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Impact of Services Trade Liberalization on Employment and People Movement in South Asia

Rupa Chanda

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Rupa Chanda is a professor at the Indian Institute of Management, Bangalore, India.

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Please contact the author(s) for information about this paper.

Email: rupa@IIMB.ERNET.IN

Asian Development Bank Institute
Kasumigaseki Building 8F
3-2-5 Kasumigaseki, Chiyoda-ku
Tokyo 100-6008, Japan

Tel: +81-3-3593-5500
Fax: +81-3-3593-5571
URL: www.adbi.org
E-mail: info@adbi.org

Abstract

Services have been a key driver of overall economic growth in South Asia since the 1990s. This paper examines how the growth of services output, trade and investment have affected service sector employment in South Asia and the extent to which countries in this region are pro-actively undertaking skill development, training, and human resource management policies that are targeted at the service sector.

JEL Classification: F14, F16, F22, F23

Contents

1. INTRODUCTION

Services have been a key driver of overall economic growth in South Asia since the 1990s. Services have consistently outperformed overall gross domestic product (GDP) growth, thus helping to raise overall economic growth in the region and compensate for volatility in other sectors. The relatively superior performance of the service sector over the past two decades has also resulted in the sector's growing contribution to South Asia's GDP and to its trade and investment flows. These trends reflect the importance of a variety of factors in shaping trends in service sector output and trade in South Asia. These factors include deregulation and policy reforms in this region (particularly in areas such as telecommunications and financial services); the role of rising incomes and domestic demand in driving growth in segments such as trade and distribution services; and growth in export opportunities due to technological advances and increased outsourcing of activities in segments such as information technology (IT), IT-enabled services, and various business services. South Asia is also an important source region for labor exports at various skill levels for the provision of services in overseas markets.

In light of these trends, it is important to examine how the growth of the service sector and the expansion of services trade and investment have affected employment in the service sector. Several interesting questions arise in this regard. For instance, has the growth in services employment been commensurate with the expansion in services exports and output? What kind of services employment opportunities have been created following liberalization in South Asian countries, and can one make inferences about the likely equity implications of the employment trends in the service sector? What kind of role does labor services export or migration play in this region? Finally, to what extent are South Asian countries targeting the creation of employment opportunities in the service sector, and to what extent are they undertaking policies for skill development, training, and human resource management to make people employable in the service sector?

This paper is an attempt to address many of these issues. Section 2 provides an overview of the trends in services performance in terms of output and trade in the four main countries of South Asia—Bangladesh, India, Pakistan, and Sri Lanka. It thus provides a backdrop against which the issue of services employment is examined and highlights the activities which have emerged as the most important segments within the service sector. Section 3 discusses trends in services employment for the region as a whole and compares this with trends in other parts of the world. It highlights the contribution of services to employment in these countries relative to its contribution to output, and also highlights the skill, occupation, subsector, and gender characteristics of this employment. Wherever possible, it also correlates the trends in services output and trade flows with the trends in service sector employment in the selected countries to highlight the implications for long-term growth and employment creation. Section 4 specifically examines trends in employment in Information Technology-Businss Process Outsourcing (IT-BPO) services, which have witnessed rapid growth in export from this region. It discusses the impact of tradability of IT-BPO services for employment creation in this segment and also highlights emerging issues of skill shortages and quality which are associated with the growth of IT-BPO services. Section 5 briefly discusses the importance of labor-based services exports (movement of natural persons, or mode 4) for the selected countries, the various constraints faced in key host markets, and how South Asian countries have attempted to address these issues in trade negotiations[1]. Section 6 discusses the policies undertaken by the governments in

[1] There are four modes of trade in services, as defined by the GATS. Mode 1 or cross border supply involves the delivery of services across countries through information or data flows as in services outsourcing; mode 2 or

the selected South Asian countries to facilitate services employment domestically and overseas. Two main sets of policies are highlighted—those pertaining to skill and capacity building, and those pertaining to migration management through unilateral policies as well as bilateral arrangements with key host markets. The concluding section summarizes the common patterns that emerge across the four selected South Asian countries with regard to the role of services in employment trends and the main issues and concerns that need to be addressed to promote services employment domestically and overseas. It proposes some measures that can be adopted by the governments and industries in this region to make the service sector a more integral contributor to the region's overall growth and development objectives.

2. SERVICE SECTOR PERFORMANCE IN SOUTH ASIA

In South Asia, services have clearly outperformed other sectors of the economy by exhibiting higher growth combined with less volatility. The average annual growth rate in service sector output has consistently risen, from a little under 4.5% in the 1970s to a little over 6.0% in the 1980s, more than 6.5% in the 1990s, and further to 8.3% in 2000–2007.[2] Although growth in the manufacturing sector in the region has also trended upward, its performance has been less steady than that of services. Agriculture growth has been much lower and highly volatile.

