takes place is dangerous, given the high proportion of export initiation which arises from unsolicited orders. However, this seems to have taken place with very little research done on this facet of the export process, mainly due to the fact that it is perceived as a random, non-systematic process that cannot be modelled.

In an attempt to rebuff this dominant logic in the mainstream marketing literature, Ellis and Pecotich (2001) examine the influence of antecedent social ties on export behaviour amongst a number of small and medium-sized exporters, drawn from a range of

industries. Research has shown that firms quite often enter into exporting for quite irrational reasons, completely unrelated to the optimising logic of the market (McDougall, 1991). As mentioned earlier, an Austrade study on the potential of Australia's export sector concluded that over 70% of exporters were classified as 'accidental exporters' meaning their initial foray into exporting was unplanned, and quite often arose from chance encounters, being in the right place at the right time and unsolicited export orders (Austrade, 2002). Ellis and Pecotich (2001) commented on the lack of research into export behaviour that has focused on the social dynamics inherent in export initiation. Thus, their research focused on the antecedent conditions that lead to the formation of export exchange relationships.

Their study argued that the adoption of an export strategy can be viewed in the same light as the adoption of a new innovation, in the sense that both of these processes have the attributes of a sequence of stages. Initial awareness of some external idea or opportunity is followed by intention, trial, evaluation and finally acceptance. They then used three findings from diffusion theory to develop their central research question. The three findings are 1) at the awareness stage of the adoption process, the most important information sources will be cosmopolitan, or outside the innovating (exporting) social system; 2) some form of social contact will be the basis for awareness; and 3) the propensity to innovate (or export) will be related to the cosmopolitanism of the potential innovator (exporter). These findings enabled them to propose that there is a relationship between the cosmopolitanism of the decision maker and the perception of opportunities abroad. Intuitively, this makes sense, as personal contacts with foreign individuals and organisations can affect the awareness of export opportunities, that can directly lead to export outcomes. That is, the exporting decision-

makers' willingness and likelihood of pursuing an unsolicited export order will be a function of the existing knowledge that the decision-maker has acquired from previous experiences. Such experiences could include an overseas living experience, either by being born in a foreign country or spending a considerable time living in a foreign country, or by having work experience in a foreign country and foreign language expertise (Langston and Teas, 1976). A study by Reid (1981) suggests that the decision-makers attitudes toward and preferences for foreign markets and export entry are major determinants of any subsequent export behaviour.

As was discussed earlier in Chapter Four, information can flow through existing social network channels (Macdonald, 1992; Nohria, 1992; Wassermaun and Faust, 1994; Jackson and Wolinsky, 1996; Lazear, 1998a) and 'the most valuable information is communicated mainly via informal channels' (Everett, 1982). Ellis and Pecotich (2001) argue that information regarding foreign market opportunities can flow through a decision maker's international social network, that may reside in any number of overseas markets, depending on the extent of the decision maker's cosmopolitanism. They identified three mutually exclusive decision maker types (seller, buyer and third party) that can be the first to learn of an opportunity to initiate some form of export exchange. This awareness of potential opportunities abroad has been identified as a critical determinant of export stimuli. However, it does not necessarily have to be the potential exporter who possesses this knowledge first. As discussed, it can quite often be the buyer who will actively research information to identify an appropriate seller or a third party who can assist in connecting buyers and sellers in the international market. There is also the function of an exhibition or trade fair which facilitates acquisition of overseas market opportunities to all three of these decision makers (buyer, seller, third

party). They argue that any investigation into the connection between awareness of overseas market opportunities and subsequent export activity must consider these four possible scenarios: seller initiated (active exporter), buyer initiated (an unsolicited export order), broker initiated (export agent or agency), or initiated as a result of a trade fair.

The results of their study were stark, and provided strong support for their hypothesised relationship between the cosmopolitanism of the initiating decision maker, and the awareness of opportunities abroad. Exports are, on most occasions, initiated on the basis of the decision maker's existing social network, and these social ties provided a link between the buyer and seller, before the communication of information commenced regarding the export opportunity. In fact, they found that most of the export initiations would not have taken place if the decision maker's social ties did not exist. In only 2 of the 31 cases studied, was there formal research undertaken to assist in identifying a foreign buyer. Given the support that this study gives to the proposition that exporters frequently learn of foreign market opportunities through their existing social network, this gives added importance to the creation of an international social network which arises from an overseas study experience. By generating an international social network through an international education experience, decision makers are increasing their ability and likelihood to successfully identify and undertake international business opportunities later in their business career.

So what possible role can overseas students play in any of the previously mentioned scenarios? Can overseas students utilise their overseas study experience and international social network in a manner that can stimulate business activity through one

of these possible channels? As an active exporter, an overseas student is aware of buyers in the overseas market in which they studied. They know what products are already available and what products would possibly be successful in that market. They have a stronger understanding of consumers' tastes and preferences and importantly, they may also have friends or associates in the overseas market that may be possible buyers or suppliers of relevant information. This has strong ramifications in the thought process of the exporter when deciding which overseas market to enter. It is highly likely, that exporters gravitate towards markets that they feel more comfortable in, and this comfort can arise through both an understanding of the culture in that market and supply of information. As information availability increases, the perceived level of risk decreases, and the exporter will be more likely to pursue an export order in that market.

However, as most empirical research has found, the majority of export initiation is triggered by the importer or buyer. As a study by Liang and Parkhe (1997) states 'one form of international exchange simultaneously involves exporters' selling decisions and importers' buying decisions, one cannot exist without the other.' However, as it is much harder to sell a product compared to buying one, and as the process of exporting provides the foreign exchange to pay for imports the literature has preferred to focus its attention on the behaviour of exporters rather than importers. In an earlier paper, Liang (1995) examined this phenomenon of the unsolicited export order (UEO) from the viewpoint of the importer. The little research that has been done on this has focused on the exporters, or passive exporters as they are referred to in the literature, behaviour and success at filling UEO's. Liang's study develops 14 propositions of importer behaviour in relation to UEO's all of which conflict with the systemic frameworks for overseas vendor/market search procedures developed in the international marketing and import

management literature that suggests importers are supposed to establish export criteria, screen the world-market to identify a short-list of target countries, carefully identify and evaluate alternative vendors, balance a range of technical and strategic factors and select the best overall vendor (Liang and Parkhe, 1997).

Liang argued that most of the studies in vendor search behaviour in the domestic Organisational Buying Behaviour literature are conducted within the "rational choice" framework, where search efforts are a function of expected search benefits and information costs.  This framework is limited as it ignores the limits of human rationality, and as buying internationally as opposed to domestically involves:

1. More complex tasks;

2. A more uncertain environment; and

3. Much higher search costs in their search for overseas vendors

Liang went on to identify four 'alternative frameworks' of human problem solving to better explain overseas vendor search behaviour:

1. A sequential search using the satisficing rule under conditions of complexity and uncertainty;

2. Relying on embedded social networks to economise search cost and to prevent opportunistic behaviour;

3. "mimetic behaviour" as an alternative search; and

4. an "irresponsible search" under conditions of resource slack.

The first method of sequential search argues that importers will search sequentially for vendors until they find a vendor they are satisfied with.  This contradicts the rational

choice model where the goal of the vendor search is to find the best possible supplier

for a given product. Sequential vendor search most likely does not achieve this

outcome unless the optimal supplier lies within the buyers search path. Hence, for the

exporter the critical success factor may not solely be its product offering, but of being

easily accessible to be positioned in the buyer's search path.

So this raises an important question. Through what mechanism does the importer

generate its search path and to what extent is this search path limited? Human

rationality is limited to the number of calculations or comparisons that can be carried

out. This clearly limits the number of possible vendors that will lie on the buyers search

path, before an adequate vendor is identified. So how can this path be generated and is

there any way a vendor can increase their chances of lying within the buyers search

path?

Clearly the critical variable in assembling the buyers search list is information. As the

buyer accesses information its search list commences. The literature has identified that

one of the main difficulties in international business is accessing information.

Information on overseas markets can be timely, costly and in some cases non-existent,

particularly for lesser-developed economies, that spend less on marketing the amount of

vendor information available to buyers.

An interesting study by Reid (1984) analysed the information acquisition and export

entry decisions of small firms. He argued against the common belief that small firms

operate on a limited information basis, depriving themselves of cheap export market

knowledge in particular through low usage of export promotion programs and

incentives, but instead, discriminately use alternative sources to acquire foreign market information and assistance. Attempts at developing export models concluded that information acquisition by firms prior to their export entry, was causally associated with the subsequent export entry decision made by the firm (Johanson and Vahine, 1977; Reid, 1980; 1981). The pre-export preparation of the firm was deemed critical as the more active a firm was in the pre-export period, the greater its investment in the exporting strategy must have been and the more relevant information it must have sourced (Welch and Wiedersheim-Paul, 1980). However, empirical testing of this proposition has found that market knowledge can be used to reject export entry, and that small firms are unlikely to undertake extensive market research.

What all of this leads to is that for buyers to generate their search list of appropriate vendors in overseas markets they need information. And typically, this information is not readily available or easy to access. Hence, buyers will often initially turn to their social networks in order to gain information. Not only is the information easier to access, as was discussed in Chapter Four, it can be of a higher quality and more updated than other publicly available information. Also as uncertainty increases, as is usually the case in international rather than domestic business, the tendency to rely on personal information sources becomes stronger.

Thus, the pool of knowledge and social networks that an overseas students builds up whilst studying in a foreign country can mean that their search list can be dominated, or even limited to companies operating in the market that the student previously studied in. Ellis and Pecotich's (2001) study found that the majority of new exports were initiated by the buyer or importer, who revealed that prior personal contacts, strongly influenced

the perception of the market opportunity abroad, and therefore the export initiation itself. Buyers, sellers and/or third parties that have been exposed to specific and general foreign market information through previous overseas experience and cultural socialisation, can be viewed as assets in an export decision (Reid, 1981).

The diffusion of information pertaining to overseas market opportunities is determined to a significant extent by the size of social networks that span international borders. Given that any of the parties lying within this social network may be the first to perceive the overseas market opportunity, it is implied that the existence and utilisation of a social network can play a role in both the movement of an exporter into new overseas markets (seller), as well as the sourcing of supplies and products from overseas markets (buyer). The role of an intermediary agent depends strongly on their network of contacts, be it in both a domestic or international business operation. Therefore, this can also be strongly impacted by the size of their international social network span.

This in turn can have a significant impact on the type of business relationship that exists between the transacting parties. An interesting study by Rosson and Ford (1982) found that the greater the joint experience of the contact persons (or boundary spanners – the people who contact with the opposite transacting company in the foreign country ) the less the intensity in the exporter – distributor relationships. This means that the relationship is less formal due to the familiarity of the boundary spanners and/or the relative stability in the transactions between the firms in the past. Implicit in this, is a reduction in costs associated with contract negotiations and enforcement, a key benefit to trading with individuals in ones social network.

The key theme which flows through the literature is the importance of information to the exporter.  Whether this information comes from the decision-makers' own personal experiences or from a personal contact or member of their organisation, the ability to lessen the uncertainty which cloaks overseas market opportunities seems critical in the decision makers' actions to pursue or not pursue overseas market opportunities.  It is more likely that a decision maker in a firm will pursue overseas business opportunities if they have a contact in the overseas firm, or information regarding the business opportunity is available from a contact in their own social network, or an individual within the decision-maker's firm has some knowledge of the overseas market opportunity.  Not only does the existence of social network contacts and/or awareness and understanding of foreign cultures through periods spent overseas increase the likelihood of an international exchange occurring, it also impacts on the type of relationship that will exist between the parties to the exchange process.  This can result in a far more unstructured business relationship which relies more on trust than on contractual obligations leading to reductions in transaction costs associated with contract negotiations and enforcement.

What the literature and previous empirical studies find, is that export/import initiation is strongly impacted on by social ties, particularly those spanning international boundaries.  What this implies is the direction of international trade flows is to some extent being shifted towards countries whose residents share social networks.  That is, countries are more likely to trade with each other, if their residents have social network connections.  Historically, trading links distinctively followed the spread of colonialism as the British Empire spread its power and its commerce through trade with its new colonies.

Over time, the spread of colonialism diminished and the movement of people was linked to immigration flows particularly as a result of the two World Wars. International migration played a key role in the economic expansion of receiving countries. Almost the entire population of the Western Hemisphere and of Australia and New Zealand consists of descendants of people who immigrated in the past 200 years (Pugal and Lindert, 2000). As more and more people, immigrated to new countries, the pool of people with international social networks grew rapidly. With this, a rapid growth in trade with immigrant channels emerged and has become a prevalent factor in global trade flows today. As highlighted earlier, Rauch and Trindade (1999) estimated for differentiated products within Southeast Asia, that ethnic Chinese networks increased bilateral trade by more than 150 percent, and Head and Ries (1998) found that immigration had a significant positive relationship with Canadian bilateral trade finding that a 10% increase in immigrants leads to a 1% increase in exports and a 3% increase in imports.

Today, there are three key channels by which international social networks can be generated through the movement of people:

> 1: immigration flows,
>
> 2: international travel,
>
> 3: overseas student flows.

All of these flows are interrelated and feed off each other to some extent. Despite the differences between each one of these types of people flows, they all exhibit the ability to enable international links, connections and networks to be generated. These links can be utilised to initiate and facilitate international business activity. As discussed,

numerous studies have examined the link between immigration flows and trade patterns. The link between international travel and trade flows is much weaker, as the overseas experience is typically much shorter in duration allowing for much less of an absorption of the overseas markets culture, and obviously less time to develop overseas contacts of significant strength. However, Kulendran and Wilson (2000) were able to identify the existence of a 'causal relationship' between trade and international travel. And certainly international travel enables network generation and connections to be made which can facilitate international business activity.

The numbers provided earlier in relation to immigrant and overseas student flows into Australia highlight in crude terms the possible magnitude of the impact that overseas students may be having on Australia's trade flows, and the need for a higher level of research focus to be targeted to this area. The following Chapter estimates the impact of overseas students from Thailand on trade flow activity between Australia and Thailand.

## 5.4 Impact of Culture on International Business Exchanges – The Natural Barrier to Trade

Despite the strong growth in international trade relative to world GDP since the end of WWII, research has shown that countries appear to trade too much with themselves and too little with each other (McCallum, 1995; Helliwell, 1998). In Canada, domestic manufacturers supply 60% of the Canadian market despite the fact that Canada produces only 2.5% of world GDP (Head and Ries, 1998). The reason that international trade flows remain at much lower levels than what would prevail if the world economy was fully integrated (void of tariffs and other non-tariff barriers such as

subsidies and quotas) lies in what can be called "the natural barriers to trade" that exist in the global economy. These include informal trade barriers such as cultural differences, difficulties in enforcing international contracts and inadequate information about international trading opportunities (Bakalis and Maharani, 1999). Globalisation has had the effect of reducing the negative impact of 'distance' in an international transaction. In this instance, distance not only refers to the physical distance between the business parties but also the cultural distances that exist between individuals as well as firms from different countries. Rosson and Ford (1982) in a paper examining the relations between manufacturers and overseas distributors defines the 'distance' that exists between two interdependent companies in different countries, as the sum of factors preventing flows of information and understanding between seller and buyer and includes geographic, cultural and social elements. Rosson and Ford (1982) argue this 'distance' problem is particularly acute when the two companies involved in the exchange process are rather loosely connected, and also when the exporter is inexperienced in international business operations. They also identified a number of 'distance' variables, which shape international transactions:

- Physical distance barriers,

- Cultural features and distances,

- Cognitive and psychological features,

- Different levels of economic development.


Physical distance barriers have reduced over time as new modes of transportation have developed which have enabled faster, safer and cheaper methods to transport goods across national boundaries. For trade between Australia and Thailand, distance is not a major concern as the markets are situated relatively close to each other, and there is a

large supply of available transportation between the two markets. The relative closeness of the two markets has been one of the key attractions for Thai students choosing to study in Australia. However, in general it can be argued that distance is not a barrier to trade between these two markets and indeed can be viewed as a stimulatory factor.

The cultural differences that exists between parties from different countries represents a problem which is largely ignored in the mainstream trade literature. A key assumption with most trade models, including the classical model, is that buyers and sellers are assumed to have perfect knowledge of the market. These models assume full knowledge and certainty where trading opportunities are known, as trade reacts to changing supply and demand conditions, and relative cost conditions. It can be concluded that, because information about market opportunities is freely available, and there are no entry barriers, the existence of natural barriers will have no negating impact on the level of international trade activity.

However, as is common knowledge, perfect knowledge in the arena of international business does not exist and market information regarding overseas markets can often be one of the main impediments for firms aiming to achieve successful overseas business activity. Other barriers such as cultural and linguistic borders, as well as highly visible tariff, and less visible non-tariff barriers also impede the smooth international exchange process. As identified by Bakalis and Maharani (1999) in a study into the importance of natural trade barriers in Australia's trading relationship with Indonesia, it is important to recognise that knowledge is typically imperfectly available and that impediments to trade exist based on a lack of understanding of a country's trading system, its cultural

values, or simply a failure to be in a position to recognise opportunities. The existence of these market imperfections enables businesses to take advantage of, and utilise the skills and knowledge of, individuals who possess language skills, cultural knowledge, awareness of foreign markets and foreign contacts.

The role of culture in international business has been a popular research field particularly in the marketing field. Culture has been defined in many ways in fact Kroeber and Kluckholn (1952) were able to identify 164 different definitions of culture in the literature. It is important for businesses to acquire knowledge about the culture of a trading market. Learning the local language, the customs and the traditions, or having the skills of someone in your organisation or social network who possesses these tools, can prevent cultural misunderstandings and avoid unnecessary costs to businesses.

Obviously huge cultural disparities exist between a Western country such as Australia and an Eastern country such as Thailand. It is possible to define subcultures and cultures of different activities of an export/import transaction; the two key subcultures are the individuals' cultural background and the business culture of that country. Quite often the two will be interrelated quite strongly. Thai business culture is impacted upon strongly by surrounding cultural habits originating from the national culture in which the firm operates.

Arising from these differences in national and business cultures comes the psychological and cognitive aspects that occur when contacts are made by people of different cultures. It is in these exchanges that personnel who have an understanding of both cultures involved can be a valuable resource. This not only implies the ability to

be bilingual, but a deeper level of cultural awareness and understanding that will enable accurate coding and decoding activities to take place during intercultural business meetings. The existence of such personnel may be just as important as technological know-how and/or organisational skills.

Unfortunately, the global view in the English-Speaking business community is that competence of a foreign language is unnecessary in a world where English is the global language of commerce and is reflected in the large number of Australians who are monolingual (Bloomfield, 1996). The literature shows that foreign language competence can contribute to international business success in a variety of ways including:

- Facilitation of social contact enabling relationships to develop and trust to grow,

- Improves communication to and from the market,

- Assists in understanding the ethos and business practices of a market,

- Improves the ability to negotiate and give a psychological advantage in selling,

- Faciltitates the effective management and control of overseas subsidiaries (Turnball and Wellham, 1985).

A study on export management perceptions of the importance of cultural differences by Elbashier and Nicholls (1983) found that 9 out of 10 companies operating in the Middle East found cultural factors to be of varying levels of relative importance. One of the key recommendations of the study was that British cultural links with Arab countries were a business asset. In the same sense, the links that have been developed between Australia and Thailand through the significant flow of overseas students is a business asset for Australian companies to utilise and capitalise on.

Both Stanley, Ingram et al. (1989) and Akoorie and Enderwick (1992) provided some evidence that the employment of foreign language specialists was correlated with export success, while Coughlin (1987) argued the existence of different languages in the exporting and importing countries be considered as a natural barrier to trade. Also a report by Simon (1987) stated that American firms were becoming more sensitive to the relationship between foreign language and cross-cultural skills and effectiveness in international business competition. He argued that if American businesses are going to be successful in these growing markets, they must be able to communicate their products' attributes effectively.

This issue is important for a country like Australia where its dominant trading patterns have shifted from English-speaking economies (USA and UK) to non-English speaking economies (Asia and the Middle East). As trade with these regions grows, it is important that Australians have a better understanding of the cultures and languages of economies in these regions. It would be foolhardy to say that the rapid increase in overseas student numbers to Australia has brought with it a subsequent increase in language ability of Australians in these foreign languages. However, definitely a higher level of cultural understanding has developed as Australian students mix with students from these countries and gain a better understanding of their countries background, culture, beliefs and values. However, from the perspective of the overseas student, they are benefiting from their extended stay in Australia and are being rewarded with knowledge of both the English language, as well as the cultural understanding of the Australian way of life. However, given the huge distortion in the number of overseas students who flow in to Australia as opposed of the number of Australian students that

study overseas, one could argue that Australian graduates are losing ground to these countries in terms of their skills and abilities to perform successfully in the global economy.

A study by Graham (1985) examined the influence of culture on the process of business negotiations in three countries the United States, Japan and Brazil. A review of the negotiation literature by Rubin and Brown (1975) found that the behaviour of bargainers during the negotiation process affect negotiation outcomes. Such behaviours include opening moves, countermoves, types of appeals and demands. Graham's study found that substantial differences in bargaining styles exist across cultures and hence understanding of the culture with which a transacting party is dealing would be advantageous.

The ability to possess such skills as foreign language proficiency and cultural understanding can arise from a number of varying situations. The experience of living extensively in a foreign country will usually provide an individual with a fairly developed understanding of that culture. This situation can arise from a number of possible scenarios: immigration, job placement, and overseas study experiences are all instances which allow an individual time to develop a more than superficial understanding of a foreign culture.

An overseas student who comes to study at tertiary level will typically live a minimum of four years in Australia and will quite often work to support their living expenses. From such an extended stay in an overseas country, and through their fairly extensive contact with 'local' Australians (perhaps more so than in the case of an immigrant who

research shows, often does not mix with the locals of the country but prefers to stay in the safer surrounds of their immigrant enclave) overseas students are able to grasp both a strong command of the English language, as well as of the way Australians think and act, crucial skills when negotiating any form of business deal with Australians at a later stage. These acquired skills will enable such future business dealings to occur on a much higher level of cultural understanding and awareness, than would otherwise have been the case. This in itself lends credence to the ability of Thai overseas students in Australia to stimulate business activity between the two countries after they return from Australia to Thailand. These acquired skills can be used by both Thai and Multinational companies to facilitate business negotiations and to develop stronger company relationships. They can also be used in a private entrepreneurial sense, to facilitate the individual to conduct business activity with Australian companies.

These skills empowers foreign students to become what is known in the literature as 'network intermediaries". Rauch (2001) defines a network intermediary as an agent who sells access to and use of his network, typically for commission on the value of the transactions realised. They can be known as an agent, broker or trader, and they typically possess strong knowledge about bilateral and often multilateral markets enabling them to match buyers and sellers. As Head and Ries (1998) stated, they are able to realise lower costs associated with foreign trade due to their superior information on market opportunities.

The literature clearly identifies a role that social networks can play in stimulating trade flows. As traditional trade barriers continue to fall and transportation costs become less significant, the existence of natural barriers to trade is becoming more important

(McCallum, 1995). The ability for decision makers to utilise their social networks to

provide them with information on foreign market opportunities, to grease the wheels of

the international transaction, to help overcome difficulties relating to contract

enforcement and cultural barriers, and to reduce the overall costs of the international

transaction, is enabling them to gain a competitive advantage in the international

marketplace.    An overseas study experience is enabling future businessmen to generate

international social networks which they can tap into throughout their business career.

In the next section, a theoretical model is developed to support the empirical research

that will be undertaken to determine the magnitude and the composition of the impact

that overseas student flows are having on international trade flows.

## 5.5    Developing a Theoretical Model of the impact that Overseas Students Play on Bilateral Trade Flows

Previously, literature was outlined on the role of networks in facilitating trade flows

both in the context of overseas students and also immigration flows.  In order to better

comprehend the methods and avenues by which overseas students impact trade flows,

an international education trade impact model is developed which will encompass all of

these possible impact instruments.

The literature review identifies a number of key mechanisms through which overseas

students may stimulate trade flows with a foreign country.  Figure 5.0.2 illustrates that,

overseas students' attitudes to Australia, their preference for Australian products and the

creation of social networks in Australia can stimulate trade flows between the two

countries.

Figure 5-0-2 The Analytical Framework of the effect of Overseas Students on Australia/Thailand bilateral trade flows
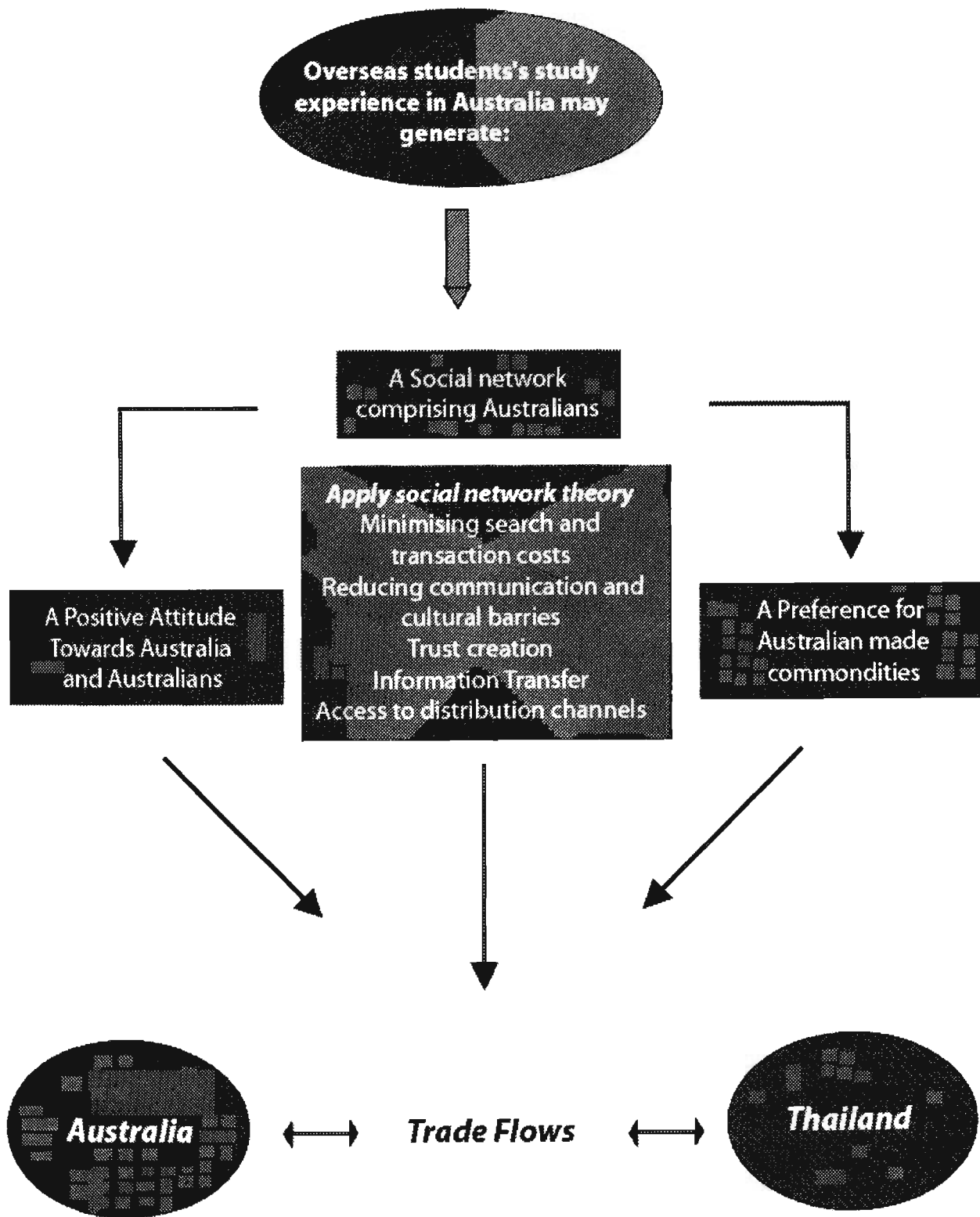
This diagram will be used as the theoretical foundation for the hypothesis that overseas student flows stimulate bilateral trade flows. That is, it is proposed that overseas students' impact on bilateral trade flows through the following key channels:

1. A student's study experience in Australia can leave a positive impression increasing the likelihood that the student will be biased towards undertaking some form of business activity that is linked to Australia. This could be in the form of purchasing of Australian goods, selling of Thai products to Australia, travelling to Australia, undertaking further study in Australia, recommendation of Australia as a good place to study/travel, investing in Australian property or shares. This could lead to increases in unsolicited export orders for Australian firms.

2. The time spent in Australia will expose students to various Australian commodities and services. Students may develop preferences for these particular goods and services that can lead to increases in demand for these particular goods and services in the future.

3. Students bring with them to Australia certain preferences for particular varieties of foreign products. This should lead to an increase in demand for these products within Australia, hence stimulating Australian imports.

4. The student's study experience in Australia will enable them to develop social networks with Australians which they can utilise when they return to Thailand to facilitate conducting business activity with Australia.

The application of social network theory in the context of overseas students leads to the theory that students develop social networks during their period of study, that can then be used to facilitate business activities in the future, in a number of key ways including:

i) minimising search and transaction costs, ii) reducing communication and cultural barriers, iii) trust creation, iv) information transfer and v) better access to distribution channels.

By utilizing Figure 5.0.2 as a theoretical channel which places in context the link between overseas study experience and increased trade activity, the quantitative and qualitative models in the following Chapters can proceed.

The types of social networks that the student can generate is illustrated in Figure 5.0.3. The student will associate with a range of people during their study experience in Australia generating both close and distant ties with these people. Students can generate friendships and acquaintances with their fellow classmates and their staff at university. They can also build relationships with people they stay with – homestay families, students from other universities, as well as people that they work with if the student chooses to work part-time while they study. Finally, the student can build relationships with people that they meet through social outings, or through sporting clubs or other social groups. Whether the relationship that is built is distant or close, the student can utilize this connection when they return to Thailand. The student can then utilize these ties through the transfer of knowledge and information as was illustrated earlier in Figure 4.0.1.
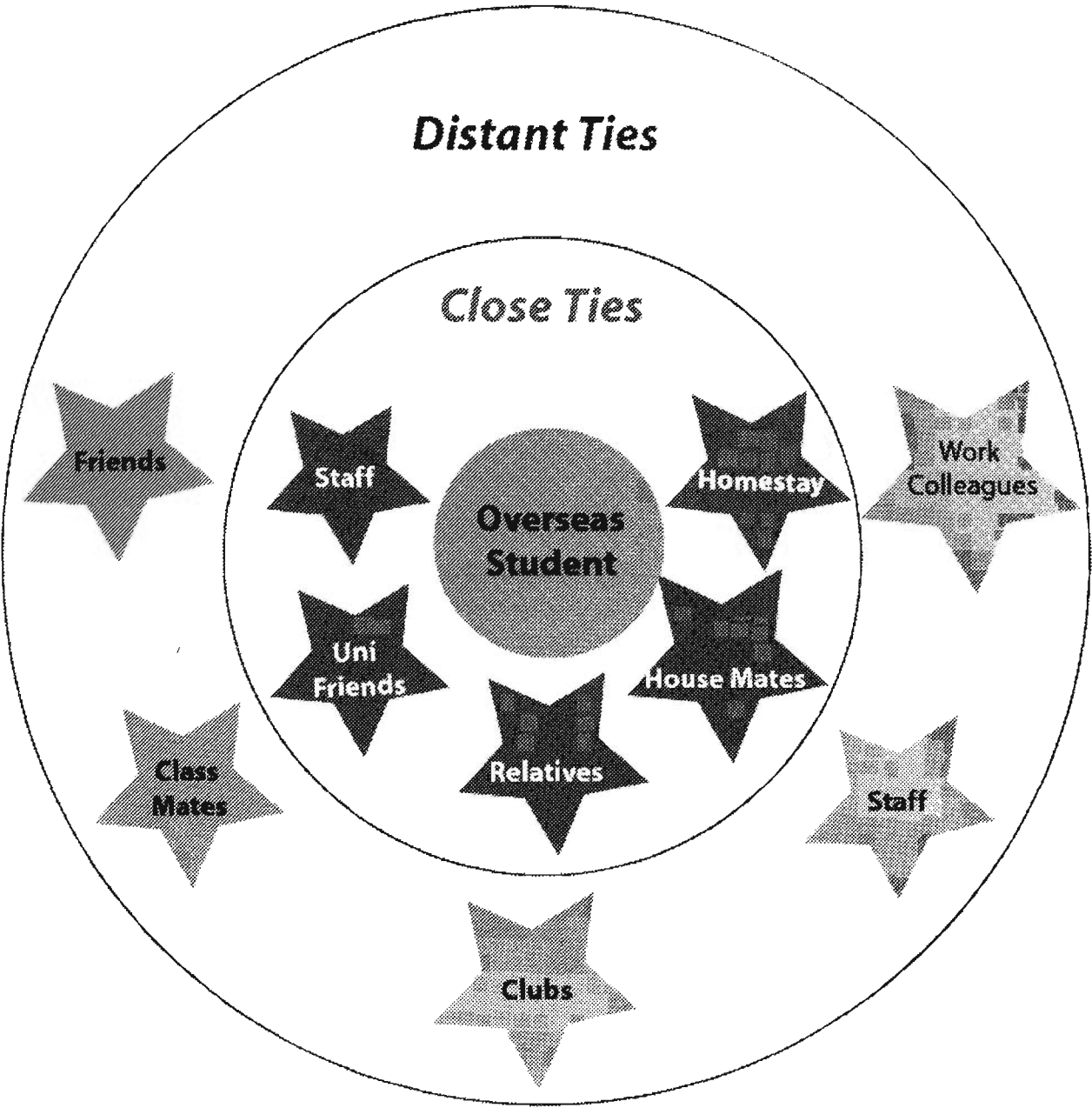
**Figure 5-0-3 An Overseas student's social network**

The process through which information is transferred within overseas student's social networks can be viewed graphically using a standard network model. As illustrated in Figure 4.0.1 in Chapter Four, information and knowledge can be transferred between nodes in a network (people) thereby generating awareness of opportunities and creating new knowledge. The network links in this case, are the use of computer and/or telecommunication networks and various work functions/meetings that provide

opportunities for people within the network to communicate verbally. The process through which overseas students can utilize and mobilise their international social network is similar. However, the nodes within the network structure are located in different countries. This impacts on the methods of transmitting information and sharing knowledge to some extent, but with the use of email, mobile phones and sms messaging there is not a significant difference, apart from the costs of transmitting information. In the case of email and online chat applications, the cost of transmitting information domestically and internationally is identical.

Thai overseas students who have graduated and have returned to work in their home country can maintain contact with people in Australia, who became part of their social network during their period of study in Australia via a range of methods. When a Thai graduate is searching for an international buyer or supplier they are likely to search within their international social network first.

## 5.6 Hypotheses Formulation

By utilizing Figures 4.0.1, 5.0.2 and 5.0.3, a range of hypotheses are developed that can be tested empirically using time series analysis in Chapter Six, and also an international survey in Chapter Nine. The main hypothesis tested is that overseas student flows from Thailand to Australia stimulate bilateral trade flows between the two countries. This can be written as hypothesis one:

H1: *Overseas student flows from Thailand to Australia have a positive impact on bilateral trade flows between the two countries.*

This hypothesis will be tested in the following Chapter using empirical data and cointegration analysis.

