

Barriers to Trade in Higher Education Services in the Era of Globalisation

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This paper highlights the issues surrounding trade in education services in India. Concentrating on the ease and difficulty of trade in education services through different modes in India, it shows that the process of trade in education services through World Trade Organisation modes 3 and 4 has just begun in India, whereas mode 2 is still the most prevalent mode of trade in education services. A field survey undertaken in this context also identifies some barriers to movement of foreign students to India.

Education services have become one of the single largest services sector, in terms of shares in GDP and employment, in many economies worldwide. It not only provides the bulk of employment and income in many countries but also serves as vital input for producing other goods and services. So an efficient education services sector is crucial for the overall growth of an economy.

During the last decade, the services sector has seen modest liberalisation on account of removal of trade and investment barriers. Most of the World Trade Organisation (wto) members are committed to multilateral liberalisation in services trade. They have committed themselves to the rules and principles of the General Agreement on Trade in Services (GATS) where Article v of GATS permits the liberalising of trade in services between or among parties to an economic integration agreement. Realising this, trade in education services,¹ which include primary, secondary, higher secondary and adult education services as well as specialised training such as for sports, are included in the new services negotiations, resumed in January 2000 under Article XIX of the GATS.² However, within trade in the services sector, the liberalisation of education services has seen little progress. Education services seem to be the least committed sector in the wto. As of August 2006, 48 countries³ had made a commitment to the education sector in the wto. Within the education services, the rapid changes are most spectacular in the area of higher education, which normally refers to post-secondary education at sub-degree and university degree levels. As a consequence, 39 countries till August 2006 had made a commitment under the wto to liberalise access to higher education services.

Countries across the world have witnessed a spectacular growth in higher education over the past few decades [Rudner 1997]. Today, about 132 million students have enrolled in higher education, which was a mere 13 million in 1960.⁴ Along with the enrolment, at the same time, there is a sharp rise in the movement of international students across countries. The demand for international education is forecasted to increase from 1.8 million international students in 2000 to 7.2 million international students in 2025.⁵ According to Knight (2006), a fascinating but very complex world of cross-border education is emerging and the last five years have been a hotbed of innovation and new developments, which on one hand, provide enormous opportunities in services trade and also generate several challenges on the other.

Given that education services are traded predominantly through student mobility across borders (consumption abroad), nonetheless, a host of problems persist particularly in developing

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countries and least developed countries (LDCs) in opening up their education services, raising their standards of education services, recognising each others' standards (MRAS) and removing the barriers to trade in education services [OECD 2004; Knight 2006; UNESCO-OECD 2005]. It is important to bear in mind that cross-country disparities in education services may not only reflect different policy priorities but also a variety of economic, social and demographic factors.

Education services sector liberalisation exerts an economy-wide influence as it constitutes strong inputs to all other economic activities, including trade. Some studies identified several challenges related to the implementation of the GATS commitments in education sectors. But very few attempted to quantify barriers to trade in education services and its characters. There is a dearth of analytical research in estimating barriers to trade in education services, particularly in the context of developing countries and LDCs. This paper discusses examples in India on trade in the higher education services sector in general and barriers to trade in higher education services in particular.

The trade in education services includes exports via all four modes of supply for trade in education services outlined in the GATS: (i) cross-border trade (mode 1), where the service itself crosses the border but consumer and provider do not move (for example, an Indian university sets up a virtual education institution); (ii) consumption abroad (mode 2), where the consumer travels to the country where the service is supplied (for example, an Indian student is going to us to study). This is the most popular mode of trade education services from India at present; (iii) commercial presence (mode 3), where the service provider establishes a commercial presence abroad (for example, an American university opens a branch in India); and (iv) movement of natural persons (mode 4), where the provider of the service moves temporarily to the territory of another country to supply a service (for example, an American professor goes to India for few months to take classes at an Indian university). It should be recalled, however, that modes of supply were developed for making GATS commitments and they are not concepts generally used by education services providers. Service providers do not separately identify their activities by GATS modes of supply and many countries export services via several modes simultaneously. With the exception of some sectors where the distinctions are relatively clear (for example, health services), this study does not attempt to attribute modes of supply to specific examples of education services exports.

A number of barriers are specific to higher education services and most of them can be termed as "soft" or "invisible" barriers. Table 1 highlights some barriers relating to mode-wise trade in education services. It appears that mode 3

(commercial presence) attracts the most number of barriers at present, compared to trade in the other modes. However, given that the bulk of trade in education services takes place through mode 2 (consumption abroad), measures restricting the mobility of students may warrant particular attention.

As for any other service, so also for education services, ensuring quality of service is of prime importance for a service supplier to sustain as an international service supplier. Kemp (2000) is perhaps the first to attempt estimating barriers to trade in education services in a cross-country framework. A study by Dessus (2001) finds that differences in the quality of educational systems are due to differences in the educational infrastructure, initial endowment of human capital and ability to distribute these education services. These differences in education services have a differential impact on the creation of human capital. Dessus (2001) argues that keeping the expenditure at the existing level, and giving priority to primary education for a larger section of the society will promote growth rather than giving secondary education to a select few.

A number of services sectors are getting internationalised: education services being one of them. Although studies are marred by the lack of availability of reliable data, Larsen, Martin and Morris (2002) estimated the education services in Organisation for Economic Development and Cooperation (OECD) countries to about \$ 30 billion in 1999, which is 3 per cent of their total export service trade. The study deliberates on the importance of education services and how improvement in technology (e-learning) has a major impact on trade in education services. It further emphasises meeting quality standards by international service suppliers of education services. Therefore, trade in education services needs to be recognised and its potential should not be underestimated.