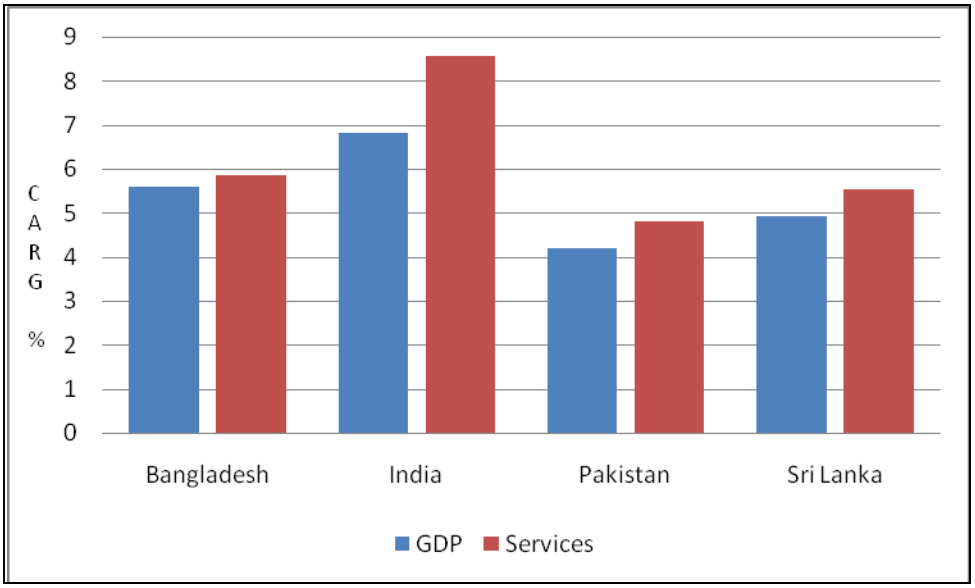
The regional picture also holds at the individual country level. Although the relative performance of services in terms of the sector's growth rate and also how this compares to overall GDP growth varies across the four South Asian countries under discussion, a broadly common pattern emerges: Services have been growing faster than the rest of the economy in all these countries, thereby helping raise overall GDP growth. Figure 1 and Table 1 summarize these trends.

consumption abroad refers to the movement of consumers to another country to consume services overseas as in tourism services; mode 3 or commercial presence refers to the establishment of subsidiaries, branches, joint ventures, etc. to provide a service through investment overseas; and mode 4 or movement of natural persons refers to the temporary cross-border movement of persons in an independent capacity or as part of business establishments to provide a service in another country such as the movement of software professionals to another country to provide services to clients overseas. Mode 4 does not involve entry into the permanent labour market, permanent residence or citizenship.

[2] http://unstats.un.org/unsd/snaama/dnlList.asp

Figure 1: Compound Annual Growth Rate of Services Output and Overall Gross Domestic Product, 1995–2009

(%)



CAGR = Compound Annual Growth Rate

GDP = Gross Domestic Product

Source: Calculated using National Accounts Main Aggregates Database http://unstats.un.org/unsd/snaama/dnlList.asp

Table 1: Decade-Wise Compound Annual Growth Rate of Services

(%)

Year	1981-1990	1991-2000	2001-2009
Bangladesh	5.17	4.99	6.27
India	6.41	7.51	9.19
Pakistan	6.45	4.24	5.76
Sri Lanka	4.66	5.58	6.34

Source: Calculated using National Accounts Main Aggregates Database http://unstats.un.org/unsd/snaama/dnlList.asp

As is evident from the preceding chart and table, services output has tended to lead overall GDP in all four countries, but particularly India. The growth performance of services has for the most part improved since 1981, especially in the post-2000 period and for India in particular. Due to these trends, the contribution of services to domestic output has increased in all four countries and accounts for more than half of their GDP. This increased share has been directly at the expense of the agriculture sector during 1990–2007, while the contribution of the industry sector has increased only marginally or has been stagnant over this period. Table 2 highlights this shift in sector composition for the four countries.

Table 2: Sector Composition of Gross Domestic Product in South Asian Countries, 1980–2007

(%)

Country	Sector	1980	1985	1990	1995	2000	2007
Bangladesh	Agriculture	40.70	38.28	34.65	30.06	29.52	24.49
	Manufacturing	13.66	12.95	14.35	17.81	18.00	20.88
	Services	45.64	48.77	51.00	52.13	52.48	54.62
India	Agriculture	37.15	33.80	30.20	25.93	21.99	17.83
	Manufacturing	17.88	19.72	21.87	23.26	22.11	21.57
	Services	44.98	46.47	47.93	50.81	55.90	60.60
Pakistan	Agriculture	30.11	26.57	24.89	25.38	24.26	20.90
	Manufacturing	18.79	20.59	22.81	22.40	22.93	25.39
	Services	51.10	52.84	52.30	52.23	52.81	53.71
Sri Lanka	Agriculture	30.64	28.71	25.33	21.98	18.76	15.59
	Manufacturing	20.59	20.59	23.72	26.39	28.95	28.80
	Services	48.77	50.70	50.94	51.63	52.29	55.61