Apart from the direct relationship between student flows and trade flows, it is hypothesized that students social networks can play a role in initiating and facilitating trade activity between Australia and Thailand. Given this, one of the channels through which students can generate social networks is through their study experience at university as well as their choice of accommodation as illustrated in Figure 5.0.3. Hence, it can be reasoned that the more time a student spent with non-Thais the greater their opportunity to develop friendships with people from Australia and also other countries. This provides the second hypothesis:

H2: *The amount of time the respondent spent with Australians will be higher for those respondents who have conducted some form of business activity with Australia compared to those who have not.*

It is also hypothesised that an overseas students' attitude towards their study experience in Australia will be an important factor in whether or not the student will undertake some form of business activity with Australia. The more positive the overseas student feels about their study experience, as well as their feelings towards Australia and Australian people in general, the more likely they are to be interested and willing to do business with Australia in the future. This provides the third hypothesis:

H3: *The respondent's attitude towards their study experience in Australia will be higher for those respondents who have done some form of business activity with Australia compared to those who have not.*

Maintaining contact with Australia after the student has finished their study and returned to Thailand, is also hypothesised to be an important factor in enabling the student to maintain the contacts they developed whilst in Australia. It can be reasoned that the more contact an overseas student has had with Australia since completing their studies, the more likely they are to have been able to maintain and develop the international social network they generated in Australia. This provides the fourth hypothesis:

H4: *The proportion of respondents who used various forms of contact methods with Australia since completing their study is higher for respondents who have conducted some form of business activity with Australia compared to those who have not.*

The motive for examining the international travel behaviour of overseas students is to attempt to determine the impact that overseas student flows may be having on tourism exports with students travelling between host and destination countries during their period of study (this would only impact on the Australia's trade account if an Australian carrier was the students choice of airline) and also after the student has completed their study they may be more likely to return to Australia to visit if they had a positive study experience in Australia; and also to visit friends made during their period of study. There is also a possible link between the respondent's travel to Australia and their

tendency to undertake some form of business activity with Australia. This provides the fifth hypothesis:

H5:    *The proportion of respondents who travelled to Australia after their study experience is higher for those respondents who have done some form of business activity with Australia compared to those who have not.*

By undertaking an international survey of overseas students who previously studied in Australia, a profile can be developed of the type of student who is more likely to involve themselves in business activity with Australia, after they complete their study. Therefore, it is hypothesised that there will be differences in the profile of overseas students who do undertake business activity with Australia, compared to those who do not. This provides the final hypothesis:

H6:    *There is a difference in an overseas students personal profile between those respondents who have done some form of business activity with Australia and those that have not.*

Hypotheses 2-6 will be tested using the survey data collected from the international survey described in Chapter Nine.

## 5.7    Conclusion

This Chapter examined the literature on the export and import process and in particular, how social factors can play a role in this area of business activity. The large geographical distance often involved in international business activity, increases the

importance that trust plays in the business transaction. The risk of non-payment and other transaction difficulties forces business people to seek ways to minimize the risk of international transactions and one key way to do this is to conduct the international transaction within one's social network. This enables a sizeable reduction in the risks of the transaction, as trust and fear of retribution within ones own social network will increase the chances that the transacting party will honor their role in the transaction.

The theoretical model supporting the macro analysis into the link between overseas student flows and trade activity was also developed. The positioning of network theory as a base to the theoretical model enables a conceptualization of the overseas students' creation of an international social network during their period of study.

From this conceptual framework, a set of hypotheses were developed to test various relationships pertaining to overseas student flows and trade flows. The following Chapter will utilize the theoretical model developed in this Chapter, and attempt to quantitatively test the relationship between overseas student flows and trade flows.

# CHAPTER SIX

# THE INTERNATIONAL EDUCATION MODEL

## 6.1    Introduction

This Chapter investigates the apparent correlation between Australia's bilateral trade flows with Thailand and the number of Thai students undertaking studies in Australia. An 'International Education' gravity model of trade is developed to undertake regression analysis to determine if there is a statistically significant relationship between Australian/Thailand bilateral flows and overseas student numbers. A gravity model of trade is utilised to relate the volume of trade between Australia and Thailand to the level of overseas student numbers flowing from Thailand to Australia.

It is important that an assessment of the impact of overseas student flows on trade activity is undertaken as policy decisions affecting overseas student numbers need to consider the trade impact of such decisions which could be quite substantial in the long term.

## 6.2    Introduction to the Gravity Model

Undoubtedly, the gravity model of international trade, which has been described regularly as the 'work horse' for empirical studies on bilateral trade flows, has been the dominant approach to analysing trade flows.   Its success lies in its lack of theoretical incompatibility and its ability to explain variations in bilateral trade flows across a wide variety of countries and periods  (Eichengreen & Irwin, 1996).

The gravity model of international trade, whose origins lie in Newton's famous physics equation $F=mc$ states that the volume of trade between two countries can be estimated

as a function of the product of the size of the two countries divided by the distance between the two countries.

Tinbergen (1962) and Pohyonen (1963) were the first to develop econometric models of bilateral trade flows. Their models explained bilateral trade between two countries in terms of their GNPs, Y, and the distance between them, D as follows:

$$X_{ij} = A \left[ \frac{Y_i Y_j}{D_{ij}} \right]$$

Where $X_{ij}$ is the value of exports from country i to country j, and A is a constant of proportionality.

The gravity model used by Tinbergen (1962) was:

$$E_{ij} = \alpha_0 Y_i^{\alpha_1} Y_j^{\alpha_2} D_{ij}^{\alpha_3} N^{\alpha_4} P_c^{\alpha_5} P_b^{\alpha_6}$$

where:   $E_{ij}$   = total exports of country i to country j,

$Y_i$   = GNP of country i,

$Y_j$   = GNP of country j,

$D_{ij}$   = distance between country i and country j,

$N$   = dummy variable for neighbouring countries,

$P_c$   = dummy variable for Commonwealth preference,

$P_b$   = dummy variable for Benelux preference.

The basic gravity model incorporates only the income variables of the trading countries and a distance variable. Tinbergen added to the basic gravity model three dummy variables in an attempt to isolate the effect of the Commonwealth and Benelux preferential treatments and also the existence of common borders.

The gravity model has been widely used as a base for estimating the impact of a wide range of policy issues including regional trading agreements, political blocs, patent rights, common languages, cultural and historical similarities and other various trade distortions. The effects of these events and policies are isolated by measuring deviations from the volume of trade predicted by the standard gravity model or captured by dummy variables (Cheng and Wall, 1999). Tindbergen's (1962) study did this by developing a standard model of trade in the absence of discriminatory trade impediments that allowed him to compare actual trade with expected trade. From this, he was able to determine if a country's exports were being given preferential treatment by importing countries, or were being discriminated against due to trade barriers or resistances to trade.

The initial strength and ability of the gravity model to provide strong empirical results surprised many economists, given that the gravity model had been borrowed from physics and had been applied without justification for its theoretical foundation. Deardorff (1984) describes Tinbergen (1962) and Poyhonen's (1963) development of the first econometric models of bilateral trade flows as being based on "ad hoc but intuitive theorising" (page 503).

Linnemann (1966) was the first to attempt to justify the theoretical foundation of the gravity model. Linnemann added a population variable to the equation which allowed differences in per capita incomes to be included in the gravity equation model and which is often called the augmented gravity model. He argued that the gravity model is a reduced form of a four-equation partial equilibrium model of export supply and import demand. However, Linnemann was unable to justify the assumption of separate

demand functions for imports from each trading partner. Despite this, his equation

fitted to the trade of 80 countries and explained 80 percent of the variance in the data. It

was this study that established the empirical base of the gravity model to explain

international trade flows.

Aitken (1973), Leamer (1974) and Geraci and Prewo (1977) followed on from

Linnemann's work to test the effects on international trade respectively, of common

membership in a free trade area, bilateral trade flows and the importance of factor

endowments and other country characteristics.

It was Anderson (1979) whose model was the first to develop a strong theoretical base

for an aggregate, rather than a commodity specific, gravity equation. His theoretical

foundation was based upon constant elasticity of substitution preferences and goods that

are differentiated by region. His work suggested that trade between two regions (after

controlling for size) is stimulated when the two regions bilateral trade barriers decrease

relative to the average trade barriers of the two regions to trade with all their partners.

As Anderson and Wincoop (2000) reasoned, the more resistant a region is to trade with

all others, the more it is pushed to trade with a given bilateral partner.

A turning point in the use of the gravity equation came from Bergstrand (1989) who

used the gravity model to explain trade in differentiated products. Analysts then began

deriving gravity equations from simple monopolistic competition models. Using this

type of gravity equation, Karemera and Koo (1991) modelled world wheat trade flows

and Christerson (1994) modelled trade in apparel.

A study by Marcouiller (2000) used a variant of the gravity model to model whether insecurity impedes some types of trade more than others and to test whether different dimensions of insecurity affect different types of trade differently. Marcouiller argued that unenforceable commercial contracts hinder trade volumes. Since trade is often undertaken with partners about whom one has relatively little information, the need for strong enforcement of commercial contracts is paramount for trade to proceed. This argument follows the same line of thinking as Gould's (1994) study which suggested that the development of trust through immigrant contracts can decrease the costs associated with negotiating trade contracts, and subsequent contract enforcement. Marcouiller's study found that if contracts in Latin America were to become as easily enforced as they are in the European Union, Latin American trade in differentiated products could rise by as much as 50%.

Two previously mentioned studies by Gould (1994) and Head and Ries (1998) used two different forms of gravity models to explain the influence of immigrants on trade flows. Gould's study used time-series as well as cross-sectional data. Gould hypothesised that immigrants provide foreign market information that decrease the transaction costs to trade, at a decreasing rate in the following functional form, where the stock of immigrants from country j in the United States is:

$$Z_{US,j} = Ae^{-p[M_{US,j}/(\vartheta + M_{US,j})]},$$

$p > 0, \vartheta > 0, A > 0,$

where, Z represents the transaction costs to trade associated with obtaining foreign market information about country j in the United States. The parameter p determines the size of the immigrant information effects on transaction costs, and A is a constant. The parameter determines the curvature of this function, or the sensitivity of transaction

costs to the size of the immigrant stock. Gould substituted this functional form for transaction costs into his reduced-form trade flow equation which meant the overall effect of immigration on trade was positive.

Gould modelled bilateral trade flows from country i to country j as a function of income in the two countries, tariffs, transportation costs, information costs that decrease with the increasing number of immigrants and a set of price terms related to import and export price indices. Gould's estimated equations describing export and import flows are listed below:

$$\log EX_{US,j} = \alpha_0 \log EX_{t-1} + \alpha_1 \log Y_{US} + \alpha_2 \log Y_j + \alpha_3 \log POP_{US} + \alpha_4 \log POP_j + \alpha_5 \log P_{US} + \alpha_6 \log P_j$$
$$+ \alpha_7 \log Px_{US} + \alpha_8 \log Pi_j + \alpha_9 (M_{US,j}/(\alpha_{10} + M_{US,j})) + \alpha_{11}(SKUK) + \alpha_{12}(STAY) + \alpha_{13}(STAY^2)$$
$$+ \alpha_{14}(D_1) + .... + \alpha_n(D_n) + \varepsilon,$$

and

$$\log IM_{j,us} = \beta_0 \log IM_{t-1} + \beta_1 \log Y_{US} + \beta_2 \log Y_j + \beta_3 \log POP_{US} + \beta_4 \log POP_j + \beta_5 \log P_{US} + \beta_6 \log P_j$$
$$+ \beta_7 \log Px_j + \beta_8 \log Pi_{US} + \beta_9 (M_{US,j}/(\beta_{10} + M_{US,j})) + \beta_{11}(SKUK) + \beta_{12}(STAY) + \beta_{13}(STAY^2)$$
$$+ \beta_{14}(D_1) + .... + \beta_n(D_n) + v,$$

where:

| | |
|---|---|
| $EX_{US,j}$ | is exports of goods from the United States to the home country j, |
| $IM_{j,US}$ | is imports of goods from the home country j to the United States, |
| $IM_{t-1}$ and $EX_{t-1}$ | are dependent variables lagged one year, |
| $\alpha$ and $\beta$ | are the estimated parameters, |
| $Y_{US}$ and $Y_j$ | are the U.S. and home-country GDPs, |
| $POP_{US}$ and $POP_j$ | are the U.S. and home-country populations, |
| $P_{US}$ and $P_j$ | are the U.S. and home-country deflators, |
| $Px_{US}$ and $Px_j$ | are the U.S. and home-country export unit-value indexes, |

| Pi$_{US}$ and Pi$_j$ | are the U.S. and home-country import unit-value indexes, |
|---|---|
| M $_{US,j}$ | is the number of immigrants from home country j in the U.S., |
| SKUK$_{US,j}$ | is the ratio of skilled immigrants to unskilled immigrants from home country j in the U.S., |
| STAY$_{US,j}$ | is the average length of stay of the immigrants in the U.S., |
| D$_j$ | is the dummy variable for the home country j, and |
| ε and v | are i.d. error terms and corr(ε,v) = 0 |

Head and Ries (1998) used a gravity model of trade to explore the influence of immigrant flows on trade flows. They modelled bilateral trade flows from country $i$ to country $j$ as a function of the ratio of the product of the two countries GDP to that of World GDP as well as a vector of trade cost variables X such that:

$$\ln m^{ij} = \ln\left(\frac{y^i \, y^j}{y^w}\right) + X^{ij}\beta$$

Their vector of trade cost variables included the following:

$$X^{ij} \equiv [\ln DIST^{ij} \; ADJ^{ij} \; \ln IMMI^{ij} \; OPEN^i \; OPEN^j \; \ln\left(\frac{P^i}{P^j}\right)]$$

1) a distance variable to take into account that transport costs are higher the further countries are geographically located from each other,

2) An 'openness' variable which controls for a country's overall propensity for external trade (measured by a country's total trade with the world divided by its GDP),

3) A 'relative price' variable which is the ratio of the real exchange rate between Canada and each of its trading partners.

The dependant variables used in their study were bilateral imports and exports between Canada and 136 trading partners from 1980 to 1992. Their study found that immigration had a significant positive relationship with Canadian bilateral trade where a 10% increase in immigrants leads to a 1% increase in exports and a 3% increase in imports. An interesting outcome of their study was the extent to which the elasticities for imports were much higher than those for exports. While it was expected they would be higher due to the preferences for home-country goods that immigrants bring with them it was surprising they were higher by so much. Head and Ries suggest it could be that immigrants find it easier to set up importing businesses compared to exporting businesses.

A study by McMahon (1992) looks at the role international study played in the acquisition and development of knowledge resources. It proposed the following two hypotheses:

1) That the flow of students out from a third world nation to the world at large varied directly with the level of the sending country's economic strength, its involvement in global trade, state emphasis on education, and lower levels of home educational opportunities; and

2) The flow of students to the United States varied directly with measures of the economic capacity of the sending nation relative to that of the U.S., levels of trade between the U.S. and the sending nation, the flow of U.S. foreign assistance to the sending nation, and levels of institutional support from the United States.

Clearly, a component of McMahon's study is testing the same relationship this study is interested in, that is, between trade flows and international student numbers but in the

opposite direction. That is, McMahon is proposing that international student numbers between two countries are a function of trade between those two countries.

Her two hypotheses were modelled using an outbound 'push model' and an inbound 'pull model'. The 'push model' looked at the relationship between the percentage of a country's tertiary level students studying internationally and a number of explanatory variables, including the economic power of the sending nation, the state priority on education, and of interest to this study, the level of involvement in the international economy as measured by trade, specifically import and export levels relative to sending nation GDP.

The explanatory power of the model was greatest when economic groupings were utilised. That is, the model best explained overseas study patterns in the 1960s and 1970s for higher income Third World nations. The study found that global trade was found to be a strong, positive factor in fuelling overseas study. McMahon proposed that this could be due to a number of factors including that greater economic involvement with the world system corresponded with greater academic involvement, and that higher levels of global trade may imply changes in the internal labour market that may generate greater demand for education and expertise not available through education in the home country.

Of more interest was McMahons 'pull' model which was structured as follows:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon_i$$

Where,

Y = The concentration of overseas students in a world center, equal to the number of tertiary level students in the United States relative to the total number of international students from the sending country in a given year,

$X_1$ = Relative national size within the world system, equal to the sending nation's GDP divided by U.S. GDP,

$X_2$ = The economic linkage between the host and sending nation, measured as the concentration of sending nation trade with the U.S.,

$X_3$ = Host nation political interests in the sending nation as measured by net U.S. Government foreign assistance divided by sending nation GDP,

$X_4$ = Host nation support of international students as measured by the percentage of students from each sending country funded by U.S. institutional aid relative to the total number of students from that country in the U.S.,

$\varepsilon_i$ = The error term.

McMahon's model related data for the explanatory variables in a given year to the outcome variable two years later as the explanatory variables would not have an instantaneous effect on the flow of students. McMahon found that the importance of concentration of trade with the host nation varied greatly among the different groupings of her population set. In the higher income population, it made a positive and significant contribution, that McMahon argued may have been due to the countries' common stronger economic ties, causing trade to be a more important economic indicator. That is, a specific nation-to-nation trade linkage corresponds with a nation-

to-nation academic linkage. McMahon called for individual case studies to be carried out to validate her general statistical research.

A recent paper by Chen and Barnett (2000) analysed international student flows from a macro perspective in order to determine the international student exchange network that exists in the larger context of global political and economic relationships. The 64 countries that represent the largest number of international student exchanges were used in the study. The study described the international students exchange network and its change between 1985, 1989 and 1995 and addressed the following key questions:

1. What is the structure of the international student exchange network in 1985, 1989 and 1995 and does it follow World System Theory[3]? Who are the core, the semi-peripheral, and the peripheral countries in the international student exchange network?

2. How has the international student exchange network changed and have events such as the ending of the Cold War had any impact on the pattern of international student flows?

3. What is the relationship between a country's position in the international students exchange network to its level of economic development?

Their report found that most Western industrialised countries including the USA, UK, Germany, France and Canada, have stayed in the center in the international student exchange network and that the flow of international students has become more closely linked to economic development. These economically powerful countries which have

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[3] World System Theory analyses the long-term social changes by combining the study of intersocial relationships and the economic and political relations within one global system. It groups countries in terms of three types of structurally equivalent components: the core, the periphery and the semi-periphery depending on the type of products they produce and specialise in.

comparative advantages in the production of higher education, receive international students in significant numbers enabling them to remain in the center of the international student exchange network. A country's position in the international student exchange network is significantly related to its GNP per capita and that higher education is tightly connected with economic development. Given the previous extensive research on the export led hypothesis and its relationship with economic development, this poses the question 'Given that there are significant relationships between (1) export growth and economic development and (2) international student flows and economic development, what then is the relationship between international student flows and export growth?' The answer to this question is addressed in the following section.

## 6.3    The "International Education' Model

Three regression models are used, all of which are based on the standard gravity equation previously discussed. The first model will attempt to model Australian exports to Thailand, the second will attempt to model Australian imports from Thailand and the third model will model total trade flows between the two countries. The objective is to see whether overseas student numbers are statistically significant in affecting Australia's bilateral trade relationship with Thailand. All of these models will include overseas student numbers from Thailand as a variable in the standard gravity model equation. Many previous demand studies have used the log-log functional form to satisfy the assumption of constant variance of the error term. This also allows for the parameter estimates to be interpreted as elasticities. However, this study will use cointegration analysis to model trade flows as little reliability can be placed on results carried out using the ordinary and generalized least squares methods because these tests

do not consider the fact that the data used often exhibits a time trend and, therefore may be nonstationary. According to Engle and Granger (987), regressions involving nonstationary variables using the classical methods can be spurious.

## 6.3.1 The Export Model

Numerous reports identified earlier have discussed the possible positive effect overseas students have on future export business for Australian firms including:

- Exposure to Australian products whilst studying in Australia, which can lead to future increases in demand for these products and or services.

- Familiarity with Australian equipment and procedures particularly in the fields of engineering and science.

- The creation of positive attitudes by overseas students towards Australia (Kauffman, Weaver et al., 1992).

- The creation of personal and institutional relationships developed in Australia by overseas students who may be able to facilitate or influence trading liasons with Australia in the future (Throsby, 1991; Industry Commission, 1991; Committee of Review of Private Overseas Student Policy, 1984; Overseas Student Trust, 1981; Leslie, 1989; Sargent, 1992).

This model will attempt to model Australian exports to Thailand. The objective is to see whether overseas student numbers are statistically significant in affecting Australia's export flows to Thailand.

The following determinants of Australian exports to Thailand have been identified:

## Australian Real Income (AGDP)

A country's real income is an indication of an economy's ability to produce. The more a country can produce domestically, the more it can export to overseas markets. Therefore, the strength of the Australian economy is reflected in its ability to satisfy demand from overseas markets. Hence, the expected sign of the parameter estimate of Australia's real income is expected to be positive.

## Thailand Real Income (TGDP)

The ability of overseas countries to pay for exports is reflected in their real income. The higher the real income in the overseas country, the greater their ability to purchase another country's exports. Therefore, it can be argued that the stronger the domestic Thai economy, the more able the Thai market is to purchase Australian exports. Hence, the expected sign of the parameter estimate of real income in Thailand is also expected to be positive.

## Openness To Trade (OPEN)

There has been a rapid transformation in the extent to which economies in the world are now involved in the international economy. The opportunity for producers to export to overseas markets has increased as trade barriers have fallen, easing of regulations and restrictions have been implemented and the willingness of economies to be part of the international economic community has increased. The extent of this process is measured by calculating the trade share of output. This is calculated by adding the total value of a country's imports and exports and dividing this by their GDP. As Australia continues to open its market to overseas firms and increases its economic involvement through increased trade with the rest of the world Australian exports to Thailand would be expected to increase. Hence, the expected sign of the parameter estimate of openness to Australia is expected to be positive.

## Exchange Rate (ER)

The willingness of a country to purchase products from overseas is strongly influenced by price. The price of overseas products is linked directly to the exchange rate of the currencies of the trading countries. If the currency of the exporting country weakens, this makes the price of their product more attractive to overseas buyers. Hence, the expected sign of the parameter estimate of the exchange rate in the destination country is expected to be negative.

## Overseas Students (ST)

As discussed in the previous Chapters, there are a number of reasons why overseas students could be a stimulant to Australian exports. However, this process is not immediate and there will most likely be a significant lag between when the student studies in Australia and when they will stimulate export activity. Hence, the expected sign of the parameter estimate for overseas students is expected to be positive and lagged a significant number of periods. The size of this lag is estimated to be between 5 and 10 years, as it takes a number of years for a student to complete their study in Australia and then return to Thailand to find employment.

The model for Australian exports to Thailand may therefore be represented as follows:

$$EX_t = \alpha_1 + \alpha_2 ST_{t-k} + \alpha_3 AGDP_t + \alpha_4 TGDP_t$$
$$+ \alpha_5 ER_t + \alpha_6 OPEN_t + \varepsilon_t$$

Where at time period t:

$ST_{t-k}$ = flow of students from Thailand to Australia lagged k periods,

AGDP = Australia's real income,

TGDP = Thailand's real income,

ER    = The Thailand/Australia exchange rate baht/$A,

TOPEN= Thailand's openness to trade,

EX    = real Australian exports to Thailand.

A priori it is expected that $\alpha_2$, $\alpha_3$, $\alpha_4$ and $\alpha_6$ will be positive and $\alpha_5$ will be negative.

The AGDP, TGDP and EX variables are all real values and have been measured in US dollars (millions), base year 1990.

### 6.3.2 The Import Model

As discussed in the literature review, there are a number of factors that may cause overseas students to stimulate Australian exports to Thailand. However, minimal discussion has focused on the possible stimulus to Australian imports from Thailand. Given that there has been no research into this possible relationship it may be difficult to theoretically support a model of this kind. However, from the literature it is hypothesised that:

1. a student brings with them to Australia, preferences for foreign products which can generate increased levels of demand for these products

2. the network of contacts generated by overseas students during their period of study in Australia may lead to them being able to tap into possible business activities which are recorded as debits in Australia's current account balance. The following Chapter's analysis of the survey results provides examples of this occurring.

3. During their period of stay in Australia, the overseas student is likely to demand products originating from their home country, in particular food products. This

can not only lead to an increase in demand for such products during the student's period of stay in Australia, but could also have a longer term impact on the tastes and preferences of local consumers in the Australian market. By being exposed to foods from other countries, local consumers can develop a taste for such products that remain in the market for a period much longer than the student's period of study in Australia.

The model for Australian imports from Thailand will incorporate the same variables used in the export model, but this time Australian imports will be used as the dependent variable and the openness variable will measure the openness of the Thai economy to trade:

$$IM_t = \alpha_1 + \alpha_2 ST_{t-k} + \alpha_3 AGDP_t + \alpha_4 TGDP_t$$
$$+ \alpha_5 ER_t + \alpha_6 OPEN_t + \varepsilon_t$$

Where at time period t:

| | |
|---|---|
| IM | = Australian imports from Thailand, |
| $ST_{t-k}$ | = Thai students studying in Australia lagged k periods, |
| AGDP | = Australia's GDP, |
| TGDP | = Thailand's GDP, |
| ER | = The Thailand/Australia exchange rate baht/$A, |
| AOPEN | = A measure of the openness of Australia's economy to trade (measured as the ratio of the sum of Australia's exports and imports to gross domestic product). |

A priori it is expected that $\alpha_2$, $\alpha_3$, $\alpha_4$, $\alpha_5$ and $\alpha_6$ will be positive.

The AGDP, TGDP and IM variables are all real values and have been measured in US

dollars (millions), base year 1990.

## 6.3.3 The Bilateral Trade Flow Model

It is useful to know the bilateral impact overseas students are having on trade flows

between Australia and Thailand. If it can be shown that bilateral trade is increasing

then arguments can be made supporting the increase on the basis of international

education flows. This model will be similar to the previous one-way trade flow models

except that an exchange rate variable is omitted from the model and a total trade

variable will be used as the dependent variable, that is, the sum of exports and imports

between Australia and Thailand[4]:

$$TT_t = \alpha_1 + \alpha_2 ST_{t-k} + \alpha_3 AGDP_t + \alpha_4 TGDP_t$$
$$+ \alpha_5 JOPEN_t + \varepsilon_t$$

Where at time period t:

TOTAL   = Total bilateral trade between Australia and Thailand,

$ST_{t-k}$   = Thai students studying in Australia lagged k periods,

AGDP   = Australia's GDP,

TGDP   = Thailand's GDP,

JOPEN   = A measure of the openness of the Australian and Thai economies to

trade (measured as the ratio of the total bilateral trade flows between

the two countries to the sum of the gross domestic products of both

countries).

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[4] In both the export and import models, an exchange rate variable was used. In the bilateral trade model however, such a variable is not used because while an appreciation of the Australian dollar would tend to increase imports, it would tend to decrease exports and the effect on bilateral trade is uncertain.

The AGDP, TGDP and TOTAL variables are all real values and have been measured in US dollars (millions), base year 1990.

## 6.3.4 Data and Cointegration Analysis

Quarterly Data was collected on Australia's bilateral trade with Thailand from the IMF. Data on overseas student numbers from Thailand was collected from ABS data on short-term visitor arrivals whose purpose of journey was education. Data for the other variables in the model, including GDP, CPI, export and import price indices and exchange rates were collected from various Bank of Thailand Annual Economic Reports and DXData for Windows. The data set has 85 observations beginning from December, 1977 up to and including December, 1998.

Before commencing regression analysis of the data, some data manipulation was undertaken to enable a more effective and reliable model. As overseas student fees are classified as a service export in the Australian national accounts, it was necessary to remove this component of export revenue from the total export revenue data. Also, the data on overseas student numbers was deseasonalised to remove the strong seasonality patterns reflected in the data. Figure 6-0-1 shows both of these data sets. Deseasonalisation of the data can be justified as it seems illogical to argue that the month of arrival into Australia by an overseas student would be an important factor in determining whether that student went on to undertake some form of business activity with Australia after completing their study. Another problem, is that for many degree programs in Australia, students have multiple dates during the year in which they can commence their university studies. Compounding this issue even further is that many students coming to undertake university studies in Australia will complete an English

training program prior to commencing their studies at university. The length of this

English program varies from student to student and between universities as well. All of

these factors make it highly unlikely that the actual quarter that the student arrives in

Australia would be important in determining whether or not the student is likely to

conduct some form of business activity with Australia at some particularly period in the

future.[5]
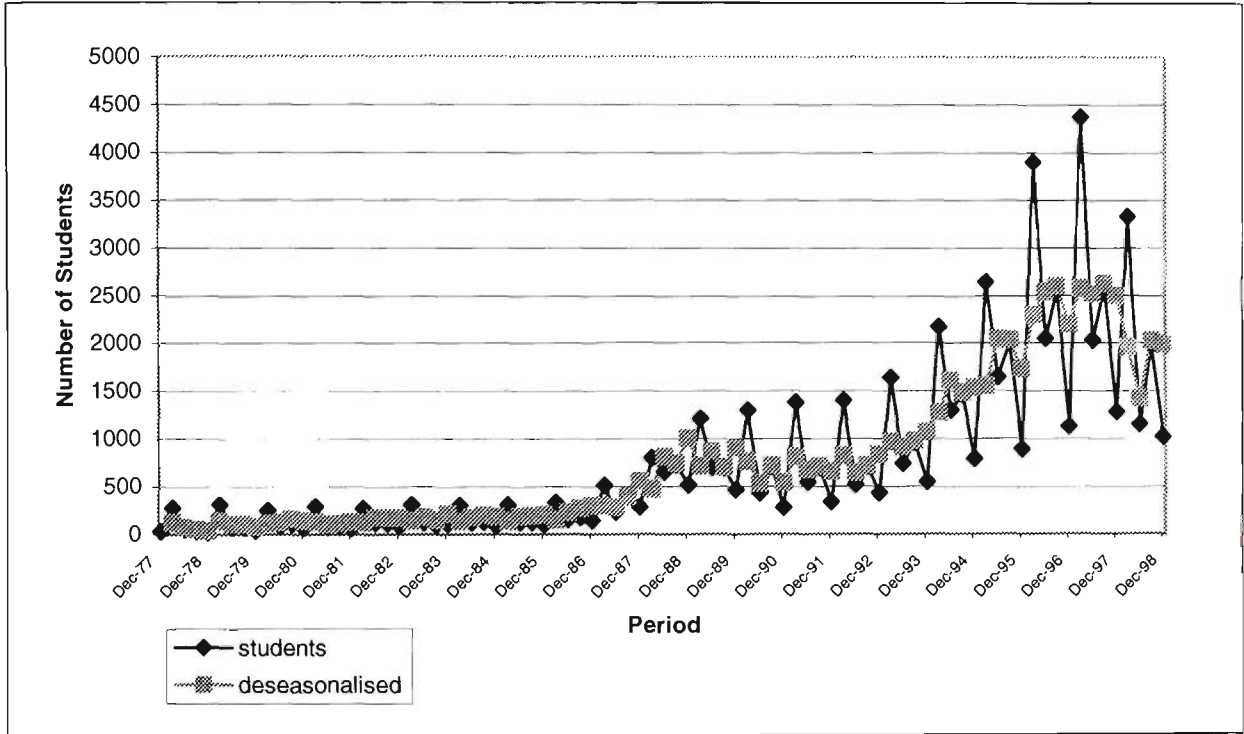


**Figure 6-0-1 Thai Student Inflows into Australia (Real and Deseasonalised)**

As mentioned earlier, regressions involving time series data such as in this model can

often provide spurious results if the data is nonstationary (that is it has a unit root). The

problem with using OLS regression on nonstationary data is the estimated t values

become unreliable. To overcome this problem, it is possible to test for unit roots, and if

necessary cointegration. Cointegration provides support for the idea that related time

series move together over time. If it can be shown that two or more time series are

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[5] The usefulness of the raw data was tested by substituting it for the de-seasonalised data in the three regression models, however no statistically significant relationship between trade flows and raw overseas student flows could be found.

cointegrated then an error correction model can be applied so that the regression results are not spurious and the usual t and F tests are valid (Gujarati, 1995).

Given the nature of the data, all of the time series are tested for the presence of a unit root (or integration of order 1). Although there are many tests for order of integration of time series, the well known augmented Dickey-Fuller tests, or ADF tests as proposed by Dickey and Fuller (1979) are used in this study .[6] Table 6.0.1 displays the results.

**Table 6-0-1 Augmented Dickey-Fuller Tests**

## ADF Tests

| Variable | Levels | Differences |
|---|---|---|
| Exports | -1.7186 | -7.6003 |
| Imports | -3.0793 | -7.6003 |
| Total Trade | -2.1150 | -9.7287 |
| Students | -3.2067 | -10.2715 |
| Australian GDP | -1.0097 | -6.8411 |
| Thai GDP | -2.5806 | -6.2778 |
| Exchange Rate | -2.5444 | -7.931 |
| Openness Aust | -2.159 | -6.853 |
| Openness Thai | -1.756 | -6.843 |
| Openness Joint | -1.954 | -7.238 |

The 95% critical value for the ADF test is 3.465

In ADF tests of the variables, it was not possible to reject the null hypothesis that the data was integrated of order 1. However, when the same tests were performed on the

first differences, in all cases, the variables were now of order 0 showing no signs of a unit root. Now, a test to determine whether the non-stationary time series are cointegrated can proceed. If the residuals obtained from the regression containing the non-stationary time series are stationary in their levels then the non-stationary series in question are co-integrated. Table 6-0-2 shows that there are cointegration relations among the related variable groups. This result proves that the non-stationary series used in the international education model are cointegrated.

**Table 6-0-2 Engle-Granger Cointegration Test Results**

| Models | ADF T-statistics | |
|---|---|---|
| | **Without trend** | **With Trend** |
| Export Model | -4.148  [-2.9202] | -3.9729 [-3.5005] |
| Import Model | -6.5728 [-2.9202] | -6.4117 [-3.5005] |
| Bilateral Trade Model | -3.4899 [-2.9202] | -3.437  [-3.5005] |

Note: The values in parentheses show the 5% critical value

Now the identification of both the long run and short tun relationships in the three models using the Engle-Granger procedure can proceed. In these error-correction models, the long run equilibrium results refer to the regression conducted on the variables in their original or level form, and the short-run results refer to the regression of the variables all of which are first differenced, except for the residuals which are in their level form and are also lagged one period..

## 6.4    The Export Model

Australia's export relationship with Thailand is examined first. As has been discussed earlier, it is hypothesised that Australian exports to Thailand will be stimulated by overseas student flows from Thailand through the utilization of international social

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[6] Given the "t" values found in the tests, it seems highly likely that other unit root tests would have produced the same conclusion since the power of the test was quite high (the power depends on the time sptimspan of the data, in this model equal to 22 years) (Gujarati, 2003).

networks which can facilitate international business activity.

Table 6.0.3 presents the results for the long-run equilibrium for Australian exports to Thailand and the error-correction model.

**Table 6-0-3 Models of Australian Exports to Thailand. Sample period: 1978(4) to 1998(4)**

| DEP: EXPORT | Error Correction Model | | | |
|---|---|---|---|---|
| | Long-run | | Short-run | |
| | $\alpha$ | *t [prob]* | $\beta$ | *t[prob]* |
| INT | 356.3827 | 4.6086[.000] | 3.8917 | 1.0894[.282] |
| ST$_{-32}$ | 0.1099 | 4.3096[.000] | 0.1114 | 4.3132[.000] |
| AGDP | -3.7728 | -2.7003[.010] | | |
| TGDP | 0.3181 | 6.9542[.000] | 0.3269 | 2.8457[.007] |
| ER | -14.9061 | -6.9873[.000] | -13.0120 | -4.9630[.000] |
| TOPEN | 0.2972 | 4.9739[0.000] | 0.3159 | 3.6220[.001] |
| RES(-1) | | | -0.6580 | 4.3844[.000] |
| | | | | |
| R-Squared | 0.9622 | | 0.5521 | |
| DW | 1.2417 | | 1.8766 | |

In the long run model, the real income variable for both Australia and Thailand, the exchange rate, the Thai openness and the student variables are all significant at the 1% level. All variables have the appropriate signs apart from the Australian real income variable which has a negative sign. It can be seen that the exchange rate has a significant impact on Australian exports to Thailand. The significant real income

variable for the Thai economy reflects how Thailand's economy has been very dependent on trade flows as a lever for growth within its economy. The overseas student variable is significant at the 1% level and is positive implying that there is a positive link between overseas students and Australian exports to Thailand.