While evidence suggests that international trade in some education services is growing, this is not always reflected in countries' GATS commitments. An initial scan of commitments by WTO members known to be involved in trade in post-secondary education services suggests that it is probably not correct to

Table 1: Barriers to Trade in Higher Education Services

Mode	Barriers	Barrier Types
Mode 1: Cross-border supply	• Restriction on import of electronically produced educational material	Invisible
	• Restriction on electronic transmission of course material	
	• Non-recognition of degrees obtained through distance mode	
Mode 2: Consumption abroad	• Restriction on travel abroad based on discipline or area of study	Invisible
	• Foreign exchange control (limitations)	
Mode 3: Commercial presence	• Insistence on a local partner	Invisible
	• Insistence that the provider be accredited in the home country	
	• Insistence on partner/collaborator being from the formal academic stream	
	• Insistence on equal academic participation by foreign and local partner	
	• Disapproval of franchise operations	
	• Restrictions on certain disciplines/areas/programmes that are deemed to be against national interests	
	• Limitations on foreign direct investment by education providers	
	• Difficulty in approval of joint ventures	
Mode 4: Presence of natural persons	• Visa and entry restrictions	Invisible
	• Restriction on basis of quota for countries and disciplines	
	• Nationality or residence requirements, language	
	• Restriction on repatriation of earnings	

Source: Knight (2006).

assume that the absence of commitments indicates a closed market; however, the reverse assumption (that unscheduled sectors are completely open) is likely to overestimate the extent of actual market openness [OECD 2004].

According to OECD (2004), Europe is the largest recipient of international students whereas Asia is the largest emitting region. The trade in education services is directly associated with language, culture and also to some extent ethnicity and religion. These types of structural asymmetries across countries pose a continuous threat to trade in education services. Therefore, there is need to measure the market size and also the barriers to education services trade in developing countries like India.

In view of the above, the rest of the paper is organised as follows. Section 1 describes the methodology and data. The broad profile of trade in higher education services in India is dealt in Section 2. Barriers to trade in higher education services, both in GATS modes and otherwise, are analysed in Sections 3 and 4. Finally, Section 5 provides the conclusions and future research agenda.

1 Methodology and Data

The main purpose of the paper is to assess barriers to trade in higher education services (and assess their costs as far as possible) for India and select Asia-Pacific countries. This paper highlights both the explicit and implicit barriers and also provides ways forward to eliminate such barriers. Given that the bulk of trade in the sector takes place through consumption abroad (mode 2), an attempt is made to assess the impact of measures restricting the mobility of students. We also undertake a primary survey to measure the presence of foreign students in Indian institutions and possible barriers they might face.

Methodological discourse towards assessing barriers to trade in education services follows a wide spectrum of studies on the services trade sector. To capture the intensity of the barriers, an econometric model is pursued. In order to assess the barriers to trade in services in context of India, we have carried out a pilot survey to assess the responses of educational administrators to the issue of barriers. Time series individual and bilateral data on trade in education services are not available for most of the countries, whereas national data sources are not always compatible. Specifically, we have tried to use International Monetary Fund's (IMF) *Balance of Payment Statistics* [IMF 2006] to find out the sector-wise performance of selected developing countries in services trade including trade in education services.⁶ Since the IMF statistics do not provide separate quantitative information for different modes of trade in educational services, we have used the UNESCO statistical database for internationally mobile students to undertake some econometric exercises to understand barriers to the mode 2 type export of educational services.

2 Trade in Higher Education Services in India

Internationalising education services is the new mode of services trade, which has gained much attraction due to the GATS. Trade in education services is already a major business in some countries. Global trade in higher education is large; it is estimated at more than \$ 30 billion per annum [OECD 2004]. The major

exporters of education are the US, UK, Canada, New Zealand and Australia in developed world, whereas China, India, the Philippines, Malaysia, Singapore and Indonesia are fast emerging as exporters of these services.

Even though the GATS classification is quite clear in understanding the trade in services, there are clear ambiguities in enlisting services trade in each account. Deodhar (2002) provided a complete listing and possible examples of category-cum-modes of each type in the context of India's educational services trade, and according to this, there are about 20 types (5×4) of trade in educational services. Bhusan (2004) attempted to judge India's relative strengths, challenges and opportunities in context of trade in education services. Sahni and Kale (2004) talked about the present system of higher education and attempts to find the possible implications for India in GATS. According to them, since the agreement is diverse, there are intrinsic pressures for pushing negotiations of "interest groups", and in the absence of a coherent education policy, the effects of opening up could lead to a distorted function of education. In the same line, Deodhar (2002) commented that India must ensure that the safeguard instruments available in the GATS document are credible and enforceable. Even though no study has yet attempted to measure gains for India from trade in higher education under the GATS, one of the conclusions of Bhusan (2004) is to restructure domestic regulations in order to protect domestic educational institutions and to allow the entry of foreign educational institutions only in subjects and conditions.

There are opposite views as well. Chanda (2002) commented that given India's limited public resources to meet the growing education needs domestically, imports through modes 1, 2 and 3 are likely to play an important role in the future. Towards the same direction, Ahmad (2005) commented that in view of the volume of trade under mode 2 in trade in education services, India should actively participate in multilateral negotiations on higher education within the GATS framework to seize new opportunities that are available from the enlarged market.

2.1 Mode-wise Trade in Higher Education Services

Article I.2 of the GATS defines four modes of supply in any service sector trade. The four modes are defined according to the location of the provider and recipient. The liberalisation process of each mode opens up different sets of opportunities and challenges, though the modes are not mutually exclusive. The diversity of opportunities and challenges stems from a certain inherent asymmetry in the comparative advantage intrinsic in the education sectors of developed and developing countries. Unlike developed economies, India does not maintain separate trade in education services in its balance of payment (BOP) statistics till 2000-01 when the country's central bank, Reserve Bank of India (RBI), started to compile trade in education services statistics but only for payments (imports). Due to this data limitation, we failed to categorise mode-wise trade in education services. However, the latest release of accounts of India's invisibles, the RBI shows that India's import (payments) under trade in education services in both 2005-06 and 2006-07 has crossed \$ 1 billion, thereby contributing about 3 per cent of country's total payments towards

services imports (see the figure). In particular, India's import of education services in 2004-05 increased by 171 per cent, compared to 2003-04, the highest ever jump witnessed by the Indian economy in the category of education services trade.

