Introduction

Nikhil Treebhoohun

> *When one door closes another door opens; but we so often look so long and so regretfully upon the closed door that we do not see the ones which open for us...*
>
> Alexander Graham Bell (1847–1922)

The services sector, even excluding tourism, has been growing rapidly in the decade since 2000. While there are issues about the reliability of the statistics, still the trend is clear: according to World Bank statistics, trade in services makes up about 20 per cent of the total world cross-border trade and about 16 per cent of developing economies trade. Services sector exports grew faster than merchandise exports since 2000 (over 15% p.a.), and from 2006 to 2009, in both developed and developing countries, more than half the annual foreign direct investment (FDI) flows was in services. Furthermore, in the period 2000–2007, computer and information services recorded an average annual growth of 19 per cent, followed closely by financial and insurance (17% each), other business services (15%) and construction (14%).[1]

The UN Conference on Trade and Development (UNCTAD) 2009 Information Economy Report, estimated that total services reached the US$3 trillion mark in 2007 (see Table 1).

Table 1. World trade in services and IT enabled services (selected years)

Item	*1990*	*1995*	*2000*	*2005*	*2007*
A. Total Services (US$ bn)	826.7	1,234.9	1,524	2,557.2	3,410.4
B. Total ITES (US$ bn)	269	441.7	648.8	1,163.3	1,635.1
B/A (%)	32.5	35.8	42.6	45.5	47.9

Source: UNCTAD (based on IMF data)

Significantly, trade in information technology enabled services (ITES)[2] represents almost 50 per cent of total services. Indeed, the rapid pace of globalisation over the last few decades would not have been possible without the great strides in the field of information technology as a result of increased broadband connectivity in a growing number of countries. This has resulted in the fragmentation of services, as producer and consumer no longer need physical proximity to do business. For example, technology has facilitated the development of telemedicine and the outsourcing of business as well as legal processes. The emergence of these 'new' services coincided with the drive towards greater trade openness, which accelerated with the setting up

of the World Trade Organization (WTO) in 1995. The WTO General Agreement on Trade in Services (GATS) created the basic framework for trade in services. GATS defines the international supply of services in terms of four delivery modes:

Mode 1 – Cross-border supply takes place when only the service being provided crosses the border, i.e. the supplier is not within the border of the consumer. This includes all services that are IT enabled, from call centres to telemedicine.

Mode 2 – Consumption abroad refers to services consumed in a country other than the home country of the consumer. Examples include tourism, medical treatment, higher education and ship repairs.

Mode 3 – Commercial presence refers to a situation where a supplier opens a branch or a representative office in the country where it is selling its services or from which it sells to another country. These suppliers are known as 'foreign affiliates' (FATS). Examples of services supplied through commercial presence are financial (provided by a branch or subsidiary of a foreign bank or insurance company), medical (provided by a foreign-owned hospital) and educational (provided by a foreign-owned school).

Mode 4 – Temporary movement of natural persons is when nationals of one country go to another for temporary work on a contractual basis. It should not be confused with migration. It applies to any skill level – from the farm worker who goes to another country for picking fruits to the engineer who is sent for maintenance work or the computer analyst who is posted in the branch for a given contractual period.

It is estimated that the bulk of ITES trade is provided under Mode 1.

What are ITES?

The WTO has classified services under 12 categories and some 155 sub-sectors (Annex 1). The classification is not based on statistical requisites but rather on a framework for assisting negotiators. This creates a host of problems for the measurement of services from a development perspective. Unless the classification system is harmonised and all countries start using the same definitions, discrepancies in trade figures will persist. To simplify matters in the case of this book, since we use UNCTAD figures we shall also use its definitions.

In UNCTAD's definitions IT services consist of programming, systems integration, application testing, IT infrastructure management and maintenance, IT consulting, software development and implementation services, data processing and database services, IT support services, data warehousing, and content management and development. ITES fall into two categories:

Front and back office services – Front office services comprise call centres and customer contact centres (inbound and outbound) while back office services consist of data entry, human resources, payroll, finance and accounting, procurement and transcription.

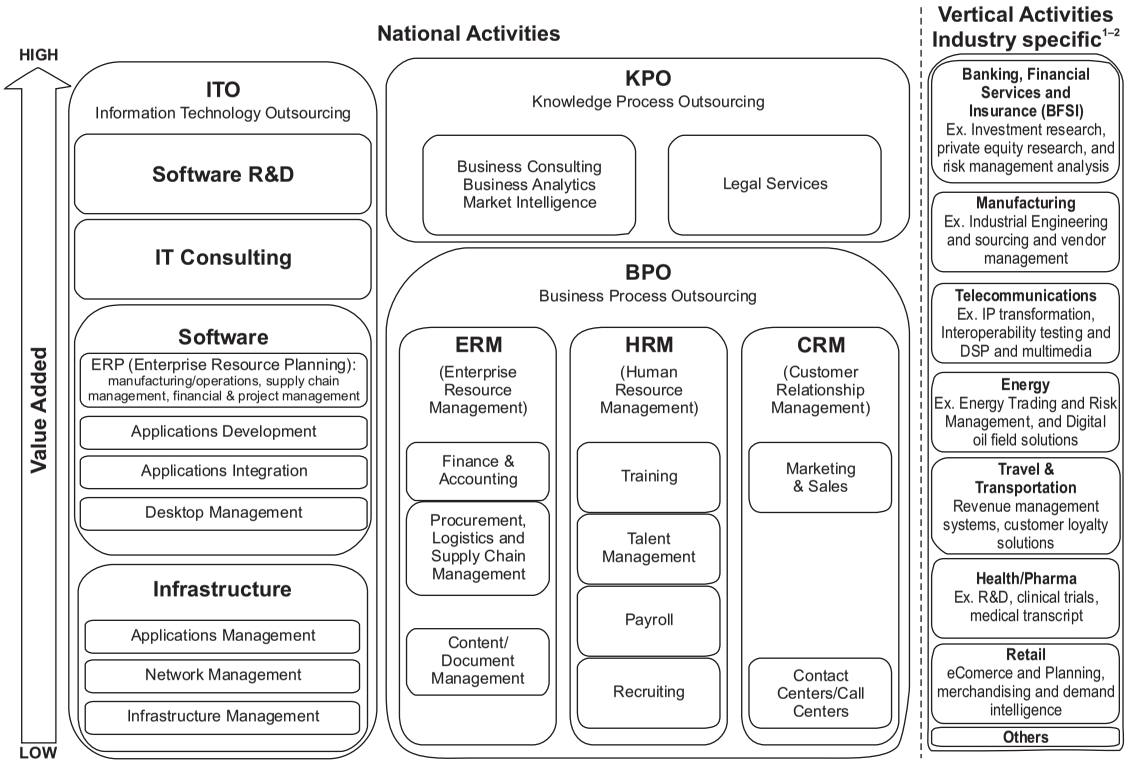


Figure 1. Offshore services value chain

Source: CGGC, Duke University

[1] Vertical Activities – Industry specific: Each industry has its own value chain. Within each of these chains there are associated services that can be offshored. This diagram identifies the industries with the highest demand for offshore services.

[2] This graphical depiction of vertical activities does not imply value levels. Each industry may include ITO, BPO, KPO and other advanced activities.

Knowledge process outsourcing (KPO) – Financial analysis, data mining, engineering, research and development, insurance claims processing, architectural design, remote education and publishing, medical diagnostics, journalism.