It is important to remember that these are long-run relationships and the long-run model cannot inform us of how this long-run equilibrium is achieved. The conclusion that the long-run model exhibits cointegration suggests that time series in that model "move together" in the long-run. However, reliance only on ordinary least squares regression on cointegrated time series can lead to spurious results. Developing an error-correction model, which Engle and Granger (1987) have shown is present in any cointegrated series, provides stronger evidence of the relationship between trade and overseas student flows. The second column in Table 6.0.3 presents the results of the error-correction model. From this it can be see that the overseas student variable, the Thai income variable, the Thai openness variable, the exchange rate variable, and the residuals from the long-run equilibrium model lagged one period, are significant at the 1% level.

Importantly, this result suggests that there is a lag of approximately 8 years between when a student first comes to study in Australia and when they impact on Australian export activity to Thailand and that this impact on average, is in the order of US$111,000 per student.[7] This lag lies in the range that was expected and can be justified based on the number of years it takes for an overseas student to finish their study in Australia and return to their home country to find employment. This result

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[7] The value for the student variable coefficient in the short –run export model is 0.1114. Exports are measured in US$ (millions).

supports the hypothesis that students are utilising social networks they have created during their study period in Australia after they return home to Thailand. This could be in the form of personal business dealings and the job position they now hold which may enable them to influence international buying and selling decisions at their company of employment.

## 6.5    The Import Model

Now examination of what impact overseas student flows from Thailand are having on Australia's imports from Thailand is undertaken. As was identified earlier, it is hypothesised that Australian imports from Thailand will be stimulated by the utilisation of international social networks and the purchasing of Thai products whilst the student is in Australia. Table 6.0.4 presents the results for the long-run equilibrium for Australian exports to Thailand.

**Table 6-0-4 Models of Australian Imports to Thailand. Sample period: 1978(1) to 1998(4)**

| DEP: IMPORT | Error Correction Model | | | |
|---|---|---|---|---|
| | Long-run | | Short-run | |
| | $\alpha$ | *t [prob]* | $\beta$ | *t[prob]* |
| INT | -310.9868 | -8.9957[.000] | -3.5197 | -1.5708[.123] |
| $ST_{-32}$ | 0.0354 | 2.1501[.037] | 0.0211 | 0 .9402[.352] |
| AGDP | 4.3940 | 8.6820[.000] | | |
| AOPEN | 1.0418 | 2.5084[0.000] | 1.5206 | 1.7919[.079] |
| RES(-1) | | | -0.5028 | 2.6643[.010] |
| R-Squared | 0.9565 | | 0.3508 | |
| DW | 1.2829 | | 1.5143 | |

In the long run model, only the real income variable for Australia, the Thai openness variable, and the students variable are significant at the 5% level. All variables have the appropriate signs. The overseas student variable is significant is positive implying that there is a positive link between overseas students and Australian imports to Thailand.

Again, it is important to remember that these are long-run relationships and the long-run model cannot inform us of how this long-run equilibrium is achieved. Once again an error-correction model is estimated to determine if cointegration is present. Column 2 in Table 6.0.4 presents the results of the error-correction model. From this it can be seen that the overseas student variable is no longer significant. A number of other lags

were also attempted but none revealed a significant relationship between overseas

student flows and imports from Thailand.

## 6.6 Bilateral Trade Model

The final part of the analysis, that of the bilateral trade model is now undertaken. Table

6.0.5 presents the results for the long-run equilibrium for bilateral trade activity between

Thailand and Australia.

**Table 6-0-5 Models of Bilateral Trade between Australia and Thailand.**

**Sample period: 1978(4) to 1998(4)**

| DEP: TOTAL TRADE | | Error Correction Model | | |
|---|---|---|---|---|
| | Long-run | | Short-run | |
| | $\alpha$ | *t [prob]* | $\beta$ | *t[prob]* |
| INT | -169.8583 | -13.6793[.000] | 2.7484 | 1.4747[.147] |
| ST$_{-32}$ | 0.0871 | 4.7421[.000] | 0.0585 | 3.6852[.001] |
| TGDP | 0.3064 | 15.743[.000] | 0.4057 | 8.0129[.000] |
| JOPEN | 711.9437 | 12.4205[.000] | 915.8015 | 18.1334[.000] |
| RES(-1) | | | -0.2611 | 2.8320[.007] |
| R-Squared | 0.9887 | | 0.9112 | |
| DW | 0.6035 | | 1.8562 | |

In the long-run model, the real income variable for Thailand, the joint openness

variable, and the student variable are all significant at the 1% level. The overseas

student variable is positive implying that there is a positive link between overseas students and trade flows.

Again it is required to estimate an error-correction model as in the previous models. Column 2 of Table 6.0.5 presents the results of the error-correction model. This result again suggests that there is a lag of approximately 8 years between when a student first comes to study in Australia and when they impact on bilateral trade activity between the two countries, and that this impact on average, is in the order of US$58,500 per student.[8] This again supports the hypothesis that students are utilising social networks they have created during their study period in Australia after they return home to Thailand.

## 6.7   Conclusion

Given the significance of international education to both the Australian and Thai economy it is important to have a better understanding of how overseas student flows impacts on both the source country, in this case Thailand and the destination country, in this case Australia.   In this Chapter, results from the quantitative analysis were presented.   An international education model that was theoretically developed in Chapter Five, to analyse the quantitative relationship between overseas students and trade flows, was used to undertake this analysis.  Three key models were developed – an Australian export model, an Australian import model and a bilateral trade model.

What this analysis suggests, is that the flow of students from Thailand to Australia has a positive impact on both Australian exports to Thailand and bilateral trade activity

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[8] The value for the student variable coefficient in the short –run bilateral trade model is 0.0585.  Total trade is measured in US$ (millions).

between Australia and Thailand. It is estimated that this impact is worth approximately

US$111,000 in extra exports and US$58,500 in increased bilateral trade for every Thai

student that decides to study in Australia, and that this impact is lagged approximately

eight years after the student first arrives in Australia. No significant relationship was

revealed between overseas student flows and Australia imports from Thailand. These

findings raise important questions about the long-term impact that social networks can

have on international trade flows. Further research is required to explore this dynamic

process in the context of international education to better understand the composition of

such networks.

# CHAPTER SEVEN

# SURVEY METHODOLOGY

## 7.1    Introduction

As has been highlighted in earlier Chapters, there has been a wide range of studies and surveys conducted on overseas students (Altbach, 1991; Back, Davis et al., 1996; Committee of Review of Overseas Student Policy, 1984; Dockery, Thorpe et al., 1997; Industry Commission, 1991; Jolley, 1997; Mazzarol, 1997; Nesdale, Simkin et al., 1995). The objective of these surveys have varied from economic, financial, marketing and social perspectives, and have been used to estimate a range of variables including the direct economic impact of overseas students on the host economy, overseas students expenditure multiplier, factors influencing choice of overseas study destinations as well as the labour market impact of overseas students. Likewise, there has been a significant amount of research, both qualitative and quantitative, analysing the impact of immigration flows on trade (Globerman, 1995; Gould, 1994; Head and Ries, 1998; Mim, 1990; Office of Multicultural Affairs, 1994). This study, to the best knowledge of this author, is the first to directly target overseas students and their impact on international trade flows through the use of a questionnaire. In this Chapter, the research methodology followed in the design and collection of data associated with this questionnaire is discussed.

## 7.2    Survey design for social networks and associated business activity

The literature review conducted in Chapter Two revealed that overseas students may impact on bilateral trade flows between Australia and their home countries in a number of ways including:

- Overseas students that graduated in Australia exhibit a preference for importing Australian-made commodities;

- Students become familiar with Australian standards and practices, which increases brand loyalty for Australian products;

- The creation of positive attitudes by overseas students towards Australia;

- The creation of personal and institutional relationships developed in Australia by overseas students who may be able to facilitate or influence trading liaisons with Australia in the future;

- The ability of overseas students to act as agents matching buyers and sellers in Australia and their home country.


The literature review in Chapter Four revealed the importance of social networks in today's knowledge based global economy and in particular outlined a number of benefits that the utilisation of social networks can realise when conducting international business including the:

- minimising search and transaction costs,

- reducing communication and cultural barriers,

- trust creation,

- information transfer,

- access to distribution channels,

- the transmission of information,

- the generation of new knowledge,

- the awareness of new business opportunities.


Given these findings it was the objective of the survey to identify:

a)  whether overseas students were in fact impacting on trade flows between the host study country and their home country and;

b)  whether the overseas student made use of their social network in order to conduct such business activity.

## 7.3   Sampling Methods

The population in the survey of Thai overseas students who have studied in Australia includes any Thai student who enrolled in an education course in Australia as far back as 1970. This includes students who were granted scholarships from either the Thai or Australian governments. The actual size of this population is rather difficult to determine but from data obtained from the Australian Bureau of Statistics, it would approximate 100,000 people.

## 7.4   Sampling Frame

Identifying the sampling frame which is the list of elements from which the sample is drawn, can be difficult as there are constantly more and more Thai students going to Australia and Thai graduates returning from Australia. What this means is that the sampling frame is constantly getting larger. Aggregate statistics on Thai student numbers traveling to Australia was available from the Australian Bureau of Statistics but this data was unable to provide any contact information for the elements. Most Universities in Australia have active Alumni organizations that typically have databases containing contact details of their past and present overseas student population. This was the initial target of the survey sampling frame. Letters were sent to 17 universities throughout Australia requesting access to databases containing contact information on Thai students that had studied at their university. However, due to confidentiality

constraints, this information was difficult to obtain. Hence, only one university, Victoria University was able to provide contact details of former and present Thai students studying at their institution. Victoria University's Alumni Association provided approximately 200 names and addresses of Thai students who had studied at Victoria University dating back to 1991.

Given the limitations to data access in Australia, the research was moved to Thailand in an attempt to increase the size of the survey population. Australia Education International (AEI) located at the Australian Embassy in Bangkok was able to provide a further 220 names and addresses of Thai students who had studied anywhere in Australia dating back to the early 1970s.

Given that almost half of the students in the data set collected were from one university, some doubt must be placed on the randomness of the sample. However, much research in the area of social science and tourism is conducted with data sets that are clearly not random in the strict sense of the term, and given the resistance of the universities in Australia to provide details on past students, there were no other reasonable options available to source data. Also the type of courses Victoria University offers overseas students (primarily business), matches well with the type of courses that are popular amongst Thai overseas students. It could be argued that the Thai student population that has studied at Victoria University, would be fairly representative of the pool of Thai students who have studied in Australia. One factor lessening the impact of this problem on the analysis, was that only 14% of the returned questionnaires came from Victoria University.

However, given the difficulties experienced with selecting a random sample that enabled the survey to be representative it is important to place some caution on the findings from the questionnaire outlined in Chapters Eight and Nine.

## 7.5     Mail –out questionnaires in the Thai market

Unlike the poor response levels to mail out questionnaires in Australia, Thais tend to be more willing to spend time to complete a questionnaire especially if it has come from an overseas source.  However, one difficulty with such questionnaires is that Thais are sometimes reluctant to display displeasure or express negative opinions.  This can cause problems when trying to get accurate responses from them concerning their views.  It is important to consider this when designing survey questions, and can be overcome to some extent by asking questions where there is no option for a positive response (although a non-response could be viewed as a positive response).  For example, in question 1.14 of the survey the following question was asked:

1.14     **What did you dislike most about Australian people?**

อะไรที่คุณไม่ชอบมากที่สุดเกี่ยวกับชาวออสเตรเลีย

By structuring questions in this manner, Thais might feel more willing to express a negative opinion as they are not being asked to choose between a positive or negative response, but merely comment on a negative aspect expressed by the survey.

## 7.6 Measurement and scale

It is important to use a proper scaling system in a questionnaire to ensure respondents can answer the questionnaire quickly and accurately.  This research used a 5 point Likert scale.  Likert-scale items are useful for gathering respondents' feelings, opinions, and attitudes on any language-related topics.  Respondents were asked to rate a series of

statements by circling numbered categories (1 2 3 4 5) on a continuum. The advantage of using a 5 point scale (as opposed to a 4 or 6 point scale) is that it allows for a middle response (a neutral response to the statement).

## 7.7   Research Design

In determining the research steps that were required in conducting the qualitative component of this research, the design suggested by Emory and Cooper (1991) was used. These steps are displayed in Figure 7.0.1

The research trip to Thailand was undertaken from August 2000 to February 2001. Data collection was completed by November 2000 and a total of 420 questionnaires with a self addressed stamped envelope for easy reply, were posted in that month. By March 2001, a total of 170 completed questionnaires had been returned representing a success rate of 40%. The covering letter and questionnaire can be viewed in Appendix 1.

**Figure 7-0-1 Research Design Process**



Literature Review
Link Between Overseas Students and Trade Flows

Design of Conceptual Framework

Identified the key mechanisms and conduits supporting a link between overseas student flows and trade flows:

Positive Attitude Towards Australians

Preference for Australian Products

Utilisation of Social Networks

Survey Questionnaire

Survey Mailed out in Thailand

Data Entry and Recording

Data Analysis

Result report

## 7.8 Questionnaire Structure

The questionnaire was designed in order to collect data from overseas students who had studied in Australia in an attempt to identify the impact that a respondent's overseas study experience in Australia has on their willingness and ability to undertake business activity with Australia later in their life. In particular, determination of whether an overseas study experience can create an international social network that can assist in creating international business opportunities, hence stimulating trade flows is sought. Hence the intention of the investigation covers the following areas:

- Study Experience in Australia;

- Development of social networks;

- Business Activity With Australia;

- Utilisation and impact of social Networks;

- Preferences for Australian goods.

The purpose of the questionnaire was to increase the understanding of the microeconomic process through which social network utilisation can influence trade activity and to identify any key variables that a Thai overseas student may possess which may increase the likelihood of them conducting some form of business activity with Australia after completing their study. In order to increase the acceptability of the survey to the respondents, the survey was designed using the following attributes:

- The questionnaire was designed in such a manner to make it simple and easy to read and to take the respondent approximately 15 minutes to complete.

- Respondents were encouraged to attempt all of the questions in the survey.

- The questionnaire was written in both the English and Thai languages in order to create confidence in the respondents understanding of the questions in the survey and to improve the accuracy of their responses.

- The questionnaire was mailed out with a reply paid envelope for easy return.

- Respondents were reassured that their responses would be confidential and that participation in the survey was not compulsory.

- The address and phone number of the University Human Research Ethics Committee as well as the contact details of both the research student and their principal supervisor were included at the start of the questionnaire to generate confidence in the validity of the research.

The questionnaire was divided into 4 sections:

**Section 1: Background and current situation**

Information was collected on the respondent's period of study in Australia. Questions ranged from the period and duration of study in Australia, the types of courses studied, and the avenue in which the student financed their studies in Australia. Questions were also targeted at the student's accommodation arrangements and leisure activities in an attempt to identify the extent to which the student was exposed to people from Australia and other non-Thai countries.

It can be reasoned that the more time a student spent with non-Thais the greater their opportunity to develop friendships with people from Australia and also other countries. These responses can therefore be used as a proxy as to the size of the students' potential international network with the hypothesis being the more time spent with Australians

the greater the size of the students social network and the higher the likelihood the student will undertake some form of international business activity with Australia.

Respondents were also asked whether or not they had returned to Thailand during their period of study in Australia and the frequency of such visits. The remainder of Section 1 sought to reveal the respondents attitude towards their study experience in Australia and to Australian people in general. These responses will be important in revealing the impact that personal attitudes towards Australia and Australians have on the likelihood of doing business with Australians in the future. It can be reasoned that a student who regarded their study experience in Australia negatively or who has a negative attitude towards Australians would be less likely to subsequently conduct some form of business activity with Australia.

The section concluded with a range of questions regarding the level of contact respondents have had with Australia since completing their studies. It also sought information on the level of contact the respondent has with Australians in their present working environment. It can be reasoned that the more contact the respondent has had with Australia since completing their studies the more likely they are to have been able to maintain and develop the international social network they generated in Australia.

## Section 2: Business Activity with Australia

In terms of the importance of the survey questionnaire to this thesis, this section is the most important. It is in this section that the type and amount of business activity undertaken by a respondent (if any), and whether the respondent has any relatives or close friends in Australia was included in the questionnaire.

Importantly, this section also allowed analysis of the manner in which the business activity was initiated – through the student's social network or through their employer. Respondents were asked to identify with whom they initiated contact, when they conducted business dealings with Australia, and how they knew this person. Was it somebody that lay in their social network or was it an unsolicited contact?

Respondents were also asked to comment on the role that their overseas study experience played in their subsequent decision to do some form of business activity with Australia, in a crude attempt to identify whether a direct causal link may exist between the two activities. In this way, a better understanding can be revealed of the process and role that their study experience played in stimulating business activity.

As well, an insight was sought into the differences, if any, of respondents doing business within their social network, as opposed to outside of their social network. Questions were asked in this section about what impact doing business within the respondent's social network has on the exchange process and transaction costs involved. The responses can be used to study the impact that the respondent's social network can have on the business process itself.

**Section 3:Travel Information**

Section 3 of the questionnaire concluded with a range of questions relating to the respondents travel activities including whether or not the respondent had visited Australia since returning to Thailand and if so, for what reason, for how long and how many people did they travel with.

## Section 4: Respondent Information

The final section of the questionnaire gathered information on the respondent's profile. The respondent's age, sex, status, occupation, and parents occupation are all sourced. This information can be used to identify if there are any profile characteristics associated with a propensity to undertake trade activity, after completing study in Australia.

The responses to the questions in section 4 of the survey can be used to determine if there is a unique profile of an overseas student, who is more likely to undertake business activity with Australia.

## 7.9   Data Coding and Editing

After the questionnaires had been returned, the data was transferred into SPSS 11.0. This process entails assigning a variable name to each of the questions in the survey and a number to each of the possible available answers. The data is then entered into SPSS 11.0 according to the values in the questionnaire. Missing data is recorded as an empty space and is set to equal zero. In order to eliminate errors in data transformation, summary statistics and frequencies are computed for all the variables in the survey in order to identify any mistakes in the data entry process, and to correct entry errors.

## 7.10   Conclusion

In this Chapter, the research methodology used in relation to the qualitative component of this research was discussed. The literature review conducted in Chapters Two and Four identified a number of key parameters through which overseas students can stimulate bilateral trade flows. In Chapter Five a conceptual framework was developed

which was used to model the impact of overseas student flows on bilateral trade flows. The objective of the survey design was to solicit responses which would provide data that could be used to test hypotheses, relevant to the social network objective developed in earlier Chapters.

This Chapter also discussed a number of practical issues relating to the survey research including the sampling method and data coding and editing. Some of the difficulties associated with the sampling frame were outlined including the difficulty in obtaining a pure random sample and hence some caution was directed at the findings from the survey analysis presented in Chapters Eight and Nine.

# CHAPTER EIGHT

# PROFILES OF THAI OVERSEAS STUDENTS WHO HAVE

# STUDIED IN AUSTRALIA

## 8.1    Introduction

The previous Chapter outlined the design and characteristics of the international survey

undertaken on Thai students who had studied in Australia and since returned to

Thailand.    The objective of the survey was to determine if the respondent had

undertaken any business and travel activity with Australia since returning home, and

their attitude towards their study experience in Australia.   Importantly, an insight into

the process in which any business activity transpired was a key component of this

survey enabling a better understanding of the manner in which overseas students can

utilise their social networks for commercial benefit.

This Chapter will present the survey data in both graphical and tabular form in order to

gain a better understanding of the sample population surveyed and to address the

following issues:

- What was the respondent's attitude towards Australia and their study experience

  here?

- Were they able to generate a social network whilst studying in Australia?

- Has the respondent undertaken any form of business activity with Australia?

- If so, what role did their social network play in this process?

- Has the respondent travelled to Australia since returning home to Thailand?

- What is the respondent's profile?

## 8. 2    Data Analysis and Presentation of the survey results

The data from the completed surveys was entered into the Statistical Package for the Social Sciences (S.P.S.S. 11.0). Analysis of the data was then undertaken and production of various statistical calculations and presentations were generated. The following section presents the responses to the survey questions in tabular and graphic form with appropriate discussion.

## 8.3    Respondent profile

A profile of the survey respondent will be presented here to provide a clear understanding of the composition of the sample population and the main characteristics of the survey respondents.

A total of 169 questionnaires were returned to the University (only 24 of these were from students that had come from the Victoria University database). This represents a response rate in excess of 42%. Of these, 42.8% of respondents were male and 57.2% were female. More than 60% of the respondents were aged between 25 and 40 with 57% of respondents married and 43% single. The majority of respondents completed their studies in Australia after 1990, with 53% of respondents completing their study after 1990. Table 8-0-1 displays a breakdown of the respondent's profile.

Table 8-0-1 Profile of Respondents

| Characteristics | Categories | The percentage of the sample (%) |
|---|---|---|
| Gender | Male | 42.8 |
| | Female | 57.2 |
| Age | Under 25 | 8.8 |
| | 26-30 | 29.6 |
| | 31-35 | 23.3 |
| | 36-40 | 12.6 |
| | 41-45 | 8.2 |
| | 46-50 | 5.0 |
| | Over 50 | 12.6 |
| Marital Status | Single | 39.2 |
| | Married | 60.8 |
| Study Completed | Pre-1975 | 7.2 |
| | 1976-1980 | 2.1 |
| | 1981-1985 | 2.1 |
| | 1986-1990 | 8.7 |
| | 1991-1995 | 25.4 |
| | 1996-2000 | 53.5 |

The dominant occupation of respondents was "public servant" with 24% of respondents in this field (see Figure 8.0.1). The other main occupation areas were "education" (14%), "sales/marketing" (13%), "specialist fields" (13%) and "self-employed" (13%).
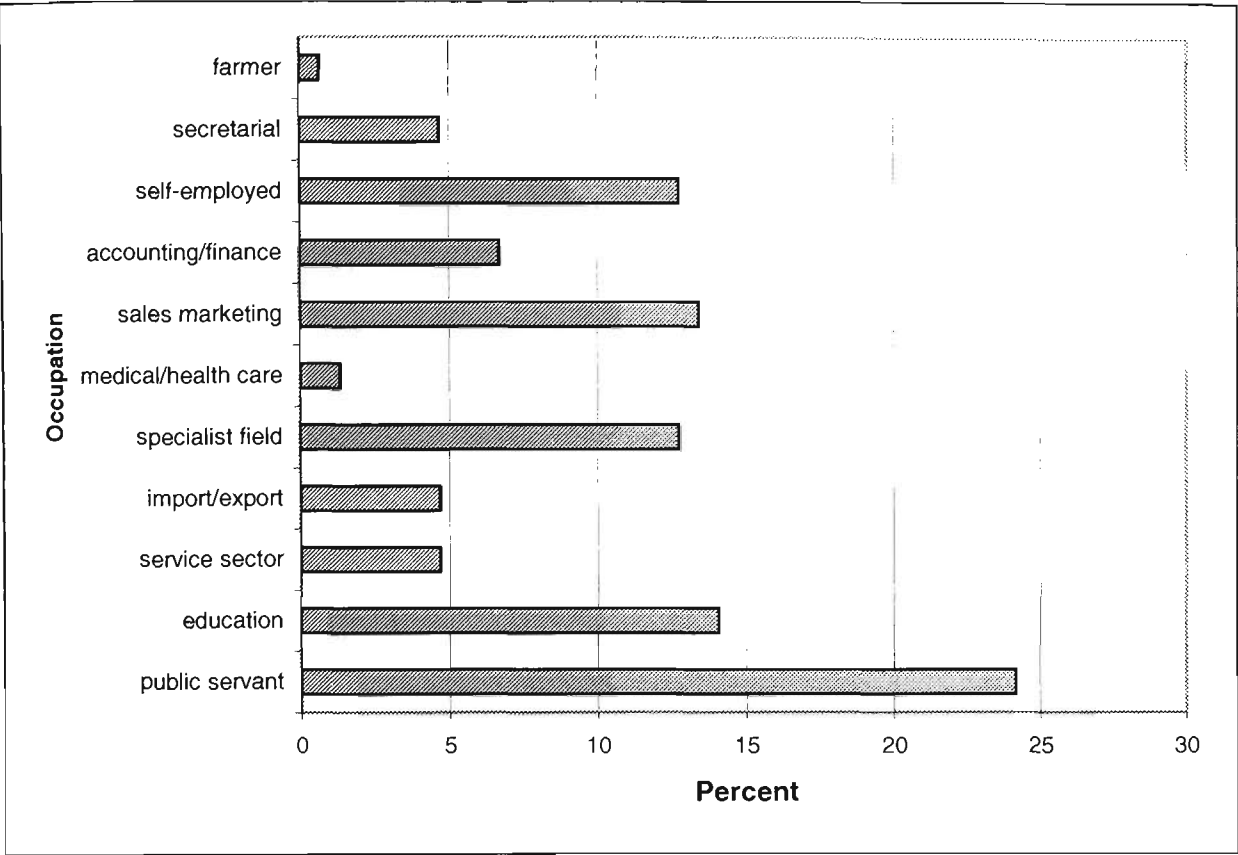
**Figure 8-0-1  Occupation of Respondent**

An interesting feature of the respondent's parents' occupation was that 38% of the respondents fathers were self-employed (refer to Figure 8.0.2). This could imply that parents who are self-employed place a higher importance on the need to send their children overseas to be educated and it could also imply that they recognise the importance of social network building for success in business careers.
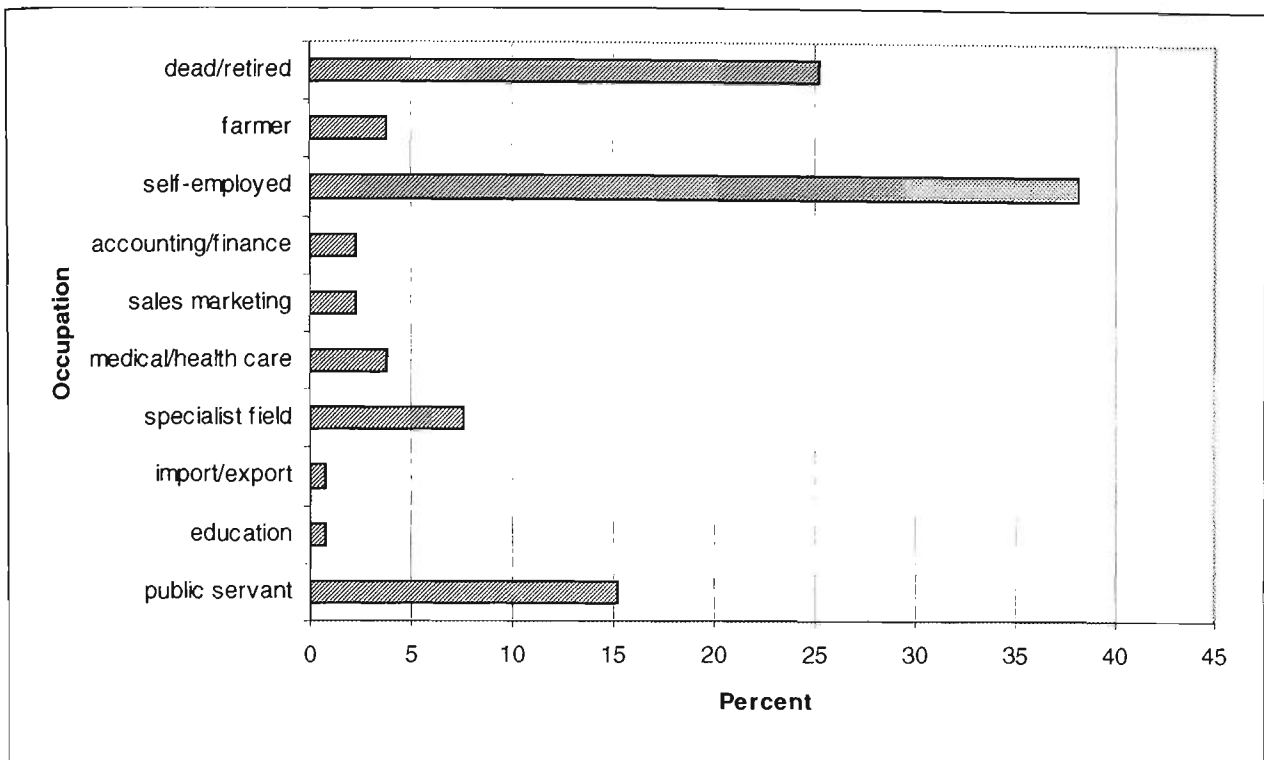
**Figure 8-0-2  Occupation of Respondent's father**

## 8.4    Study Experience in Australia

Traditionally business courses have been the most popular for students coming from the Asian region to study in Australia. Data from the Australian Bureau of Statistics (2003) found that in the year 2000, the most common field of study for overseas students in both higher education and vocational education was Business, Administration and Economics (44% of higher education students and 58% of vocational education students). Thailand is no different as Figure 8.0.3 displays. Business courses are by far the most popular choice of study in Australia with 53% of respondents choosing this field of study. The next most popular courses are Arts (8%) and Computing (7%).
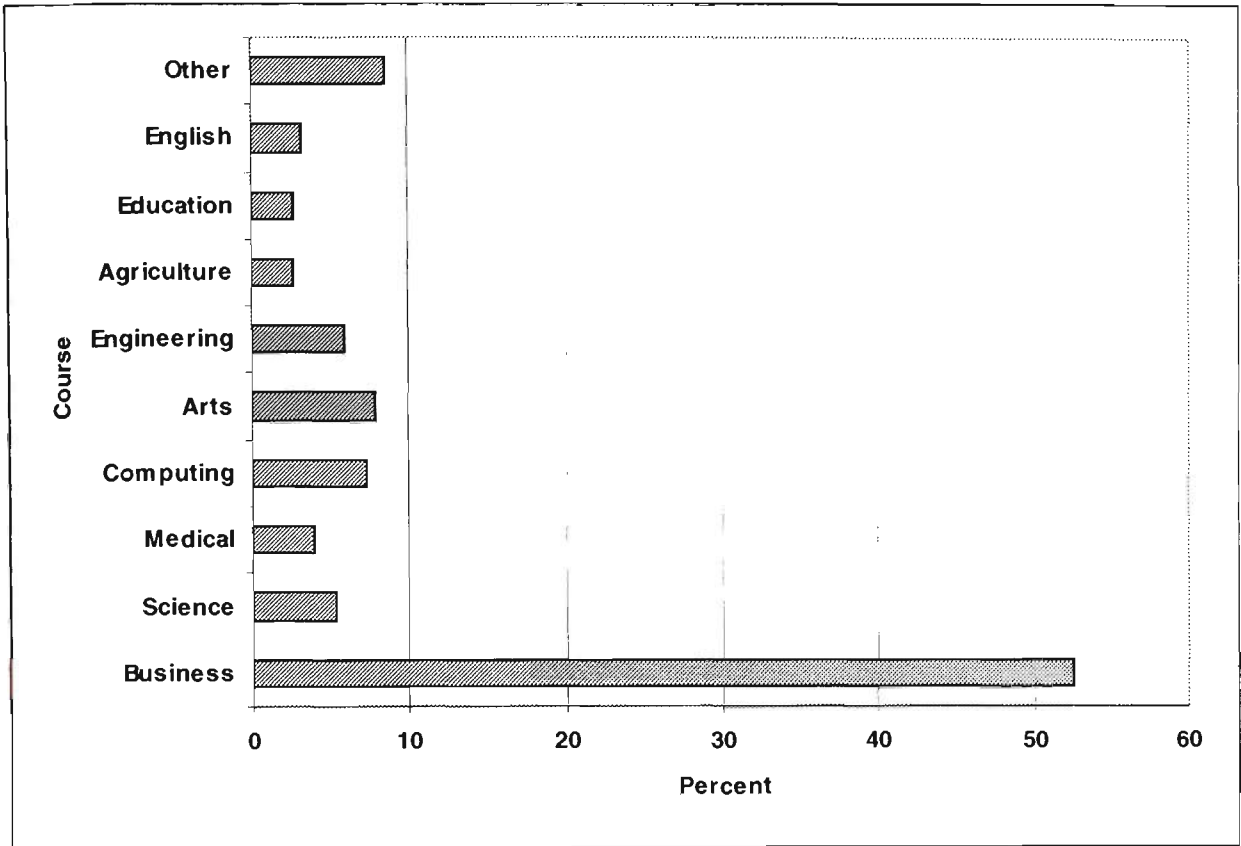
**Figure 8-0-3  Respondent's course type**

Respondents were asked to detail the type of accommodation that they stayed in whilst they were studying in Australia. The main objective of this question was to determine whether the student stayed with Thai friends or friends from Australia or other overseas countries. This can give some indication as to the extent of the size of the student's overseas social network. The results from this question are presented in figure 8.0.4.
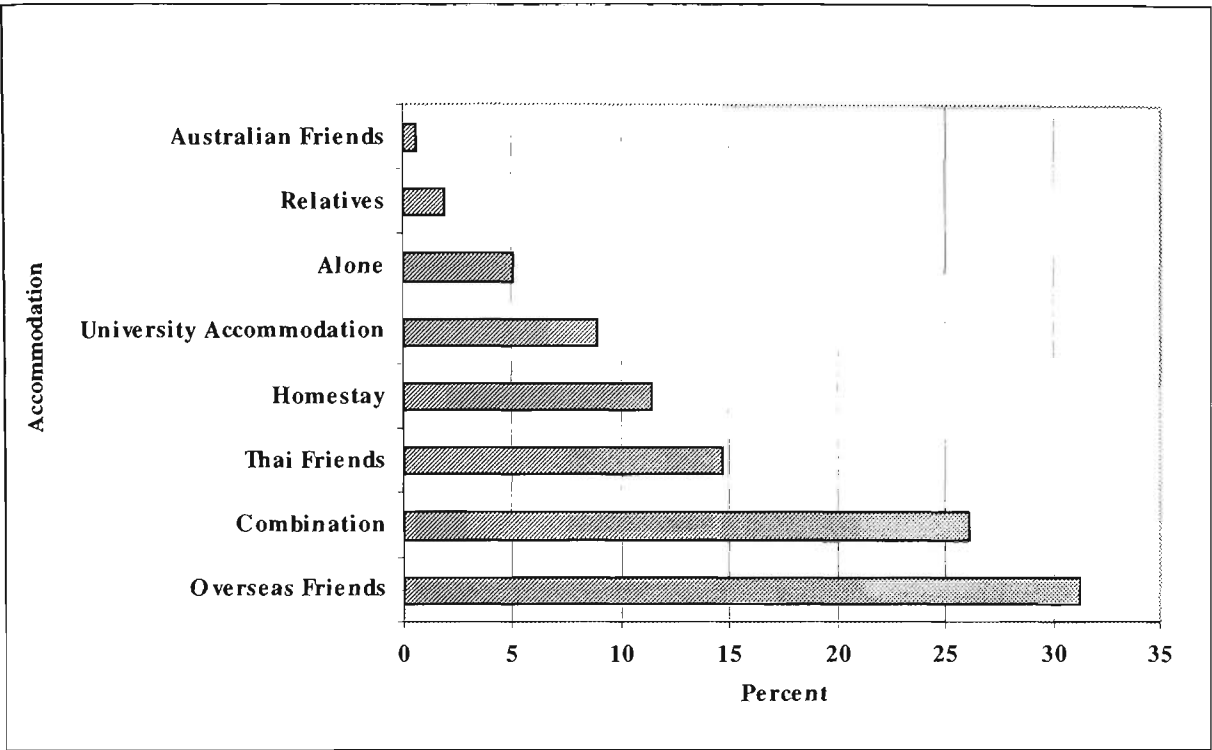
**Figure 8-0-4 Respondent's accommodation choice**

Analysis of figure 8.0.4 is distorted in the sense that 26% of respondents had multiple forms of accommodation. Unfortunately this highlights an error in the structure of the questionnaire as respondents should have been asked to place weightings on each of their accommodation types. In order to see which of the accommodation types was most prevalent the respondents who had multiple accommodation types were separated and analysis of each of the types was undertaken separately. Figure 8.0.5 displays these results. However, given the error in the design of this question, little strength can be placed on the analysis presented.
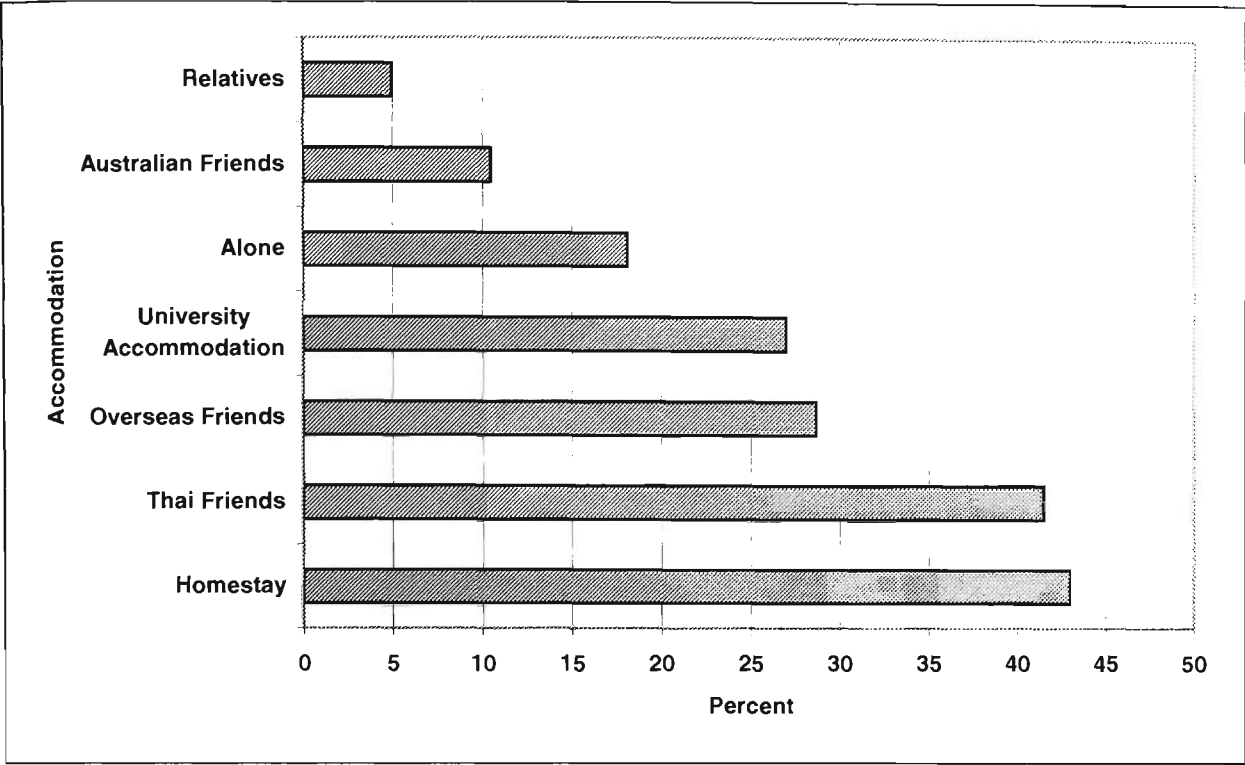
**Figure 8-0-5   Accommodation Type Breakdown**

The most common form of accommodation type was homestay. However, what is common amongst overseas students studying in Australia is their preference to stay with an Australian family when they arrive in Australia for a short time until they feel settled and then move into another form of accommodation type typically with friends from their place of study. This initial contact with an Australian family although it may be brief is an important period and can result in a strong bond being formed between the overseas student and their host family. What is interesting is that Thai students prefer to stay with Thai friends or friends from other overseas countries other than Australia. This would presumably lessen the bond and the closeness a Thai overseas student would associate with Australia and Australians and also lessen their ability to generate social networks incorporating Australian people. The fact that a large number of Thai students preferred to live with friends from other overseas countries raises the possibility that their international social network may not in fact be dominated by Australians but rather by other overseas nationalities. This then raises the possibility of what trade flows may

be generated between Thailand and other source countries who are sending students to study in Australia and vice versa with all other countries students travel to study in?