2.1.1 Mode 1: Cross-border Supply

The first mode includes the supply of education "without" the movement of consumers or providers. Mainly e-learning and courses offered on the internet are covered in this mode. Also, correspondence courses through postal delivery systems could be included. (This also means an accompanied liberalisation of information technology and postal services, which are part of separate negotiations.) Distance learning on the internet is a more recent phenomenon. Indira Gandhi National Open University (IGNOU) has gained a good reputation abroad in marketing education programmes. IGNOU is already a recognised distance education provider in the Gulf region – Dubai, Abu Dhabi, Sharjah, Doha, Muscat and Kuwait. Its courses are being offered in Mauritius, Maldives, Seychelles, Nepal and Sri Lanka. Staff Training and Research Institute of Distance Education, IGNOU has also collaborated with the International Institute of Capacity Building in Africa, Addis Ababa to provide distance education programmes to students in Ethiopia and Liberia. Students from Commonwealth countries have also been offered IGNOU programmes through the distance mode.

Table 2: Trends of Higher Education Institutions (HEIs) in India

Year	Universities	Colleges	Total HEIs	Enrolment (million)
1950-51	28	578	606	0.20
1960-61	45	1,819	1,864	0.60
1970-71	93	3,277	3,370	2.00
1980-81	123	4,738	4,861	2.80
1990-91	184	5,748	5,932	4.40
2000-01	266	11,146	11,412	8.80
2005-06	348	17,625	17,973	10.50

Source: Agarwal (2006).

Mode 1 is perceived to have a very high potential of growth across the globe. The market for such courses is expected to be large in India. There are over 60 million internet users in India today.⁷ The domestic use of computers has experienced growth of over 10 per cent per annum in the last decade and the number of personal computer (PC) users in the educational sector has gone up to 1,02,655 in 2004 from 63,054 in 2001.⁸ The growth rate of PC use in education and other sectors is much higher in non-metro areas than in metro areas in India. The international market for e-learning is expected to be \$ 300 million by 2010 where the Indian market is expected to grow up to \$ 30 million [NASSCOM 2005]. The comparative advantage in this mode of supply lies primarily with developed nations. It is more probable that when e-courses become available on the net, the ones demanded most could be the ones that originate from leading universities in the us or UK due to their global recognition. Such distance learning courses would increase the participation rate of working professionals, homemakers and students from non-metro areas. Students in metro areas may also opt for such courses as an "add on" to their degrees. Looking at

this opportunity, the Indian Institute of Foreign Trade, New Delhi, a deemed university by status, has started an e-learning programme through a very small aperture terminal (vsAT), called Executive Masters in International Business.⁹

2.1.2 Mode 2: Consumption Abroad

This mode includes the movement of consumers or students across border. Presently, this is the mode, through which maximum trade in education services takes place. Movements in this mode in the international scenario in higher education have undergone a change in recent times, reflecting increasing competition among developed nations to attract students overseas. Presently, the us is the leading exporter of educational services, followed by the UK, Australia and Canada. Export of education here primarily indicates the revenue generated by the number of students enrolled in a foreign university [OECD-CERI 2002a, 2002b]. In 2004, us exports of educational services were estimated at \$ 12 billion, which made higher education the country's fifth largest service sector export. The main export markets are in Asia (Japan, China, Korea, Taiwan, India, Malaysia and Indonesia), accounting for 60 per cent of all us educational exports. The us is facing increasing competition from other countries, such as the UK and Australia, in mainly attracting Asian students. The UK earned about \$ 4 billion from educational service exports in 2004 [OECD 2005]. Australia, the third largest service exporter of higher education, provided educational services worth \$ 2.6 billion in 2004 (ibid). In Asia, Singapore and Malaysia have taken lead role in accommodating global educational centres to open their branches in very flexible terms in recent years.

Indian institutions of higher education, for instance, have been attracting students from neighbouring developing countries. Most of the Indian higher education institutions conduct courses

Table 3: Growth of Professional HEIs in India

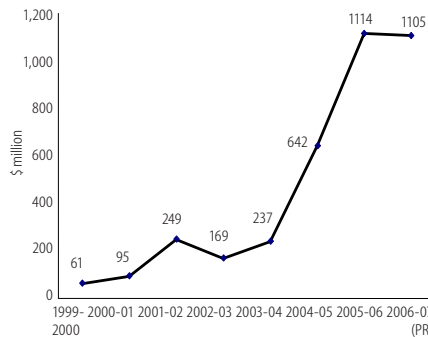
Name of Course	Number of Institutions (1999-2000)	Number of Institutions (2005-06)	Percentage Increase*	Private Share (2003-04)	Public Share (2003-04)
	(No)	(No)		(%)	(%)
Engineering	669	1,478	121	88	12
Pharmacy	204	629	208	94	6
Hotel management	41	70	70	90	10
Architecture	78	118	51	67	33
Teacher education	1,050	5,190	395	68	32
MCA	780	976	25	62	38
MBA	682	1,052	55	64	36
Medicine (allopathic)	174	229	32	46	54
Physiotherapy	52	205	294	92	8
Total	3,730	9,947	167	78	22

* Refers to increase in institutions in 2005-06 over 1999-2000.

Source: Agarwal (2006).

in English, which is an added advantage [Altbach 2003]. However, over last few years fewer foreign students have chosen to make India destination for higher education. In 2003-04, there

Figure: India's Imports of Education Services



PR: Partially revised. Source: Reserve Bank of India (2008).

were about 7,745 foreign students studying in India, marginally up from 7,738 in 2002-03 (Table 4), where students from South Asia were in majority (24 per cent).¹⁰ Table 5 indicates that while students from Nepal and Bhutan continue to study in India in increasingly large numbers, those from the rest of south Asia have drastically fallen during 1991-92 to 2002-03. Contrary to popular belief, the number of south Asian students in Indian universities has decreased during the aforesaid period. To make India a favourite destination of foreign students, India's National Knowledge Commission (NKC) has recently suggested to Indian universities to plan for 50,000 global students, which, according to the NKC, will not only enrich India's academic milieu and enhance quality but also generate a significant amount of finance [GOI 2007]. In order to attract more students from south Asia, following the models of the Central European University (located at Budapest) and University of Central Asia (located at Kyrgyzstan), India is setting-up South Asian University at New Delhi.