Source: Author's calculations based on United Nations online statistical database

An examination of the subsector composition of services GDP for the four countries further reveals the areas where each of the countries has exhibited higher and relatively sustained growth. Notwithstanding differences in data classification and availability, overall services such as construction, wholesale and retail trade and distribution, communication, and transport are the most significant contributors to GDP (around 12%–20%) in South Asian countries. Government services or services related to public administration, which are noncommercial in nature, also occupy a significant share of GDP in some of the countries, indicating that part of the growth of services is nontradable in nature. Table 3 provides the subsector composition of services GDP in the four South Asian countries and the compound annual growth rate (CAGR) for each segment during 2001–2007.[3]

[3] As the definition of services and subsector classification varies from country to country because of differences in the national accounts tabulation and data collection procedures, no pooling of subsector composition of services GDP has been attempted for the region. Such procedural differences in services statistics is a point to be noted as it does constrain the ability of researchers to synthesize available information in a standardized and statistically accurate manner.

Table 3: Subsector Composition of Services Gross Domestic Product in South Asian Countries, 2001–2007

(%)

Country	Subsector	2001 Share	2007 Share	Compound Annual Growth Rate CAGR
Bangladesh	**Total services**	**100.0**	**100.0**	**5.42**
1	Power and water supply	2.50	2.71	6.67
2	Construction	13.86	15.29	6.91
3	Wholesale and retail trade	23.12	23.65	5.76
4	Hotels and restaurants	1.10	1.16	6.23
5	Transport, storage, and communications	16.16	17.04	6.22
6	Financial intermediaries	2.70	2.89	6.47
7	Real estate renting and business activities	14.94	12.76	3.08
8	Public administration and defense	4.39	4.59	6.10
9	Education	3.84	4.24	6.94
10	Health and social work	3.75	3.82	5.66
11	Community, social, and personal services	13.65	11.84	3.30
		2000	**2006**	
India	**Total services**	**100.0**	**100.0**	**8.05**
1	Electricity, gas, and water supply	4.16	3.31	4.51
2	Construction	9.93	11.24	9.66
3	Trade, hotels, and restaurants			7.59
3.1	Trade	22.30	21.71	7.29
3.2	Hotels and restaurants	2.18	2.31	8.55
4	Transport, storage, and communication			12.49
4.1	Railways	2.01	1.83	6.27
4.2	Transport by other means	8.13	8.23	7.89
4.3	Storage	0.14	0.10	2.24
4.4	Communication	3.30	7.67	21.46
5	Financing, insurance, real estate, and business services			8.25
5.1	Banking and insurance	9.49	10.43	9.17
5.2	Real estate and ownership of dwellings	12.78	11.92	6.63
6	Community, social, and personal services			5.18
6.1	Public administration and defense	11.42	8.80	3.77
6.2	Other services	14.16	12.45	5.74
		2000–2001	**2007–2008**	
Pakistan	**Total services**	**100.0**	**100.0**	**5.44**
1	Electricity, gas, and water supply	5.81	2.97	-3.07
2	Construction	4.24	4.64	6.64
3	Transport storage and communication	20.38	17.44	3.40
4	Wholesale and retail trade	31.35	29.70	4.72
5	Finance and insurance	5.43	11.28	15.53
6	Ownership of dwellings	5.53	4.60	3.03
7	Public administration and defense	10.87	11.32	5.97
8	Community, social, and personal services	16.38	18.06	6.73
		2002	**2007**	
Sri Lanka	**Total services**	**100.0**	**100.0**	**5.97**
1	Electricity and water			
1.1.	Electricity	2.76	3.16	8.40
1.2.	Gas	0.35	0.30	3.11
1.3.	Water	0.19	0.16	3.29