As a follow up question, respondents were asked with whom they spent the majority of their leisure time, Thai friends, Australian friends or friends from other overseas countries? Again, this was in an attempt to identify the extent and the structure of the respondent's international social network generated during their period of study in Australia. The results to this question are displayed in Table 8.0.2.

**Descriptive Statistics**

|  | N | Minimum | Maximum | Mean | Std. Deviation |
|---|---|---|---|---|---|
| time spent with Thai friends | 165 | 1.00 | 5.00 | 3.7030 | 1.06625 |
| time spent with Australian friends | 165 | 1.00 | 5.00 | 2.9030 | .93850 |
| time spent with Friends from other countries | 165 | 1.00 | 31.00 | 3.7636 | 2.33711 |
| Valid N (listwise) | 163 | | | | |

**Table 8-0-2 Descriptive Statistics on whom respondents spent their leisure time with**

The results in Table 8.0.2 reinforce the results from figures 8.0.4 and 8.0.5 that Thai overseas students were more likely to be creating international social networks composed of friends from other overseas countries as opposed to Australians. Note that the Likert scale used for this question ranged from 1 (none of the time) to 5 (most of the time). Hence the mean values presented in Table 8.0.2 represent that respondents spent between some and most of the their leisure time with friends from other countries and Thai friends, and between none and some of their leisure time with Australian friends.

Question 1.7 of the questionnaire solicited information on whether the respondent had travelled between Thailand and Australia while they were a student in Australia. Table 8.0.3 shows the responses solicited.

| Question | Categories | Percent | Average No. of trips |
|---|---|---|---|
| Returned to Thailand while studying: | Yes | 77.4 | 3.3 |
| | No | 22.6 | |

Table 8-0-3 Respondent's travel activity while studying

More than three quarters of respondents said they had travelled to and from Thailand while they were studying in Australia with the average number of trips taken being 3.3 trips. There is an obvious direct economic impact on the airline industry arising from overseas student flows. How much of that is impacting on the Australian economy and how much is impacting on the Thai economy depends to a large extent on the choice of airliner carrier, as both Qantas and Thai Air have direct flights between Australia and Thailand.

This movement between countries during the respondent's period of study may also be an opportunity for the respondent to utilise their social networks in both countries, transferring information and knowledge between the two countries.

The next section of the questionnaire targeted the respondent's attitude towards their study experience in Australia and towards Australian people in general. Figures 8.0.6 to 8.0.9 presents the results for these questions.
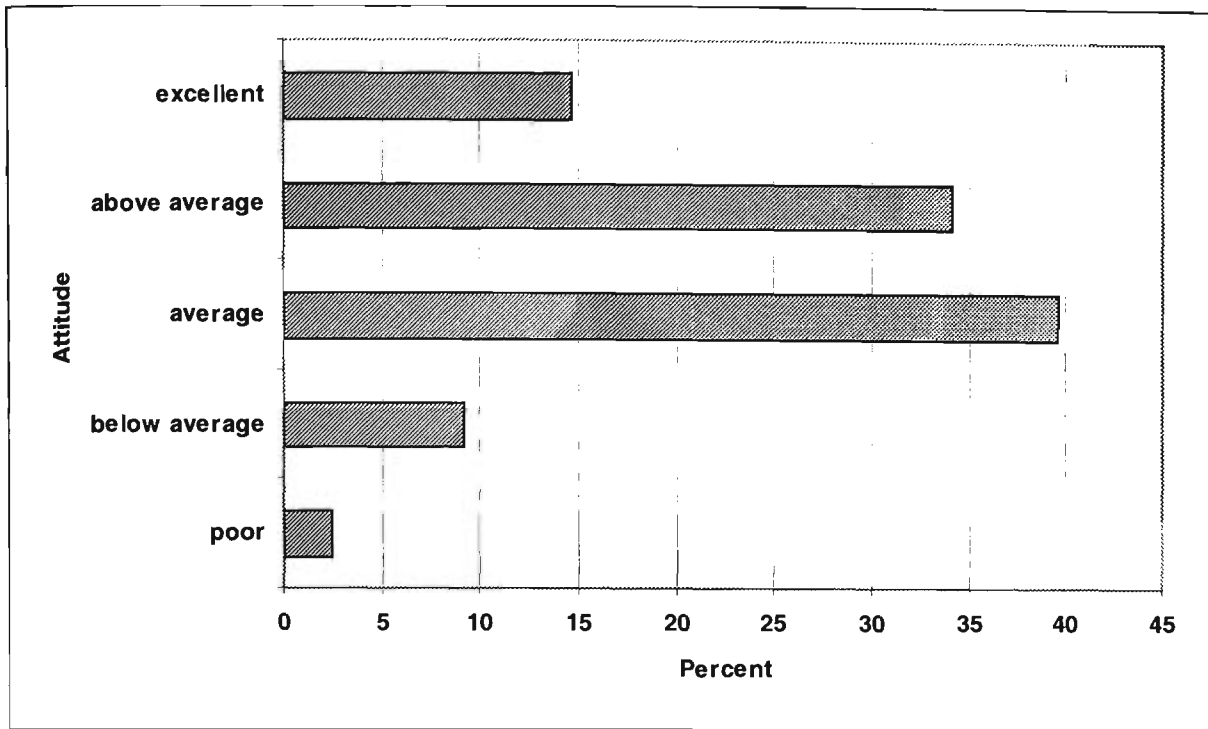
**Figure 8-0-6   Respondent's attitude towards University Support Services.**

Almost half of the respondents thought that the services offered to overseas students by their university was above average or excellent. However, given the tendency for Thais to be reluctant to be critical, the fact that more than half of the respondents rated university support services as average or worse is a worrying finding. It would seem that Australian universities need to lift their level of support for overseas students, particularly given the strong dependence they now have on overseas students as a source of revenue.

More than 75% of respondents said they would recommend Australia to their friends and relatives as a good place to study. Only 1% of respondent's disagreed with this statement. Obviously this is a very clear signal that respondents view their study experience in Australia as a positive one, and is encouraging for the Australian international education export sector. Figure 8.0.7 displays these results.
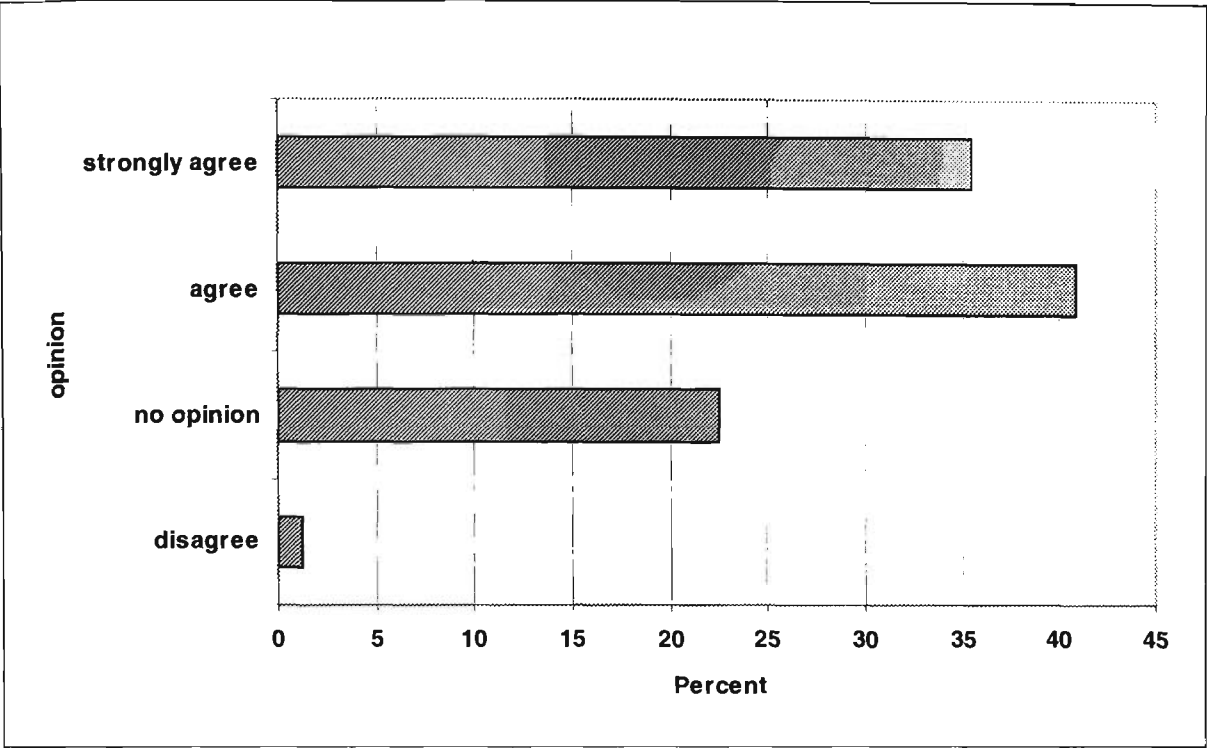
**Figure 8-0-7   Would respondent's recommend friends and/or relatives to study in Australia**

This result is also reflected in Figure 8.0.8, which displays the results for the question as to whether respondents viewed their study experience in Australia as a positive one. Approximately 92% of respondents either agreed or strongly agreed with this statement. This supports the results from Figure 8.0.7 and reaffirms the strong level of satisfaction respondents have with their study experience in Australia.
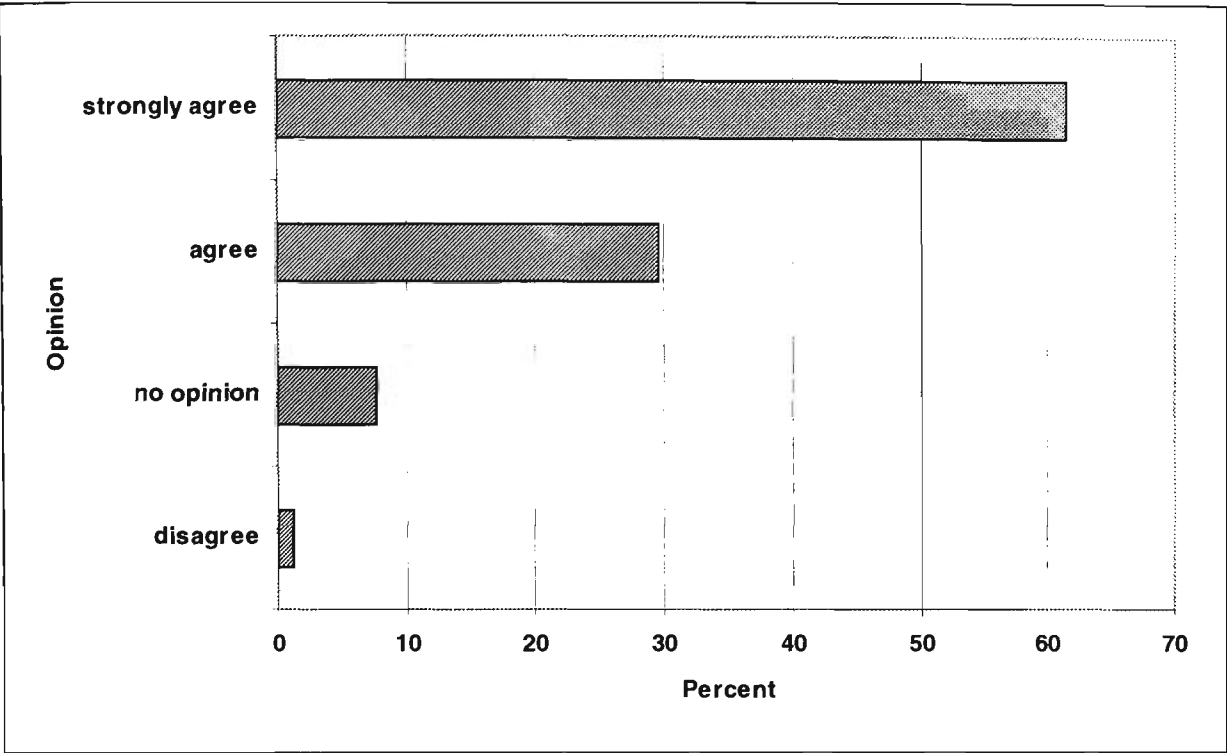
**Figure 8-0-8  Respondent's view their study experience as a positive one**

Respondents were asked a number of questions about their feelings towards Australian people, whether they liked them or found them friendly. Figures 8.0.9 and 8.0.10 display the results to these questions and give a different perspective to the respondents' study experience in Australia. Both figures show that the respondents' attitude towards Australians is far less positive than their attitude towards their study experience in general. Whether this is one of the reasons why Thais felt reluctant to live with Australians is not clear, but there is an issue here regarding the amount of social contact that is made between local Australian students and overseas students. Universities may want to address this issue through programs and activities that would enable local and overseas students to mix socially.
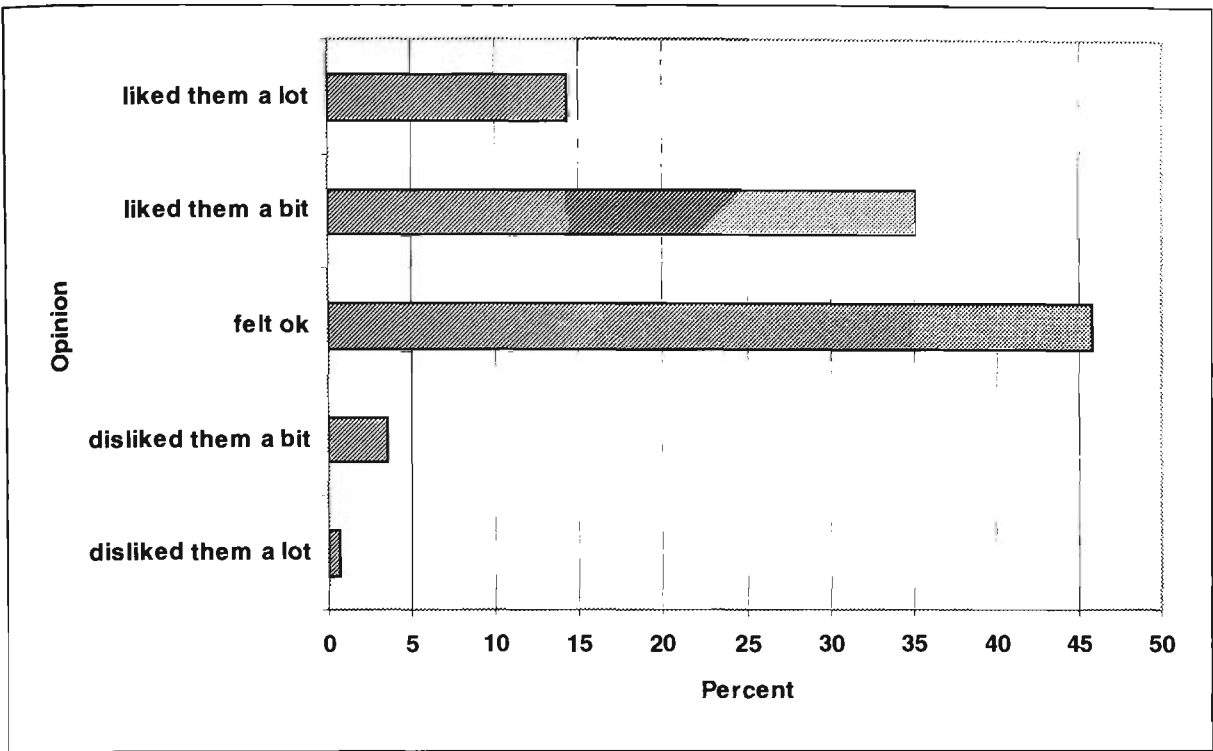
**Figure 8-0-9  Respondent's feelings towards Australian people**
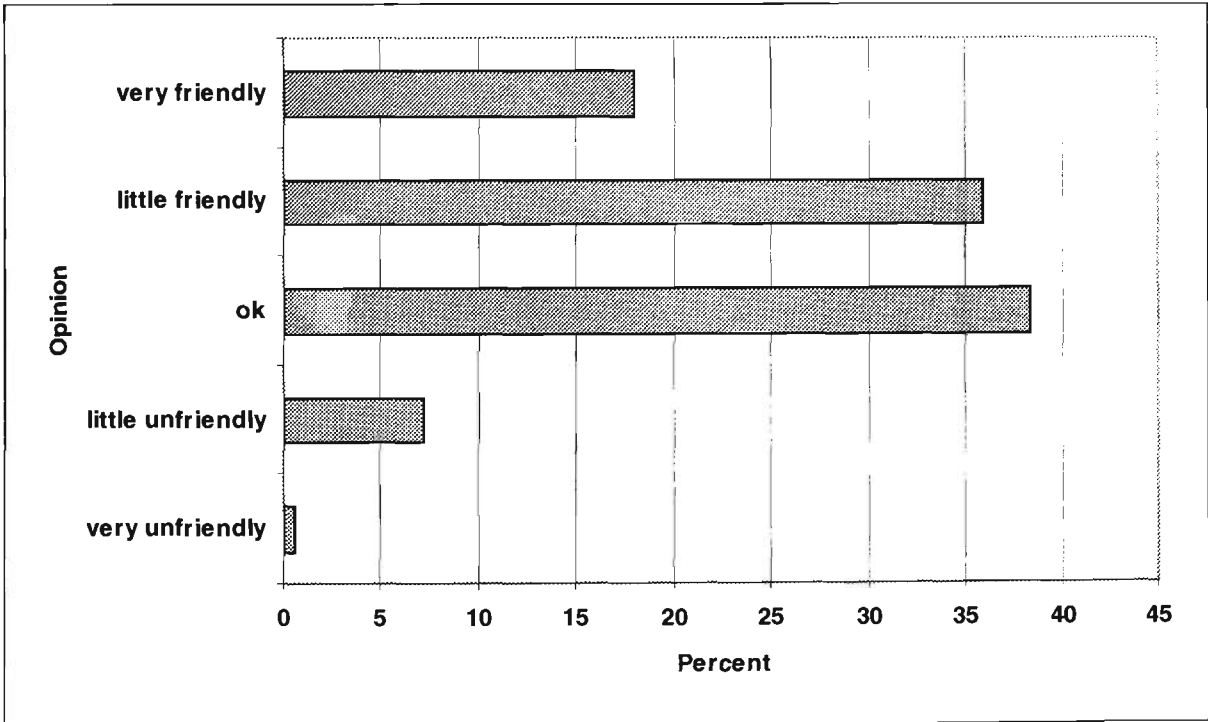


**Figure 8-0-10  Respondent's attitude to how friendly Australians are**

This section of the questionnaire also gave respondents an opportunity to express their opinions on the Australian people in general. Respondents were asked to detail what they liked most and disliked most about Australian people. The answers to these questions varied significantly but there were a number of dominant themes that

appeared in both the positive and negative responses. In terms of what respondents liked most about Australians the answer "friendly and easy going" was very common with more than half of the respondents using these terms. Other common comments were "lifestyle", "open-minded", "independent" and "straight forward". Clearly Thais like Australian culture which is relaxed and easy going and similar to Thai culture. The most common phrase used in the Thai language is "mai pen rai" which literally means "never mind, don't worry about it" which is a good reflection of the way that Thai people go about their lives. It is not surprising that the respondents in the survey identified with this common characteristic between their culture and their Australian counterparts.

In terms of what respondents disliked most about Australian people, the lowest response rate was achieved. This reflects the Thai characteristic of preferring to not publicly say anything negative about other people, particularly about other nationalities. However, of the 108 respondents who did give an answer, 56% of them said racism was the thing they disliked most about Australian people. The impact of this response on the respondents' willingness to do business with Australians, subsequent to their study experience in Australia will be tested later in this thesis. However, the comment must be made that this is a serious problem for the industry, and is one of the key barriers to attracting new overseas students to Australia. The perception that Australia is a racist country is fairly strong in Thailand. The impact that this perception has on the level of business activity between the two countries is unknown, but it would have to be assumed that it is not a positive one.

Section 1 of the questionnaire concluded with two questions seeking information on whether the respondents still maintained contact with Australia, how this contact was achieved and whether there is any contact with Australians in their present job. Figure 8.0.11 illustrates how respondents kept in touch with Australians they met while studying in Australia. Many respondents used more than one medium of contact hence the sum of percentages total more than 100%.
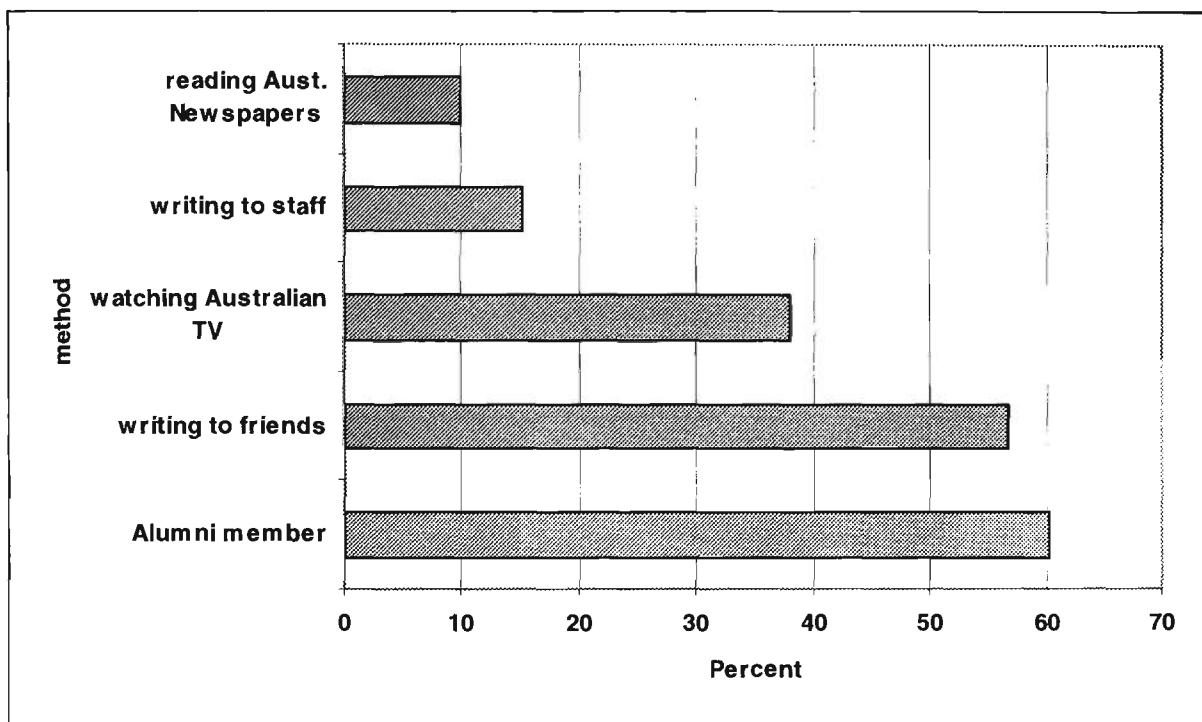


**Figure 8-0-11   Staying in Touch with Australia**

Alumni membership is the most common method through which respondents maintain contact with Australia. However, this answer is biased due to the large portion of respondents that were sourced by the Australian Embassy who held membership of the Thailand Australian Association and must be treated carefully. More than half of the respondents wrote to their friends in Australia, many using email as the method of communication. It is interesting that almost 40% of respondents said they watched Australian Television. Up until 2001, Australian television was available in Thailand through free satellite. However, this service was removed by the Howard government

and is no longer available in Thailand. The logic of this is difficult to find as this questionnaire shows it was an effective way of maintaining contact with people who have some interest in Australia.

Approximately 46% of respondents said they dealt with Australians in their present job. The way this contact occurred varied with responses such as "at conferences", "through work activities", "work colleagues are Australian", "at meetings/presentations", "at social functions", "export products to Australia" and "through academic linkages".

Attention will now turn to Section 3 of the questionnaire that dealt with travel information, before completing the Chapter with an analysis of Section 2.

## 8.5    Travel Information

Section 3 of the questionnaire was targeted at sourcing information on the respondent's level of travel to Australia after they had completed their study in Australia. This can assist in determining whether overseas student flows impact on activity within the tourism and aviation industries not only during the student's stay in Australia, but also after they return home.

Respondents were asked whether they had visited Australia after they had returned to Thailand and if so, how many times they had visited. They were also asked what was the purpose of their visit, the duration of their trip and the number of people that accompanied them on their trip. Table 8.0.4 and Figures 8.0.12 present the results to these questions.

**Table 8-0-4 Respondent's tendency to visit Australia after returning to Thailand**

| Question | Yes | No | Number of visits (avg.) | Number of days (avg.) | Number of people (avg.) |
|---|---|---|---|---|---|
| Have visited Australia after returning to Thailand? | 51% | 49% | 2.67 | 14 | 4 |

More than half of the respondents had returned to Australia after completing their study experience there. The average number of visits was 2.67 times. On these visits, the respondent would travel to Australia on average with 4 people and stay for 14 days.

Figure 8.0.12 shows the purpose of these visits with holidays and visiting friends and relatives being the most common response. However, 16% of respondents visited Australia for business purposes. Of those respondents who chose the category Other as their purpose for visiting Australia, this was typically to attend their graduation ceremony. As most Australian universities are now holding graduation ceremonies offshore, this purpose for visiting Australia is no longer a strong factor.
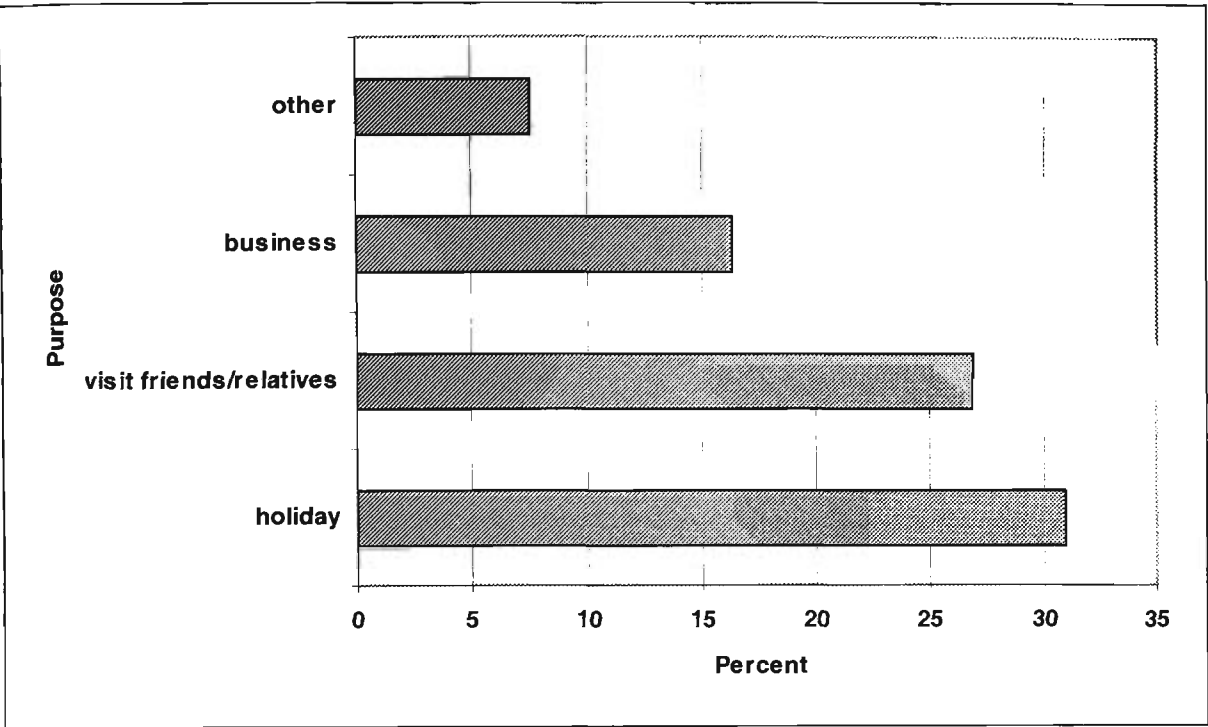
**Figure 8-0-12  Purpose to visit Australia**

From the questionnaire, there does seem to be a significant amount of travel activity being generated by overseas students post their study experience in Australia. Again this underlines the importance of an overseas student having a positive study experience in Australia and developing a positive view of Australians that will increase the likelihood that they will return to Australia, after they finish their study, and bring their friends and relatives with them.

Analysis of the questionnaire will now be completed through analysis of Section 2 of the questionnaire.

## 8.6     Business Activity with Australia

In terms of this thesis, Section 2 was the critical component of the administered survey. The objective of this section of the questionnaire was to determine whether respondents had undertaken any form of business activity with Australia subsequent to their study experience in Australia. Information was solicited on the type and size of business

activity undertaken, as well as the process through which such activity was initiated. That is, what role, if any, did the respondent's social network play in such activity? Subsequent to this, respondents were also asked to comment on various areas through which social networks can impact on business activity.