Therefore, policy-makers and entrepreneurs in developing countries must be aware of the whole gamut of 'verticals' and 'horizontals' that make up the value chain to be able to carve out their own niche. Figure 1 reproduces the value chain of the ITES sector, as described in Gereffi and Fernandez-Stark (2010).[3]

Figure 1 is useful for policy-makers as it presents a picture of the different activities in the supply chain in terms of their value addition. Call centres are at the bottom of the value chain as minimal skills are required while activities requiring specialist knowledge are at the top of the chain. Therefore, depending on the existing educational level within a country, a roadmap for the development of ITES exports can be elaborated. As Gereffi and Fernandez-Stark (2010) put it,[4] the Figure 1 categorisation can provide development agencies with an instrument for market entry based on the current educational and skill levels of their workforce. It also provides an initial blueprint for economic upgrading strategies within the industry. Developing countries that aim to provide services within certain segments of the value chain must evaluate their workforce development strategies and implement policies to build human capital for those segments, be it language skills for the call centre market or promoting a doctoral programme or advanced training for research and development (R&D) activities in a specific industry.

ITES in the world

Developing countries must be aware of the increasing opportunities for penetrating the ITES export markets as a result of the increasing trend to offshore activities, whereby enterprises in (mostly) developed countries contract out services that were previously internal company functions (e.g. billing, help-desk) to another company. The most important driver of offshoring is arbitrage related to labour cost saving. The availability of skilled personnel is often the pivotal element. Even more important, however, is the work ethic and the recognition that the quality expectations of the client have to be met if enterprises and countries are to be competitive.

According to the UNCTAD 2009 Information Economy Report 2009 and citing studies conducted by NASSCOM and McKinsey,[5] the long-term growth prospects for offshoring IT enabled services are promising for early starters (such as India) as well as many other emerging locations. These sources predict that newcomers will have enough space to develop a sizeable export-oriented services industry if they can meet the needs of companies for complementary assets in terms of skills and time zones. The scope of industries and business functions that become subject to offshoring is also expected to expand in the longer term. A recent assessment of the long-term prospects of the offshoring industry suggests that as much as 80 per

cent of its incremental revenue up to 2020 is expected to come from new industries (such as health care, media and utilities), the public sector (national, federal as well as local governments), businesses (especially small and medium enterprises) and new countries that may start outsourcing.

In 2008, prior to the financial crisis, the OECD estimated the annual growth rates of the various segments between 2005 and 2010 to be as follows: knowledge process outsourcing services (58%); localisation and language services (28%); R&D engineering (27%); IT outsourcing services (26%); business process outsourcing services (25%); and call centres (14%). The good news for most developing countries is that the geography of offshoring is shifting, according to A.T. Kearney's Global Services Location Index (GSLI) 2009 (Table 2). The GSLI analyses and ranks the top 50 countries worldwide for locating outsourcing activities, including IT services and support, contact centers and back-office support. Each country's score is composed of a weighted combination of relative scores on 43 measurements. These are grouped into three categories: financial attractiveness, people and skills availability, and business environment. The detailed list of measurements (Table 3) provides a good guide for policy planning.

The report[6] notes that while India, China and Malaysia retain the top three spots they have occupied since the inaugural GSLI in 2004, a fundamental shift in the index has taken place as once strong Central European countries have yielded ground to countries in Asia, the Middle East and North Africa. For instance Poland, the Czech Republic, Hungary and Slovakia, once among the premier offshoring destinations for Western Europe companies, have fallen significantly due to a rapid increase in costs driven by both wage inflation and currency appreciation against the dollar. Meanwhile, low-cost countries in Southeast Asia and the Middle East made significant gains in 2009 as the quality and availability of their labour forces improved. Egypt, Jordan and Vietnam ranked in the GSLI's top 10 for the first time.

Other highlights from the 2009 GSLI:

- The Middle East and North Africa is emerging as a key offshoring region because of its large, well educated population and its proximity to Europe. In addition to Egypt and Jordan, ranked at 6 and 9, respectively, Tunisia (17), United Arab Emirates (29) and Morocco (30) all rank among the top 30 countries.
- Sub-Saharan Africa also showed strength; Ghana was ranked at 15, Mauritius 25, Senegal 26 and South Africa 39.
- Countries in Latin America and the Caribbean continue to capitalise on their proximity to the US as near-shore destinations. Chile (8) ranked highest on the strength of its political stability and favourable business environment. Other strong performers in the region included Mexico (11), Brazil (12) and Jamaica, which climbed 8 places to 24.

- India, China and Malaysia continue to lead the index by a wide margin through a unique combination of high people skills, favourable business environment and low cost. In particular, India has remained at the forefront of the outsourcing industry and become an enabler for industry growth through expansion of Indian offshoring firms into other countries.
- The US, as represented by the on shoring potential of smaller 'tier II' cities such as San Antonio, rose to 14 in the rankings due to the financial benefits of a falling dollar. The country is the leader in the people skills category and the combination of rising unemployment and political pressure to create jobs is increasing interest in on shoring possibilities among smaller inland locations. Similar trends are evident in France, Germany and the UK, all of which also rose in the GSLI.

Table 2. Global Services Location Index 2009

1. *India* (1)	26. Senegal (39)
2. China (2)	27. Argentina (23)
3. *Malaysia* (3)	28. *Canada* (35)
4. Thailand (4)	29. United Arab Emirates (20)
5. Indonesia (6)	30. Morocco (36)
6. Egypt (13)	31. *United Kingdom* (Tier II)* (42)
7. Philippines (8)	32. Czech Republic (16)
8. Chile (7)	33. Russia (37)
9. Jordan (14)	34. Germany (Tier II)* (40)
10. Vietnam (19)	35. *Singapore* (11)
11. Mexico (10)	36. Uruguay (22)
12. Brazil (5)	37. Hungary (24)
13. Bulgaria (9)	38. Poland (18)
14. United States (Tier II)* (21)	39. *South Africa* (31)
15. *Ghana* (27)	40. Slovakia (12)
16. *Sri Lanka* (29)	41. France (Tier II)* (48)
17. Tunisia (26)	42. Ukraine (47)
18. Estonia (15)	43. Panama (41)
19. Romania (33)	44. Turkey (49)
20. *Pakistan* (30)	45. Spain (43)
21. Lithuania (28)	46. *New Zealand* (44)
22. Latvia (17)	47. *Australia* (45)
23. Costa Rica (34)	48. Ireland (50)
24. *Jamaica* (32)	49. Israel (38)
25. *Mauritius* (25)	50. Portugal (46)

(number in parenthesis indicates ranking in the 2007 GSLI)
* Based on lower cost locations in each country: San Antonio (US), Belfast (UK), Leipzig (Germany) and Marseilles (France).
The countries in italics are Commonwealth member states.
Source: A.T. Kearney