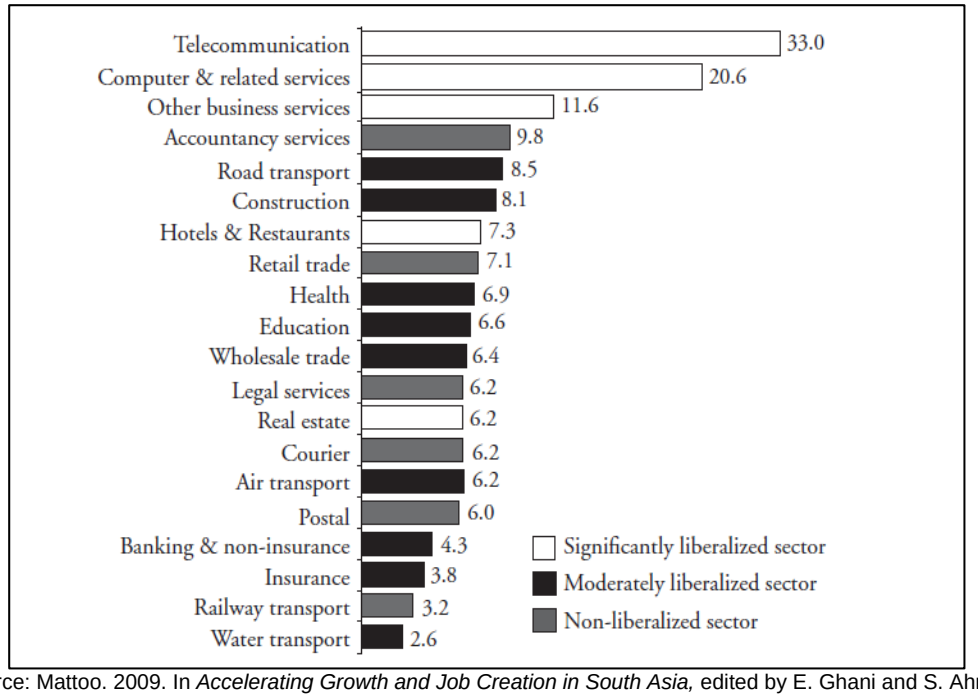
Country	Subsector	2001 Share	2007 Share	Compound Annual Growth Rate CAGR
2	Construction	9.30	9.35	6.07
3	Wholesale and retail trade			
3.1.	Import trade	13.87	13.28	5.20
3.2.	Export trade	7.16	6.79	5.05
3.3.	Domestic trade	15.01	15.63	6.69
4	Hotels and restaurants	0.32	0.60	17.70
5	Transport and communication			
5.1.	Transport	14.21	15.80	7.86
5.2.	Cargo handling – ports and civil aviation	0.95	0.97	6.21
5.3.	Post and telecommunication	0.93	1.98	20.30
6	Banking, insurance, and real estate	12.08	12.64	6.78
7	Ownership of dwellings	6.33	4.73	0.95
8	Government services	12.88	11.19	3.53
9	Private services	3.67	3.43	4.77

Source: National accounts statistics of all countries from central bank documents, statistics bureaus, and other official sources.

These subsector trends in terms of GDP contribution and growth reflect the importance of a variety of factors in shaping service sector performance in South Asia. These factors include deregulation and policy reforms in areas such as telecommunications and financial services, and the role of rising incomes and domestic demand in driving growth in segments such as trade and distribution services. The importance of noncommercial services—such as public administration; government services; and community, social, and personal services—reflects the role of domestically oriented provision and consumption in driving services growth in this region. Mattoo (2009) highlights the role played by liberalization in driving services growth in the Indian economy (as captured in Figure 2).

Figure 2: Growth Rates of Value Added in Selected Services in India in the 1990s and Degree of Liberalization

(%)



Source: Mattoo. 2009. In *Accelerating Growth and Job Creation in South Asia,* edited by E. Ghani and S. Ahmed. New Delhi: Oxford University Press, figure 7.4, p. 185.

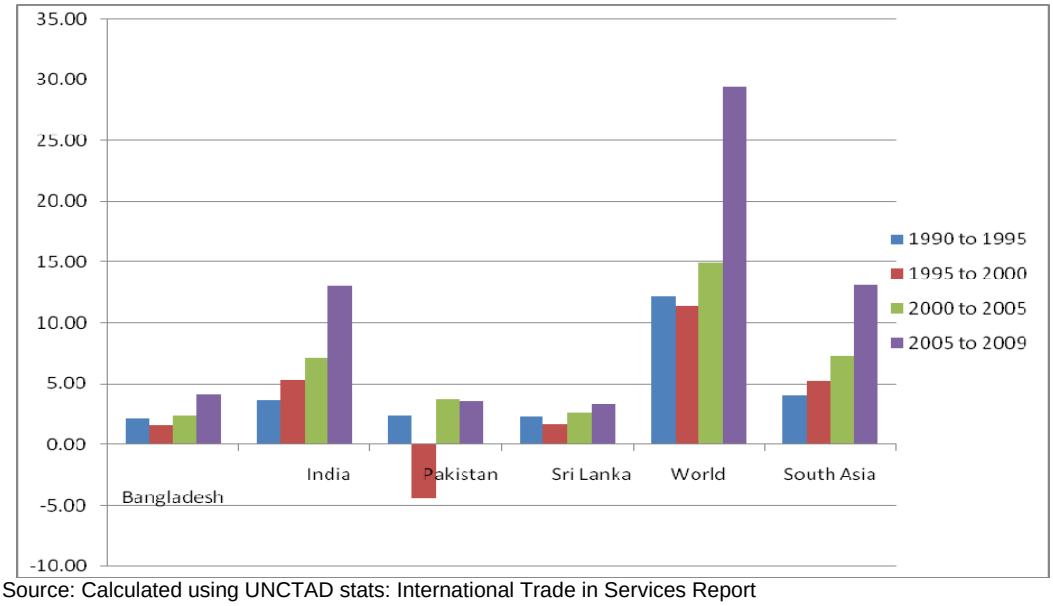
Figure 2 shows a positive correlation between services value-added growth and the extent of liberalization in different services in India. Services such as telecommunications, IT, and finance, which have experienced the most liberalization in the post 2000 period are also the segments which show the most rapid growth in output in India, with obvious bearing on services trade and investment flows. For South Asia as a whole, the general growth dynamics of rising incomes and consumption, liberalization, and reform measures undertaken in services, and the role of the public sector in services delivery, appear to have been important in driving services growth in the region.