Of the 169 valid responses to the question "Have you undertaken any form of business activity with Australia since completing your studies?", 47 respondents indicated they had been involved in some form of business activity with Australia, representing 27.8% of the sample population. The type of business activities undertaken by this group of respondents covered a fairly diverse range of industry sectors. However, the most common form of business activity was the importing and exporting of goods and or services. Figure 8.0.13 shows the results for this question.
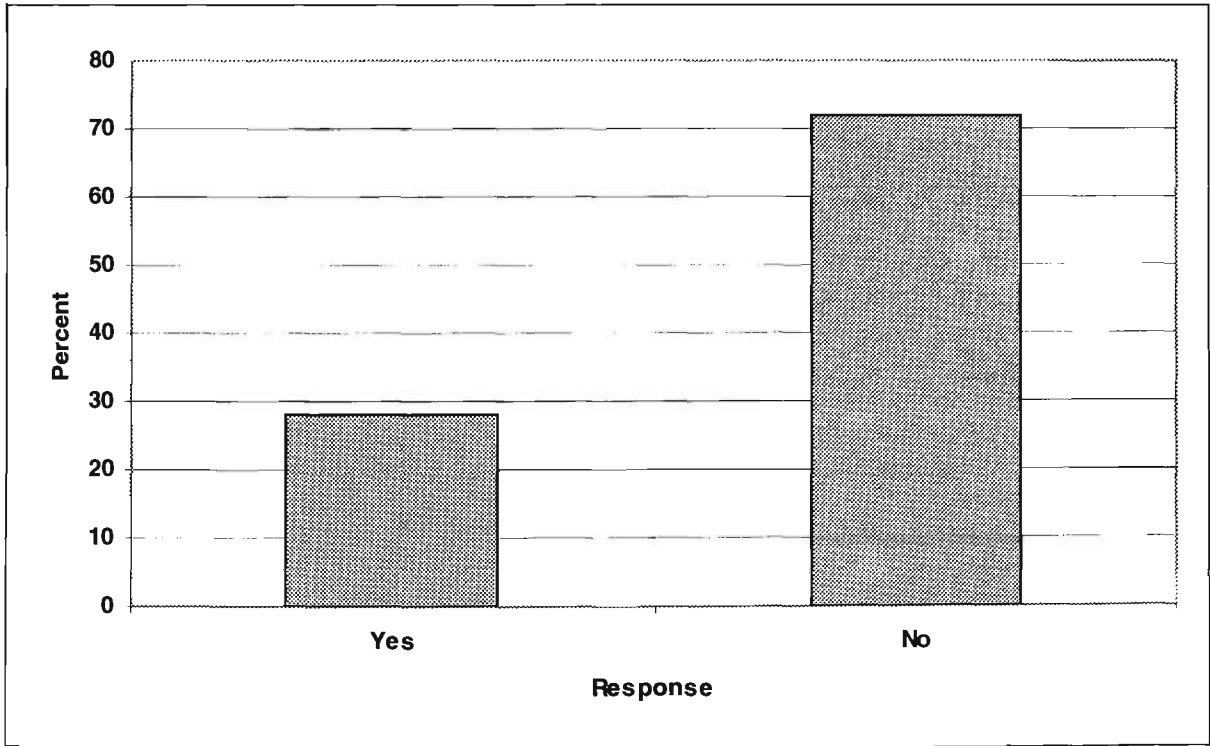


**Figure 8-0-13  Had respondent's undertaken any business dealings with Australia**

The following analysis is based on the population of respondents who did undertake some form of business dealings with Australia.

Respondents were asked to identify what industry their business dealings were conducted in. Figure 8.0.14 shows that manufactured goods was the industry type where most business dealings were conducted, followed by agriculture and education. There was a wide range of business dealings presented in the questionnaire including importing, exporting, consulting, marketing, educational counselling, banking and tourism services.
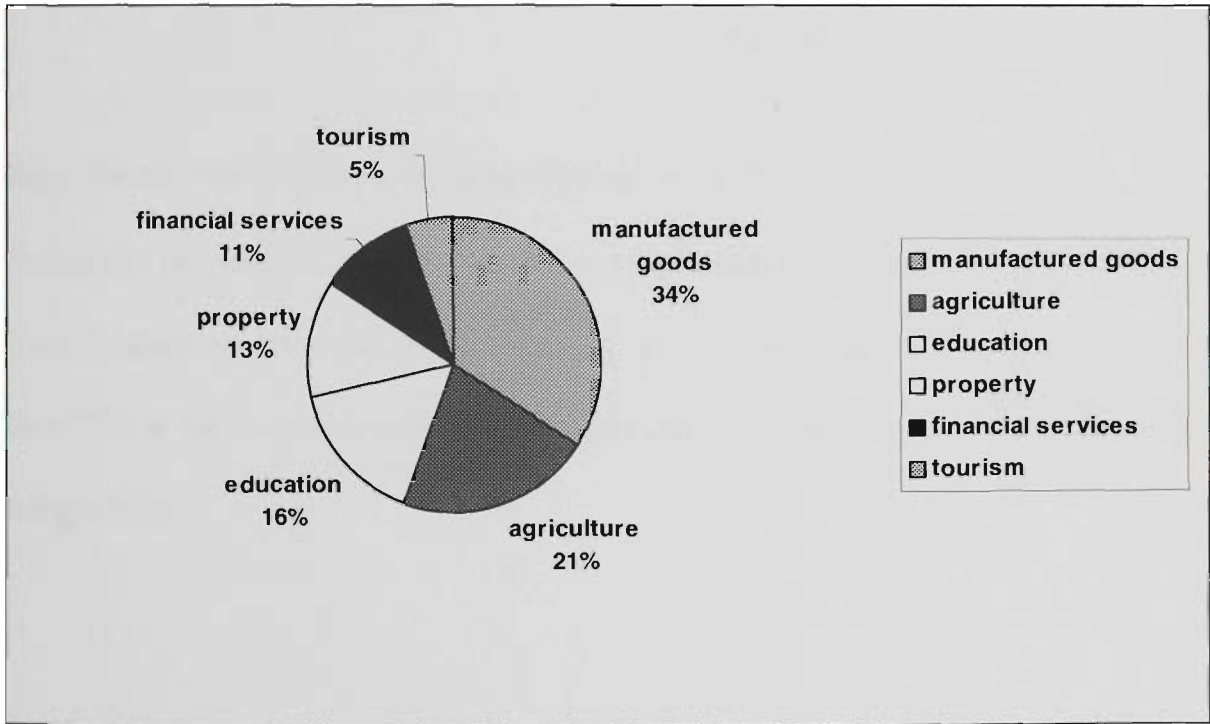


**Figure 8-0-14 Business Dealings done by respondents by industry type**

In an attempt to gain some idea of the monetary value of these business dealings, respondents were asked to estimate the value of their business dealings conducted with Australia. Figures 8.0.15 and 8.0.16 display the values of the business dealings for both money inflows into and money outflows out of Thailand.
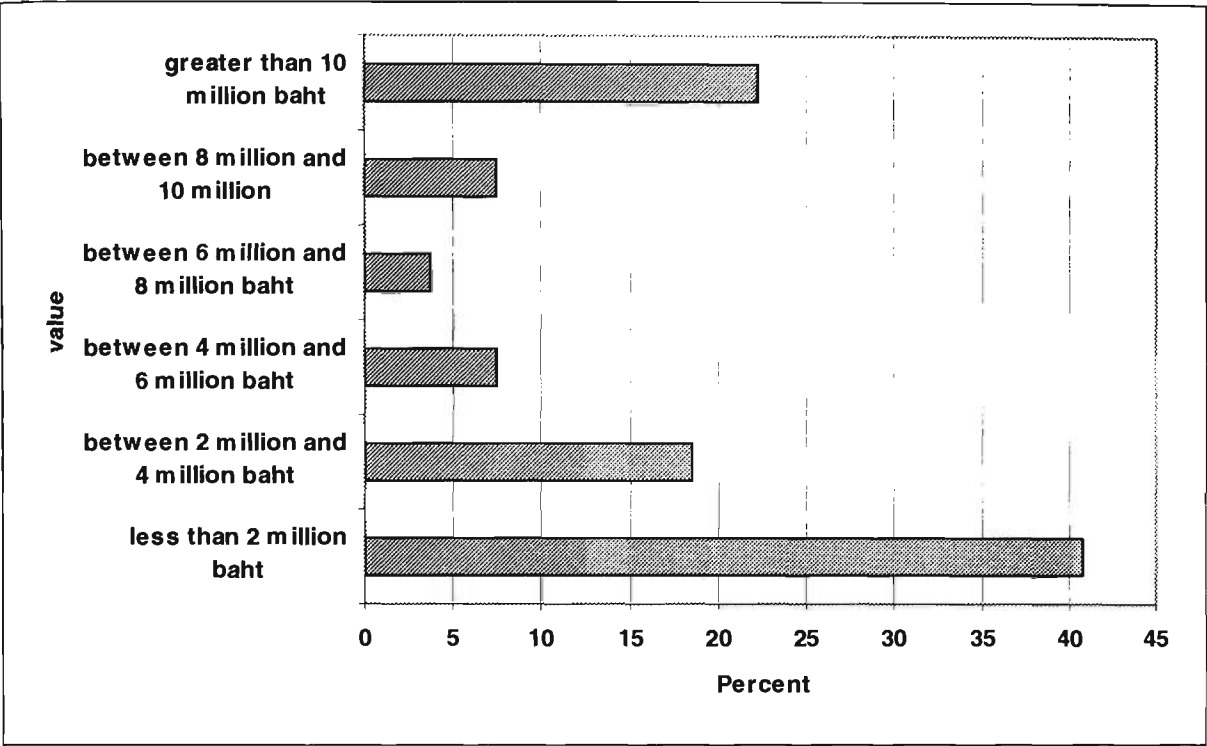
**Figure 8-0-15   Value of Business Dealings Flowing from Thailand to Australia**

Figure 8.0.15 shows that more than 40% of the business dealings where money flowed from Thailand to Australia was in the range of less than 2 million baht. However, more than 20% of the business dealings were significant in size in the range of greater than 10 million baht.
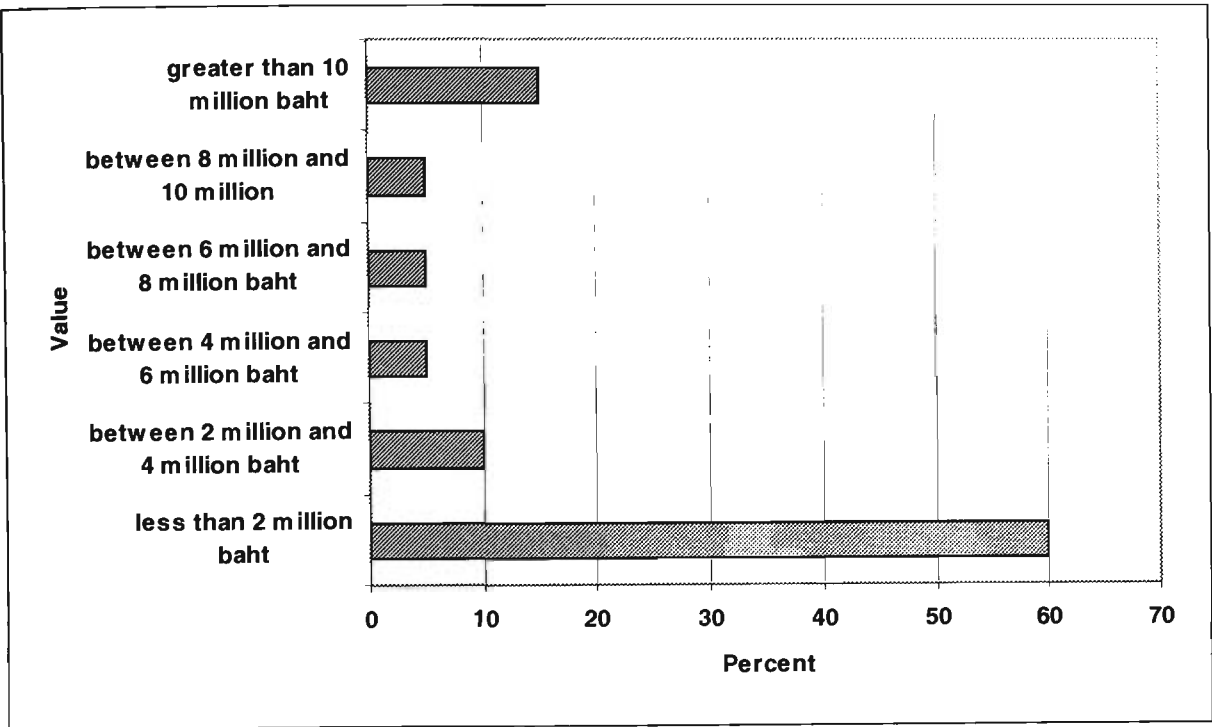
**Figure 8-0-16   Value of business dealings from Australia to Thailand**

Figure 8.0.16 shows that by far the most common size of business dealings where money flowed into Thailand were in the range of less than 2 million baht with 60% of respondents conducting business activity in this range.

The next two questions in Section 2 solicited information on the person(s) with whom the respondent conducted their business transaction(s) with and how this initial contact was made. Figure 8.0.17 shows the breakdown of responses with whom the respondent conducted their business dealings. Most respondents dealt with an Australian contact in Australia. It is interesting to note that 30% of respondents had multiple contacts in both countries.
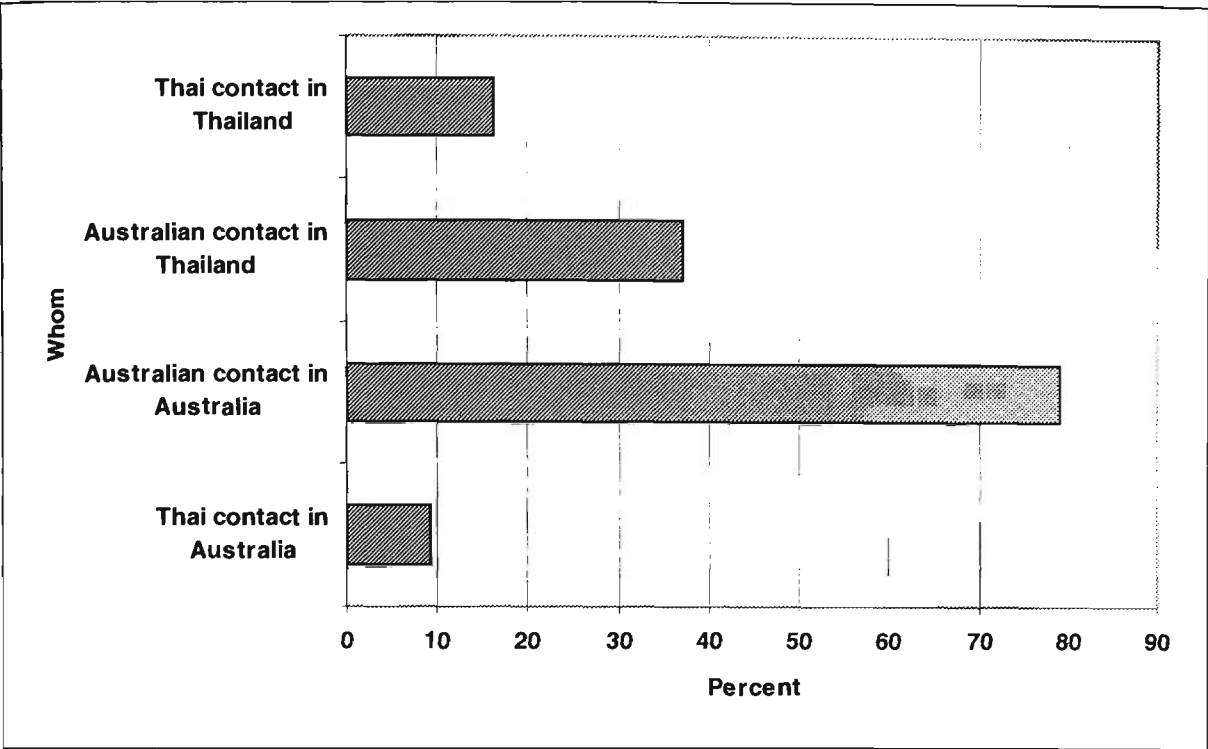
**Figure 8-0-17  Whom the respondent conducted business dealings with**

Respondents were then asked to reveal how they initially made contact with their business contact. The objective here was to determine what role the respondent's social network played in initiating the business activity with Australia. Figure 8.0.18 shows that more than 60% of respondents generated their business contact through a business referral. Four respondents identified their study experience in Australia as the link to the initiation of their business activity. One respondent was importing porcelain figures from Australia. Their supplier was a friend whom they had studied with at University. Another respondent who was exporting goods to and investing in property in Australia, had a friend from university whose company was exporting goods to Australia. Another respondent arranged study visits to Thailand for Australia students. They were approached to do this through an academic staff member at their university in Australia. A fourth respondent was involved in the exchange of academic research between Australia and Thailand. This was a direct result from linkages they had created during their study time in Australia.
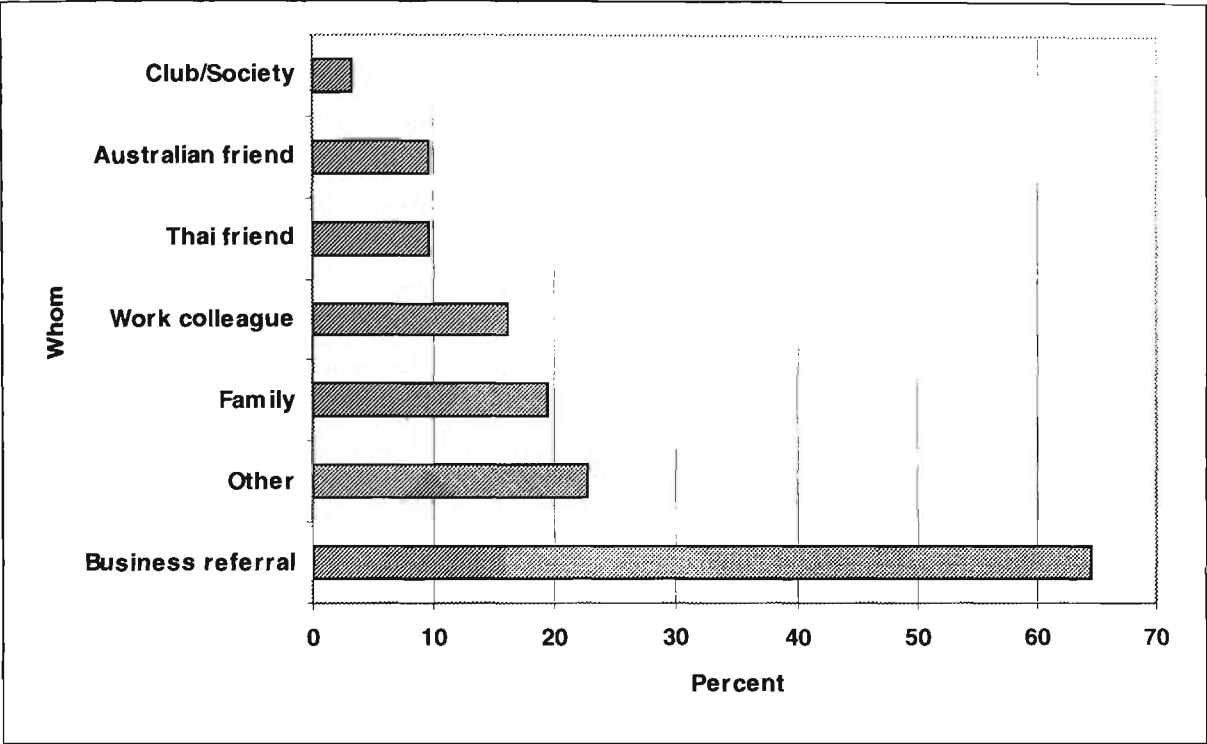
**Figure 8-0-18  How initial contact was made**

To try and solidify what link lay between the respondent's business activity and their study experience in Australia, the respondents were asked to comment on the role that their study experience played in their subsequent business activity. Figure 8.0.19 shows that 35% of respondents agreed or strongly agreed that their study experience in Australia was the main reason why they did some form of business activity with Australia. Interestingly, 30% of respondents were unsure as to whether their study experience in Australia was the main reason for their business activity with Australia. This could mean, that it was one of the factors that played a role in the whole process but perhaps not the main factor, or it could also mean that the respondent sees no direct link between the two events. However, they may feel as though there is an indirect link between the two events that they cannot clarify.
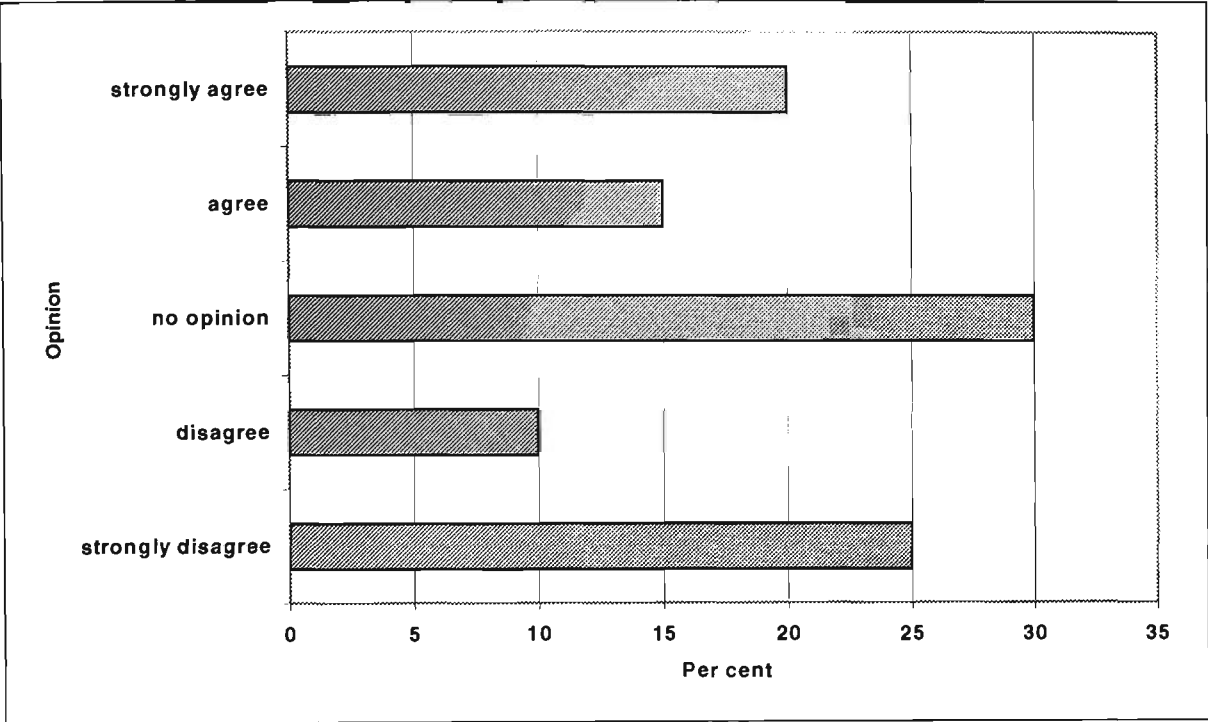
**Figure 8-0-19  Respondent's study experience was the reason for business activity**

Respondents were also asked whether they would continue to do some form of business activity with Australia in the future.  Figure 8.0.20 shows that more than 45% of respondents agreed or strongly agreed that they would.  Only 11% of respondents believe they would not do any further business with Australia.
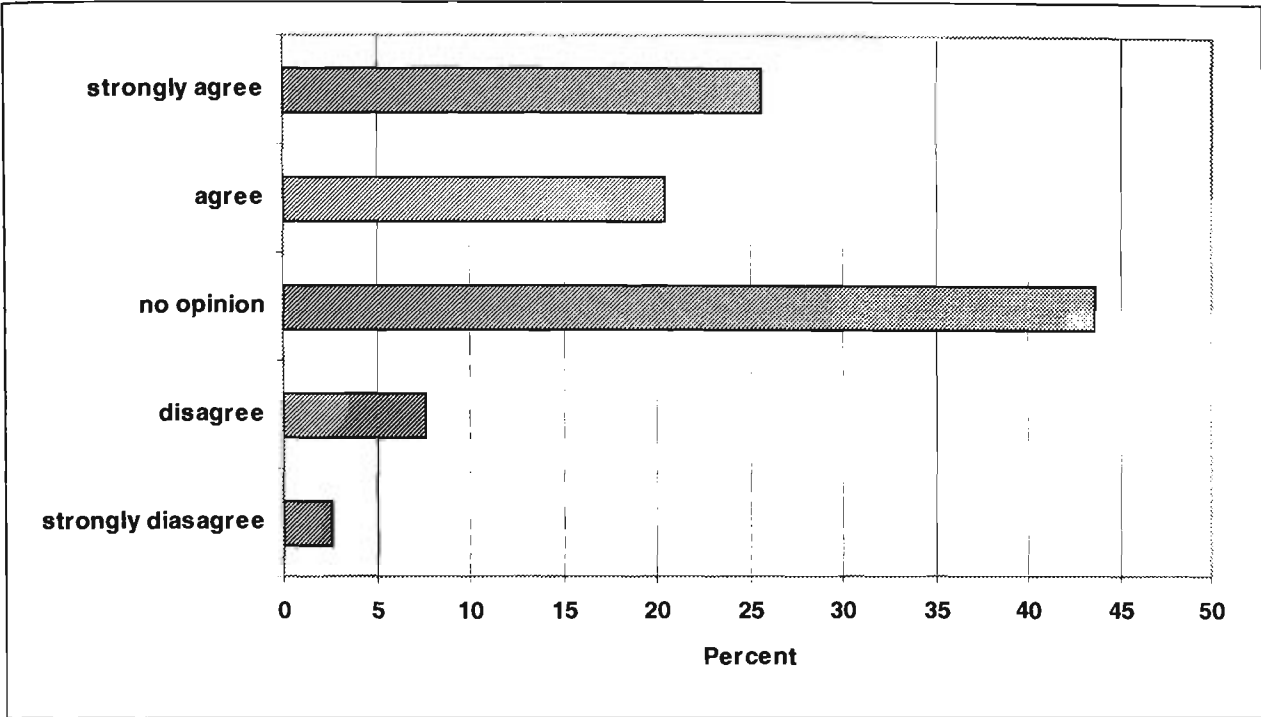
**Figure 8-0-20 Respondent will continue to do business with Australia**

Similar to Section 1, respondents were asked to provide a comment on the best and worst thing about doing business with Australians. In terms of the best thing, replies such as "fair", "honest", "straight forward", "transparent", "punctual" and "professional" were common responses. What Thais didn't like about the Australian business culture was the "lack of urgency", "complicated law and regulations", and "government taxes". There was no dominant theme that stood out in either of these questions so care needs to be taken when using these responses to make generalisations.

Respondents were then asked a range of questions regarding the impact of doing business with somebody they knew through their social network. In particular, respondents were asked to comment on how doing business with someone in their social network impacted on the following areas:

- Were more easily able to gain access to information on market opportunities;

- Were able to conduct business more efficiently because they could more easily trust the person they were doing business with;

- Were able to reduce the transaction cost incurred due to a reduced need for legal contracts and documents;

- Felt comfortable complaining to the person they were doing business with if their performance was not up to the standard they desired.

Figures 8.0.21 – 8.0.24 show the results to these questions.
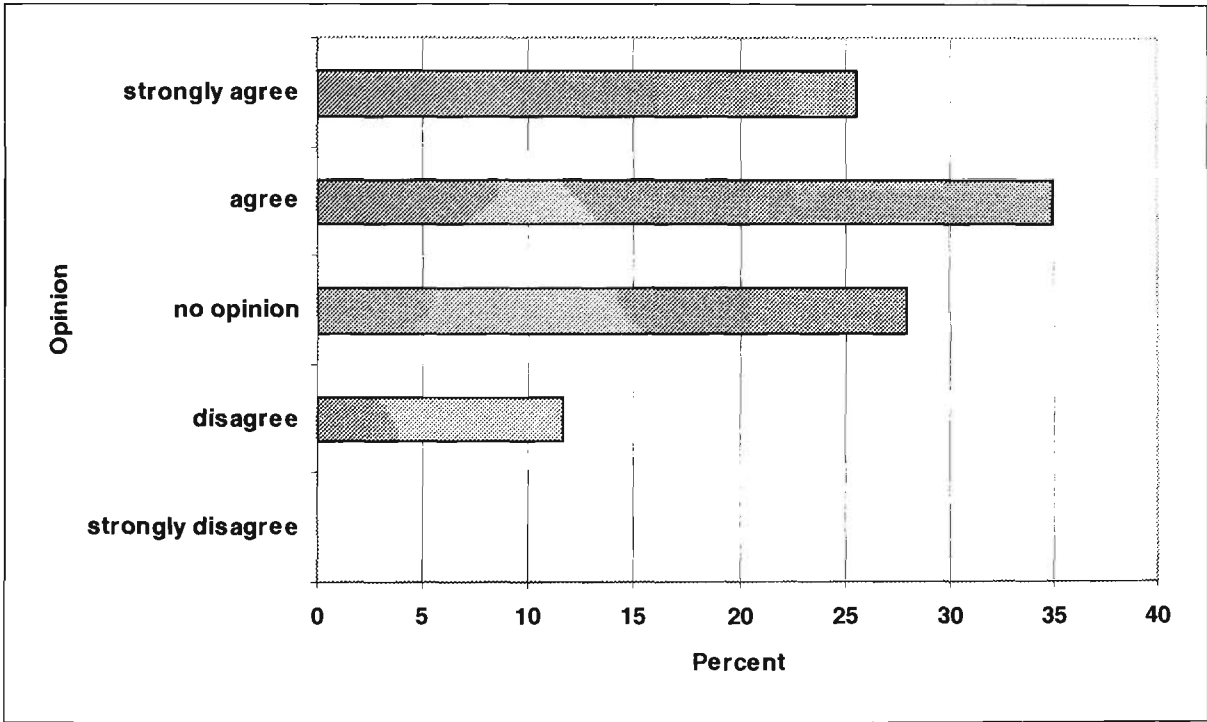


Figure 8-0-21   Easier access to market information

More than 60% of respondents felt that by doing business within their social network they were able to access market information more easily. Only 12% of respondents disagreed with this comment. As the literature identified, improved access to market information is one of the key instruments that social network theory identified.
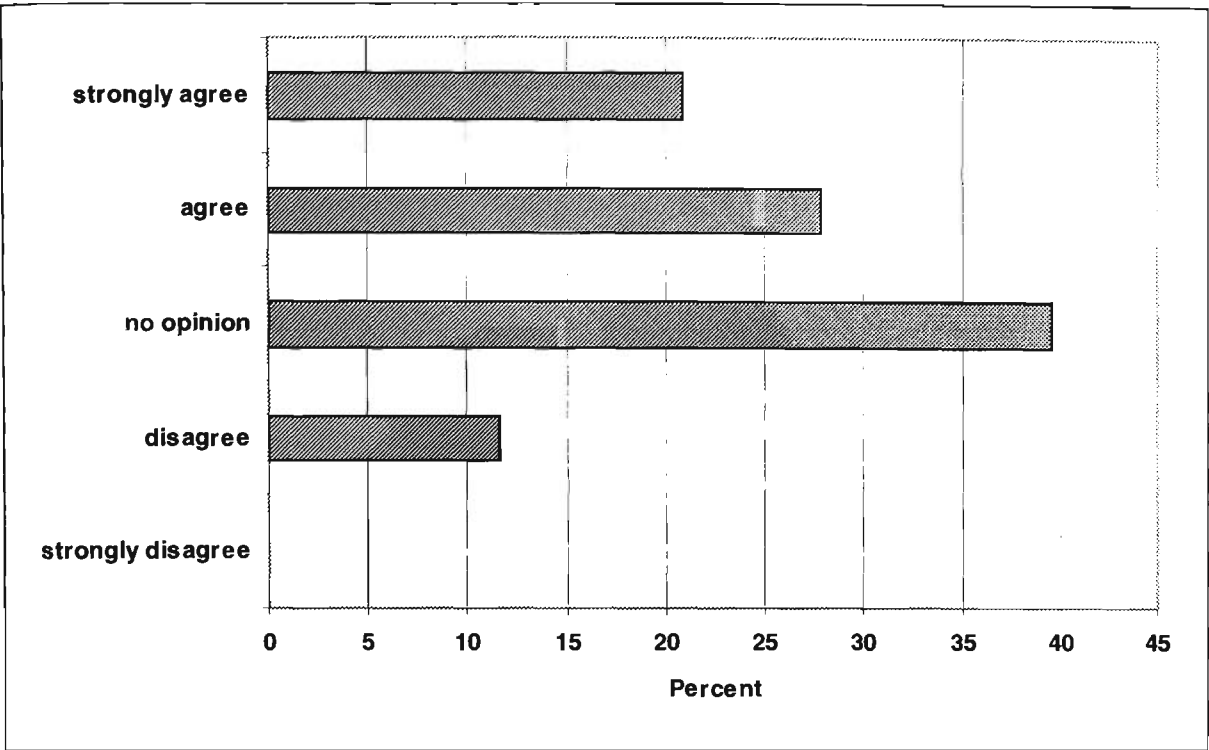
**Figure 8-0-22   More efficient business due to increased trust**

Almost half of the respondents agreed or strongly agreed that their business dealings could be conducted more efficiently when they dealt with someone in their social network because they could trust the person more. Again, this supports the literature on social network theory which identified trust as a key tool through which social networks could stimulate business activity.
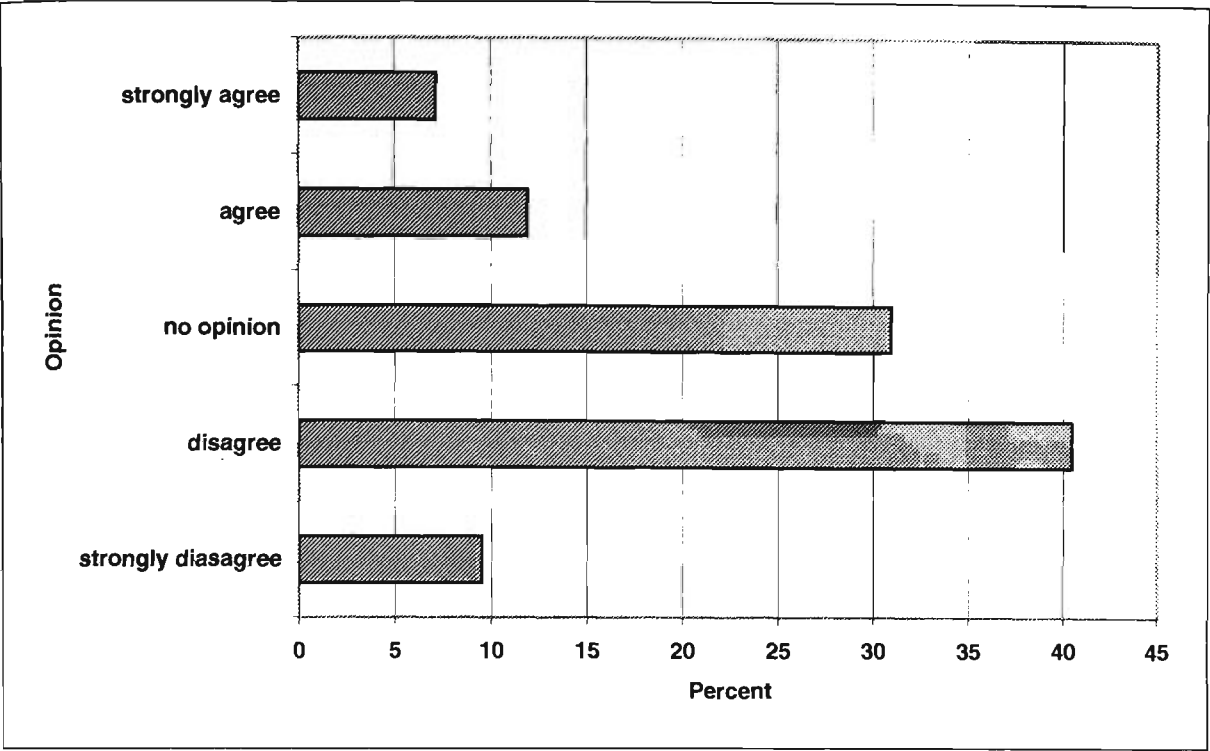
**Figure 8-0-23  Transaction costs can be reduced**

Interestingly, Figure 8.0.23 provides evidence which contradicts the argument put forward in the literature that conducting business through ones social network can reduce the transaction costs associated with international trade. Only 19% of respondents agreed that transaction costs can be reduced when doing business with someone from their social network. It may be that the reduction in transaction costs may be stronger if business is conducted within a family network where trust would be assumed to be much stronger, than what would be associated with a friendship that was developed during the respondents study experience in Australia. Also, as 60% of respondents dealt with someone they had contacted through a business referral, this weak link may not have been strong enough to generate enough trust to enable transaction costs to be reduced.
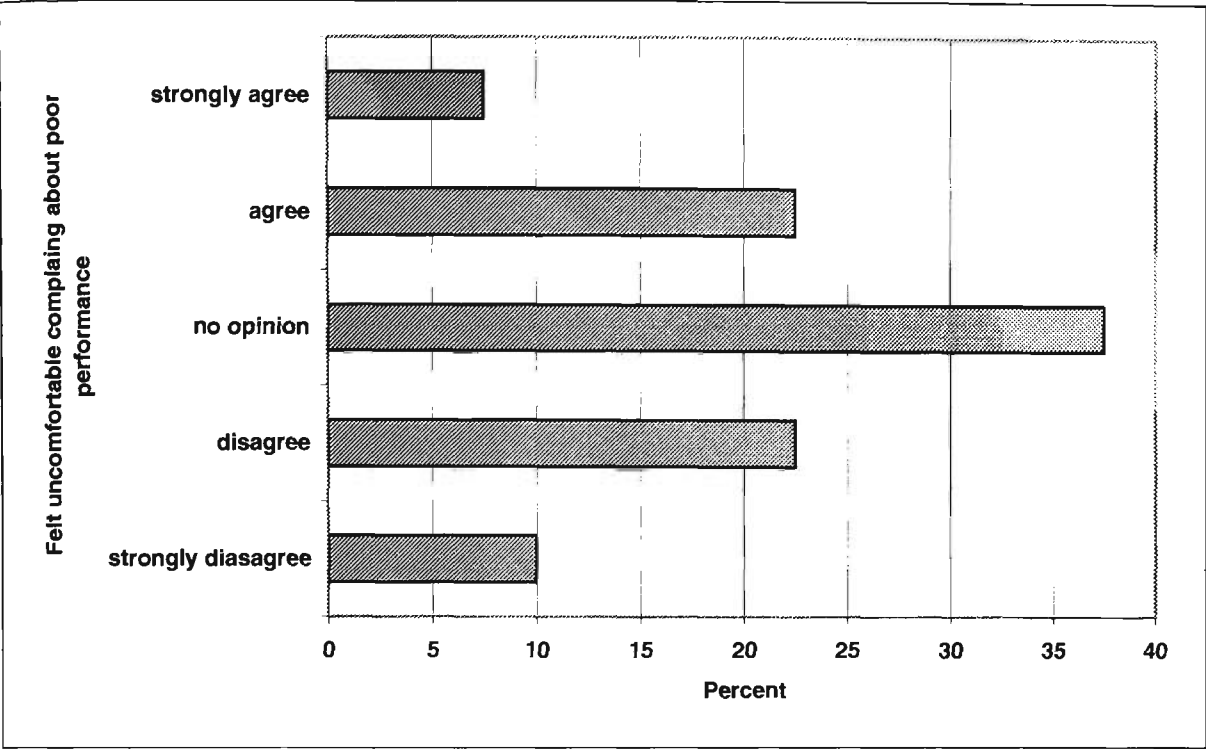
Figure 8-0-24   Felt uncomfortable complaining about poor performance

Figure 8.0.24 shows that there was no clear answer to the statement that respondents felt uncomfortable complaining to people in their social network about poor performance. The most popular response was no opinion which may mean that respondents had not experienced this problem in their business dealings so far.