Table 3. A.T. Kearney index metrics

Category	*Sub-categories*	*Metrics*
Financial attractiveness (40%)	Compensation costs	• Average wages • Median compensation costs for relevant posters representatives. IT programmers and local operations managers), as reported in the Meaner Human Resources Consulting Global Pay Summary
	Infrastructure costs	• Rental costs • Commercial electricity costs • International telecom costs • Travel to major customer destinations
	Tax and regulatory costs	• Relation tax burden • Costs of corruption • Currency appreciation or depreciation
People skills and availability (30%)	Remote services sector experience and quality range	• Size of existing IT and BPO sectors • Contact center and IT center quality certifications • Quality ratings of management schools and IT training
	Labor force availability	• Total world force • University-educated world force • World force flexibility
	Education and language	• Scores on standardized education and language tests
	Attrition risk	• Relative IT and BPO sector growth and unemployment rates
Business environment (30%)	Country environment	• Investor and analyst rating of overall business and political environment • A.T. Kearney Foreign Direct Investment Confidence Index™ • Security risk • Regulatory burden and employment rigidity • Government support for the information and communications technology (ICT) sector
	Infrastructure	• Overall infrastructure quality • Quality of telecom, internal, and electricity infrastructure
	Cultural exposure	• Personal interaction score from A.T. Kearney/ Foreign Policy Globalization Index™
	Security of intellectual property (IP)	• Investor ratings of IP protection and ICT laws • Software piracy rates • Information security certification

Source: A.T. Kearney

- While the global financial crisis has slowed recent offshoring moves, the percentage of staff offshore may very well increase as a result of the crisis. Layoffs at home are not translating to layoffs among offshore workers as companies seek to maintain service but reduce costs. Additionally, offshore facilities tend to be more efficient because they are newer and lack years of inefficiencies often built up in onshore facilities.

ITES in the Commonwealth

How do the countries of the Commonwealth fare in the ITES sector? Only 13 of the 54 member states appear among the 50 in the GSLI: five from Asia (India, Malaysia, Pakistan, Singapore, Sri Lanka); three from Africa (Ghana, Mauritius, South Africa); two from the Pacific (Australia, New Zealand); one from the Caribbean (Jamaica); and Canada and the United Kingdom. The Index is a useful indicator to potential investors about the enabling environment in specific countries, and countries also use it as a promotional tool. However, its coverage is still limited to a small group of countries.[7]

More relevant is the performance of the member states in exporting IT and IT enabled services. Table 4 has been compiled from the 2009 UNCTAD Information Economy Report and gives the export figures for 2000, 2006, and 2007. Not all member states exported during those years. The statistics give an idea of who the main players are, and reveal those who have made the most progress between 2000 and 2007. In 2000, the four main exporters were the UK, Canada, Singapore and India with the UK exporting almost eight times more than India. By 2007, UK was still the leader with an export value about three times that of India, but India had climbed to second place while Canada had dropped to fourth. The total exports from Commonwealth countries represented 18 per cent of world exports in 2000 and this increased to 23 per cent in 2007.

It is no surprise that the 'developed' countries of the Commonwealth account for the bulk of these exports. However, almost all countries and regions (except the Pacific) recorded growth in their exports in the period (Table 5). By comparison, the developed countries saw a 205 per cent increase in exports whereas Asia's exports grew by 314 per cent – a quite incredible growth rate. Asia's growth was fuelled mainly by India, which saw a sevenfold increase in its exports, followed by Singapore, which had a threefold rise. Other high flyers (albeit from a low base) in terms of percentage increase over the period are: Cyprus (x3) and Malta (x11) in Europe; Botswana (x9), Ghana (x6), Kenya (x4) and Uganda (x13) in Africa; and Bangladesh (x4) and Pakistan (x2) in Asia. The Caribbean and Pacific regions have not performed as well, although in the case of the former the absence of data for Trinidad and Tobago and Barbados skewed the figures downwards. Elsewhere in the Caribbean, Guyana increased its exports from a low base of US$87 million in 2000 to US$113.7 million in 2007 and The Bahamas doubled its exports within the same period.

These statistics would suggest that Commonwealth countries do represent a significant proportion of world trade in IT enabled services. But they are at different stages of expansion and development. The Commonwealth Secretariat provides a platform for the different countries to interact as well as technical assistance, which it is hoped will contribute to developing a vibrant ITES sector in the Commonwealth, leading to the creation of better jobs for its youth. However, all these figures pre-date the financial crisis. The key question here is whether the services sector is resilient enough for countries to move to the knowledge-based economy. Developing the services sector, as will be shown later in the book, requires a departure from some traditional policy postures regarding regulation of economic activities and a labour force that is adaptable to the new requirements of a sector in which time (working hours) has different connotations from an agricultural society where activities are regulated by the rising and setting of the sun.

Table 4 also provides the import figures for Commonwealth member countries. (Data are not available for all countries.) An interesting point worth noting is that net exports are negative or only marginally positive for all countries except Cyprus, India, Malta, Singapore and the UK. However, total world imports of ITES in 2007 had already reached US$1.3 trillion with the top importers being China, France, Germany, Ireland, Italy, Japan, Spain, the UK and the US. Therefore, there is a market that Commonwealth countries can tap. They will need to assess their strengths and develop their capacity to penetrate targeted markets/market niches.

Table 4. Commonwealth exports/imports of IT enabled services (US$ millions)

	ITES EXPORTS				*ITES IMPORTS*			
				CAGR %				*CAGR %*
	2000	*2006*	*2007*	*2003–2006/2007*	*2000*	*2006*	*2007*	*2000–2006/2007*
AMERICA								
Canada	20,736.0	32,382.2	34,238.1	7.4	21,706.1	34,160.2	36,008.4	7.5
EUROPE								
Cyprus	1,090.0	2,534.4	3,295.1	17.1	268.8	784.6	918.7	19.2
Malta	187.2	1,470.5	2,024.3	40.5	215.8	1,077.2	1,482.0	31.7
United Kingdom	77,317.0	166,267.8	205,232.1	15.0	34,416.6	71,172.9	86,389.7	14.1
OCEANIA								
Australia	5,781.3	8,128.2	9,973.1	8.1	5,875.5	8,575.7	11,223.3	9.7
New Zealand	856.4	1,386.6	1,285.2	6.0	1,548.9	2,518.2	2,842.9	9.1
	105,967.9	**212,169.7**	**256,047.9**		**64,031.7**	**118,288.8**	**138,865.0**	
AFRICA								
Botswana	30.8	144.5	280.3	37.1	112.7	218.3	283.0	14.1
Cameroon	373.7	214.9	112.6	-15.7	501.4	540.2	381.5	-3.8
The Gambia	..	9.8	11.3	..	..	53.6	32.7	..
Ghana	56.8	191.7	392.9	31.8	142.1	357.7	394.5	15.7
Kenya	33.1	301.8	142.4	23.2	192.3	386.5	196.2	0.3
Lesotho	11.2	23.0	24.4	11.7	0.0	1.5	2.7	122.9
Malawi					29.1	..	..	..
Mauritius	291.7	277.7	452.0	6.5	305.3	446.9	590.8	9.9
Mozambique	153.5	85.0	93.9	-6.8	137.5	182.2	283.3	10.9
Namibia	12.8	22.6	25.5	10.3	116.5	128.2	122.9	0.8
Nigeria	1,511.6	..	..	..	1,929.3	..	6,019.8	17.7
Rwanda	3.4	12.8	24.7	32.7	8.7	68.0	101.1	41.9
Seychelles	10.3	20.4	21.6	11.2	55.9	78.3	70.8	3.4
Sierra Leone	10.7	5.9	4.8	-10.9	32.3	21.1	23.5	-4.4
South Africa	1,028.9	2,308.5	2,943.3	16.2	1,130.8	3,930.8	4,706.6	22.6
Swaziland	231.4	186.7	406.2	8.4	234.1	266.7	367.7	6.7
Uganda	8.1	117.1	112.6	45.6	309.6	372.1	423.1	4.6
United Republic of Tanzania	141.9	173.1	305.5	11.6	75.2	127.6	229.6	17.3
	3,909.9	**4,095.5**	**5,354**		**5,312.8**	**7,179.7**	**14,229.8**	
ASIA								
Bangladesh	141.2	411.2	499.2	19.8	218.5	362.8	415.1	9.6
Brunei Darussalam	..	139.5	..	..	..	257.3	..	..
India	10,089.5	58,091.3	69,000.8	31.6	7,375.1	29,597.8	..	26.1
Malaysia	5,684.2	6,026.1	6,863.7	2.7	7,547.1	8,581.9	9,858.5	3.9
Maldives	4.5	10.6	7.3	7.2	8.2	32.6	35.5	23.4