2.1.3 Mode 3: Commercial Presence

With 74,603 students of the total 5,86,323 in the US being Indian, they comprise 13 per cent of total international students. China was second with 64,757 students [IIE 2005]. The fees at universities abroad are rather high and the visa requirements necessitate a financial guarantee. Thus, the students going abroad from Asia are usually only those who can afford an expensive education. According to the OECD (2004), liberalisation of mode 3 (commercial presence) may reduce the number of students going abroad. Though the best universities are considered to be the ones in OECD countries, India and other countries in south-east Asia have been attracting overseas students over the last decade.

Trade under this mode includes local branches of foreign institutions as well as joint ventures set up by one country in another member country. As noted earlier, even though 100 per cent foreign domestic investment (FDI) on the automatic route is allowed in higher education in India, mode 3 trade in India is minuscule. In India, foreign participation is permitted through twinning, collaboration, franchising and subsidiaries, among others. According to National Institute for Education Planning and Administration (NIEPA), about 150 foreign education services providers under mode 3 began operations in India beginning July 2006.¹¹ Some of foreign universities, such as University of Huddersfield (UK), Staffordshire University (UK), etc, have entered India through joint ventures. However, there is still ambiguity whether foreign universities are at all allowed by the government to operate in India.¹²

In addition, a more recent form in which education services are traded consists of the setting up of facilities abroad by

education providers (commercial presence). Although there are no figures available, the literature suggests an increase in the presence of foreign suppliers in some countries driven by a variety of reasons. For instance, in an effort to enhance domestic capabilities in higher education as well as reduce foreign exchange costs derived from the outflows of students, several Asia-Pacific countries are allowing foreign universities to establish "local branch campuses" or "subsidiaries" – for example, the Massachusetts Institute of Technology (MIT) (USA) has established a locally-financed subsidiary of its faculty of engineering in Malaysia and Singapore. In India, an estimate in 2004 puts foreign affiliates at about 100 [Bhusan 2004]. This type of trade is also taking place through partnership arrangements.

More importantly, the Indian market for higher education has witnessed high growth in exclusive profit-oriented areas in recent years due to their orientation towards immediate employment.¹³ The proposal by the US mentions the possibility of "intra-corporate movement", which would be a result of commercial presence. The US proposal is extremely keen on removal of barriers to mode 3. Just as in mode 1, multinationals have a keen interest in the education sector in terms of commercial presence. Higher

education institutions in India have also started setting up campuses abroad, for example, Mumbai's S P Jain Management School has set-up branches in Dubai and Singapore to offer MBA courses. Another example is Central Board for Secondary Education (CBSE) schools in abroad. Till 2005, there were more than 100 (Indian) CBSE schools in overseas.

2.1.4 Mode 4: Presence of Natural Persons

The fourth mode exclusively deals with the movement of natural persons who are service providers (independent of commercial presence). Trade in educational services under this mode could be teachers

or researchers going abroad on a temporary basis as providers of services. For example, the Indian School of Business (ISB) Hyderabad's faculty collaboration with US management schools is a good example of mode 4.¹⁴ However, the perceived barriers in this mode are mainly related to the tight immigration policy traditionally followed by developed countries and the issue of recognition of qualifications of third world professionals. Since developing countries are perceived to have a comparative advantage in this mode, the removal of barriers in labour movement from developing countries is the main thrust in proposals put forth by it [WTO 2003]. The problem of removing barriers in this mode is related to the fact that most of the liberalisation proposals are on the "horizontal" basis. In the main categories scheduled in the horizontal commitments, intra-corporate transferees and executives, managers and specialists occupy the highest numbers.

Table 4: Number of Foreign Students in Indian Universities, Region-wise

Region	1991-92	1995-96	1999-2000	2000-01	2001-02	2002-03
Asia, of which	5,079	4,832	3,496	3,866	4,312	4,452
South Asia	2,044	2,602	2,031	2,005	2,226	1,852
Australia (Oceania)	28	40	12	44	45	40
Africa	7,028	4,079	2,549	2,961	2,363	1,900
Europe	154	126	120	180	252	142
America	151	309	275	327	432	353
Total	12,765	10,087	6,988	7,791	8,145	7,738

Source: Government of India (2005).

Table 5: Number of South Asian Students in Indian Universities

Country	1991-92	1995-96	1999-2000	2000-01	2001-02	2002-03
Afghanistan	125	118	46	35	33	24
Bangladesh	565	1,244	520	576	545	372
Bhutan	112	155	181	175	254	227
Maldives	18	23	18	10	14	34
Nepal	725	695	772	821	873	801
Pakistan	12	4	9	5	3	3
Sri Lanka	487	363	485	383	504	391
South Asia	2,044	2,602	2,031	2,005	2,226	1,852

Source: Government of India (2005).

Export of education from India results from Indian institutions operating abroad and foreign students joining educational institutions in India. Many Indian institutions are opening their branch campuses abroad and are rated high in quality. However, the number of such institutions abroad is lesser than foreign institutions in India. In the higher education segment some deemed universities such as Birla Institute of Technology and Science (BITS), Pilani and Manipal University (MU) and private institutions such as NIIT, besides some public institutions like Delhi University, IGNOU, SNDT Womens University, Mysore University and Madras University are making their presence felt abroad. BITS, set up its Dubai campus in September 2000 in association with ETA-NET, a member of ETA-ASCON group. Students of BPDC will obtain their degrees from BITS, after the successful completion of eight semesters of programme. Thousands of students study in Manipal institutions situated in Sikkim, Mangalore, Nepal, Malaysia and Dubai. At present 2,081 foreign students are enrolled at MU. Most of the students are enrolled in the medical courses, mainly from the US, Gulf, Sri Lanka and Malaysia. Indian origin students from 49 English-speaking countries are at present studying at MU.