Respondents were also given an opportunity to comment on what they preferred about doing business with people inside their social network as well as people outside their social network.   A couple of common themes appeared in respondents comments on dealing with people within their social network.   "Greater trust", "easier to understand and communicate" and "the same language" were common responses.   In terms of dealing with people outside their social network, the dominant response was the opportunity to "learn new things".   Not having to worry about repercussions within their social network was also mentioned.
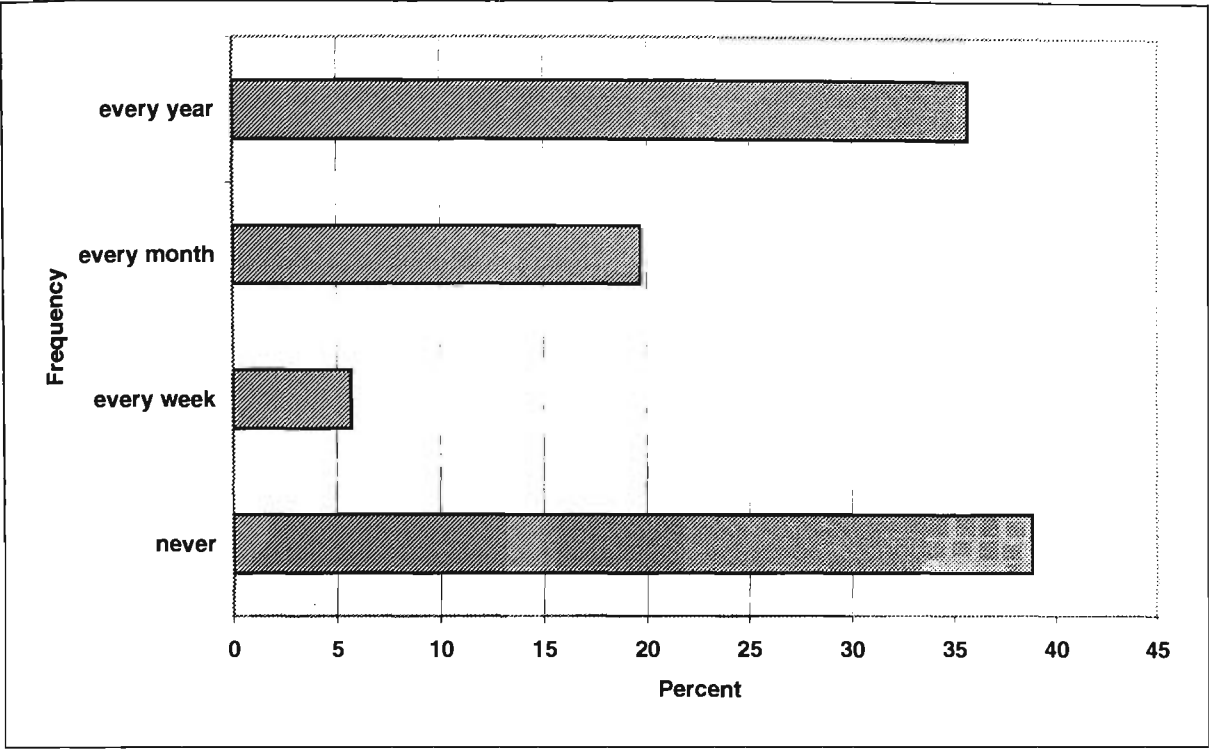
**Figure 8-0-25 Respondent's frequency of purchasing Australian made products**

The final part of Section 2 of the questionnaire solicited information on the respondent's tendency to purchase Australian made products in Thailand and also whether they asked people travelling between Australia and Thailand to buy such products for them. Figures 8.0.25 and 8.0.26 display the results to these questions.

More than 60% of respondents will buy an Australian made product in Thailand at least once a year, 25% will buy at least once a month. This lends some support to the hypothesis that overseas student flows can stimulate trade flows through the familiarisation with Australian made products. The importance of this is that the purchasing of the Australian made products not only occurs during the students study stay in Australia but continues on, maybe indefinitely, when the student returns to Thailand.

The type of products that respondents bought included skin care products, vitamins,

dairy products and cereals, fruits, chocolates, wine, and books and magazines.
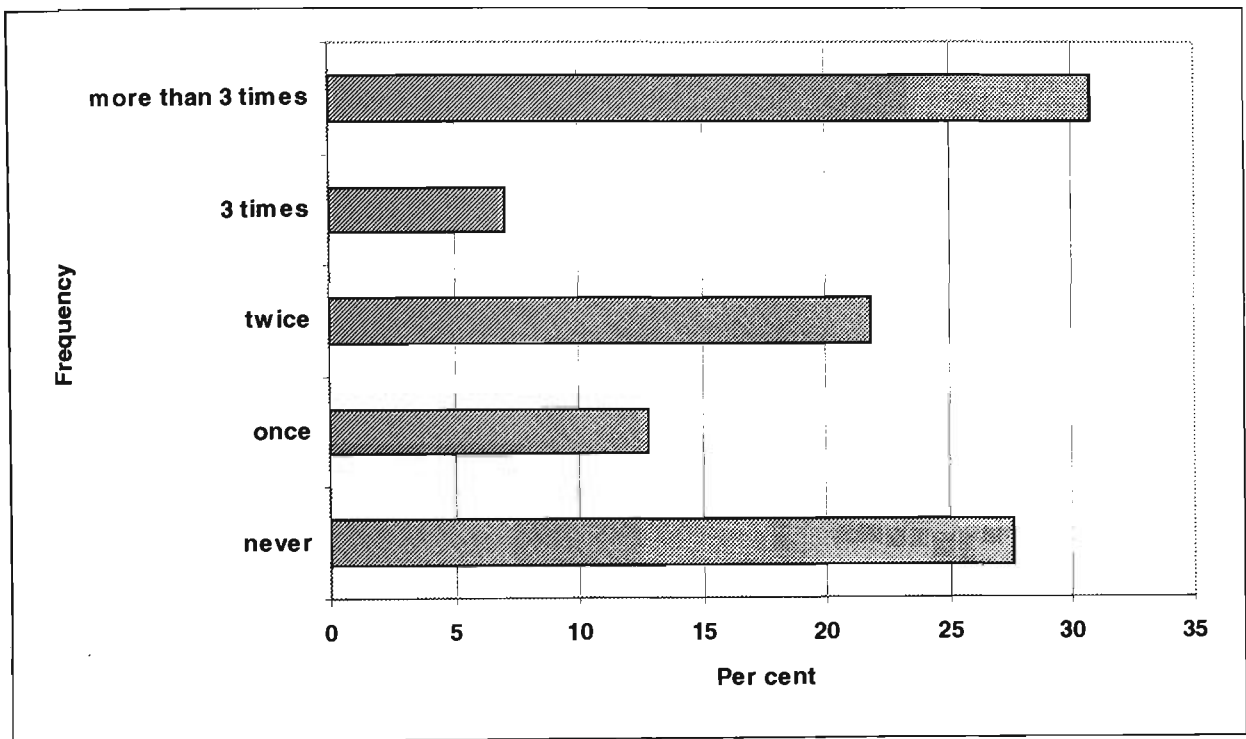


Figure 8-0-26   Asked travellers to buy products for them from Australia

More than 70% of respondents had asked people travelling between Australia and

Thailand to buy products for them from Australia.  More than 30% of respondents had

done this on more than three occasions.  The most demanded product was vitamins and

skin lotions as well as various food products including fruits, chocolates and nuts.

## 8.7    Conclusion

This Chapter can be summarised as follows:

- A surprising proportion of respondents lived and spent the majority of their

  leisure time with either fellow Thai students or other overseas students from

  different countries.  This unwillingness or inability by Thai students to live or

  spend their leisure time with local Australian students is a concern and may be a

barrier to developing their international social network. This reluctance by respondents to spend time with Australians may be linked to the comment by respondents that racism is a common characteristic of many of the Australians that they met.

• On a more positive note, the majority of respondents viewed their study experience in Australia as a positive one and would recommend to their friends and relatives to study in Australia. This is an important result for the Australian industry and is reflected in the recent positioning of Australia as being the number one choice of destination for Thai overseas students.

• Respondents kept in touch with Australia primarily through writing and emails to friends and staff from their education institution. It was also common for many of the respondents to deal with Australians within their job function.

• Activity in the tourism and aviation industries is generated by overseas students after they return to Thailand. More than half of the respondents visited Australia after finishing their study and on average came three times bringing four people with them and staying for approximately 14 days.

• There was support for the hypotheses that there is a link between overseas student flows and international business activity. Twenty eight percent of respondents did some form of business activity with Australia subsequent to completing their studies. Thirty five percent of these respondents cited their study experience in Australia as the main reason for undertaking such business

activity. Most respondents conducted this business activity with an Australian contact in Australia which was developed through a business referral.

- Respondents agreed that conducting business within their social network made it easier to gain access to information on market opportunities and increased business efficiency due to increased trust. However, there was little evidence to suggest that transaction costs could be reduced due to a reduced need for legal contracts and documents.

- Respondents cited increased trust and ease in communication as reasons why they prefer doing business within their social network while the ability to learn new things was cited as the main reason why they prefer to do business outside of their social network.

- Respondents were purchasing Australian made products in Thailand as well as asking people to bring products from Australia when they were travelling to Thailand. Products in demand included skin lotions, vitamins, wine, fruits, chocolates and nuts, and books and magazines.

This Chapter has summarised the data sourced from the International Survey conducted in Thailand. In the following Chapter, qualitative analysis is undertaken to identify answers to the hypotheses developed earlier in the thesis.

# CHAPTER NINE

# SURVEY RESEARCH FINDINGS

## 9.1 Introduction

In this Chapter, analysis, using a range of statistical tests, is undertaken of the data presented in the previous Chapter. In Chapter Eight, it was shown that the sample population surveyed in the international survey could be separated into two key groups – those who had done some form of business activity with Australia after returning to Thailand (this group is called the Entrepreneurs) and those that had not done any form of business activity (the Non-Entrepreneurs). The survey sample contained 47 Entrepreneurs that had done some form of business activity with Australia subsequent to their study experience in Australia. There were 122 Non-Entrepreneurs who did not do any form of business activity with Australia subsequent to their study experience in Australia.

This Chapter will attempt to answer the following questions:

- Does the attitude of the respondent towards their study experience in Australia affect the likelihood that they will become an Entrepreneur or a Non-Entrepreneur after they complete their studies?

- Does the extent to which they spend their leisure time with Australians impact on the likelihood that the student will return to travel in Australia after they completed their studies?

- And does the amount of contact the student has with Australia after they complete their studies impact on the likelihood that they will become an Entrepreneur or a Non-Entrepreneur?

- Does the respondent's personal profile (age, sex and marital status) differ between Entrepreneurs and Non-Entrepreneurs.

In Chapter Five, six research hypotheses were identified. Hypothesis 1 was tested in Chapter Six using the International Education regression model of trade. The objective of this Chapter is to test the remaining five hypotheses for the two groups of respondents (Entrepreneurs and Non-Entrepreneurs) using a number of approaches where appropriate, including: 1) independent sample t-testing to compare the means of various variables against the two respondent types, 2) z-tests to compare the proportions of various qualitative variables against the two respondent types and 3) cross tabulations and histograms. The key variables to be used in the tests are time spent with Australians during their stay in Australia, contact with Australians after returning to Thailand, attitudes towards their study experience in Australia and the respondent's personal profile. The five hypotheses are restated below:

Hypothesis 2: This tests whether the amount of time the respondent spent with Australians differs between Entrepreneurs and Non-Entrepreneurs. The null hypothesis to be tested is that there is no difference in the amount of time spent with Australians between Entrepreneurs and Non-Entrepreneurs.

Hypothesis 3: This tests whether the respondent's attitude towards their study experience in Australia differs between Entrepreneurs and Non-Entrepreneurs. The null hypothesis to be tested is that there is no difference between the student's attitude towards their study experience in Australia between Entrepreneurs and Non-Entrepreneurs.

Hypothesis 4: This tests whether the amount of contact the respondent has had with Australia since completing their study differs between Entrepreneurs than Non-Entrepreneurs. The null hypothesis to be tested here is that there is no difference between the amount of contact respondents had with Australia between Entrepreneurs and Non-Entrepreneurs.

Hypothesis 5: This tests whether the respondent's propensity to travel to Australia after they return to Thailand differs between Entrepreneurs and Non-Entrepreneurs. The null hypothesis to be tested here is that there is no difference in the respondent's propensity to travel to Australia between Entrepreneurs and Non-Entrepreneurs.

Hypothesis 6: This tests whether there is a difference in the respondent's personal profile between Entrepreneurs and Non-Entrepreneurs. The null hypothesis to be tested here is that there is no difference in the respondent's sex, age and marital status between Entrepreneurs and Non-Entrepreneurs.

## 9.2 Strategic Profiles for the Entrepreneurs and the Non-Entrepreneurs

In order to test the hypotheses identified above for Entrepreneurs and Non-Entrepreneurs, the relevant questions for each of the hypotheses (2-6) in the questionnaire are identified in Table 9.0.1. SPSS 11.0 was used to calculate the mean scores and independent t-tests statistics.

Table 9-0-1 Survey Question identification for Hypothesis Testing

| Hypotheses to be tested | Questions to be analysed | Figures | Tables |
|---|---|---|---|
| Hypothesis Two | • Q1.5 Accommodation Type<br><br>• Q1.6 Leisure Time | | 9.0.2<br>9.0.3<br>9.0.4<br>9.0.5<br>9.0.6 |
| Hypothesis Three | • Q1.8 Support Services<br><br>• Q1.9 Recommend Australia<br><br>• Q1.10 Study experience<br><br>• Q1.11 Attitude towards Australians<br><br>• Q1.12 Australian's friendliness<br><br>• Q1.14 Racism | | 9.0.7<br>9.0.8<br>9.0.9<br>9.0.10<br>9.0.11<br>9.0.12<br>9.0.13 |
| Hypothesis Four | • Q1.15 Contact Australia<br><br>• Q1.16 Work Contact | | 9.0.14 |
| Hypothesis Five | • Q3.1 Travel to Australia | | 9.0.15 |
| Hypothesis Six | • 4.1 Age<br><br>• 4.2 Gender<br><br>• 4.3 Marital Status | | 9.0.16<br>9.0.17<br>9.0.18<br>9.0.19 |

It is assumed that the data is normally distributed and for each t-test skewness values are used to test for a normal distribution. Each t-test is conducted at a 95% level of significance. The directions of the t-test indicate:

- A positive t-obtained value indicates that the Entrepreneur has a significantly higher mean score.

- A negative sign indicates the Non-Entrepreneur has a significantly higher mean score.

## 9.3 Australian Social Network

The objective of this section is to test Hypothesis Two that the more time an overseas student spends with Australians during their study, the more likely they are to become an Entrepreneur. The null hypothesis to be tested is that there is no significant difference in the time spent with Australians between the Entrepreneurs and Non-Entrepreneurs. In this case accommodation and leisure time are used as variables to measure the amount of time spent with Australians. T-statistics are used to test for a difference between the means of the two groups. The test is based upon 95% statistical significance.

**Question 1.5**: This question gave an insight into the amount of exposure the respondent had to Australians by providing information on their accommodation arrangements. As previously mentioned, a failure in the design of this question severely limits the weight that can be placed on statistical analysis of this question. In an attempt to overcome the fault that many respondents entered multiple forms of accommodation without placing weights on each accommodation type, these responses were separated and treated as unique responses. Responses in the questionnaire were also grouped into

accommodation with Australians and accommodation with non-Australians. Respondents who said they stayed in homestay, university accommodation or in share accommodation with Australian friends were grouped into a new variable called Accommodation with Australians represented by the value one. Respondents who said they stayed alone, with relatives, share accommodation with Thai friends or overseas friends, were grouped into another variable called Accommodation with Non-Australians, represented by the value two. The general assumption is that respondents that lived with Australians are more likely to be Entrepreneurs as they will have developed a social network with Australians. Table 9.0.2 lists the skewness of the two new variables in Question 1.6. It shows that they are both distributed normally. Table 9.0.3 shows the t-tests. The differences between the two group means are statistically insignificant at the 95% level.

Therefore it can be concluded that there appears to be no difference between the type of accommodation a respondent had between Entrepreneurs and Non-Entrepreneurs.

**Table 9-0-2  Normality Check on Data Distribution for Question 1.5**

| Question | Variables | | Skewness | Normality Check |
|---|---|---|---|---|
| 1.5 | Accommodation Type | Entrepreneurs | -0.077 | Normal |
| | | Non-Entrepreneurs | -0.162 | Normal |

**Table 9-0-3  Mean Difference Tests on Accommodation Type**

| Variables | X Entrepreneur | X Non-Entrepreneur | t-value (2-tailed) | Df | Sig. (2-tailed) | Null Hypothesis |
|---|---|---|---|---|---|---|
| Accommodation Type | 1.519 | 1.540 | -0.323 | 135 | .747 | Do not reject |

Note: * Levene's Test significant, therefore unequal variance t-test used

A cross tabulation was also undertaken to better visualise what impact the type of accommodation the respondent used had on their tendency to be an Entrepreneur. Table 9.0.4 displays the results and confirms the previous findings that there does not seem to be any statistically significant relationship between accommodation type and likelihood of being an Entrepreneur.

| | | BUSINESS | | |
| --- | --- | --- | --- | --- |
| | | Entrepreneur | Non-Networker | Total |
| Type Of Accommodation | Homestay | 25 | 50 | 75 |
| | Uni Accommodation | 8 | 38 | 46 |
| | Alone | 9 | 22 | 31 |
| | Relatives | 2 | 7 | 9 |
| | With Thai Friends | 17 | 54 | 71 |
| | With Australian Friends | 5 | 13 | 18 |
| | With Overseas Friends | 13 | 36 | 49 |
| Total | | 79 | 220 | 299 |

**Table 9-0-4  Cross tabulation of accommodation type by respondent type**

**Question 1.6:** This question attempts to measure the amount of leisure time the respondent spent with Thai friends, Australian friends, and friends from overseas countries. The general assumption is that there will be a difference in the time that respondents spend with Australian friends between Entrepreneurs and Non-Entrepreneurs. Table 9.0.5 lists the skewness of all three variables in Question 1.6. It shows that they are all distributed normally. Table 9.0.6 shows the t-tests. The differences between the two group means are insignificant at the 95% level of significance.

Therefore, it can be concluded that there appears to be no difference between the amount of leisure time a respondent spends with various nationalities between Entrepreneurs and Non-Entrepreneurs.

**Table 9-0-5 Normality Check on Data Distribution for Question 1.6**

| Question | Variables | | Skewness | Normality Assessment |
|---|---|---|---|---|
| Q1.6 | Thai Friends | Entrepreneurs | -0.19 | Normal |
| | | Non-Entrepreneurs | -0.488 | Normal |
| | Overseas Friends | Entrepreneurs | -0.123 | Normal |
| | | Non-Entrepreneurs | -0.067 | Normal |
| | Australian Friends | Entrepreneurs | 0.303 | Normal |
| | | Non-Entrepreneurs | 0.309 | Normal |

**Table 9-0-6 Mean Difference Tests on Leisure Time spent with Various Nationalities**

| Variables | X Entrepreneur | X Non-Entrepreneur | t-value (2-tailed) | Df | Sig. (2-tailed) | Null Hypothesis |
|---|---|---|---|---|---|---|
| Thai Friends | 3.4667 | 3.7917 | -1.655 | 71. | 0.098 | Do not reject |
| Overseas Friends | 3.6222 | 3.5833 | 0.232 | 79 | 0.817 | Do not reject |
| Australian Friends | 3.0435 | 2.8487 | 1.232 | 87 | 0.221 | Do not reject |

Note: * Levene's Test significant, therefore unequal variance t-test used

## Conclusion

There is little evidence to support Hypothesis Two as the means for the variables 'Accommodation type' and 'leisure time' do not differ significantly between Entrepreneurs and Non-Entrepreneurs. There is some evidence to show that there is some relationship between these variables as the mean value for respondents who spent

leisure time with Thai friends was significantly different at the 90% significance level implying that the more leisure time a Thai overseas student spends with other Thai friends, the less likely they are to be an Entrepreneur. This is because of the decreased ability to generate an international social network during their study period in Australia.

## 9.4 Attitude Towards Study Experience

The objective of this section is to test Hypothesis Three that the more positive a student's attitude towards their study experience in Australia, the more likely they are to become an Entrepreneur. The null hypothesis being that there is no difference between the means for the respondent's attitude towards their study experience for Entrepreneurs and Non-Entrepreneurs.

**Question 1.8:** This question solicits information on the respondent's opinion of the support services offered towards overseas students at their University. The perception of the level of service offered by Universities in Australia in this area is particularly important as it is directed solely at overseas students and in many cases is an overseas students' initial and primary point of contact with their university. The extent to which overseas students are happy with the support services offered to them at their University is an important factor in the student's overall assessment of their overseas study experience. Table 9.0.7 lists the skewness of the variable in Question 1.8. It shows that it is distributed normally. Table 9.0.8 shows the t-test. The differences between the two group means are insignificant at the 95% level of significance.

Table 9-0-7  Normality Check on Data Distribution for Question 1.8

| Question | Variables | | Skewness | Normality Assessment |
|---|---|---|---|---|
| Q1.8 | Support Services | Entrepreneurs | .001 | Normal |
| | | Non-Entrepreneurs | -0.332 | Normal |

Table 9-0-8  Mean Difference Tests on Attitude towards Support Services

| Variables | X Entrepreneur | X Non-Entrepreneur | t-value (2-tailed) | Df | Sig. (2-tailed) | Null Hypothesis |
|---|---|---|---|---|---|---|
| Support Services | 3.348 | 3.551 | -1.278 | 86 | 0.205 | Do not reject |

Note: * Levene's Test significant, therefore unequal variance t-test used

What is peculiar about this result is that the mean for the Entrepreneur group is lower than the mean for the Non-Entrepreneur group. This implies that the better the perception an overseas student has of the support services offered to them the more likely they are to be a Non-Entrepreneur. However, this result is not statistically significant so it can be ignored.

Therefore, it can be concluded that there appears to be no difference between the attitudes of the respondents towards the support services offered to overseas students by their university between Entrepreneurs and Non-Entrepreneurs.

**Question 1.9 & 1.10:** These two questions give a more direct response to the respondent's attitude towards their study experience in Australia. Q1.10 asks respondents directly if they viewed their study experience in Australia as a positive one while Q1.9 solicits information on the respondent's willingness to recommend Australia as a study destination of choice for their family and/or friends. Table 9.0.9 lists the

skewness of the variables in Question 1.9 and 1.10. It shows that they are both distributed normally. Table 9.0.10 shows the t-tests. The differences between the two group means are insignificant at 95% for the positive study experience. However the difference between the two means for the recommending Australia variable are statistically significant. What is surprising is that the direction of the result is the opposite of what was expected. This result implies that the more likely an overseas student from Thailand is to recommend Australia to their friends or family as a good place to study, the less likely they are to be an Entrepreneur. This result is a little puzzling and would require further analysis to be conducted to gain an understanding of the underlying process at work here. Follow-up interviews with Entrepreneurs would be an appropriate way to do such research.

**Table 9-0-9 Normality Check on Data Distribution for Questions 1.9 & 1.10**

| Question | Variables | | Skewness | Normality Assessment |
|---|---|---|---|---|
| Q1.9 | Recommend Australia | Entrepreneur | -0.087 | Normal |
| | | Non-Entrepreneur | -0.450 | Normal |
| Q1.10 | Positive Study Experience | Entrepreneur | -1.215 | Normal |
| | | Non-Entrepreneur | -1.341 | Normal |

**Table 9-0-10 Mean Difference Tests on Attitude towards Study Experience**

| Variables | X Entrepreneur | X Non-Entrepreneur | t-value (2-tailed) | Df | Sig. (2-tailed) | Null Hypothesis |
|---|---|---|---|---|---|---|
| Recommend Australia | 3.8936 | 4.1885 | -2.193 | 82 | 0.031 | reject |
| Positive Study Experience | 4.4255 | 4.5492 | -0.97 | 73 | 0.335 | Do not reject |

Note: * Levene's Test significant, therefore unequal variance t-test used

Therefore, it can be concluded that there appears to be no difference between the attitudes of the respondent towards their study experience in Australia between Entrepreneurs and Non-Entrepreneurs while there is a difference between the respondent's attitude regarding recommending Australia as a good place to study to relatives and friends between Entrepreneurs and Non-Entrepreneurs.

**Question 1.11 & 1.12:** These two questions solicited information on the respondent's attitude towards Australians and how friendly they found Australians they met while studying in Australia. It is hypothesized that there is a difference in the extent that the respondent liked Australians and felt they were friendly, between Entrepreneurs and Non-Entrepreneurs. Table 9.0.11 lists the skewness of the variables in Question 1.11 and 1.12. It shows that they are both distributed normally. Table 9.0.12 shows the t-tests. As in the previous test, the null hypothesis in one of the two t-tests conducted is rejected and again the result is opposite to what was expected. The differences between the two group means are insignificant at 95% for the variable measuring how friendly Australians are. However the difference between the two means for the variable measuring how much the respondent liked Australians was statistically significant. But again, the direction of the test result is quite surprising. It was found that the less respondents liked Australians the more likely they were to do business with them after they finished their study in Australia and returned to Thailand. This could arise from the more time Entrepreneurs spent with Australians conducting business the more they found to dislike about them. Whereas Non-Entrepreneurs may have developed rose-tinted views of their experiences with Australian people, particularly as time passed by. Again, this result would require further analysis to determine what underlying factors are causing this result.

**Table 9-0-11  Normality Check on Data Distribution for Questions 1.11 & 1.12**

| Question | Variables | | Skewness | Normality Assessment |
|---|---|---|---|---|
| Q1.11 | Feelings Towards Australians | Entrepreneur | 0.603 | normal |
| | | Non-Entrepreneur | -0.038 | normal |
| Q1.12 | Australians were Friendly | Entrepreneur | 0.364 | normal |
| | | Non-Entrepreneur | -0.192 | normal |

**Table 9-0-12  Mean Difference Tests on Attitude towards Australians**

| Variables | X Entrepreneur | X Non-Entrepreneur | t-value (2-tailed) | Df | Sig. (2-tailed) | Null Hypothesis |
|---|---|---|---|---|---|---|
| Feeling Towards Australians | 3.340 | 3.694 | -2.804 | 97 | 0.006 | reject |
| How Friendly Were Australians | 3.565 | 3.661 | -0.676 | 96 | 0.501 | Do not reject |

Note: * Levene's Test significant, therefore unequal variance t-test used

**Question 1.14:** Although this question was not originally designed to solicit information regarding the level of perceived racism that overseas students believe exists in Australia, the dominant response to this question was that racism was the thing that respondents disliked most about Australian people.  This finding warrants further investigation and hence, respondents who cited racism as the thing they disliked most about Australians were grouped into a new variable called "racism" and those that did not nominate racism were grouped into a variable called 'no racism'. Note, that caution must be placed on the findings for this question, as the survey did not specifically ask the respondent to comment on the level of racism in Australia. However, given the

impact that the perception of racism in Australia could have on Australia's ability to attract overseas students, it is worthwhile to explore this issue further.

To make statistical comparisons (in terms of some qualitative characteristics) between proportions or probabilities associated with two independent populations which may be approximately normal, a test of the difference between two independent population proportions based on the observed difference between two independent sample proportions can be conducted (Thanasinsupaya, 1996). A test to see whether the proportion of Entrepreneurs who cited racism as the thing they disliked most about Australians is less than the proportion of Non-Entrepreneurs who cited racism as the thing they disliked most about Australians is undertaken. The hypothesis being that respondents are more likely to be an Entrepreneur if they did not view racism as a problem in Australia. The data approximates a normal distribution as it can be shown that $n_1$ and $n_2$ are large enough such that the interval

$$[p_1 \pm 3 \sqrt{\frac{p_1(1 - p_1)}{n_1}}]$$

does not contain zero or one, and if $n_2$ is such that the interval

$$[p_2 \pm 3 \sqrt{\frac{p_2(1 - p_2)}{n_2}}]$$

does not contain zero or one

Table 9.0.13 shows the z-test. The differences between the two sample proportions are insignificant at the 95% level of significance. Therefore, there is not enough evidence to conclude that the proportion of Entrepreneurs who cite racism as the thing they dislike most about Australians is less than the proportion of Non-Entrepreneurs who cite racism as the thing they dislike most about Australians.

**Table 9-0-13 Proportion tests on the Perception of Racism**

| Variables | p₁ Entrepreneur | p₂ Non-Entrepreneur | z-value (1-tailed) | z-critical | P-value | Null Hypothesis |
|---|---|---|---|---|---|---|
| Perception of Racism | 0.60 | 0.533 | 0.621 | -1.645 | .5352 | Do not reject |

**Conclusion:** There is some evidence to support Hypothesis Three because the means for the variables 'recommend Australia to family and friends' and 'feelings towards Australians' differ significantly between Entrepreneurs and Non-Entrepreneurs. However, the direction of this result is puzzling as it implies the more positive the respondent's attitude towards their study experience in Australia and towards Australians in general, the less likely they are to become an Entrepreneur. As mentioned earlier, further analysis is required to understand the meaning of this result. The sample proportions of respondents citing racism as the thing they disliked most about Australians was not statistically different between Entrepreneurs and Non-Entrepreneurs.

## 9.5 Amount of Contact with Australia after returning to Thailand

The objective of this section is to test Hypothesis Four that students who maintain various forms of contact with Australia are more likely to be Entrepreneurs. The reason for this is that if respondents are able to keep their social network active, the more likely they are to become an Entrepreneur. The null hypotheses to be tested is there is no difference in the proportions of various forms of contact with Australia between Entrepreneurs and Non-Entrepreneurs.

A test is now conducted to see whether the proportion of Entrepreneurs who contacted Australia after they returned to Thailand is greater than the proportion for Non-Entrepreneurs. As previously, the data approximates a normal distribution as it can be shown that $n_1$ and $n_2$ for each of the 'contact' variables are large enough that the interval

$$[p_1 \pm 3 \sqrt{\frac{p_1(1-p_1)}{n_1}}]$$

does not contain zero or one, and if $n_2$ is such that the interval,

$$[p_2 \pm 3 \sqrt{\frac{p_2(1-p_2)}{n_2}}]$$

does not contain zero or one.

**Question 1.15 and 1.16:** These questions solicit information from the respondent regarding whether they had kept in touch with Australia since they returned to Thailand and the method of contact. It also identifies whether the respondent is in contact with Australians within their current job in Thailand.

Table 9.0.14 shows the z-test for the range of 'contact variables'. The differences between the two sample proportions are insignificant at the 95% level of significance for the contact variables "writing to friends", "writing to staff" and "Alumni Membership". There is not enough evidence to conclude that the proportion of Entrepreneurs who contacted Australia through these contact channels is greater than for Non-Entrepreneurs. However, there is strong evidence to support the hypothesis that the proportion of Entrepreneurs who "watch Australian television' and 'who contact with Australians in their present job" is higher than for Non-Entrepreneurs.

**Table 9-0-14   Proportion difference Tests on "Contact' variables**

| Variables | P₁ Entrepreneur | P₂ Non- Entrepreneur | z-value (1-tailed) | z-critical | P-value | Null Hypothesis |
|---|---|---|---|---|---|---|
| Writing to Friends | 0.532 | 0.590 | -0.674 | 1.645 | 0.749 | Do not reject |
| Writing to Staff | 0.213 | 0.131 | 1.211 | 1.645 | 0.113 | Do not reject |
| Watching Australian Television | 0.489 | 0.336 | 1.760 | 1.645 | 0.039 | reject |
| Alumni Membership | 0.681 | 0.582 | 1.206 | 1.645 | 0.113 | Do not reject |
| Contact in Job | 0.787 | 0.344 | 5.968 | 1.645 | 0.000 | reject |

**Conclusion:** There is mixed evidence to support Hypothesis Four that the amount of contact a respondent has with Australia is higher for Entrepreneurs than Non-Entrepreneurs. Respondents who watch Australian television and have contact with Australians in their job are statistically significantly more likely to be Entrepreneurs. Respondents who wrote to staff and were members of an alumni were not statistically significantly more likely to be Entrepreneurs however their p-value of 0.113 reflects a likelihood that this could well be the case. However, writing to friends does not increase the likelihood of being an Entrepreneur.