Pakistan	363.0	847.0	808.0	12.1	342.0	3,464.5	3,520.0	39.5
Singapore	11,129.1	32,145.4	37,059.9	18.8	12,199.1	30,261.8	35,208.0	16.3
Sri Lanka	267.6	413.5	433.6	7.1	371.3	517.4	556.2	5.9
	27,679.1	**98,084.6**	**114,672.5**		**28061.3**	**73,076.1**	**49,593.3**	
CARIBBEAN								
Antigua and Barbuda	49.4	58.6	65.4	4.1	57.0	91.0	102.2	8.7
The Bahamas	153.4	289.4	321.7	11.2	357.4	551.4	575.0	7.0
Barbados	304.9	..	..	..	200.4	..	..	..
Belize	13.4	46.8	50.4	20.8	38.3	45.7	59.4	6.5
Dominica	32.1	23.2	24.1	-4.0	16.4	15.3	16.4	0
Grenada	48.0	23.6	24.3	-9.3	41.4	29.5	31.7	-3.7
Guyana	87.0	113.1	113.7	3.9	81.0	126.1	129.5	6.9
Jamaica	326.9	284.5	312.4	-0.6	586.4	805.8	929.9	6.8
St Kitts and Nevis	24.5	27.7	29.1	2.5	26.8	37.9	40.7	6.2
St Lucia	28.8	26.1	27.5	-0.7	39.7	45.5	47.5	2.6
St Vincent and the Grenadines	47.6	44.0	46.8	-0.3	17.6	26.8	29.6	7.7
Trinidad and Tobago	122.8	..	..	..	42.9	..	..	..
	1,238.8	**937.0**	**1,015.4**		**1,505.3**	**1,775**	**1,961.9**	
PACIFIC								
Fiji Islands	86.6	57.7	..	-6.6	84.0	114.9	..	5.4
Papua New Guinea	223.6	..	..	..	559.1	..	..	..
Samoa	..	35.3	23.8	..	..	14.2	20.1	..
Solomon Islands	39.7	34.5	..	-2.3	24.9	32.3	..	4.5
Tonga	..	4.6	7.7	..	..	7.4	4.2	..
Vanuatu	32.7	24.0	26.4	-3.0	28.9	13.9	14.2	-9.6
	382.6	**156.1**	**57.9**		**696.9**	**182.7**	**38.5**	

Source: UNCTAD Information Economy Report 2009

Table 5. Commonwealth IT enabled services exports by region (US$ millions)

	2000	*2006*	*2007*	*Change 2000–2007 (%)*
Developed	83,955	212,170	256,048	205
Africa	3,910	4,096	5,354	37
Asia	27,679	98,085	114,673	314
Caribbean	811	878	1,015	25
Pacific	297	98	58	

Note: Figures for Africa do not include Nigeria and those for the Caribbean do not include Barbados and Trinidad and Tobago, as 2007 data were not available for those countries.

Table 6. Economies with the largest increase/decline in market share of ITES

	Market share of ITES		*% Change*
	2000	*2007*	
India	1.56	4.22	2.66
Ireland	2.21	4.58	2.37
China	1.49	2.92	1.43
Germany	5.54	6.78	1.24
Sweden	1.68	2.38	0.7
Spain	2.05	2.73	0.68
United Kingdom	11.92	12.55	0.63
Singapore	1.72	2.27	0.55
Russia	0.37	0.87	0.5
Kuwait	0.01	0.33	0.32
Hungary	0.46	0.51	0.28
Romania	0.26	0.37	0.27
Finland	0.88	0.87	0.23
Austria	1.32	1.41	0.15
Argentina	0.23	0.25	0.14
Largest Declines in Market Share			
US	19.61	16.5	-3.11
Japan	5.16	4	-1.16
France	4.3	3.17	-1.14
Canada	3.2	2.09	-1.1
Turkey	1.18	0.17	-1.01
Taiwan	1.84	1.15	-0.69
Denmark	1.43	0.87	-0.56
Israel	1.32	0.79	-0.53
Hong Kong	3.29	2.8	-0.49
Malaysia	0.88	0.42	-0.46
Mexico	0.17	0.17	-0.43
Australia	0.6	0.61	-0.28
Saudi Arabia	0.54	0.48	-0.25
Egypt	0.17	0.15	-0.25
Netherlands	3.26	3.11	-0.25

Source: UNCTAD Information Economy Report 2009

Impact of the Financial Crisis

In the absence of up-to-date and reliable data it is difficult to answer the question of whether the services sector can bring more stability to developing countries than commodities exports. But research work done by both UNCTAD and the World Bank seems to indicate that the services sector has demonstrated resilience. It may be too early to reach a definite conclusion as developing countries always experience a lag before feeling the impact of any crisis. Indeed, in Chapter 1 of this book, Gianni Zanini explains that services trade has proved to be more resilient than manufacturing in the recent financial crisis. This is mainly because demand for services imports is less cyclical as producer services (business process outsourcing) are an integral part of the production function of OECD firms and outsourcing is also a way to cut costs in a very competitive environment. Furthermore, services trade is less dependent on external finance, as in the example of Indian firms that are fully internally financed. In addition, there has not been a protectionist backlash because growing economic inter-dependence and reliance on imported intermediate services makes protection directly costly; and the dependence on foreign markets creates concerns about retaliation.

Gereffi and Fernandez-Stark (2010)[8] come to the same conclusion. In essence, the crisis has created two opposing effects: general contraction of demand by existing customers due to the recession and, at the same time, new services are being moved from developed countries to emerging economies in search of cost reduction. Their paper concludes that the offshore services industry will continue to offer growth opportunities for developing countries not only among existing market players, but also a range of new countries. The industry has the potential to become an important source for employment and economic growth around the globe.

In line with the above, UNCTAD surveys have found that while there has been retrenchment in the developed countries, hiring trends have been upward in developing countries. We should recall here that firms initially turned to offshoring to reduce costs. Therefore, so long as they can reap competitive costs advantage from outsourcing some of their processes to offshore locations, enterprises in the developed markets will persist with the strategy. Governments and public opinion may not condone such strategies. However, unless globalisation is reversed and the world moves back to a pre-World Trade Organization configuration, offshore activities will continue to provide another avenue for growth to many developing countries. As the 2009 UNCTAD Information Economy Report notes,

> *Overall, the economic crisis has had varied effects on offshore services. Some clients have frozen contracts, while others have demanded additional services in order to reduce costs. Providers have responded to the changing demand by employing a number of different strategies to reduce their own costs including lowering salaries, opening offices in cheaper locations and finding innovative solutions to enhance efficiency. As a result, even more activities are being moved to developing countries, both from developed nations to India, and also from India to other*

developing countries, due to labour arbitrage (substituting cheaper workers for more expensive ones) and the search for talent. The structural changes that facilitated the initial development of the offshore services industry have accelerated during the economic crisis and these changes will likely become entrenched in future years…' (p. 20)

Services Development and the Commonwealth Secretariat

From an economic development perspective the key question is whether the growth in the services sector worldwide can act as a springboard to a new economic trajectory for many resource poor developing countries. The traditional view was that countries had to go through stages of growth, from primary to secondary to tertiary production. However, with the pace of globalisation quickening as a result of the great strides in telecommunications, especially the internet, a new avenue seems to be opening up for latecomers to development. Ghani (2010)[9] sums up the new context:

The growth experience of India and other South Asian countries suggests that a Service Revolution – rapid income growth, job creation, gender equality, and poverty reduction led by services – is now possible. What is Service Revolution? Can service be as dynamic as manufacturing? Can latecomers to development take advantage of the globalization of service? Can service be a driver of sustained growth, job creation, and poverty reduction? What kind of policies and institutions do developing countries need to benefit from a service-led growth?