Services Trade in South Asia

The service sector's growth has also contributed to increased services trade in the region. Figure 3 shows that the CAGR for services exports has risen from less than 5% in 1990–1995 to more than 12% in 2005–2009 for the four countries together.[4] However, this increase largely captures the steady growth in services exports experienced by India; the other three South Asian countries have registered only modest growth in their services exports. Figure 4 shows that the same trend is visible for services imports by the four countries, with India once again registering very high growth while the other three countries have experienced modest or fluctuating growth.

[4]Calculated using UNCTAD stats: International Trade in Services Report, http://unctadstat.unctad.org/ReportFolders/reportFolders.aspx

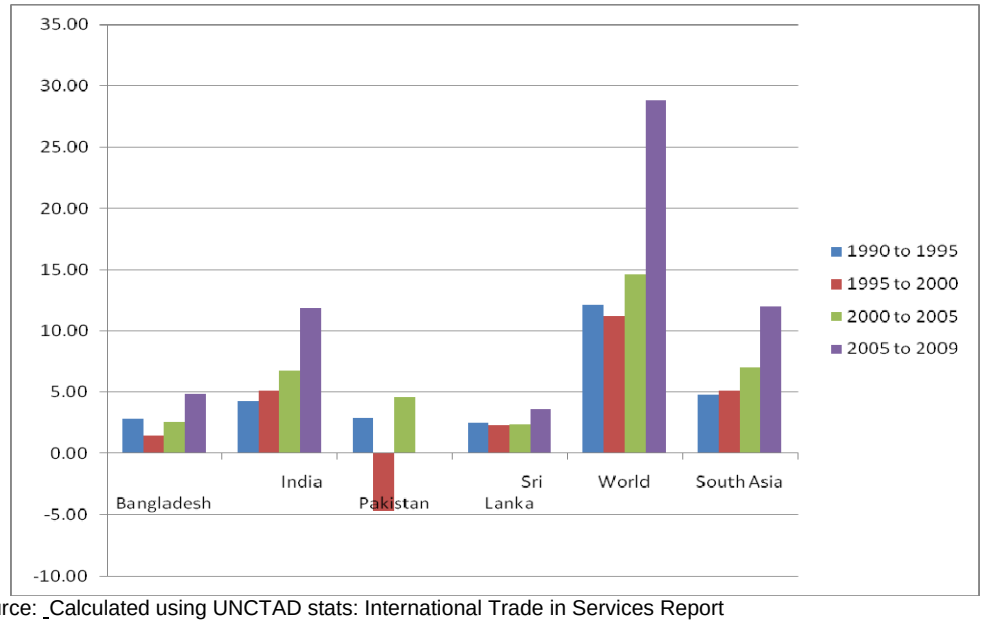
Figure 3: Compound Annual Growth Rate of Services Exports in South Asia (%)



Source: Calculated using UNCTAD stats: International Trade in Services Report

http://unctadstat.unctad.org/ReportFolders/reportFolders.aspx

Figure 4: Compound Annual Growth Rate of Services Imports in South Asia (%)



Source: Calculated using UNCTAD stats: International Trade in Services Report

http://unctadstat.unctad.org/ReportFolders/reportFolders.aspx

This asymmetry in performance is also reflected in the contribution of services to total exports for the four economies shown in Table 4. India has experienced a significant increase in this share, from 18% in 1995 to around 36% in 2009, while the other countries have experienced either marginal increase, stagnation, or declining contributions of services to their total exports. The overall trend for South Asia again captures India's performance given its dominance in services exports from the region.

Table 4: Share of Services in Exports

(%)