## 9.6   Influence on Travel Activity

The objective of this section is to test Hypothesis Five that students who travel to Australia both during and/or after their study are more likely to be Entrepreneurs. The

null hypothesis being that there is no difference between the proportions of the

respondent's who traveled to Australia both during and after they finished their study,

between Entrepreneurs and Non-Entrepreneurs.

**Question 1.7 & 3.1** These questions solicited information on whether the respondent

had traveled to Australia during and after their study experience in Australia. Those

respondents who traveled to Thailand during their study experience in Australia are

called Student Travelers and those that did not, Student Non-Travelers. Those

respondents who traveled to Australia after they had completed their study experience

in Australia are called Graduate Travelers and those that did not, Graduate Non-

Travelers.

A test is conducted to see whether the proportion of Entrepreneurs who were Student

Travellers is greater than the proportion of Non-Entrepreneurs who were Student-

Travellers. The hypothesis being that respondents are more likely to be an Entrepreneur

if they travelled between Australia and Thailand during their study. The data

approximates a normal distribution as it can be shown that $n_1$ and $n_2$ are large enough

such that the interval

$$[p_1 \pm 3 \sqrt{\frac{p_1(1-p_1)}{n_1}}]$$

does not contain zero or one, and if $n_2$ is such that the interval

$$[p_2 \pm 3 \sqrt{\frac{p_2(1-p_2)}{n_2}}]$$

does not contain zero or one.

Table 9.0.14 shows the z-test. The differences between the two sample proportions are insignificant at the 95% level of significance. Therefore, there is not enough evidence to conclude that the proportion of Entrepreneurs who were Student Travellers is greater than for Student Non-Travellers.

Table 9-0-15 Proportion difference Tests on Student Travellers and Graduate Travellers

| Variables | $p_1$ Entrepreneur | $p_2$ Non- Entrepreneur | z-value (1-tailed) | z-critical | P-value | Null Hypothesis |
|---|---|---|---|---|---|---|
| Student Traveller | 0.717 | 0.795 | -1.0193 | 1.645 | 0.869 | Do not reject |
| Graduate Traveller | 0.702 | 0.443 | 3.1912 | 1.645 | 0.000 | reject |

A test is now conducted to see whether the proportion of Entrepreneurs who were Graduate Travellers is greater than the proportion of Non-Entrepreneurs who were Graduate Travellers. The hypothesis being that respondents are more likely to be an Entrepreneur if they travelled between Australia and Thailand after their study. As previously, the data approximates a normal distribution as it can be shown that $n_1$ and $n_2$ are large enough such that the interval

$$[p_1 \pm 3 \sqrt{\frac{p_1(1-p_1)}{n_1}}]$$

does not contain zero or one, and if $n_2$ is such that the interval

$$[p_2 \pm 3 \sqrt{\frac{p_2(1-p_2)}{n_2}}]$$

does not contain zero or one.

Table 9.0.15 shows the z-test. The proportion of Graduate travellers who are Entrepreneurs is significantly higher than the proportion of Graduate Travellers who are not, at the 95% level of significance. This result in itself is not surprising as Entrepreneurs may be required to travel to Australia to undertake business activity. To see if this was the case, Figure 9.0.1 displays the results to Question 3.2 which solicited information on the respondents purpose to visit Australia after they had completed their study experience in Australia. Thirty six percent of Entrepreneurs cited Business as the purpose of visiting Australia after they had graduated.

**Figure 9-0-1 Entrepreneurs purpose for visiting Australia after completing their study**
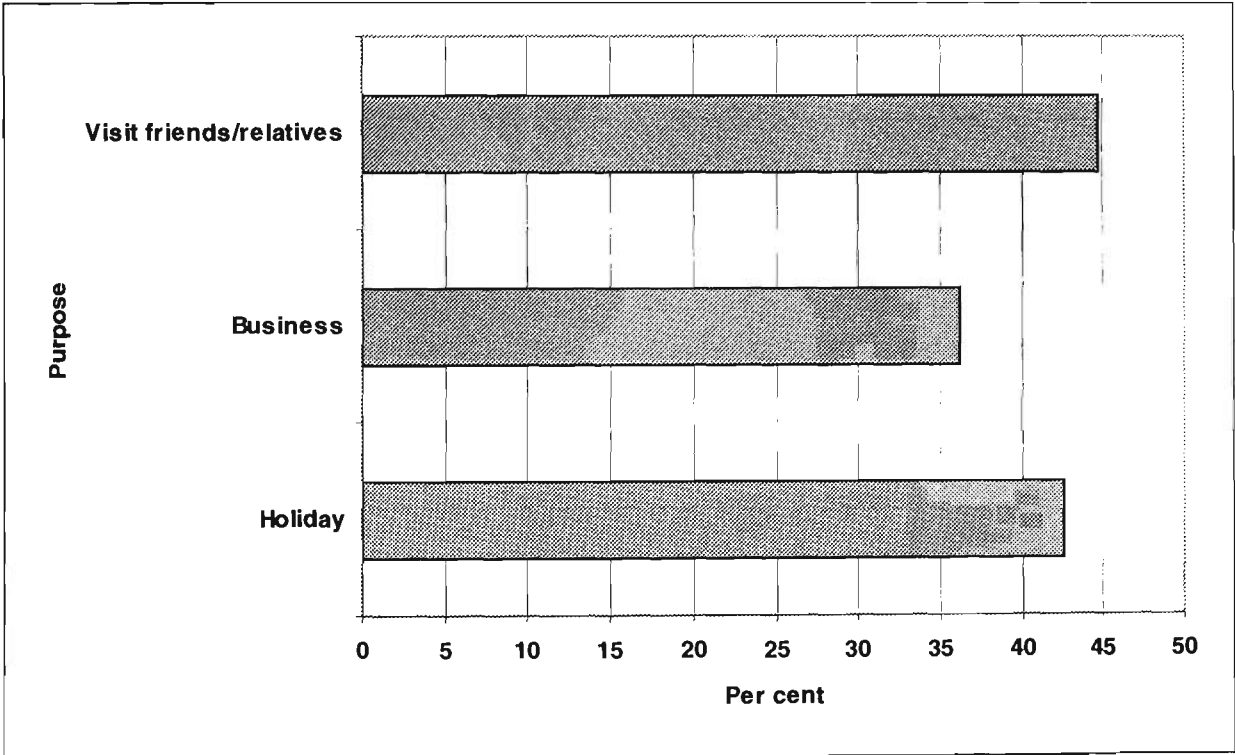


**Conclusion:** Again there is mixed evidence to support Hypothesis Five that students who travel to Australia during and/or after their study are more likely to be Entrepreneurs. There is little evidence to support the hypothesis that students who travel between Australia and Thailand during their period of study are more likely to be Entrepreneurs. However, there is evidence to support the hypothesis that students who

travel to Australia after completing their study are more likely to be Entrepreneurs. As mentioned previously, this is not a surprising result as travel activity may have been required to undertake business with Australia. Figure 8.0.1 supports this reasoning.

## 9.7 Respondent's personal profile

The objective of this section is to test Hypothesis Six that there is a difference in the profile of students who are Entrepreneurs and those students who are Non-Entrepreneurs. The null hypothesis to be tested is that there is no significant difference in the respondent's profile (age, sex, marital status and occupation) between Entrepreneurs and Non-Entrepreneurs. The test is based upon 95% statistical significance.

**Questions 4.1:** This question solicited information regarding the respondent's age Table 9.0.16 lists the skewness of the age variable. It shows that it is distributed normally. Table 9.0.17 shows the t-test. The differences between the two group means are insignificant at the 95% level.

**Table 9-0-16  Normality Check on Data Distribution for Question 4.1**

| Question | Variables | | Skewness | Normality Assessment |
|----------|-----------|---|----------|----------------------|
| Q4.1 | Age | Entrepreneurs | 1.032 | normal |
| | | Non-Entrepreneurs | 0.620 | normal |

**Table 9-0-17  Mean Difference Tests on the respondent's age**

| Variables | X<br><br>Entrepreneur | X<br><br>Non-Entrepreneur | t-value<br><br>(2-tailed) | Df | Sig. (2-<br><br>tailed) | Null<br><br>Hyothesis |
|---|---|---|---|---|---|---|
| Age | 3.25 | 3.56 | -0.935 | 77 | 0.352 | Do not<br><br>reject |

Note: * Levene's Test significant, therefore unequal variance t-test used

Therefore, it can be concluded that there appears to be no difference in the age of the respondents between Entrepreneurs and Non-Entrepreneurs.

**Question 4.2 & 4.3:** These questions solicit information about the respondent's gender and marital status. Z-tests are used to determine whether the proportions of Entrepreneurs differ by gender and marital status differ. The null hypothesis that will be tested is that there is no difference in the proportions entrepreneurs by gender and marital status. The data approximates a normal distribution as it can be shown that $n_1$ and $n_2$ are large enough such that the interval:

$$[p_1 \pm 3 \sqrt{\frac{p_1(1-p_1)}{n_1}}]$$

does not contain zero or one, and if $n_2$ is such that the interval,

$$[p_2 \pm 3 \sqrt{\frac{p_2(1-p_2)}{n_2}}]$$

does not contain zero or one.

Table 9.0.18 shows the z-tests. The differences between the two sample proportions for the "female" variable are significant at the 95% level of significance. There is evidence to conclude that the proportions for the "female" variable differ between

Entrepreneurs and Non-Entrepreneurs at 95% significance. That is, females are much more likely to be Entrepreneurs than Non-Entrepreneurs.

The differences between the two sample proportions are insignificant at the 95% level of significance for the variables "male", "single" and "married". Therefore, there is not enough evidence to conclude that the proportions for the variables gender and marital status differ between Entrepreneurs and Non-Entrepreneurs.

Table 9-0-18 Proportion difference Tests on Gender and Marital Status

| Variables | $p_1$ Entrepreneur | $p_2$ Non-Entrepreneur | z-value (2-tailed) | z-critical | P-value | Null Hypothesis |
|---|---|---|---|---|---|---|
| Male | 0.717 | 0.795 | -1.0193 | ±1.96 | 0.263 | Do not reject |
| Female | 0.702 | 0.443 | 3.1912 | ±1.96 | 0.000 | reject |
| Single | 0.386 | 0.395 | -0.107 | ±1.96 | 0.914 | Do not reject |
| Married | 0.614 | 0.596 | 0.213 | ±1.96 | 0.834 | Do not reject |

Question 4.4: This question solicited information on the respondent's occupation. The data for this question was previously displayed in Figure 8.0.1. A cross-tabulation was performed on the respondent's occupation against the respondent type Entrepreneur/Non Entrepreneur to determine whether any occupation type seemed more likely to be an Entrepreneur. Table 9.0.19 displays the results. The occupation type "import/export" is the occupation where the proportion of respondent's who are Entrepreneurs is highest.

Table 9-0-19   Cross Tabulation of the respondent's occupation against Entrepreneur type

| | | | have you undertaken any form of business activity with Australia | | Total |
|---|---|---|---|---|---|
| | | | did business | did not do business | |
| occupation of the student | public servant | Count | 9 | 27 | 36 |
| | | % of Total | 6.0% | 18.1% | 24.2% |
| | education | Count | 5 | 16 | 21 |
| | | % of Total | 3.4% | 10.7% | 14.1% |
| | service sector | Count | 2 | 5 | 7 |
| | | % of Total | 1.3% | 3.4% | 4.7% |
| | import/export | Count | 4 | 3 | 7 |
| | | % of Total | 2.7% | 2.0% | 4.7% |
| | specialist field | Count | 5 | 14 | 19 |
| | | % of Total | 3.4% | 9.4% | 12.8% |
| | medical/health care | Count | 1 | 1 | 2 |
| | | % of Total | .7% | .7% | 1.3% |
| | sales marketing | Count | 6 | 14 | 20 |
| | | % of Total | 4.0% | 9.4% | 13.4% |
| | accounting/finance | Count | 3 | 7 | 10 |
| | | % of Total | 2.0% | 4.7% | 6.7% |
| | self-employed | Count | 5 | 14 | 19 |
| | | % of Total | 3.4% | 9.4% | 12.8% |
| | secretarial | Count | 1 | 6 | 7 |
| | | % of Total | .7% | 4.0% | 4.7% |
| | farmer | Count | | 1 | 1 |
| | | % of Total | | .7% | .7% |
| Total | | Count | 41 | 108 | 149 |
| | | % of Total | 27.5% | 72.5% | 100.0% |

**Conclusion:** There is little evidence to support Hypothesis Six that there is a difference in the respondent's profile between Entrepreneurs and Non-Entrepreneurs.

## 9.8   Conclusion

In general, there does not seem to be a significant difference between Entrepreneurs and Non-Entrepreneurs in a range of variables and in some instances results have been

counter-intuitive. However, tests did show that the respondent's attitude towards their study experience in Australia as well as the contact they have with Australia after they complete their study experience, could be factors in determining whether an overseas student will conduct some form of business activity with Australia after returning to Thailand.

The respondent's willingness to recommend Australia as a good place to study to their friends and relatives also appears to influence the respondent's tendency to become an Entrepreneur. This highlights the importance of providing overseas students in Australia a high quality study experience which may not only encourage them to recommend Australia to their friends and relatives but could also increase the likelihood that they will undertake some form of business activity with Australia subsequent to finishing their study experience. Also, female respondent's were much more likely to be Entrepreneurs than Non-Entrepreneurs. This is an interesting finding and requires further analysis to determine what factors may be influencing this outcome.

# CHAPTER TEN

# CONCLUSIONS, RECOMMENDATIONS AND LIMITATIONS

## 10.1 Introduction

This research analyses the economic impact of overseas student flows from Thailand on Australia/Thailand bilateral trade flows. In particular, attention focuses on the importance of social networks in this trade stimulation process and the role that they can play in facilitating international business activity. In Chapter Five, a conceptual framework is developed for the process through which overseas students can stimulate bilateral trade flows. This research uses two distinct but related techniques to test this framework. First, in Chapters Two and Three a review of the history of overseas student flows into Australia and Australia's policy towards international education as well as the Australia/Thailand bilateral trade relationship is undertaken and in Chapter Six an international education model based on previous regression models of international trade is developed in order to test the economic impact of overseas student flows from Thailand on Australia/Thailand bilateral trade flows. Second, a qualitative international survey was conducted in Thailand on Thai graduates who had previously studied in Australia in order to better understand the factors influencing overseas students to undertake business activity with Australia after they return to Thailand. The design of the survey is based on the review of the literature on social network theory and the natural barriers to trade in Chapters Four and Five. The conceptual framework is tested again by the analysis of the data collected from the survey (refer to Chapters Six to Nine).

The objective of this final Chapter is to summarize the research findings and make conclusions about the possible implications they may have on the Australian Government's policies targeting overseas students in Australia, as well as the Government's trade policy towards countries from which Australia is sourcing its overseas students.

## 10.2    Overview of Previous Chapters

The international education industry had been the dominant export success story in the Australian economy over the last two decades.  It is now Australia's third largest export sector and attracts close to 200,000 overseas students to Australia's shores every year. An industry of such magnitude has obviously attracted the interest of researchers in determining the economic impact it has on the Australian economy.  However, almost all of this research has been directed at the direct economic impact overseas students have  through course tuition fees, living expenditure and labour market impacts.  The aims of this research have been to address the long term trade impact overseas students are having on Australia's bilateral trade relationships with these source countries, and in particular, what role overseas students' social networks can play in facilitating trade activity with Australia.  The following are the summary notes on the propositions and conclusions identified in Chapters One through to Nine.

In Chapter One, the link between overseas student flows and trade flows is introduced, as well as the importance that social networks can play in facilitating international business activity.  The quantitative and qualitative models to be used in the research are identified and the link between an overseas student's study and their ability to generate an international social network is highlighted in order to better understand the rationale

for using these models.  A broad outline of the thesis aims and objectives as well as the

thesis structure is given.

Chapter Two reviews the history of overseas student flows from an Australian

perspective and examines the Australian government's policy directed at this sector.

The three main policy phases of aid, to trade, to internationalisation are detailed.  In

particular, the impact of the removal of quotas on overseas student numbers and the

introduction of a  full fee policy on the flows of overseas students into Australia are

examined.  The direct economic impact of overseas students on the Australian economy

is also examined.

Chapter Three analyses the bilateral economic relationship between Australia and

Thailand, in particular, focusing on the growth in both aggregate trade as well as

overseas student numbers between the two  countries.  The bilateral relationship that

exists between the two countries is a friendly and healthy one and Australia is now the

number one destination for Thai students looking to study overseas.   The recent

completion of negotiations by the Australian and Thai governments on the Free Trade

Agreement between the two countries is also discussed.

Chapter Four examines the indirect economic impact of overseas student flows on the

Australian economy.  In particular, the channels through which overseas students may

stimulate trade flows are examined.  The dominant theme which arises from this section

is the importance of connections and networks that overseas students create whilst they

are studying overseas which could be used to assist in undertaking various forms of

business activity subsequent to the overseas student returning to their home country.

This finding led to an analysis of the economics of networks and the characteristics that are unique to a network structure. The role of networks has become much more prevalent and important in today's global economy due to the shift that has taken place in both the business world and society where knowledge and information, key areas where networks can play a facilitating role, are now central to many industrialised economies. The importance of ties and connections that people possess has increased which has led to a strong interest in the area of social network theory. This theory is discussed in Chapter Four and highlights a number of channels through which overseas students social networks could facilitate undertaken international business activity including: I) minimising search and transaction costs, ii) reducing communication and cultural barriers, iii) trust creation, iv) information transfer and v) better access to distribution channels.

Chapter Five switches the focus of the thesis from a macro to a micro level and focuses on the microeconomic dynamics of bilateral trade flows, to show that international trade is the result of micro, enterprise based decisions, and in such a context, networks matter and can play an important role in facilitating international trade activity. The literature on the factors that influence both export and import initiation are reviewed as well as the social dynamics that are embedded in international exchanges. The natural barriers to trade such as differences in languages, cultures, customs, beliefs, and religions can make international trade a very difficult and demanding process. Utilisation of social networks can dampen the negative effect of natural trade barriers to trade and can play an important role in facilitating international trade activity. From this analysis, a conceptual framework is developed illustrating how overseas student flows and their social networks can stimulate international trade flows. A conceptual framework

outlining the process through which overseas students can stimulate trade flows is developed in Figure 5.0.2 and 5.0.3 and is used as the theoretical foundation of this research's qualitative and quantitative models. Three key relationships were identified as the bases for empirical investigation. They are:

- Overseas students can stimulate trade flows through the preferences they develop for Australian products while they study in Australia.

- The time spent in Australia enables overseas students to develop a social network of Australians which can be utilised to facilitate business activity with Australia through the channels identified in the review of social network theory.

- A student that has a positive study experience in Australia will be more likely to maintain contact with Australia and seek opportunities to undertake business with Australia after they return to their home country.

Five hypotheses to test these relationships are developed.

Chapter Six empirically tests the conceptual framework by using an 'International Education' model of trade. This model is based on a review of a number of other regression models of international trade which have been used to identify: 1) the impact of immigrants on bilateral trade flows (Gould, 1994; Head and Ries, 1998), 2) the link between international travel and trade flows (Kulendran and Wilson, 1998), 3) the role of international student flows on the acquisition and development of knowledge resources (McMahon, 1992) and, 4) the role of international student flows and the international student exchange network that exists in the larger context of global political and economic relationships (Chen and Barnett, 2000). The empirical test results indicate that overseas student flows from Thailand to Australia have a significant economic impact on bilateral trade flows between the two countries although this

impact has a significant lag period from when the student studies in Australia and when they undertake some form of business activity.

Chapter Seven details the survey design, questionnaire design and sampling methodology used for the international survey. Chapter Eight then provides a descriptive overview of Thai overseas student's study experience in Australia, and their business activity with Australia; and the role that their social network played in facilitating this activity.

In Chapter Nine analysis of the survey data is conducted to test the hypotheses identified in Chapter Five. The data is separated into two groups, Entrepreneurs and Non-Entrepreneurs and a range of tests are conducted to determine if:

- The attitude of the respondent towards their study experience in Australia affects the likelihood that they will become an Entrepreneur or a Non-Entrepreneur after they complete their studies.

- The extent to which the leisure time spent with Australians impacts on the likelihood that the student will return to travel in Australia after they completed their studies.

- The amount of contact the student has with Australia after they complete their studies impacts on the likelihood that they will become an Entrepreneur or a Non-Entrepreneur.

- The respondent's personal profile (age, sex and marital status) differs between Entrepreneurs and Non-Entrepreneurs.

## 10.3   Main Conclusions from the Hypotheses

The focus of this research is to determine whether overseas student flows from Thailand into Australia are impacting on bilateral trade flows between the two countries and if so, what role are overseas student's social networks playing in this process.

### 10.3.1  Impact on Overseas Student Flows and Bilateral Trade Flows

In Chapter Six the long term economic impact of overseas student flows from Thailand on bilateral trade flows between Australia and Thailand is empirically tested. The result that overseas students do impact significantly on bilateral trade flows between the two countries is an important finding and raises a number of issues regarding Australia's current policy on overseas students as well as the government's trade policy. The finding that overseas student flows impact positively on long-term trade flows between Australia and the countries where the overseas student flows are originating, raises the possibility that overseas student policy could be used as a tool in Australia's trade policy.

By increasing overseas student numbers from a particular country, Australia is also increasing the future bilateral trade activity between the two countries. This issue needs to be considered in light of the current Australian Government Overseas Student Program (OSP) that allows overseas students to study in Australia. Any person that wishes to study in Australia is required to obtain a student visa before they can enter Australia to commence their study. In July 2001, the Australian Government created an assessment level regime which allocates different assessment levels determining eligibility for a student visa based on the passport held by the overseas student. As detailed by an Australian Government report (Department of Immigration and

Multicultural and Indigenous Affairs, 2003) the country/sector assessment levels assigned have been based upon objective criteria and objective data regarding the compliance of students from different countries and in different education sectors. Assessment level 1 represents the lowest assessment level and assessment level 5 the highest. The higher the assessment level, the greater the minimum evidentiary standards a student visa applicant has to satisfy in respect of criteria relating to financial capacity, English proficiency and other relevant matters.   Assessment level 2, 3, 4 and 5 applicants must make their initial student visa application while they are outside of Australia (see Appendix B for the Country Assessments Table).

The main determinant impacting on what Assessment Level a country is placed in, is the tendency for students from that country to overstay their visas and/or seek refugee or permanent residency status.  This is the main reason why China has been allocated Assessment Level 5, the most stringent assessment level.  After the Tianemenn Square incident in 1989, large numbers of Chinese students sought to stay in Australia to avoid returning to China where the Communist Party limits the amount of individual freedom they can enjoy compared to Australia.  As a result of this incident almost fifteen years ago, Chinese students today find it very difficult to obtain a student visa to Australia given the evidentiary requirements needed at Assessment Level 5.  The findings of Chapter Six poses the following question – 'What damage is being done to Australia's future bilateral trade relationship with what will soon be the world's largest economy, through its restrictions being placed on Chinese nationals obtaining education visas to Australia'?

If overseas students flows can be used as a trade enhancing tool, then relaxations in the Assessment Levels to countries who are, or who Australia would like to be, important trading partners with, could be an effective policy option.

Another area in which changes could be implemented relates to the Australian Trade Commission, the government agency that receives over $350 million a year from the Federal government to promote Australian exports overseas and to attract foreign investment flows to Australia.

An awareness program targeted directly at overseas students in Australia, on the role of the Australian Trade Commission as well as information on Austrade branches in their home country, could help to generate an official network link that could be tapped into at a later stage in the student's career. There would be a large percentage of overseas students today who are finishing their studies in Australia, and are returning to their home countries with no awareness at all as to who Austrade is, and what role they play in facilitating international trade activity.

## 10.3.2 Social Contact with Australians and Positive Attitudes Towards Study Experiences in Australia

In Chapter Nine, data from the international survey is separated into two distinct groups. Those that had done some form of business activity with Australia (Entrepreneurs) and those that had not (Non-Entrepreneurs). The division of the survey data into two groups made it possible to test whether the amount of time that respondents spent with Australians differed between the two groups as hypothesized in Hypothesis Two. There is no evidence to support this hypothesis in terms of the type of

accommodation the student stayed in while they were in Australia. However, there is some evidence suggesting that the more time Thai students spent with Thai friends as opposed to Australian or other nationalities, the less likely they were to become an Entrepreneur.

This is an important finding and it highlights the strong need for universities to provide places, activities, events and various clubs and societies where overseas students can meet and mix socially with local students and other overseas students from different nationalities to their own. It is quite common for overseas students to go to Australia and to primarily mix with people from their home country. Hence, once they are outside of the classroom, they communicate in their native tongue and their ability to develop an international social network is severely impaired. By enabling and actively encouraging overseas students to develop a social network consisting of people from different nationalities, particularly Australians, universities can increase the likelihood of those overseas students undertaking some form of international business activity with Australia in the future.

### 10.3.3 Attitude towards study experience in Australia.

The third hypothesis which proposed that the more positive overseas students regarded their study experience in Australia the more likely this will lead to undertaking some form of business activity with Australia, provided an unexpected result. It was found that the more likely students are to recommend Australia as a good place to study to their friends and relatives, the less likely they are to undertake some form of business activity with Australia. This finding is puzzling and is quite difficult to interpret. It may highlight the fact that when there is an opportunity to make money, people do not

care about their personal feelings towards dealing with a particular country. Hence, overseas students attitude towards their study experience in Australia becomes irrelevant if they identify a business opportunity that they believe can be profitable. However, it would be interesting to investigate the results of this question further, and to source more information on those respondents who were Entrepreneurs but who did not have a particularly strong positive opinion on recommending Australia to their friends and/or relatives.

This unexpected result was given further support by the finding that the less that respondents liked Australians, the more likely they were to become an Entrepreneur. In explaining this result, the same arguments as provided earlier apply, and again it would be interesting to research this result further

### 10.3.4 Contact with Australia after returning to Thailand

The results found that the level of contact with Australia after returning to Thailand was statistically significant in two different areas. The first through the viewing of Australian television broadcasted by satellite into Thailand and the second through contact with Australians in their present occupation. The first finding highlights the importance of providing overseas students who have returned home from studying in Australia, information on Australia and Australian events in a timely and easy to access fashion. The ability for overseas students to view Australian news and current affairs as well as local Australian television programs enables them to constantly update the market knowledge of Australia they developed during their study experience. This market knowledge may play an important role in identifying and facilitating business opportunities with Australia.

Given this finding, it may be worthwhile for the Australian government to review its decision to reduce access to transmission of Australian television into Thailand in 2002 as it may be having detrimental effects on trade activity between the two countries. The government could undertake research on the impact that transmission of Australian television through the Australian Broadcasting Corporation in Asia may be having on social and economic relations with countries in this region.

The second channel, through contact with Australians in their current job, is not surprising. If overseas students are working with Australians in Thailand they will have an automatic connection with these people due to their study experience in Australia. As both parties will have knowledge of both markets they are likely to be drawn together to facilitate various forms of business activity. Activities in Thailand that enable Australians and Thais who have studied in Australia to meet and communicate are therefore important to stimulating such types of trade activity. The Australian government through its Embassy and Austrade branches as well as various private organizations such as the Thai/Australian Chambers of Commerce, already offer such events in the Thai market, and they are important trade initiating activities.

### 10.3.5 Travel Activity

Conflicting evidence is presented in this thesis regarding the hypothesis that overseas students who travel more between Thailand and Australia are more likely to be Entrepreneurs. No evidence is found that overseas students who traveled between Australia and Thailand during their study experience were more likely to be Entrepreneurs. However strong evidence is found that overseas students who traveled between Australia and Thailand after completing their study experience in Australia, are

more likely to be Entrepreneurs. This result is not surprising and could be biased by the possibility that some of the travel activity indicated by the respondent in the survey was in fact for business purposes.

### 10.3.6 Respondent's profile

The result that female overseas students are much more likely to become Entrepreneur's than Non-Entrepreneurs is an interesting finding and one worthy of further research. There is no obvious reason why this might be the case and hence this as one of the key research findings which requires further analysis.

### 10.4 Contribution to Knowledge

These research results provide significant contributions to the understanding of the dynamics and relationship between overseas student flows and subsequent trade flows. The research has identified multiple channels through which overseas students can stimulate trade activity and from this has developed a conceptual framework for the impact of overseas student flows on bilateral trade flows. The model developed in Chapter Five incorporated both the preferences developed for Australian products, and processes which can lead to increased international demand in the future, as well as the role that overseas student networks can play in initiating and facilitating trade activity.

Through empirical testing, the long-term quantitative impact of overseas student flows from Thailand to Australia and subsequent bilateral trade flows between the two countries has been identified. This can assist in quantifying the impact of changes in government policies in the international education sector on bilateral trade activity. Empirical testing was also able to identify the influential factors and relationships

within the flow of overseas students to Australia from Thailand and subsequent business activity that is undertaken by these flows of students between the two countries. The findings can be used to assist educational institutions in developing appropriate channels through which the overseas student study experience can be as beneficial as possible towards stimulating future trade activity between Australia and Thailand.

## 10.5 Research Limitations and Outlook.

This research has identified the bilateral trade impact of overseas student flows from Thailand to Australia. The research has identified and quantified the significant trade stimulus that these flows are having as well as the role that overseas students' social networks are playing in facilitating such trade activity. During the research process, opportunities for further research were also identified.

- This research concentrates solely on overseas student flows from Thailand to Australia. However, there are a number of countries within the Asian region that have significant student flows to Australia. Similar empirical testing as undertaken in this research could be done on these flows to determine whether a similar trade stimulus is occurring within Australia's bilateral trade relationship's with these countries. It would also be of interest to determine whether overseas student flows into Australia is impacting on bilateral trade relationships between countries that are sending students to study in Australia. The research has identified that many Thai overseas students spend significant amounts of time with overseas students of other nationalities during their study experience in Australia. This may also be stimulating trade activity between these countries.

- Empirical testing on data gathered from the international survey suggests a number of surprising results including the negative relationship between Entrepreneurs and their opinion of Australians, as well as the strong tendency for female overseas

students to become Entrepreneurs. To research these findings further, face to face interviews would be required to gain the insight required to better understand these findings.

- A similar problem in identifying and understanding the role that overseas student's social networks played in initiating and facilitating trade activity through the use of a mail out survey occurred. To better understand the dynamics of this process, face-to-face interviews would be a more effective method to solicit information.

- The survey with hindsight could have incorporated more questions on overseas students awareness of trade enhancing activities of the Australian government including the Australian Trade Commission's role and operations in both Australia and the overseas student's home country.

- The question in the survey regarding the student's choice of accommodation should have allowed respondents to place weightings on their responses if they had stayed in multiple accommodation types.

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# APPENDIX A

# International Survey

*f*

# VICTORIA UNIVERSITY
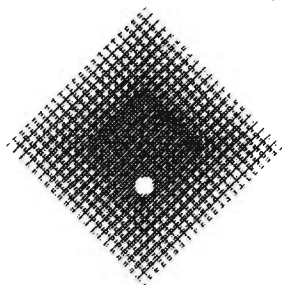
OF TECHNOLOGY

Thai Overseas Student Survey

For the Research Project

สำหรับโครงงานวิ

"Modelling the Economic Impact of Overseas Students' Social Networks on Australia/Thailand Bilateral Trade Flows"

"แบบจำลองผลกระทบทางด้านเศรษฐกิจที่มีต่อการค้าทวิภาคีระหว่างประเทศออส เตรเลียและไทย

by Declan McCrohan

Victoria University

Please return the completed questionnaire in the reply paid envelope to:

The International Program

กรุณาส่งแบบสอบถามที่กรอกข้อความสมบูรณ์แล้ว

**Santirat Institute of Business Administration**
**138/1 Soi Paholyothin 24 Jatujak Ladyao Bangkok 10900**
**Attention: Declan McCrohan**

Tel: (02) 9392850-6 ext. 402,403          Fax: (02) 5123723

e-mail: Declan.McCrohan@vu.edu.au

# All Survey Information is Strictly Confidential
ข้อมูลทั้งหมดในแบบสำรวจนี้จะถูกเก็บไว้เป็น ความลับ

# Instructions

## คำแนะนำในการตอบแบบสอบ
## ถาม

◆ Please attempt to answer all of the questions in the survey. If you find you are unable to answer some questions, please complete the rest of the survey.

กรุณาตอบคำถามทุกข้อในแบบสำรวจนี้ หากพบว่าไม่สามารถตอบคำถามบางคำถามได้ กรุณาข้ามไปยังคำถามข้อที่เหลืออยู่

◆ If you wish to provide further information on any of the questions, please use the space around the question or the space given at the end of the questionnaire.

หากท่านต้องการให้ข้อมูลเพิ่มเติมในแต่ละคำถาม กรุณาใส่ข้อมูลลงในพื้นที่ว่างในส่วนของคำถามนั้นๆ หรือใส่ข้อมูลลงใน
หน้ากระดาษที่จัดไว้ให้ตอนท้ายของแบบสอบถาม

◆ The questionnaire should take you approximately 15 minutes to complete.

ในการตอบคำถามสำหรับแบบสำรวจนี้ จะใช้เวลาทั้งสิ้นประมาณ 15 นาที

◆ On completion, please return the questionnaire in the reply paid envelope within 10 days, or hand back to the interviewer.

เมื่อตอบคำถามเรียบร้อยแล้ว กรุณาส่งแบบสำรวจนี้ไปตามที่อยู่ในหน้าแรกภายใน 10 วันหรือส่งคืนให้กับผู้สัมภาษณ์

◆ The information you provide is strictly confidential. No information will be released in a way that would enable you to be identified.

◆ Please note that participation in this survey is not compulsory.

แบบสอบถามนี้ขึ้นอยู่กับความสมัครใจ ผู้ที่ได้รับแบบสอบถามมีสิทธิไม่ตอบคำถามได้

◆ If you have any queries about the questionnaire, please contact:

หากมีข้อสงสัยประการใดเกี่ยวกับแบบสอบถามนี้ กรุณาติดต่อกับ :

**Mr. Declan McCrohan**            **Tel: (02) 9398250-6 ext. 402,403**
                                   **e-mail:** Declan.McCrohan@vu.edu.au

or

**Dr Donald Feaver**              **Tel: (613) 96885005**
                                   **e-mail:** Donald.Feaver@vu.edu.au

◆ If you have any concerns about the manner in which this research has been conducted, please contact the Human Research Ethics Committee at the following address:

หากท่านมีข้อสงสัยเกี่ยวกับวิธีการทำวิจัย กรุณาติดต่อ Human Research Ethics Committee ตามที่อยู่ด้านล่างนี้

**The Secretary, Office for Research, Victoria University,**
**6 Geelong Road, Footscray, Victoria 3011**
**Tel: (613) 96884710            Fax: (613) 96872089**

If you wish to receive a summary of the results of this survey please attach a
copy of your business card/address.