We have also been grappling with these questions at the Commonwealth Secretariat. Many of our members – especially the small states, which were mostly mono-product economies (sugar, bananas, cocoa) in a period when they had guaranteed market access – now face the challenge of diversifying their economies while maintaining the living standards of their citizens, whose aspirations for 'better' jobs have been increasing with the rise in literacy levels. The world services exports figures would tend to confirm that a potential engine of growth – or at the very least another engine – is available for those who understand how it operates; who are ready to make the transition to a knowledge-based economy, which needs a different enabling environment from commodities-based economies.

The Trade Section of the Special Advisory Services Division of the Commonwealth Secretariat has been assisting member states in the area of services development by carrying out the following activities:

- Assessment of export capacity;
- Business climate and institutional review;
- Benchmarking;
- Identifying target markets;
- Elaborating strategic plans, i.e. road maps for entire sectors or sub-sectors;
- Networking, capacity building and learning events.

Since 2004, the Secretariat has received requests from 18 Commonwealth member states for assistance to formulate strategies aimed at enhancing their export of services (excluding tourism). Eight of these countries are in the Caribbean (Antigua, Barbados, Belize, Dominica, Guyana, Jamaica, St Lucia, Trinidad and Tobago), six in Africa (Ghana, Kenya, Malawi, Mauritius, Nigeria, Uganda), and four in Europe and Asia (Cyprus, Malaysia, Malta, Sri Lanka).

Most of these countries were at the initial stage of developing services exports and the same issues came up in almost all of them, the only difference being the intensity. These issues can be grouped under four broad headings: Ease of Doing Business, Infrastructure, Human Resources, and Critical Mass. In some countries the regulatory framework is not geared towards facilitating the services sector, either because of an absence of dialogue between the public and private sector or because the government does not consider it as a priority. In small states, this is compounded by lack of continuity in public policies as a result of the over politicisation of government structures. Corruption also adds to the difficulty of doing business. Cost advantage may be further eroded by the existence of non-competitive utility and financial services, which are often the result of inadequate or poor quality of infrastructure arising either because the size of the internal market has led to natural monopolies or because of the fear of opening up to foreign investors. Attracting foreign direct investment in the services sector is not usually the mandate of investment promotion organisations, which tend to focus on manufacturing. Furthermore, there is no authority (ministry) responsible for services development as it is only recently that politicians and policy-makers have been waking up to the potential of the sector. But while there is a need to change the mindset of such public officials, the weakness of institutional support is not solely the responsibility of the public sector. The private sector often lacks knowledge of the international markets for services and the means to penetrate these. It is also not organised as an industry; firms usually operate in isolation as existing chambers of commerce and industry tend to be controlled by the traditional sectors focused on merchandise trade.

In brief, the main challenges confronting most of the states are:

- Scarcity of skilled human resources;
- Poor infrastructure;
- High telecommunications costs;
- Inadequate knowledge of product and market;
- Lack of capacity in the public sector to adapt to the fast-changing international environment (i.e. the persistence of a control mindset, as opposed to facilitation);
- Governance issues;

- Lack of economies of scale;
- Poor trade in services statistics;
- Inadequate language proficiency;
- Insufficient institutional support (trade promotion agencies as well as private-sector institutions still focus on traded goods);
- Lack of co-ordination among private sector suppliers of services.

Trade barriers have discouraged attempts to export services. Such barriers include:

- Non-recognition of qualifications by states;
- High costs of accreditation as only a few bodies are recognised;
- Nationality and residency requirements;
- Restrictive visas and work permits;
- Government procurement laws;
- Slow and inadequate legal processes;
- Lack of transparency (e.g. non-publication of regulations);
- Excessively high fees for obtaining services;
- Inadequate protection of intellectual property (copyrights, patents and trademarks).

The conference

Policy-makers have only recently begun to recognise the importance of the service sector as a potential generator of foreign exchange earnings – they often viewed services as ancillary industries, as inputs to other sectors. It was therefore considered necessary to initiate activities to raise awareness about the sector. In February 2008, the Commonwealth Secretariat organised a first Pan Commonwealth Conference on Professional Services in Kuala Lumpur, Malaysia, in collaboration with the Professional Services Development Corporation of Malaysia, a public-funded institution that was set up to promote the exports of professional services and had benefited from the assistance of the Secretariat in reviewing its structure.

The conference provided a platform for Commonwealth member states to learn, network and share experiences. The participants recommended that the Secretariat organise such events on a more regular basis to facilitate the networking and sharing of experiences aimed at enhancing the competitiveness of services trade. The 2nd Pan Commonwealth Conference on Services Trade was held in Mauritius in April 2010. While retaining the objective of raising awareness generally, the Secretariat decided it

would be useful to focus on a specific sub-sector that in its view holds good prospects for Commonwealth member states. The theme, 'Creating an enabling environment for trade in IT services', was chosen. It is planned to hold a Pan Commonwealth conference every two years, each time focusing on a specific niche relevant to a maximum number of countries. The conferences will be complemented by regional symposia/workshops. The main problems to be addressed are:

- Limited capacity to effectively implement programmes aimed at improving the export of services;
- Weak linkages between policy-making, regulation, investment promotion and export growth;
- Limited understanding of the intricacies of services trade and the role that services can play in enhancing productivity, job creation and income growth;
- Lack of data on services, and limited understanding and application of tools developed by agencies such as the WTO;
- Lack of a mechanism to exchange information on existing and planned donor programmes to support the sector at the regional level.

This publication, based mainly on the presentations made by practitioners at the second conference, forms part of the process to raise awareness and share lessons from the Commonwealth so as to develop a common understanding of the issues. The conference benefited from the inputs of various organisations, notably the World Bank Institute, UNCTAD, Common Market for Eastern and Southern Africa (COMESA), Regional Multidisciplinary Centre of Excellence in Mauritius, WTO, Confederation of Indian Industries and NASSCOM from India, Outsourcing and Telecommunications Association of Mauritius (OTAM), and the Government of Mauritius.