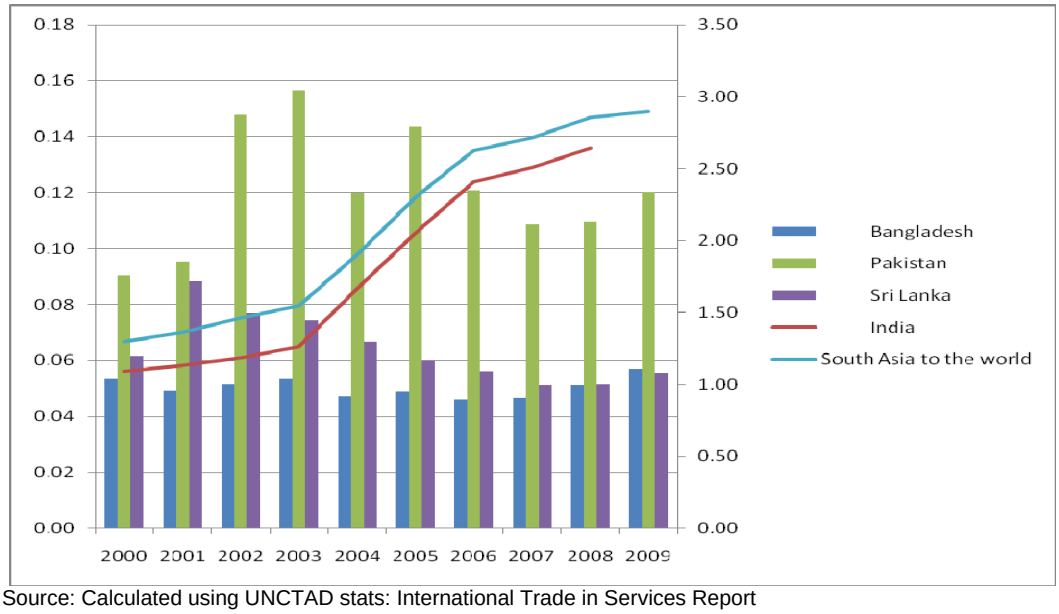
Year	Bangladesh	India	Pakistan	Sri Lanka	South Asia
1995	16.63	18.11	18.86	17.74	15.23
2000	11.31	28.25	13.26	14.74	19.25
2005	11.84	34.52	18.64	19.53	25.23
2009	11.42	35.91	18.98	20.49	28.39

Source: http://unctadstat.unctad.org/TableViewer/tableView.aspx

The aforementioned asymmetry is also seen in Figure 5, which highlights the share of each of the countries in world services exports. Only India has increased its share significantly, from a little over 1.0% in 2000 to around 2.7% in 2008. The trend for the other three countries has been unstable, and their shares in world services exports have stagnated since 2000. Once again, the region's growing penetration of world services markets is driven by India's performance.

Figure 5: South Asia Share in World Services Exports

(%)



Source: Calculated using UNCTAD stats: International Trade in Services Report

http://unctadstat.unctad.org/ReportFolders/reportFolders.aspx

Hence, it is evident from the preceding discussion of trade performance that growth in services output has been trade-oriented in the case of India, but not so in the other three countries. There has also been considerable variation in export performance across different segments within the service sector across the four countries, as shown in Tables 5–8.

Table 5: Value and Share of Exports for Different Service Subsectors – Bangladesh

	2000		2005		2009	
Services subsectors	**Value** (US$ mn)	**Share** (%)	**Value** (US$ mn)	**Share** (%)	**Value** (US$ mn)	**Share** (%)
Transport	91.4	11.2	113.0	9.0	142.1	7.3
Travel	50.4	6.2	70.0	5.6	69.3	3.6
Other services	673.3	82.6	1,066.0	85.3	1,732.4	89.1
Communications	21.5	2.6	23.9	1.9	188.7	9.7
Construction	0.2	0.0	14.2	1.1	3.9	0.2
Insurance	3.5	0.4	5.0	0.4	10.9	0.6
Financial services	13.1	1.6	18.0	1.4	41.4	2.1
Computer and information	3.2	0.4	18.7	1.5	35.3	1.8
Royalties and license fees	0.1	0.0	0.3	0.0	0.3	0.0
Other business services	99.3	12.2	210.0	16.8	440.9	22.7
Personal, cultural, and recreational services	0.5	0.1	1.1	0.1	1.7	0.1
Government services not included elsewhere.	531.9	65.3	774.8	62.0	1009.2	51.9
Total services exports	815.1	100.0	1,249.0	100.0	1,943.8	100.0
Memo item: Commercial services	283.2	34.7	474.2	38.0	934.6	48.1

Source: UNCTAD stats: International Trade in Services Report; services by catagory

http://unctadstat.unctad.org/ReportFolders/reportFolders.aspx

Table 6: Value and Share of Exports for Different Service Subsectors – India

	2000		2005		2008	
Services subsectors	**Value** (US$ mn)	**Share** (%)	**Value** (US$ mn)	**Share** (%)	**Value** (US$ mn)	**Share** (%)
Transport	1,978.7	11.9	5,754.1	11.0	11,317.8	11.0
Travel	3,459.9	20.7	7,492.9	14.3	11,831.9	11.5
Other services	11,246.5	67.4	39,280.3	74.8	79,799.1	77.5
Communications	598.8	3.6	1,565.9	3.0	2,423.0	2.4
Construction	501.9	3.0	345.8	0.7	721.9	0.7
Insurance	257.0	1.5	941.1	1.8	1548.2	1.5
Financial services	276.0	1.7	1,143.0	2.2	4,059.0	3.9
Computer and information	4,727.4	28.3	21,874.9	41.6	49,378.9	48.0
Royalties and license fees	82.5	0.5	206.0	0.4	147.8	0.1
Other business services	4,149.2	24.9	12,764.4	24.3	20,426.4	19.8
Personal, cultural, and recreational services	0.0	0.0	111.1	0.2	707.2	0.7
Government services not included elsewhere.	653.7	3.9	328.1	0.6	386.8	0.4
Total services exports	16,685.1	100.0	52,527.2	100.0	102,948.8	100.0
Memo item: Commercial services	16,031.4	96.1	52,199.2	99.4	102,562.2	99.6