หากต้องการทราบผลสรุปของงานวิจัย
กรุณาให้ชื่อและที่อยู่หรือนามบัตรของคุณโดยติดลงในกรอบด้านล่างนี้

Attach your business card or write your

address here

ส่ำหรับติดนามบัตรขอ
งคุณ

# SECTION 1: YOUR STUDY EXPERIENCE IN AUSTRALIA
## ส่วนที่ 1: ประสบการณ์ด้านการศึกษาในประเทศออสเตรเลีย

1.1     **How many years did you:**
เป็นเวลากี่ปีที่คุณได้ :

**Study in Australia?**
ศึกษาที่ประเทศออสเตรเลีย                        _____

**Live in Australia?**
ใช้ชีวิตอยู่ในประเทศออสเตรเลีย                   _____

1.2     **What year did you complete your study in Australia?**
คุณสำเร็จการศึกษาจากประเทศออสเตรเลียในปีใด

_____

1.3     **Please tick the appropriate box.**
กรุณาใส่เครื่องหมายถูกลงในช่องที่เหมาะสม

**Were you a:**
คุณเป็น :

**Student sponsored by the Australian Government?**
นักศึกษาที่ได้รับทุนจากรัฐบาลออสเตรเลีย              ☐

**Student sponsored by the Thai Government?**
นักศึกษาที่ได้รับทุนจากรัฐบาลไทย                    ☐

**Student sponsored by yourself?**
นักศึกษาที่ใช้ทุนส่วนตัวของคุณเอง                   ☐

**Student sponsored by family or friends?**
นักศึกษาที่ได้รับการสนับสนุนทางด้านการเงินจากครอบครัวและเพื่อน  ☐

**Other, please explain**
อื่นๆ กรุณาอธิบาย

_____

1.4     **What course/courses did you study in Australia?**
หลักสูตรใดบ้างที่คุณได้ศึกษาในประเทศออสเตรเลีย

_____

_____

1.5 **What type of accommodation did you stay in when you studied in Australia?**
**Please tick the appropriate box.**
ประเภทของที่พักที่คุณอาศัยอยู่ขณะที่ศึกษาอยู่ในประเทศออสเตรเลีย
(กรุณาใส่เครื่องหมายถูกลงในช่องที่เหมาะสม)

**Homestay**
ครอบครัวชาวออสเตรเลีย ☐

**University Accommodation**
หอพักนักศึกษาของมหาวิทยาลัย ☐

**By yourself**
พักอยู่คนเดียว ☐

**With relatives**
พักอยู่กับญาติ ☐

**Share accommodation with Thai friends**
พักร่วมกับเพื่อนนักเรียนไทย ☐

**Share accommodation with Australian friends**
พักร่วมกับเพื่อนนักเรียนออสเตรเลีย ☐

**Share accommodation with overseas friends**
พักร่วมกับเพื่อนนักเรียนชาวต่างชาติ ☐

**Other (please explain)**
อื่นๆ (กรุณาอธิบาย)

_____

1.6 **How much of your leisure time did you spend with each of the following?**
**Please tick the appropriate box(es)**
คุณใช้เวลาว่างในการทำกิจกรรมต่างๆ กับเพื่อนๆ มากน้อยเพียงใด
(กรุณาใส่เครื่องหมายถูกลงในช่องที่เหมาะสม)

| | None<br>ไม่เคยเลย<br>1 | 2 | Some<br>บางครั้ง<br>3 | 4 | Most of<br>the time<br>ส่วนใหญ่<br>5 |
|---|---|---|---|---|---|
| **Thai friends**<br>เพื่อนชาวไทย | ☐ | ☐ | ☐ | ☐ | ☐ |
| **Australian friends**<br>เพื่อนชาวออสเตรเลีย | ☐ | ☐ | ☐ | ☐ | ☐ |
| **Friends from other countries**<br>เพื่อนจากประเทศอื่นๆ | ☐ | ☐ | ☐ | ☐ | ☐ |

1.7    Whilst studying in Australia, did you return to Thailand for a visit?  Please
       tick the appropriate box.
       ขณะที่กำลังศึกษาอยู่ที่ประเทศออสเตรเลีย คุณได้กลับไปประเทศไทยบ้างหรือไม่
       กรุณาใส่เครื่องหมายถูกลงใน ช่องที่เหมาะสม

       Yes          No
       กลับ  ☐       ไม่ได้กลับ ☐

       If yes, how many times did you return to Thailand?
       ถ้ากลับ คุณได้กลับไปประเทศไทยกี่ครั้ง                    _____


1.8    What did you think of the support services offered to International students
       at Victoria University?  Please tick the appropriate box.
       คุณคิดว่าการบริการให้ความช่วยเหลือแก่นักเรียนชาวต่างชาติของมหาวิทยาลัย Victoria
       เป็นอย่างไรบ้าง
       กรุณาใส่เครื่องหมายถูกลงในช่องที่เหมาะสม

       Poor                 Average              Excellent
       ไม่ดีเลย              ปานกลาง              ดีมาก
         1         2         3         4         5
       _____

         ☐        ☐        ☐        ☐        ☐


1.9    You would recommend to your family or friends to study in Australia?
       Please tick the appropriate box.
       คุณคิดว่าจะแนะนำครอบครัวหรือเพื่อนของคุณมาศึกษาที่ประเทศออสเตรเลีย
       กรุณาใส่เครื่องหมายถูกลงในช่องที่เหมาะสม

       Strongly             Agree                Strongly
       Disagree                                  Agree
       ไม่เห็นด้วยอย่างยิ่ง   เห็นด้วย              เห็นด้วยอย่างยิ่ง
         1         2         3         4         5
       _____

         ☐        ☐        ☐        ☐        ☐


1.10   You regard your study experience in Australia as a positive one.  Please tick
       the appropriate box.
       คุณคิดว่าประสบการณ์ในการเรียนที่ประเทศออสเตรเลียเป็นประสบการณ์ที่ดีประสบการณ์ห
       นึ่ง กรุณาใส่เครื่องหมายถูก
       ลงในช่องที่เหมาะสม

       Strongly             Agree                Strongly
       Disagree                                  Agree
       ไม่เห็นด้วยอย่างยิ่ง   เห็นด้วย              เห็นด้วยอย่างยิ่ง
         1         2         3         4         5

         ☐        ☐        ☐        ☐        ☐

1.11  **How do you feel about most Australians you met whilst studying in Australia? Please tick the appropriate box.**
คุณรู้สึกอย่างไรกับชาวออสเตรเลียที่คุณพบขณะที่ศึกษาอยู่ที่ประเทศออสเตรเลีย กรุณาใส่เครื่องหมายถูกลงใน
ช่องที่เหมาะสม

| Disliked them a lot<br>ไม่ชอบเลย | | Liked them<br>ชอบ | | Liked them a lot<br>ชอบมาก |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
| ☐ | ☐ | ☐ | ☐ | ☐ |

1.12  **How friendly did you feel most Australians you met whist studying in Australia were towards you? Please tick the appropriate box.**
คุณรู้สึกว่าชาวออสเตรเลียส่วนใหญ่ที่คุณพบขณะที่คุณศึกษาอยู่ที่ประเทศออสเตรเลียให้ค
วามเป็นกันเองกับคุณ
มากน้อยเพียงใด กรุณาใส่เครื่องหมายถูกลงในช่องที่เหมาะสม

| Very unfriendly<br>ไม่เป็นมิตร | | Friendly<br>เป็นมิตร | | Very friendly<br>เป็นมิตรที่ดี |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
| ☐ | ☐ | ☐ | ☐ | ☐ |

1.13  **What did you like most about Australian people?**
อะไรที่คุณชอบมากที่สุดเกี่ยวกับชาวออสเตรเลีย

_____

1.14  **What did you dislike most about Australian people?**
อะไรที่คุณไม่ชอบมากที่สุดเกี่ยวกับชาวออสเตรเลีย

_____

1.15  **Have you in any way kept in touch with Australia since you returned to Thailand? Please tick the appropriate box(es).**

วิธีที่คุณใช้ในการติดต่อกับชาวออสเตรเลียเมื่อกลับประเทศไทยแล้ว
กรุณาใส่เครื่องหมายถูกลงในช่องที่เหมาะสม

**By writing to friends**
เขียนจดหมายถึงเพื่อน ☐

**How many times per month?**
เดือนละกี่ครั้ง _____

**By writing to University Staff**
เขียนจดหมายถึงเจ้าหน้าที่มหาวิทยาลัย ☐

**How many times per month**
เดือนละกี่ครั้ง _____

**By reading Australian newspapers**
อ่านหนังสือพิมพ์ของประเทศออสเตรเลีย ☐

**How many times per month**
เดือนละกี่ครั้ง _____

**By watching Australian TV**
ดูรายการโทรทัศน์ของประเทศออสเตรเลีย ☐

**How many times per month**
เดือนละกี่ครั้ง _____

**By belonging to VUT's Alumni Association**
เป็นสมาชิกของสมาคมนักเรียนเก่าของ VUT ☐

**By belonging to a club/society in Australia**
เป็นสมาชิกของสโมสร/สมาคมในประเทศออสเตรเลีย ☐

**Other, please detail**
อื่นๆ กรุณาระบุ

_____

1.16 **How many times per month do you come into contact with Australians in your present job?**
คุณได้ติดต่อกับชาวออสเตรเลียในเรื่องที่เกี่ยวกับงานที่คุณทำในปัจจุบันกี่ครั้ง _____

**Please describe in what type of situation this contact occurs.**
กรุณาอธิบายสถานการณ์ที่คุณต้องติดต่อกับชาวออสเตรเลีย

_____

_____

# SECTION 2: BUSINESS ACTIVITY WITH AUSTRALIA

## ส่วนที่ 2: กิจกรรมทางด้านธุรกิจกับประเทศออสเตรเลีย

2.1  **Since completing your study in Australia, have you been involved in any form of business dealings with Australia? (This includes activities such as importing or exporting goods/services, investing in Australian shares or property etc). Please tick the appropriate box.**

หลังจากที่จบการศึกษาในประเทศออสเตรเลีย
คุณได้ดำเนินการติดต่อทางธุรกิจกับประเทศออสเตรเลียหรือไม่
(กิจกรรมทางธุรกิจในที่นี้รวมถึงการนำเข้าหรือการส่งออกสินค้าและบริการ
การลงทุนร่วมหุ้นหรือทรัพย์สินกับ
ชาวออสเตรเลีย เป็นต้น) กรุณาใส่เครื่องหมายถูกลงในช่องที่เหมาะสม

Yes ☐       No ☐
ทำ          ไม่ได้ทำ

**If yes, please describe what type/types of business dealings with Australia you have been involved with.**

ถ้าทำ กรุณาอธิบายประเภทของธุรกิจที่คุณได้ดำเนินการติดต่อกับประเทศออสเตรเลีย

_____

_____

_____

**If no,** please go to question 2.11
ถ้าไม่ กรุณาข้ามไปที่คำถามที่ **2.11**

2.2   **Please estimate the value of your business dealings with Australia.  Please tick the appropriate box.**

กรุณาคาดคะเนมูลค่าของการดำเนินธุรกิจของคุณกับประเทศออสเตรเลีย
กรุณาใส่เครื่องหมายถูกลงในช่องที่เหมาะสม

Outflow of funds from Thailand to Australia
เงินทุนไหลออกจากประเทศไทยที่เข้ามายังประเทศออสเตรเลีย

**Less than 2 million baht**
น้อยกว่า 2,000,000 บาท                                 ☐

**Please approximate how much**
กรุณาระบุจำนวนเงิน                      _____

**Between 2 million baht and 4 million baht**
ระหว่าง 2,000,000 - 4,000,000 บาท              ☐

**Between 4 million baht and 6 million baht**
ระหว่าง 4,000,000 - 6,000,000 บาท              ☐

**Between 6 million and 8 million baht**
ระหว่าง 6,000,000 - 8,000,000 บาท              ☐

**Between 8 million and 10 million baht**
ระหว่าง 8,000,000 - 10,000,000 บาท            ☐

**Greater than 10 million baht**

มากกว่า 10,000,000 บาท                           ☐
**Please approximate how much**
กรุณาระบุจำนวนเงิน                      _____

Inflow of funds from Australia to Thailand
เงินทุนไหลเข้ามายังประเทศไทยจากประเทศออสเตรเลีย

**Less than 2 million baht**
น้อยกว่า 2,000,000 บาท                                 ☐

**Please approximate how much**
กรุณาระบุจำนวนเงิน                      _____

**Between 2 million baht and 4 million baht**
ระหว่าง 2,000,000 - 4,000,000 บาท              ☐

**Between 4 million baht and 6 million baht**
ระหว่าง 4,000,000 - 6,000,000 บาท              ☐

**Between 6 million and 8 million baht**
ระหว่าง 6,000,000 - 8,000,000 บาท              ☐

**Between 8 million and 10 million baht**
ระหว่าง 8,000,000 - 10,000,000 บาท            ☐

**Greater than 10 million baht**

มากกว่า 10,000,000 บาท                           ☐
**Please approximate how much**

กรุณาระบุจำนวนเงิน         _____

2.3    **What industry were these business dealings conducted in?  Please tick the appropriate box(es).**
ประเภทของธุรกิจที่คุณได้ดำเนินการอยู่ กรุณาใส่เครื่องหมายถูกลงในช่องที่เหมาะสม

|  | 0%<br>1 | 25%<br>2 | 50%<br>3 | 75%<br>4 | 100%<br>5 |
|---|---|---|---|---|---|
| **Agriculture**<br>เกษตรกรรม | ☐ | ☐ | ☐ | ☐ | ☐ |
| **Manufactured Goods**<br>สินค้าหัตถกรรม | ☐ | ☐ | ☐ | ☐ | ☐ |
| **Financial Services**<br>การบริการทางการเงิน | ☐ | ☐ | ☐ | ☐ | ☐ |
| **Tourism**<br>การท่องเที่ยว | ☐ | ☐ | ☐ | ☐ | ☐ |
| **Property**<br>อสังหาริมทรัพย์ | ☐ | ☐ | ☐ | ☐ | ☐ |
| **Other**<br>อื่นๆ | ☐ | ☐ | ☐ | ☐ | ☐ |

**If other, please explain**
อื่นๆ กรุณาอธิบาย

2.4    **When conducting business dealings with Australia, with whom did you conduct the business transaction?  Please tick the appropriate box.**
เมื่อต้องติดต่อธุรกิจกับประเทศออสเตรเลีย คุณได้ติดต่อการค้ากับใคร
กรุณาใส่เครื่องหมายถูกลงในช่องที่เหมาะสม

**A Thai contact in Australia**
ชาวไทยในประเทศออสเตรเลีย           ☐

**An Australian contact in Australia**
ชาวออสเตรเลียในประเทศออสเตรเลีย   ☐

**An Australian contact in Thailand**
ชาวออสเตรเลียในประเทศไทย           ☐

**A Thai contact in Thailand**
ชาวไทยในประเทศไทย                   ☐

**Other, please explain**
อื่นๆ กรุณาอธิบาย

2.5    **How did you initially make contact with the person you dealt with?  Please tick the appropriate box.**

คุณเริ่มติดต่อกับบุคคลที่คุณติดต่อการค้าบุคคลนี้ในครั้งแรกได้อย่างไร

**Through a Thai friend** ☐
ผ่านทางเพื่อนชาวไทย

**How did you know this person?**
คุณรู้จักกับบุคคลนี้ได้อย่างไร

_____

**How did this person know the person they recommended you deal with?**

เพื่อนของคุณรู้จักกับบุคคลที่เขาแนะนำให้คุณรู้จักได้อย่างไร

_____

**Through an Australian friend**
ผ่านทางเพื่อนชาวออสเตรเลีย ☐

**How did you know this person?**
คุณรู้จักกับบุคคลนี้ได้อย่างไร

_____

**How did this person know the person they recommended you deal with?**

เพื่อนของคุณรู้จักกับบุคคลที่เขาแนะนำให้คุณรู้จักได้อย่างไร

_____

**Through a business referral** ☐
ผ่านทางการแนะนำทางธุรกิจ

**Through a family member** ☐
ผ่านทางสมาชิกในครอบครัว

**Through a work colleague** ☐
ผ่านทางเพื่อนร่วมงาน

**Through a club/society/sporting/church group**
ผ่านทางการเข้าเป็นสมาชิกของสโมสร/สมาคม/สมาคมการกีฬา/โบสถ์ ☐

**Please explain**
กรุณาระบุ _____

**Other, please explain**
อื่นๆ กรุณาอธิบาย _____

2.6     **Your study experience in Australia was the main reason why you did some form of business activity with Australia. Please tick the appropriate box.**
ประสบการณ์ที่คุณได้ศึกษาในประเทศออสเตรเลีย
เป็นเหตุผลหลักที่ทำให้คุณประกอบธุรกิจกับประเทศออสเตรเลีย
กรุณาใส่เครื่องหมายถูกลงในช่องที่เหมาะสม

| **Strongly Disagree** ไม่เห็นด้วยอย่างยิ่ง | **Agree** เห็นด้วย | | | **Strongly Agree** เห็นด้วยอย่างยิ่ง |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
| ☐ | ☐ | ☐ | ☐ | ☐ |

2.7 **You will continue to do some form of business activity with Australia in the future? Please tick the appropriate box.**
คุณจะยังคงประกอบธุรกิจกับประเทศออสเตรเลียต่อไปในอนาคต
กรุณาใส่เครื่องหมายถูกลงในช่องที่เหมาะสม

| Strongly Disagree | Agree | Strongly Agree |
|---|---|---|
| ไม่เห็นด้วยอย่างยิ่ง | เห็นด้วย | เห็นด้วยอย่างยิ่ง |

| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|
| ☐ | ☐ | ☐ | ☐ | ☐ |

2.8 **Please complete the following sentences:**
กรุณาอธิบายว่า อะไรคือ :

**The best thing about doing business with Australians is**
สิ่งที่ดีที่สุดที่คุณได้รับจากการที่ได้ทำธุรกิจกับชาวออสเตรเลีย

_____

_____

**The worst thing about doing business with Australians is**
สิ่งที่เลวร้ายที่สุดที่คุณได้รับจากการที่ได้ทำธุรกิจกับชาวออสเตรเลีย

_____

_____

2.9 **By doing business with somebody that you knew through your social network, you:**
หากคุณได้ทำธุรกิจกับบุคคลที่คุณรู้จักภายในสังคมเดียวกันกับคุณ คุณจะ

a) **were more easily able to gain access to information on market opportunities**
ได้รับข้อมูลเกี่ยวกับโอกาสทางการตลาดได้ง่ายขึ้น

| Strongly Disagree | Agree | Strongly Agree |
|---|---|---|
| ไม่เห็นด้วยอย่างยิ่ง | เห็นด้วย | เห็นด้วยอย่างยิ่ง |

| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|
| ☐ | ☐ | ☐ | ☐ | ☐ |

**b)** **were able to conduct business more efficiently because you could more easily trust the person you were doing business with**
สามารถทำธุรกิจได้อย่างมีประสิทธิภาพมากขึ้น
เนื่องจากคุณไว้ใจบุคคลที่คุณทำธุรกิจด้วย

| Strongly Disagree<br>ไม่เห็นด้วยอย่างยิ่ง | | Agree<br>เห็นด้วย | | Strongly Agree<br>เห็นด้วยอย่างยิ่ง |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
| ☐ | ☐ | ☐ | ☐ | ☐ |

**c)** **were able to reduce the transaction cost incurred due to a reduced need for legal contracts and documents**
สามารถลดค่าใช้จ่ายในการติดต่อธุรกิจ
เนื่องจากความจำเป็นในการติดต่อเกี่ยวกับสัญญาทางกฎหมาย
และเอกสารลดน้อยลง

| Strongly Disagree<br>ไม่เห็นด้วยอย่างยิ่ง | | Agree<br>เห็นด้วย | | Strongly Agree<br>เห็นด้วยอย่างยิ่ง |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
| ☐ | ☐ | ☐ | ☐ | ☐ |

d)     felt uncomfortable complaining to the person you were doing business with if their performance was not up to the standard you desired

รู้สึกไม่สะดวกใจที่จะตำหนิบุคคลที่คุณทำธุรกิจด้วย
เมื่อประสิทธิภาพการทำงานของบุคคลนั้นไม่ได้ตาม
มาตรฐานที่คุณต้องการ

| Strongly Disagree ไม่เห็นด้วยอย่างยิ่ง | | Agree เห็นด้วย | | Strongly Agree เห็นด้วยอย่างยิ่ง |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
| ☐ | ☐ | ☐ | ☐ | ☐ |

2.10   **Please complete the following sentences:**
กรุณาอธิบายว่า อะไรคือ :

**You prefer doing business with people inside your social network because**
คุณชอบทำธุรกิจกับบุคคลที่อยู่ภายในสังคมเดียวกันกับคุณ เนื่องจาก

_____

_____

**You prefer doing business with people outside of your social network because**
คุณชอบทำธุรกิจกับบุคคลที่ไม่ได้อยู่ภายในสังคมเดียวกันกับคุณ เนื่องจาก

_____

_____

2.11   **How often do you buy Australian made products in Thailand?  Please tick the appropriate box.**
คุณซื้อผลิตภัณฑ์ของประเทศออสเตรเลียในประเทศไทยบ่อยครั้งเพียงใด
กรุณาใส่เครื่องหมายถูกลงในช่องที่เหมาะสม

| Never ไม่เคย | Every week ทุกสัปดาห์ | Every month ทุกเดือน | Every year ทุกปี |
|---|---|---|---|
| 1 | 2 | 3 | 4 |
| ☐ | ☐ | ☐ | ☐ |

**If you do buy Australian products, please give details of what type of products you buy.**

หากคุณซื้อผลิตภัณฑ์ของประเทศออสเตรเลีย
กรุณาระบุรายละเอียดของผลิตภัณฑ์ที่คุณซื้อด้วย

2.12 **How many times have you asked someone who was travelling between Australia and Thailand to buy products for you? Please tick the appropriate box.**
คุณขอให้ผู้ที่เดินทางไปมาระหว่างประเทศออสเตรเลียและไทยซื้อผลิตภัณฑ์ของประเทศอ
อสเตรเลียให้คุณกี่ครั้ง
กรุณาใส่เครื่องหมายถูกลงในช่องที่เหมาะสม

| Never<br>ไม่เคย | Once<br>หนึ่งครั้ง | Twice<br>สองครั้ง | Three times<br>สามครั้ง | More than three times<br>มากกว่าสามครั้ง |
|---|---|---|---|---|
| 0 | 1 | 2 | 3 | 4 |
| ☐ | ☐ | ☐ | ☐ | ☐ |

**What type of products have you asked someone to buy for you?**
ผลิตภัณฑ์ประเภทใดที่คุณขอให้บุคคลนั้นซื้อให้คุณ

# SECTION 3: TRAVEL INFORMATION
## ส่วนที่ 3: ข้อมูลเกี่ยวกับการเดินทาง

3.1 **Have you visited Australia since graduating from Victoria University? Please tick the appropriate box.**
หลังจากจบการศึกษาแล้ว คุณได้กลับมาที่ประเทศออสเตรเลียอีกหรือไม่

**Yes**      **No**
กลับ ☐    ไม่ได้กลั☐

**If yes, how many times?**
ถ้ากลับ คุณกลับมาที่ประเทศออสเตรเลียกี่ครั้ง _____

3.2 **For what reason/reasons did you return to Australia? Please tick the appropriate box.**
เหตุผลที่กลับมาที่ประเทศออสเตรเลียอีกครั้ง กรุณาใส่เครื่องหมายถูกลงในช่องที่เหมาะสม

**Holiday**
พักผ่อน ☐

**Business**
ธุรกิจ ☐

**Visiting friends/relatives**
เยี่ยมเพื่อน/ญาติ ☐

**Other, please explain.**
อื่นๆ กรุณาอธิบาย _____

3.3 **How many people travelled with you to Australia? If you have travelled to Australia more than one time please give details for each trip.**
การกลับมาประเทศออสเตรเลียของคุณ มีผู้เดินทางมากับคุณกี่ท่าน
หากคุณกลับมาที่ประเทศออสเตรเลียมากกว่า
หนึ่งครั้ง กรุณาระบุรายละเอียดของการเดินทางกลับมาในแต่ละครั้งด้วย

**Trip 1:** _____
**Trip 2:** _____
**Trip 3:** _____
**Trip 4:** _____
**Trip 5:** _____

3.4 **How many days did you stay in Australia? If you have travelled to Australia more than one time please give details for each trip.**

คุณได้มาพักอาศัยที่ประเทศออสเตรเลียกี่วัน
หากคุณกลับมาที่ประเทศออสเตรเลียมากกว่าหนึ่งครั้ง กรุณาระบุ
รายละเอียดของการเดินทางกลับมาในแต่ละครั้งด้วย

**Trip 1:** _____

**Trip 2:** _____

**Trip 3:** _____

**Trip 4:** _____

**Trip 5:** _____

# SECTION 4: RESPONDENT INFORMATION
## ส่วนที่ 4: ข้อมูลส่วนตัว

4.1    **Age/**
       อายุ

☐                  ☐              ☐              ☐

**Under 25**        **26-30**       **31-35**      **36-40**
ต่ำกว่า 25

☐ **41-45**        ☐ **46-50**    ☐ **Over 50**
                                   มากกว่า 50

4.2    **Sex/**
       เพศ

☐ **Male**        ☐ **Female**
   ชาย               หญิง

4.3    **What is your marital status?**
       สถานภาพการสมรส

☐ **Married**        ☐ **Not married**
   แต่งงานแล้ว           ยังไม่แต่งงาน

4.4    **What is your occupation?**
       อาชีพ

       _____

4.5    **What is your parent's occupation?**
       อาชีพของบิดาและมารดา

**Father**                        **Mother**
บิดา                               มารดา

_____            _____

## FURTHER COMMENTS
## ความคิดเห็นเพิ่มเติม

**If there are any other comments you would like to contribute to this survey regarding the questionnaire or the topic, please do so below.**
หากต้องการเสนอความคิดเห็นเพิ่มเติมในส่วนที่เกี่ยวข้องกับคำถามหรือหัวข้องานวิจัยของแบบสำรวจนี้ กรุณาเขียนความคิดเห็น ของคุณลงในพื้นที่ว่างด้านล่างนี้

# APPENDIX B

# Country Assessment Levels

Student Visa Country Assessment Levels
1 November 2002

| Country of Passport | Visa Subclass | | | | | | |
|---|---|---|---|---|---|---|---|
| | 570 ELICOS | 571 Schools | 572 VET | 573 Higher Education | 574 Masters/ Doctorate | 575 Non Award | 576 AusAID/ Defence |
| Andorra | 1 | 1 | 1 | 1 | 1 | 1 | |
| Argentina | 3 | 3 | 3 | 3 | 3 | 3 | |
| Austria | 1 | 1 | 1 | 1 | 1 | 1 | |
| Bahamas | 2 | 2 | 2 | 2 | 2 | 2 | |
| Bahrain | 2 | 2 | 2 | 2 | 2 | 2 | |
| Bangladesh | 3 | 3 | 3 | 3 | 3 | 3 | |
| Barbados | 2 | 2 | 2 | 2 | 2 | 2 | all |
| Belgium | 1 | 1 | 1 | 1 | 1 | 1 | |
| Bhutan | 3 | 3 | 3 | 3 | 3 | 3 | 576 |
| Botswana | 2 | 2 | 2 | 2 | 2 | 2 | |
| Brazil | 2 | 2 | 2 | 2 | 2 | 2 | travel |
| Brunei | 1 | 1 | 1 | 1 | 1 | 1 | |
| Burma(Myanmar) | 3 | 3 | 3 | 3 | 3 | 3 | documents |
| Cambodia | 4 | 4 | 4 | 4 | 4 | 4 | |
| Canada | 1 | 1 | 1 | 1 | 1 | 1 | are |
| Chile | 3 | 3 | 3 | 2 | 2 | 3 | |
| China(excl.SARs and Taiwan) | 4 | 4 | 4 | 4 | 4 | 4 | assessment |
| Colombia** | 3** | 3 | 2** | 2 | 2 | 3 | |
| Cyprus | 2 | 2 | 2 | 2 | 2 | 2 | level |
| Czech Republic | 3 | 2 | 2 | 2 | 2 | 3 | |
| Denmark | 1 | 1 | 1 | 1 | 1 | 1 | 2 |
| East Timor | 2 | 2 | 2 | 2 | 2 | 2 | |
| Egypt | 2 | 2 | 2 | 2 | 2 | 2 | |
| Estonia | 2 | 2 | 2 | 2 | 2 | 2 | |
| Fiji | 3 | 3 | 4 | 3 | 3 | 3 | |
| Finland | 1 | 1 | 1 | 1 | 1 | 1 | |
| France | 1 | 1 | 1 | 1 | 1 | 1 | |
| Germany | 1 | 1 | 1 | 1 | 1 | 1 | |
| Ghana | 3 | 3 | 3 | 3 | 3 | 3 | |
| Greece | 1 | 1 | 1 | 1 | 1 | 1 | |
| Grenada | 2 | 2 | 2 | 2 | 2 | 2 | |
| Guam | 2 | 2 | 2 | 2 | 2 | 2 | |
| Hong Kong SAR | 2 | 2 | 1 | 1 | 1 | 2 | |
| Hungary | 2 | 2 | 2 | 2 | 2 | 2 | |
| Iceland | 1 | 1 | 1 | 1 | 1 | 1 | |
| India | 3 | 3 | 4 | 3 | 3 | 3 | |
| Indonesia | 3 | 2 | 3 | 2 | 2 | 3 | |
| Iran | 3 | 3 | 3 | 3 | 3 | 3 | |
| Ireland | 1 | 1 | 1 | 1 | 1 | 1 | |

** indicates countries/sectors where caseload is subject to additional monitoring

Countries not listed are AL 3

Student Visa Country Assessment Levels
1 November 2002

**Visa Subclass**

| Country of Passport | 570 ELICOS | 571 Schools | 572 VET | 573 Higher Education | 574 Masters/ Doctorate | 575 Non Award | 576 AusAID/ Defence |
|---|---|---|---|---|---|---|---|
| Israel | 3 | 3 | 3 | 3 | 3 | 3 | |
| Italy | 1 | 1 | 1 | 1 | 1 | 1 | |
| Japan | 1 | 1 | 1 | 1 | 1 | 1 | |
| Jordan | 4 | 4 | 4 | 4 | 4 | 4 | |
| Kenya | 3 | 3 | 3 | 3 | 3 | 3 | |
| Kiribati | 3 | 3 | 3 | 3 | 3 | 3 | |
| Korea, Republic of | 2 | 2 | 3 | 2 | 1 | 2 | all |
| Kuwait | 2 | 2 | 2 | 2 | 2 | 2 | |
| Laos | 4 | 3 | 3 | 3 | 3 | 4 | 576 |
| Lebanon | 4 | 4 | 4 | 4 | 4 | 4 | |
| Liechtenstein | 1 | 1 | 1 | 1 | 1 | 1 | travel |
| Luxembourg | 1 | 1 | 1 | 1 | 1 | 1 | |
| Macau (special admin region of the PRC) | 3 | 3 | 3 | 3 | 3 | 3 | documents |
| Malaysia | 1 | 1 | 1 | 1 | 1 | 1 | |
| Maldives | 3 | 3 | 3 | 3 | 3 | 3 | are |
| Malta | 1 | 1 | 1 | 1 | 1 | 1 | |
| Mauritius | 3 | 3 | 2 | 2 | 2 | 3 | assessment |
| Mexico | 2 | 2 | 2 | 2 | 2 | 2 | |
| Monaco | 1 | 1 | 1 | 1 | 1 | 1 | level |
| Mongolia | 3 | 3 | 3 | 3 | 3 | 3 | |
| Nauru | 3 | 3 | 3 | 3 | 3 | 3 | 2 |
| Nepal | 3 | 3 | 4 | 3 | 3 | 3 | |
| Netherlands | 1 | 1 | 1 | 1 | 1 | 1 | |
| New Zealand | 2 | 2 | 2 | 2 | 2 | 2 | |
| Nigeria | 3 | 3 | 3 | 3 | 3 | 3 | |
| Nth Mariana Islands | 2 | 2 | 2 | 2 | 2 | 2 | |
| Norway | 1 | 1 | 1 | 1 | 1 | 1 | |
| Oman | 2 | 2 | 2 | 2 | 2 | 2 | |
| Pakistan | 4 | 4 | 4 | 4 | 3 | 4 | |
| Papua New Guinea | 2 | 2 | 2 | 2 | 2 | 2 | |
| Paraguay | 3 | 3 | 2 | 2 | 2 | 3 | |
| Philippines | 3 | 3 | 3 | 3 | 3 | 3 | |
| Poland | 2 | 2 | 2 | 2 | 2 | 2 | |
| Portugal | 1 | 1 | 1 | 1 | 1 | 1 | |
| Puerto Rico | 2 | 2 | 2 | 2 | 2 | 2 | |
| Qatar | 2 | 2 | 2 | 2 | 2 | 2 | |
| Romania | 2 | 2 | 2 | 2 | 2 | 2 | |

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Countries not listed are AL 3

Student Visa Country Assessment Levels
1 November 2002

| | Visa Subclass | | | | | | |
|---|---|---|---|---|---|---|---|
| Country of Passport | 570 ELICOS | 571 Schools | 572 VET | 573 Higher Education | 574 Masters Doctorate | 575 Non Award | 576 AusAID Defence |
| Russian Federation | 3 | 3 | 3 | 3 | 3 | 3 | |
| Samoa, Western | 3 | 3 | 3 | 3 | 3 | 3 | |
| San Marino | 1 | 1 | 1 | 1 | 1 | 1 | |
| Saudi Arabia | 2 | 2 | 2 | 2 | 2 | 2 | |
| Singapore | 1 | 1 | 2 | 1 | 1 | 1 | |
| Slovak Republic** | 3 | 2 | 2** | 2 | 2 | 3 | |
| Solomon Islands | 3 | 3 | 3 | 3 | 3 | 3 | all |
| South Africa | 2 | 2 | 2 | 2 | 2 | 2 | |
| Spain | 1 | 1 | 1 | 1 | 1 | 1 | 576 |
| Sri Lanka | 3 | 3 | 4 | 3 | 3 | 3 | |
| St Kitts-Nevis | 2 | 2 | 2 | 2 | 2 | 2 | travel |
| St Lucia | 2 | 2 | 2 | 2- | 2 | 2 | |
| St Vincent & Grenadines | 2 | 2 | 2 | 2 | 2 | 2 | documents |
| Sweden | 1 | 1 | 1 | 1 | 1 | 1 | |
| Switzerland | 1 | 1 | 1 | 1 | 1 | 1 | are |
| Taiwan | 1 | 2 | 2 | 1 | 1 | 1 | |
| Tanzania | 3 | 3 | 3 | 3 | 3 | 3 | assessment |
| Thailand** | 2 | 2 | 2** | 2 | 1 | 2 | |
| Tonga | 3 | 3 | 3 | 3 | 3 | 3 | level |
| Turkey | 3 | 3 | 3 | 3 | 3 | 3 | |
| Tuvalu | 3 | 3 | 3 | 3 | 3 | 3 | 2 |
| United Arab Emirates | 2 | 2 | 2 | 2 | 2 | 2 | |
| United Kingdom | | | | | | | |
| - British Citizen | 1 | 3 | 2 | 2 | 2 | 1 | |
| - British National Overseas | 2 | 2 | 1 | 1 | 1 | 2 | |
| United States of America | 1 | 1 | 2 | 1 | 2 | 1 | |
| Uruguay | 3 | 3 | 2 | 2 | 2 | 3 | |
| Vatican City State | 1 | 1 | 1 | 1 | 1 | 1 | |
| Venezuela | 3 | 3 | 2 | 2 | 2 | 3 | |
| Vietnam** | 4 | 3 | 3** | 3 | 2 | 4 | |
| Zambia | 3 | 3 | 3 | 3 | 3 | 3 | |
| Zimbabwe | 3 | 3 | 3 | 2 | 2 | 3 | |
| All other passports/travel documents | 3 | 3 | 3 | 3 | 3 | 3 | |

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Countries not listed are AL 3