The programme focused on the key issues that make up the enabling environment, namely the policies, the regulatory framework, the infrastructure as well as the human capital. It consisted of a mixture of theoretical papers, country experience, case studies, site visits and private sector perspectives. The session topics were as follows:

1. Issues and Trends in Services Trade
2. Services Trade – A Regional Outlook
3. The ITES Revolution – Challenges and Opportunities
4. ICT Enabled Development, Innovation and Business Transformation
5. Enabling ITES Export Development
6. The Mauritian ITES Experience
7. Human Capital for ITES Sector Development

8. The Role of International Trade Negotiations for ITES Export Development
9. ITES in India

The main message underlying all the presentations was that the services sector, especially ITES, could be an engine of growth for many economies if they get the regulatory framework right and they have in place the right policies to promote competition, and to develop the telecommunications infrastructure and the required human capital. It is also important to get the sequencing right. However, it was also made clear that the elaboration of the proper regulations should not restrict the development of the sector. The participants had the opportunity to obtain the viewpoints of regulators, investors, policy-makers and donors.

The presentations included examples of economic partnership agreements from the Caribbean and Africa while the interventions from WTO and UNCTAD described the status of the negotiations and the importance of telecom reforms. The significance of institutional support was highlighted in Malaysia's public sector experience while Barbados elaborated on the need for private sector players to organise themselves in 'coalitions of service industries' and the process for setting up such coalitions.

Participants learned about how regional collaboration on ITES has been promoted in South Asia and the building blocks for developing a country programme. There were also presentations on the experiences of the following countries: India, Kenya, Malaysia, Mauritius, Sri Lanka, South Africa and Uganda.

The encouraging message was that the ITES sector is huge and there is a market for everybody provided each country plays to its strengths and develops entrepreneurship, and the private sector takes the lead rather than expecting government to show the way. But the public sector must work in close collaboration with the private sector to ensure that the proper regulatory bodies and the appropriate infrastructure are in place.

From the discussions it was clear that services do provide Africa with a new route to development: productivity growth in services can be higher than in manufacturing; many services thought to be non-tradeable can now be exchanged across borders (banking, insurance, telecoms and also business services, education and health); technological change is important for services and thus provides an enormous potential for catch-up in Africa; significant learning and knowledge spillovers are possible through clustering, which is easier for services firms than manufacturing firms because they require less space and cause less congestion and pollution. However, despite the potential, services in Africa are generally less efficient, more costly and less widely available than in other regions. There is a lack of data on output, production and regulatory policies and a lack of capacity to design and implement effective regulations, which is a key constraint to competitiveness in both goods and services.

The challenge is how to catalyse co-ordinated regulatory and trade reform, and the required capacity building.

Risks of close-shoring for developing countries

Although there is an upbeat feeling about the immense potential of the ITES sector for developing countries, this must be tempered by the recognition that these opportunities will be exploited only by those who are able to prepare for them, to keep abreast of the trends in the market and to monitor the behaviour of potential investors. For example, while offshoring was the trend before the crisis, it would seem that (using McKinsey's term[10]) 'close-shoring', meaning locations in or near to the home market, is a new strategy being employed by many IT service providers. This is driven by the need to meet financial and privacy regulations as well as security requirements. The research has found that these companies are going to second-tier cities in Europe and the US not only because of lower relative wages but also because these regions offer skilled engineers in specialised areas where demand is high, such as infrastructure management or application development and maintenance for new and legacy IT systems. Furthermore, faced with high unemployment as a result of the economic crisis, local authorities in developed countries, in a bid to attract IT investments, are offering incentives such as training grants, tax abatements and subsidised loans.

However, there is no cause for panic regarding offshore locations as the researchers found that companies are adopting a hybrid approach of using close-shore locations for high skilled restricted work and large offshore centres for low costs. The researchers recommend that when determining the suitability of an onshore investment versus an offshore one, companies should adopt a granular[11] approach segmenting their IT workforce by job type, skill level and wage cost. Policy-makers in developing countries know what the essential criteria are and they will have to take the necessary steps to make their economies attractive to investors.

Moreover, opportunities for developing countries may emerge as a result of an approach advocated in another research paper by McKinsey.[12] It was found that 70 per cent of offshore delivery centres were located in a limited number of geographic areas (India, China or Philippines) exposing them to risks of currency fluctuations, and wage inflation as a result of competition for skills. The data reveal that costs spiral and performance begins to deteriorate when a delivery centre in a large Indian city grows beyond 3,000 employees. Therefore, it is recommended that companies diversify their operations by adopting a network approach to offshore delivery management through increasing their global footprint and broadening the scale and range of activities conducted in any one centre. It was found that a Paris-based company managed to reduce its risks while still making cost savings by locating its activities in four centres: Paris (100 employees costing US$40,000), Bangalore (1,300 for US$20,000), Romania (300 for US$25,000) and Cairo (300 for US$20,000). The risks were reduced by

27 per cent as a result of having this portfolio of locations. It is clear therefore that new entrants can carve niches for themselves if in addition to costs advantage they find themselves in the appropriate time zone for their target markets, and they have a suitable local skills base and the right incentives.

Structure of the book

This book is divided in six sections. Section One provides a general background to the services sector as a whole, the prospects and issues. It also looks at a crosscutting problem, namely the absence of reliable statistics, and it shares the experience of Malaysia in developing a framework for the measurement of services statistics.

Section Two covers three regions – Africa, the Caribbean and Asia. The focus of the first two regions is on the role of economic partnership agreements while the Asian experience describes the components of a successful World Bank project to promote regional collaboration on ITES in South Asia.

Section Three presents the challenges and opportunities emerging from the ITES revolution, both for governments and the corporate sector. However, it will be important for countries to identify key enablers, the most important of which is human capital. Section Four examines that issue as well as the institutional support framework that is required for success, referring not only to public institutions but also to how the private sector organises itself along industry lines to maximise economies of scale. Section Five considers market access issues, more specifically the role of international trade negotiations for ITES export development. The final section consists of country experiences with a deeper analysis of Mauritius that holds useful lessons for small states in particular.

Notes

1. Additional data can be found at: www.worldbank.org/wti.
2. The term 'information technology enabled services (ITES)', used throughout this book, is synonymous with the term 'information and communication technology enabled services (ICT-ES)'.
3. Gereffi, G and K Fernandez-Stark (2010). The Offshore Services Value Chain: Developing Countries and the Crisis. Policy Research Working Paper Series. Center on Globalization, Governance & Competitiveness, Duke University. Available online: http://econ.worldbank.org
4. Ibid.
5. NASSCOM is the premier trade body in India; McKinsey is the IT/ITES sector's leading management consulting firm.
6. Online available at: www.atkearney.com
7. For example, the World Economic Forum compiles a different index, The Networked Readiness Index based on different factors. See Annex 2.

8. Gereffi, G and K Fernandez-Stark (2010). The Offshore Services Value Chain: Developing Countries and the Crisis. Policy Research Working Paper Series. Center on Globalization, Governance & Competitiveness, Duke University. Available online: http://econ.worldbank.org
9. Ghani, E (ed) (2010). *The Service Revolution in South Asia.* Washington, DC: World Bank.
10. Finnemore, I, G Kim and A Pande (2010). 'IT services: The new allure of onshore locales'. McKinsey on Business Technology, Number 20, Summer.
11. The concept of granularity is starting to be used in domains other than physics. For example, in business it has been written about in the book, *The Granularity of Growth: Making choices that drive enduring company performance*. Its authors, Patrick Viguerie, Sven Smit, and Mehrdad Baghai say there is a problem with the broad-brush way that many companies describe their business opportunities. They argue that real opportunities for company growth can emerge only from a much finer understanding of market segments, their needs, and the capabilities required to serve them. According to the authors, to uncover these small 'pockets of opportunity', executives need to dig down to a deeper level of their organisation, which in large companies introduces the challenge of making broad choices at a refined 'granular level' without losing focus.
12. Daub, M, B Maitra and T Mesey (2009). 'Rethinking the model for offshoring services'. McKinsey on Business Technology, Number 16, Summer.