Source: UNCTAD stats: International Trade in Services Report; services by catagory

http://unctadstat.unctad.org/ReportFolders/reportFolders.aspx

Table 7: Value and Share of Exports for Different Service Subsectors – Pakistan

	2000		2005		2008	
Services subsectors	**Value** (US$ mn)	**Share** (%)	**Value** (US$ mn)	**Share** (%)	**Value** (US$ mn)	**Share** (%)
Transport	840.0	60.9	1,076.0	29.3	1,227.0	28.8
Travel	81.0	5.9	182.0	4.9	316.0	7.4
Other services	459.0	33.3	2,420.0	65.8	2,719.2	63.8
Communications	190.0	13.8	284.0	7.7	91.0	2.1
Construction	0.0	0.0	18.0	0.5	42.0	1.0
Insurance	5.0	0.4	32.0	0.9	72.0	1.7
Financial services	10.0	0.7	47.0	1.3	55.0	1.3
Computer and information	22.0	1.6	59.0	1.6	187.0	4.4
Royalties and license fees	0.0	0.0	15.0	0.4	38.0	0.9
Other business services	136.0	9.9	328.0	8.9	500.0	11.7
Personal, cultural, and recreational services	0.0	0.0	2.0	0.1	1.0	0.0
Government services not included elsewhere.	96.0	7.0	1,635.0	44.5	1,733.2	40.7
Total services exports	1,380.0	100.0	3,678.0	100.0	4,262.2	100.0
Memo item: Commercial services	1,284.0	93.0	2,043.0	55.5	2,529.0	59.3

Source: UNCTAD stats: International Trade in Services Report; services by catagory
http://unctadstat.unctad.org/ReportFolders/reportFolders.aspx

Table 8: Value and Share of Exports for Different Service Subsectors – Sri Lanka

	2000		2005		2008	
Services subsectors	**Value** (US$ mn)	**Share** (%)	**Value** (US$ mn)	**Share** (%)	**Value** (US$ mn)	**Share** (%)
Transport	399.8	42.6	673.4	43.7	998.4	49.9
Travel	247.8	26.4	429.1	27.9	342.0	17.1
Other services	291.1	31.0	437.7	28.4	662.0	33.1
Communications	45.3	4.8	43.9	2.8	80.5	4.0
Construction	0.0	0.0	29.4	1.9	40.5	2.0
Insurance	40.6	4.3	73.0	4.7	68.4	3.4
Financial services	0.0	0.0	0.0	0.0	0.0	0.0
Computer and information	..		82.5	5.4	230.0	11.5
Royalties and license fees	0.0	0.0	0.0	0.0	0.0	0.0
Other business services	181.7	19.4	187.6	12.2	221.6	11.1
Personal, cultural, and recreational services	0.0	0.0	0.0	0.0	0.0	0.0
Government services not included elsewhere.	23.6	2.5	21.4	1.4	21.0	1.0
Total services exports	938.7	100.0	1540.1	100.0	2,002.4	100.0
Memo item: Commercial services	915.1	97.5	1518.7	98.6	1,981.4	99.0

Source: UNCTAD stats: International Trade in Services Report; services by catagory

http://unctadstat.unctad.org/ReportFolders/reportFolders.aspx

The subsector composition of services exports for the four countries reveals that there has generally been a trend away from traditional services exports, such as travel and transport, towards other services. However, within the "other services" segment, only India and Sri Lanka reveal a commercial services orientation to their services export basket, with commercial services accounting for the bulk of other services exports and also for more than 90% of total services exports. In the case of Bangladesh and Pakistan, the shift towards other services exports has been dominated by government services and, overall, commercial services exports constitute only about half of total services exports. A common feature, however, is that computer and information services show the most significant increase in share across all four countries. This suggests that, notwithstanding differences in trade orientation and competitiveness across the four countries, the software services subsector has been an important driver of services exports in all four countries. This reflects their common source of comparative advantage in this subsector, i.e., the availability of low-cost skilled labor and government policies that boost software services exports.

3. TRENDS IN SERVICES EMPLOYMENT

The service sector accounts for a growing share of employment in South Asia. This is in line with global employment trends where countries experience declining shares of agriculture and rising shares of services and industry in total employment. However, the sector's contribution to employment has not keptpace with its growing contribution to output, stirring an employment–growth debate in the region and concerns about the implications of services-led growth for employment creation and poverty alleviation. The following discussion highlights the trends in services employment in South Asia relative to other regions as well as in the individual countries to shed light on the contribution of services to creating sustainable and quality long-term jobs in the region.