2.2 GATS Commitments

Education is the least committed sector in the GATS. The number of commitments in the different education sub-sectors is relatively low. As shown in Table 6, as of August 2006, there were total 168 commitments by 48 countries¹⁵ in the education sector in following order: 33 commitments were in primary education, 37 in secondary education, 39 in higher education and 37 in adult education. Higher education is the sub-sector, which has attracted highest commitments in education services; 39 countries had made commitments to liberalise access to higher education.

In Asia, China is the only country, which has extended its commitments to liberalise access in all five sub-sectors of education services. Except Thailand, the rest of Asia-Pacific countries in Table 6 have already extended their commitments in higher education services. However, there is an overall sense of disappointment in the progress made to date in the number of countries that have tabled offers, the degree of liberalisation offered and the number of sectors committed. The unexpected low level of commitments is a deep concern, prompting much work to develop new and alternative means of encouraging countries to improve their offer in trade in education services.

India's revised offer on services dated August 24, 2005 indicates that the country has not taken any commitments in education

services, except higher education services (Table 7). India has no multilateral obligation under the GATS framework so far to open up higher education services to foreign participation as it has not

scheduled any commitment in education services in the GATS. Though India has received plurilateral requests from several countries like Australia, Brazil, Japan, New Zealand, Norway, Singapore and the US, it has not made any offers in this sector as on date. Table 7 also indicates that while there are no limitations on national treatment in modes 1, 2 or 3, horizontal commitments would be effective in mode 4. India's proposal demands liberalisation in mode 4 mainly because of the large

possibilities of export of service providers from the information technology, medicine, engineering, finance, education, architecture and construction industries as also the entertainment and hospitality industries.¹⁶ India's revised offer also tells us that the country is more committed to liberalising higher education services [GOI 2006].

3 Barriers to Movement of Students from Abroad in India

The measurement of barriers to trade in services and the gains associated with removing such barriers has been of keen interest for the past several decades. This is more due to several negotiations carried on the helm of the WTO. While the "invisible" barriers to trade in goods are gradually disappearing across countries, the role of services trade has gained due importance – multilaterally and otherwise. In general, barriers to trade in services are not like tariffs. They are typically regulatory barriers, rather than explicit taxes. The underlying economic rationale for these policy reforms is that the removal of barriers to trade in services is likely to result in lower prices, improved quality and higher

Table 6: GATS Commitments to Education Services by Selected Asian Countries

Country	Primary	Secondary	Higher	Adult	Other	Total
Australia		✓	✓		✓	3
Cambodia			✓	✓	✓	3
China	✓	✓	✓	✓	✓	5
India			✓			1
Japan	✓	✓	✓	✓		4
Nepal			✓	✓	✓	3
New Zealand	✓	✓	✓			3
Thailand	✓	✓		✓		3
Total (48 countries)#	33	37	39	37	22	168

Figures are as of August 2006. # Among WTO member countries. Sources: Calculated based on Services Gateway, WTO (www.wto.org), and information collected from the WTO Secretariat.

Table 7: India's Revised Offer on Higher Education Services

Sector or Sub-sector	Modes of Supply	Limitations on Market Access	Limitations on National Treatment
Higher Education Services (CPC 923)	Mode 1 (cross-border supply)	None subject to the condition that service providers would be subject to regulations, as applicable to domestic providers in the country of origin.	None
	Mode 2 (consumption abroad)	None	None
	Mode 3 (commercial presence)	None subject to the condition that fees to be charged can be fixed by an appropriate authority and that such fees do not lead to charging capitation fees or to profiteering. Subject further to such regulations, already in place or to be prescribed by the appropriate regulatory authority. In the case of foreign investors having prior collaboration in that specific service sector in India, FIPB approval would be required.	None
	Mode 4 (presence of natural persons)	Unbound except as in the horizontal section	Unbound except as in the horizontal section

Revised offer dated August 24, 2005.

Source: Ministry of Commerce and Industry, Government of India. (Available at http://commerce.nic.in/wto_sub/services/service_offer.htm)

competitiveness. As with trade in goods, restrictions on trade in services reduce welfare because they create a wedge between domestic and foreign prices, leading to a loss to consumer surplus. A number of barriers are specific to higher education services. The more important ones that education and trade policymakers need to pay close attention to are listed below: the literature assessing the nature and magnitude of barriers mainly follows methodologies previously developed to measure non-tariff barriers (NTBs) in manufacturing.¹⁷ As a result, tools for

Table 8: Average Fees Structure, as of December 2006

Postgraduate Course	Institute	Tuition Fees per Annum (US\$)
Physical science	Jawaharlal Nehru University, Delhi	1,500
	Jadavpur University, Kolkata	5,000
Humanities and social science	Jawaharlal Nehru University, Delhi	1,000
	Delhi University, Delhi	4,150
Engineering	Indian Institute of Technology, Delhi	4,000
	Jadavpur University, Kolkata	5,000
Management	Indian Institute of Management, Kolkata	8,000
	Indian Institute of Foreign Trade, Delhi	10,000
Distance education	Indira Gandhi National Open University, Delhi	750-1,000

Source: Collected through field survey.

measuring barriers to services trade and the impact of liberalisation are still subject to some limitations and still need to be improved to address the distinctive features of services.

The exercise is a primary survey based evaluation of the barriers to educational trade in some of the major educational institutes in India. The main aim of this survey is to generate the kind of pilot survey needed to go for a larger and more comprehensive survey. The primary survey was carried out among 14 premier higher education institutions and authorities in India (the list of institutions covered in this study is given in the Appendix, p 59). The data reveals the actual physical presence of foreign students in Indian institutions as well as the responses from the administrators to the question about the possible barriers to the movement of foreign students in their respective institutions. The following important findings are worth noting.