Annex 1. Services Sectoral Classification List – GNS/W/120

Sectors and sub-sectors/Corresponding provisional central product classification (CPC) 124

1. Business services

A. Professional services

a. Legal services 861
b. Accounting, auditing and bookkeeping services 862
c. Taxation services 863
d. Architectural services 8671
e. Engineering services 8672
f. Integrated engineering services 8673
g. Urban planning and landscape architectural services 8674
h. Medical and dental services 9312
i. Veterinary services 932
j. Services provided by midwives, nurses, physiotherapists and paramedical personnel 93191
k. Other

B. Computer and related services

a. Consultancy services related to the installation of computer hardware 841
b. Software implementation services 842
c. Data processing services 843
d. Database services 844
e. Other 845+849

C. Research and development services

a. R&D services on natural sciences 851
b. R&D services on social sciences and humanities 852
c. Interdisciplinary R&D services 853

D. Real estate services

a. Involving own or leased property 821
b. On a fee or contract basis 822

E. Rental/leasing services without operators

a. Relating to ships 83103
b. Relating to aircraft 83104
c. Relating to other transport equipment 83101+83102+83105
d. Relating to other machinery and equipment 83106-83109
e. Other 832

F. Other business services

a. Advertising services 871
b. Market research and public opinion polling services 864
c. Management consulting services 865
d. Services related to management consulting 866
e. Technical testing and analysis services 8676
f. Services incidental to agriculture, hunting and forestry 881
g. Services incidental to fishing 882
h. Services incidental to mining 883+5115
i. Services incidental to manufacturing 884+885 (except for 88442)
j. Services incidental to energy distribution 887

k. Placement and supply services of personnel 872
l. Investigation and security 873
m. Related scientific and technical consulting services 8675
n. Maintenance and repair of equipment (not including maritime vessels, aircraft or other transport equipment) 633+8861-8866
o. Building-cleaning services 874
p. Photographic services 875
q. Packaging services 876
r. Printing, publishing 88442
s. Convention services 87909*
t. Other 8790

2. Communication services

A. Postal services 7511

B. Courier services 7512

C. Telecommunication services

a. Voice telephone services 7521
b. Packet-switched data transmission services 7523**
c. Circuit-switched data transmission services 7523**
d. Telex services 7523**
e. Telegraph services 7522
f. Facsimile services 7521**+7529**
g. Private leased circuit services 7522**+7523**
h. Electronic mail 7523**
i. Voice mail 7523**
j. On-line information and database retrieval 7523**
k. Electronic data interchange (EDI) 7523**
l. Enhanced/value added facsimile services (including store and forward, store and retrieve) 7523**
m. Code and protocol conversion n.a.
n. On-line information and/or data processing (including transaction processing) 843**
o. Other

D. Audiovisual services

a. Motion picture and videotape production and distribution services 9611
b. Motion picture projection services 9612
c. Radio and television services 9613
d. Radio and television transmission services 7524
e. Sound recording n.a.
f. Other

E. Other

3. Construction and related engineering services

A. General construction work for buildings 512

B. General construction work for civil engineering 513

C. Installation and assembly work 514+516

D. Building completion and finishing work 517

E. Other 511+515+518

4. Distribution services

A. Commission agents' services 621

B. Wholesale trade services 622

C. Retailing services 631+632+6111+6113+6121

D. Franchising 8929

E. Other

5. Educational services

A. Primary education services 921

B. Secondary education services 922

C. Higher education services 923

D. Adult education 924

E. Other education services 929

6. Environmental services

A. Sewage services 9401

B. Refuse disposal services 9402

C. Sanitation and similar services 9403

D. Other

7. Financial services

A. All insurance and insurance-related services 812**

a. Life, accident and health insurance services 8121
b. Non life insurance services 8129
c. Reinsurance and retrocession 81299*
d. Services auxiliary to insurance (including broker and agency services) 8140

B. Banking and other financial services
(excluding insurance)

a. Acceptance of deposits and other repayable funds from the public 81115-81119
b. Lending of all types (including, inter alia, consumer credit, mortgage credit, factoring and financing of commercial transaction) 8113
c. Financial leasing 8112
d. All payment and money transmission services 81339**
e. Guarantees and commitments 81199**
f. Trading for own account or for account of customers, whether on an exchange, in an over-the-counter market or otherwise, the following:

- money market instruments (cheques, bills, certificate of deposits, etc.) 81339**
- foreign exchange 81333
- derivative products (including, but not limited to, futures and options) 81339**
- exchange rate and interest rate instruments (including products such as swaps, forward rate agreements, etc.) 81339**
- transferable securities 81321*
- other negotiable instruments and financial assets, incl. bullion 81339**

g. Participation in issues of all kinds of securities (including under-writing and placement as agent, whether publicly or privately, and provision of service related to such issues 8132
h. Money broking 81339**

i. Asset management, such as cash or portfolio management, all forms of collective investment management, pension fund management, custodial depository and trust services 8119+** 81323*
j. Settlement and clearing services for financial assets (including securities, derivative products, and other negotiable instruments) 81339** or 81319**
k. Advisory and other auxiliary financial services on all the activities listed in Article 1B of MTN. TNC/W/50, incl. credit reference and analysis, investment and portfolio research and advice, advice on acquisitions and on corporate restructuring and strategy) 8131 or 8133
l. Provision and transfer of financial information, and financial data processing and related software by providers of other financial services 8131

C. Other

8. Health related and social services
(other than those listed under 1.A, h-j)

A. Hospital services 9311

B. Other human health services 9319 (other than 93191)

C. Social services 933

D. Other

9. Tourism and travel related services

A. Hotels and restaurants (including catering) 641–643

B. Travel agencies and tour operator services 7471

C. Tourist guide services 7472

D. Other

10. Recreational, cultural and sporting services
(other than audiovisual services)

A. Entertainment services (*including theatre, live bands and circus services*) 9619

B. News agency services 962

C. Libraries, archives, museums and other cultural services 963

D. Sporting and other recreational services 964

E. Other

11. Transport services

A. Maritime transport services

a. Passenger transportation 7211
b. Freight transportation 7212
c. Rental of vessels with crew 7213
d. Maintenance and repair of vessels 8868**
e. Pushing and towing services 7214
f. Supporting services for maritime transport 745**

B. Internal waterways transport

a. Passenger transportation 7221
b. Freight transportation 7222
c. Rental of vessels with crew 7223
d. Maintenance and repair of vessels 8868**
e. Pushing and towing services 7224

f. Supporting services for internal waterway transport 745**

C. *Air transport services*

a. Passenger transportation 731
b. Freight transportation 732
c. Rental of aircraft with crew 734
d. Maintenance and repair of aircraft 8868**
e. Supporting services for air transport 746

D. Space transport 733

E. Rail transport services

a. Passenger transportation 7111
b. Freight transportation 7112
c. Pushing and towing services 7113
d. Maintenance and repair of rail transport equipment 8868**
e. Supporting services for rail transport services 743

F. Road transport services

a. Passenger transportation 7121+7122
b. Freight transportation 7123
c. Rental of commercial vehicles with operator 7124
d. Maintenance and repair of road transport equipment 6112+8867
e. Supporting services for road transport services 744

G. *Pipeline transport*

a. Transportation of fuels 7131
b. Transportation of other goods 7139

H. Services auxiliary to all modes of transport

a. Cargo-handling services 741
b. Storage and warehouse services 742
c. Freight transport agency services 748
d. Other 749

I. Other transport services

12. Other services not included elsewhere 95+97+98+99

Note: An asterisk (*) indicates that the service specified is a component of a more aggregated CPC item specified elsewhere in the present classification list; two asterisks (**) indicate that the service specified constitutes only a part of the total range of activities covered by the CPC concordance (e.g., voice mail is only a component of CPC item 7523).

Computer software transactions

3.285. *The computer software transactions* complementary grouping includes transactions relating to computer software goods and computer software services. It therefore includes:

- *Computer services;*
- *Licences to reproduce and/or distribute software; and*
- Computer software goods that are not covered by the above items (the list of goods needs to be defined consistently with the products defined in the services categories).

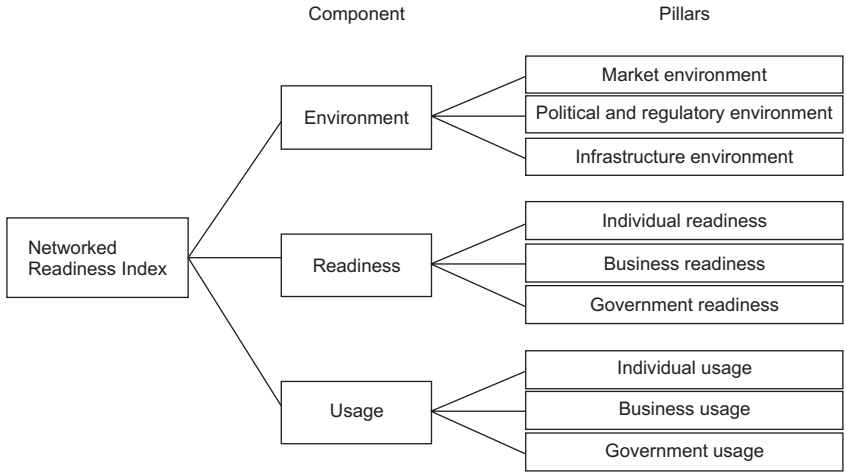
3.286. *Computer software transactions* includes sales of customised software (however delivered) and related licences to use; the development, production, supply and documentation of

customised software, including operating systems made to order for specific users; non-customised (mass-produced) software downloaded or otherwise electronically delivered, whether with a periodic licence fee or a single payment; non-customised (mass-produced) software provided on physical media with a periodic licence fee; sales and purchases of originals and ownership rights for software systems and applications; charges for licences to reproduce and/or distribute intellectual property embodied in produced computer software; software installation; and non-customised software provided on physical media with right to perpetual use.

Call centre services is not identified as a separate category in the BPM6 or EBOPS 2010, which is why it is suggested as a complementary grouping (4) in *MSITS 2010*. These transactions are included under the service item corresponding to the service actually provided, e.g. computer technical support, debt collection and marketing services.

Source: 2010 WTO Manual of Statistics for International Trade in Services (MSITS). Available online: http://www.wto.org/english/res_e/statis_e/its_manual_e.htm

Annex 2. The Networked Readiness Index 2009–2010: The framework



Source: Global Information Technology Report 2009–2010, World Economic Forum

Table 1. The Networked Readiness Index 2009–2010 and 2008–2009 comparison

	NRI 2009–2010				*NRI 2008–2009*	
Country/Economy	Rank	Score	Rank within income group*		Rank	Score
Sweden	1	5.65	HI	1	2	5.84
Singapore	2	5.64	HI	2	4	5.67
Denmark	3	5.54	HI	3	1	5.85
Switzerland	4	5.48	HI	4	5	5.58
United States	5	5.46	HI	5	3	5.53
Finland	6	5.44	HI	6	6	5.53
Canada	7	5.36	HI	7	10	5.41
Hong Kong SAR	8	5.33	HI	8	12	5.30
Netherlands	9	5.32	HI	9	9	5.48
Norway	10	5.22	HI	10	8	5.49
Taiwan, China	11	5.20	HI	11	13	5.30
Iceland	12	5.20	HI	12	7	5.50
United Kingdom	13	5.17	HI	13	15	5.27
Germany	14	5.16	HI	14	20	5.17
Korea, Rep.	15	5.14	HI	15	11	5.37
Australia	16	5.06	HI	16	14	5.29
Luxembourg	17	5.02	HI	17	21	5.10
France	18	4.99	HI	18	19	5.17
New Zealand	19	4.94	HI	19	22	5.04
Austria	20	4.94	HI	20	16	5.22
Japan	21	4.89	HI	21	17	5.19
Belgium	22	4.86	HI	22	24	5.02
United Arab Emirates	23	4.85	HI	23	27	4.76
Iceland	24	4.82	HI	24	23	5.03
Estonia	25	4.81	HI	25	18	5.19
Malta	26	4.75	HI	26	26	4.79
Malaysia	27	4.65	UM	1	28	4.76
Israel	28	4.58	HI	27	25	4.98
Bahrain	29	4.58	HI	28	37	4.38
Qatar	30	4.53	HI	29	29	4.68
Slovenia	31	4.51	HI	30	31	4.57
Cyprus	32	4.48	HI	31	33	4.52
Portugal	33	4.41	HI	32	30	4.63
Spain	34	4.37	HI	33	34	4.50
Barbados	35	4.36	HI	34	36	4.38
Czech Republic	36	4.35	HI	35	32	4.53
China	37	4.31	LM	1	46	4.15

Saudi Arabia	38	4.30	HI	36	40	4.28
Tunisia	39	4.22	LM	2	38	4.34
Chile	40	4.13	UM	2	39	4.32
Lithuania	41	4.12	UM	3	35	4.40
Montenegro	42	4.10	UM	4	71	3.79
India	43	4.09	LM	3	54	4.03
Jordan	44	4.09	LM	4	44	4.19
Puerto Rico	45	4.07	HI	37	42	4.23
Hungary	46	3.98	HI	38	41	4.28
Thailand	47	3.97	LM	5	47	4.14
Italy	48	3.97	HI	39	45	4.16
Costa Rica	49	3.95	UM	5	56	3.99
Oman	50	3.91	HI	40	50	4.08
Croatia	51	3.91	HI	41	49	4.09
Latvia	52	3.90	UM	6	48	4.10
Mauritius	53	3.89	UM	7	51	4.07
Vietnam	54	3.87	LO	1	70	3.79
Slovak Republic	55	3.86	HI	42	43	4.19
Greece	56	3.82	HI	43	55	4.00
Uruguay	57	3.81	UM	8	65	3.85
Panama	58	3.81	UM	9	66	3.84
Romania	59	3.80	UM	10	58	3.97
Colombia	60	3.80	UM	11	64	3.87
Brazil	61	3.80	UM	12	59	3.94
South Africa	62	3.78	UM	13	52	4.07
Brunei Darussalam	63	3.77	HI	44	63	3.87
Azerbaijan	64	3.75	LM	6	60	3.93
Poland	65	3.74	UM	14	69	3.80
Jamaica	66	3.73	UM	15	53	4.02
Indonesia	67	3.72	LM	7	83	5.62

* Income groups: HI = high income; UM = upper-middle income; LM = lower-middle income; LO = low income. Country classification by income group is from the World Bank (situation as of December 2009).
Source: Global Information Technology Report 2009–2010, World Economic Forum.