3.1 Courses Pursued

There is a clear distinction between courses undertaken by foreign students in Kolkata and Delhi, the two metropolitan cities where the survey is carried out. In Delhi, foreign students could be found taking different types of regular courses in all disciplines. In Kolkata (including the Visva Bharati University in Shantiniketan, located about 150 km from Kolkata), in contrast, foreign students are found to be in specialised courses. Most of these are short-term or casual courses. For example, Indian Statistical Institute (ISI), Kolkata offers a one-year special course on statistics through the International Statistical Education Centre; Jadavpur University offers several one-year certificate courses in language; Visva Bharati University offers multidisciplinary casual courses, etc. The reason seems to be the location factor. Delhi being the national capital gets comparatively more foreign students in general due to the direct students aids offered by the government of India. On the other hand, Kolkata being a regional city, all the universities and institutions located in the state,

except a few, such as Indian Statistical Institute, Indian Institute of Management and Visva Bharati University, are aided by the state government. The survey reveals that openness in the education sector is pursued more vigorously in the Delhi institutes compared to Kolkata.

3.2 Tuition Fees Structure

The tuition fee is somewhat similar for foreign students across the educational institutions in India. The survey reveals that there are several classifications followed across institutions and some of them are as follows.

One, students (nationals) of South Asian Association for Regional Cooperation (SAARC) countries pay much less than others, usually less than 50 per cent.

Two, non-resident Indian (NRI) students get special concessions in some cases. There are special schemes promoted by the government of India like direct admissions of students abroad to enlisted institutions. The tuition fees in this case, however, are almost the same as for other foreign students.

Three, the Indian Council of Cultural Relations (ICCR) provides liberal scholarships to students from developing countries but there are quotas for different countries. Together, there are about 1,800 scholarships of various types offered by the government of India.

Four, in general, tuition fees for physical science courses are found to be higher than social science and humanities courses, while management courses command the highest fees. However, the tuition fees for engineering courses are lower than those of management courses. Course fees also differ for undergraduate and graduate courses. Table 8 presents the fee structure for graduate courses.

Quite consistent with the trend, the survey found that the fees structure in Indian institutes is lower than that offered by the institutes of developed countries. For example, annual tuition fees of a postgraduate course in humanities and social science in developed countries in 2005 were as follows: \$ 10,000-30,000 in the US, \$ 30,000-45,000 in the UK and \$ 10,000 to 40,000 in the Netherlands.¹⁸

3.3 Cost of Living

The survey reveals that the cost of living in Delhi and Kolkata, with shared apartments is around \$ 900 and \$ 1,200 per annum, respectively. However, the same in developed countries would be about \$ 12,000 per annum (in the US).

3.4 Barriers to Education Services: Field-level Findings

We discuss here the findings on barriers as revealed from the survey.

3.4.1 Barriers in Perception of Administrators

According to the administrators surveyed in this study, the biggest barrier to promoting Indian education abroad seems to be getting proper access to foreign educational markets. However, it is not clear whether they meant this to be a problem on the part of Indian institutes or foreign markets. It seems the problem lies squarely on both. Some administrators also indicated that the problem of equivalence of degrees is also a barrier. This also leads to a peculiar problem that Indian diplomatic missions abroad do

not grant visas unless the students have secured admission letters in their hand (meaning thereby equivalence of courses), whereas Indian institutions are reluctant to admit foreign students unless the Indian diplomatic missions abroad certify that their degrees are equivalent to Indian standards. This is also related to the problem of credit transfer for graduate-level courses. Also, some administrators pointed out the language problem as a barrier as proper language training is not given prior to the commencement of the courses. It was also often mentioned that the limited number of seats available to foreign students is also a barrier to promote Indian education abroad. In many cases, the survey found that it is limited to 5 per cent of the total strength.

3.4.2 Barriers in Perception of Students

From limited observations,¹⁹ we found the lack of good residential facilities, good transport facilities and absence of language training facilities, among others, are some of the major obstacles faced by foreign students in Kolkata.

3.4.3 Exchange and Collaboration Programmes

Indian universities have gone a long way in promoting collaborative programmes for study and research with foreign universities and colleges. There are some variations in the arrangements as well. For example, the Indian Institutes of Management have agreements for students exchange primarily with developed countries, whereas the Indian Statistical Institute has a formal

Table 9: FEM Estimates

Country (Group)	Coefficient
Australia	-25.248
Germany	-25.645
US	-25.690
UK	-25.956
France	-26.814
Japan	-27.692
Italy	-28.061
Ireland	-29.268
Switzerland	-29.984
Sweden	-30.104

understanding with the International Statistical Institute (the Netherlands) and UNESCO for offering special course on statistics to nationals of developing countries only. Similarly, ICCR scholarships are primarily meant for developing countries, especially SAARC countries. However, universities like Jawaharlal Nehru University in Delhi, Delhi University, Indian Institute of Technology and Jadavpur University have research faculty exchange programmes with a number

4 Analysis of Barriers to Movement of Students

The panel regression undertaken in this study has one primary objective – to understand the major determinants of movement of students for education from developing Asian to developed countries. The physical movement of students for education takes place mainly from developing to developed countries. Also, the major area from where movement to developed countries originates is the developing world of Asia. The mode 2 of services trade (consumption abroad) captures this movement.

In this study, we have considered US, UK, Australia, France, Germany, Japan, Italy, Ireland, Sweden and Switzerland as destination countries. The originating countries are mainly developing Asia-Pacific countries, including some of the developed or high-income developing countries like Japan, Singapore and

Hong Kong and China. The destination countries are chosen on the basis of availability of data for five years (1999 to 2003).²⁰ The regression looks like as follows.

$$IMSA_{jt} = \beta_1 + \beta_2 PCY_{jt} + \beta_3 SCH_{jt} + \beta_4 INET_{jt} + \beta_5 PRCOLI_{jt} + \epsilon_{jt}$$

where $IMSA_{jt}$ is internationally mobile students originating from Asia in country j at time t ; PCY_{jt} is per capita GDP at constant year 2000 \$ for country j at time t ; SCH_{jt} is gross tertiary school enrolment for country j at time t ; $INET_{jt}$ is internet users per 1,000 people in country j at time t ; $PRCOLI_{jt}$ is relative cost of living in country j in time t , relative to US at GDP per capita current purchasing power parity prices in percentage terms and ϵ_{jt} is the white-noise error term for country j in time t . Here, $j = 1, \dots, 10$, and $t = 1, \dots, 5$. This is a panel data involving 10 destination countries and five years.

Now one may question the relevance of this regression in order to understand the barriers (and their costs) to trade in education. The regression results are the most important determinants of the mode 2 type of trade in education services. In case the classical regression holds with a good fit, the movement of students does not seem to have any additional determinants than those employed in the regression. In that case, there are not many non-quantifiable barriers to trade in education services. In case the fixed effect holds, each country does have special characteristics, which might facilitate or hinder movement of students from Asia to that country. On the other hand, if the random effect holds, the country specific effect does not matter. However, in this case, there may be some general characteristics not explicitly mentioned in the regression, which might facilitate or hinder movement of students from Asia to the destination developed countries.

In our particular case, the double log regression seems to be the better fit, implying non-linearity in the regression relationship. Thus, all the variables are taken in their logarithmic transformation. In addition, school enrolment and internet use have high co-linearity. Therefore, only school enrolment is taken into account. The regression produces the following statistics: (a) Lagrange multiplier test has a value of 96.29, which rejects the classical regression in favour of panel regression; and (b) Hausman test has a value of 11.91, which favours fixed effect model (FEM) against random effect model.

From the above the FEM is the right choice for panel data. The following FEM is obtained, suppressing the general constant term:

$$LIMSA_{jt} = 4.156^{***} LPCY_{jt} + 1.397^{***} LSCH_{jt} - 2.412^{**} LPRCOLI_{jt}$$

where ** and *** indicate estimated coefficients are significant at the 5 and 1 per cent level, respectively.²¹ The FEM values estimated for 10 countries mentioned above are given in Table 9.

The results in Table 9 show quite expected signs for the determining variables. Higher per capita income increases demand for foreign students in destination countries to meet home country skilled labour requirements. It also gives a positive signal to potential internationally mobile students regarding future opportunities. Higher school enrolment again is a positive signal to potential students that the education system is strong in the destination countries. Higher relative cost of living has a negative influence on the potential movers as expected.

The above determinants also point out some quantitative barriers to trade in education services. For example, a higher cost of living, which includes both tradable and non-tradable prices acts as a barrier to students aspiring towards education in developed country. Similarly, lower school enrolment will be a barrier to potential international student mobility. However, these are not really policy induced barriers. They may be termed as market determined barriers to the movement of international students.

However, the FEM points to other determinants, which are country specific and not accounted for in the regression. Interestingly, all the country specific effects are negative and somewhat equal in magnitude – the last five countries have higher absolute values, with Sweden topping the list closely followed by Ireland and Switzerland. Thus, the actual movement of students is less than what is predicted by the explicit determinants in the regression (like per capita income, school enrolment and relative cost of living). So, these barriers are mostly non-quantifiable. They may be course equivalence requirements or cultural or religious or language or distance, etc, but clearly, they exist.

5 Conclusions and Future Research Agenda

Countries across the world witness a spectacular growth in trade in higher education services over the past few years. Education services sector liberalisation exerts an economy-wide influence as it constitutes strong inputs to all other economic activities, including trade. Given that education services are traded predominantly through student mobility across borders (mode 2, consumption abroad), nonetheless, a host of problems persist, particularly in developing countries and LDCs, in opening up their education services, raising their standards of education services, recognising each other's standards and removing the barriers to trade in education services.

Apparently, developing Asia-Pacific economies have limited intra-regional trade in education services. The us and Europe together are the largest recipients of international students whereas the Asia is the largest emitting region. The trade in education services is directly associated with different educational systems, languages, cultures and to some extent ethnicity and religion. These types of asymmetries across countries pose a continuous threat to trade in education services. In view of technological change, there is an important need to measure the market size and barriers to education services trade in developing countries and LDCs in the Asia-Pacific region.

As given above, this study has dealt with barriers to trade in education services for selected Asia-Pacific countries. This study highlights both the explicit and implicit barriers and also provides ways forward to eliminate such barriers. The findings of this study are quite revealing, particularly in the context of India. The primary field survey shows the cost advantage of studying in India but poor quality of supporting infrastructure facilities such as limitation of seats, poor housing or hostel and transportation facilities pose a major problem for international students. This also points to a lack of market access for Indian institutions abroad as well as problems of language training. On the other hand, the secondary data based panel study clearly reveals the existence of country specific barriers apart from market induced

barriers in developed countries. The market induced barriers, as the results suggest, are school enrolment, level of development and relative cost of living. The results indicate that higher per capita income increases demand for foreign students in destination countries to meet home country skilled labour requirements. It also gives a positive signal to potential internationally mobile students regarding future opportunities. Higher school enrolment again is a positive signal to potential students that the education system is strong in the destination countries. Thus, looking at them from the other side, poor levels of development and low tertiary school enrolment signal less attractive destinations for the potential internationally mobile students, hence preventing the latter from seeking admission to the educational institutions of those countries. The panel regression results also indicate that higher relative cost of living has a negative influence on the potential movers as expected.

The FEM panel regression points to other determinants, which are mostly non-quantifiable. As mentioned earlier, they may be course equivalence requirements, culture, religion, language or distance, etc, but clearly, they exist. Therefore, to conclude, mode 2 (consumption abroad) trade in education services does face barriers to trade so far as Asian student mobility to developed countries is concerned. A more detailed study involving one originating country but a number of destination countries would have made the idea of barriers more comparative in nature.

Future studies may be attempted to understand country-wise extent of the barriers (and their costs). However, as the present study highlights, there are several areas where further work can be done and some of them in brief are as follows: first, apart from mode 2, future studies should deal with the other modes as well. This is especially true when FDI (in some cases even 100 per cent) is allowed in the education sector by many of the Asia-Pacific countries. So, specific successful case studies need to be done to analyse these cases. Second, future studies can analyse the barriers better if supported by primary survey considering students and administrators in institutions where foreign students are more in number. This paper reports the initial pilot survey done on a random basis as an experiment. Based on this, future studies can identify the institutions where foreign students have clusters. The next round of work should be aimed at these institutions.

Appendix: List of Sample Institutions/Authorities Surveyed

City	Name
New Delhi	Ministry of External Affairs, Government of India
New Delhi	Indian Council of Cultural Relations
New Delhi	Indian Institute of Technology
New Delhi	Jawaharlal Nehru University
New Delhi	Indian Institute of Foreign Trade
New Delhi	Indira Gandhi National Open University
New Delhi	AMITY University
New Delhi	Delhi University
Kolkata	Indian Institute of Management
Kolkata	Indian Statistical Institute
Kolkata	Indian Institute of Technology
Kolkata	Jadavpur University
Kolkata	Calcutta University
Kolkata	Visva Bharati University

Finally, the regression analysis clearly shows the utility of state of the art panel studies. At the same time, it reflects the paucity of qualitative data, especially for variables like quality of education and infrastructure, problem of language or religion, place of origin, distance from the places of learning, etc. A country by country study to understand the barriers would be perhaps better.

NOTES

- 1 In recent literature [for example, UNESCO-OECD 2005; Knight 2006], trade in education services is also termed as cross-border education, which refers to the movement of people, programmes, providers, knowledge, ideas, projects and services across national boundaries. The term is often used interchangeably with "transnational education", "offshore education" and "borderless education".
- 2 See services gateway, WTO, available at www.wto.org
- 3 The European Union (EU) is counted as one country.
- 4 Based on UNESCO statistics, available at www.unesco.org
- 5 According to Bohm et al (2004).
- 6 More generally, it should be noted that trade in services statistics are likely to underestimate trade in services [De 2006]. Moreover, trade in services between developing countries is more difficult to estimate. To date, the available bilateral data on such trade is scant and does not allow for satisfactory reports on those flows. The discrepancy in the data suggests that services are not only difficult to trade but that, more importantly, under current statistical concepts and methodologies, services trade flows are unlikely to be captured fully. Indeed, many statistics for trade in services are drawn from balance of payments (BoP) data, which has a number of limitations in measuring trade in services from a GATS perspective. Not all service sectors are captured and most figures tend to represent trade via modes 1 and 2 only – BoP figures do not capture trade via mode 3 and provide only rough proxies for mode 4 [OECD 2005]. Mode 3 trade is better captured by Foreign Affiliate Trade in Services figures but these are only collected by a minority of countries (about 20 so far). Proxies for mode 4 in BoPs – compensation of employees and workers' remittances – are only very approximate and can both under- and over-estimate mode 4 (for example, they include persons working in sectors beyond services).
- 7 Data related to 2005, taken from World Development Indicators CD-ROM 2007, World Bank.
- 8 Taken from UNESCO.
- 9 Collected from www.iift.edu
- 10 This does not consider foreign students studying in technical institutions (like IITs, IIMs, ISIs, etc) including private universities. If those all counted, annual intake of foreign students will go up.
- 11 Based on authors' personal communication with NIEPA, New Delhi.
- 12 The issue of allowing foreign universities in India will be debated in the Indian Parliament soon after the government finalises the Foreign Universities Regulatory Vision, informed the representative of Rajya Sabha (the Lower House) to the media on August 21, 2006. Replying to supplementaries during Question Hour on August 21, 2006, India's human resource development minister Arjun Singh said that foreign universities till now were permitted to enter into agreement for research and development only. "We have not given any (foreign) university that kind of permission (allowing it in India)", Singh said, adding that the Foreign University Regulatory Vision would be brought before Parliament after being finalised (quoted in *The Hindu* on August 22, 2006, visit, <http://www.hindu.com/thehindu/holnus/001200608220311.htm>)
- 13 However, according to Tilak (2008), the introduction of neoliberal policies in the early 1990s in India has resulted in a significant shift in public approach to education: the public good character is being forgotten and the profit-seeking private sector is gaining strength.
- 14 ISB, Hyderabad has faculty collaboration with the

- Kellogg School of Management, Wharton (University of Pennsylvania) and London Business School. See <http://www.isb.edu>
- 15 Here, the EU is counted as one country.
 - 16 India, however, is not alone in demanding liberalisation of mode 4; there is also a proposal put forth on this by 14 developing countries jointly, including China, India and Mexico, which reiterates India's position [NIEPA 2002; WTO 2003].
 - 17 NTBs are generally measures taken by both governments and firms. These measures can affect the entry and operations not only of foreign suppliers but also of new domestic suppliers and consequently, directly raise the price or cost of both foreign and domestic supply. Conventional non-tariff barriers to trade can be classified as market access instruments or national treatment measures and can take the form of quantitative restrictions, price based instruments, licensing or certification requirements and discriminatory access to distribution or communication systems. Similarly, in services, trade restrictive measures either restrict market access or discriminate against foreign providers and barriers can be classified according to whether they impinge on the right of establishment (mode 3) or the right to supply or consume services in a foreign country (modes 1, 2, 3, 4). See, Findlay and Warren (2000), Chen and Schembri (2002) and McGuire (2002) for detailed reviews on the literature and methodologies to measure the barriers to trade in services.
 - 18 Collected from UNESCO and educational ministries web sites of respective countries.
 - 19 Not too many foreign students were available on campus at the time of this survey in Delhi, whereas we found some foreign students at the time of this survey in Kolkata.
 - 20 Since latest data are not available for some of the variables used in the regression, the year 2003 is thus chosen as terminal year in this study.
 - 21 We have omitted this due to space constraint. Interested readers may contact the authors for the same.

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