3.1 Regional Trends in Services Employment

Trends in the growth of employment in agriculture, industry, and services for different regions around the world reveal that South Asia compares quite favorably in terms of growth in services employment, particularly in the more recent past. Table 9 highlights employment growth across the primary, secondary, and tertiary sectors for all regions for selected years for 1995–2006. It shows that almost all regions of the world, including South Asia, have exhibited low or negative growth in employment in the agriculture sector. Growth in employment in industry, however, varies, with some regions exhibiting very high growth rates and others low and even negative growth rates. South Asia performs well, with a significant jump in the growth rate of employment in industry since 2000. However, in services there is a sharp increase in employment growth since 2000, rising from 1.85% in 2000 to 4.78% in 2006. If annual data on employment growth for the three sectors is considered, South Asia has had the highest employment growth in services compared to other regions since 2000, whereas employment growth in its primary and secondary sectors has been less significant in absolute and comparative terms. The post-2000 trends for growth in services employment for South Asia are consistent with the trends highlighted earlier for South Asia, which show that services growth has increased since 2000. Thus, there is evidence of services growth contributing to growth in services employment, particularly in more recent years.

Table 9: Employment Growth in Agriculture, Industry, and Services

(%)

Region	Agriculture			Industry			Services		
	1995	2000	2006	1995	2000	2006	1995	2000	2006
World	(0.9)	0.76	(1.11)	1.51	1.69	4.02	4.00	2.66	2.96
Developed economies and the European Union	(1.39)	(0.9)	(0.62)	0.05	(0.01)	(0.24)	1.96	1.71	1.70
Central and South East Europe and Commonwealth of Independent States	0.39	(1.72)	(2.42)	(3.97)	2.53	1.78	(0.15)	5.56	1.95
East Asia	(3.72)	0.95	(3.79)	2.04	(0.68)	5.97	8.17	3.50	3.41
Southeast Asia and Pacific	(1.59)	2.89	1.43	5.54	5.35	3.08	9.38	(0.59)	1.98
South Asia	0.28	0.19	(0.70)	2.8	6.08	6.61	1.89	1.85	4.78
Latin America and Caribbean	(1.75)	(3.08)	2.88	1.39	2.87	0.73	4.28	3.94	1.74
Middle East	1.83	3.03	0.74	5.33	3.74	3.62	3.71	4.22	4.91
Sub-Saharan Africa	2.55	1.64	0.04	7.19	4.33	8.67	4.60	4.76	7.93
North Africa	(0.44)	1.17	3.78	2.54	-0.11	4.35	2.49	2.54	1.42

Source: E. Ghani and S. Ahmed (eds). 2009. *Accelerating Growth and Job Creation in South Asia*. New Delhi: Oxford University Press, Annexure Table A12, pp. 454–57

However, a comparison of the employment situation in South Asia with that in other regions, based on the Global Employment Trends report of the International Labour Organization (ILO), reveals that the contribution of services to employment in this region has not been commensurate with the sector's contribution to output (ILO 2011).[5] Agriculture continues to account for nearly half of total employment in South Asia although, as highlighted earlier, its share in output has fallen considerably. Services account for less than one-third of total employment, much less than what is seen globally, despite their high share in total output. Table 9 shows the sector-wise employment trend in South Asia and the world.

[5] South Asia here refers to all eight countries in the region, which includes the four countries under discussion here as well as Afghanistan, Bhutan, Maldives, and Nepal.

Table 10: Indicators Comparing the Employment Situation in South Asia and the World

(%)

Region	Indicator	1997	2007
World	Share of agriculture in total employment	41.4	34.9
	Share of industry in total employment	21.1	22.4
	Share of services in total employment	37.5	42.7
	Unemployment rate	6.1	6.0
	Vulnerable employment as share of total employment	52.8	49.9
South Asia	Share of agriculture in total employment	59.4	48
	Share of industry in total employment	15.3	21.7
	Share of services in total employment	25.2	30.3
	Unemployment rate	4.7	5.1
	Vulnerable employment as share of total employment	80	77.2

Source: ILO. 2008. Global Employment Trends Report. Geneva.

One can infer from the data presented in Table 10 that the service sector, despite its significance in shaping overall growth in South Asia, has not drawn away surplus labor from agriculture. Hence, agriculture remains a low-productivity sector in this region, given its declining share in GDP but continued high share in employment.

The comparatively low contribution of services to employment can have two possible explanations. The first is that services growth may have been driven more by improvements in factor productivity and efficiency rather than factor accumulation, which may be due to the subsector pattern of services growth where new economy services, such as information and communication technology, have gained in importance (Banga and Goldar 2006, Singh 2006). Using the growth accounting framework, Verma (2008) finds that total factor productivity growth accounted for 45% of the value-added growth of services, while accumulation of labor and capital each accounted for about 28% in the case of India. Moreover, in the post-liberalization period, the contribution of Total Factor Productivity (TFP) and capital to the value-added growth of services increased, while that of labor declined for India, highlighting the fact that services growth, which picked up following liberalization, was driven more by productivity (which was greater than in the other two sectors) rather than increased employment (Verma 2008, 9).

The second possible explanation is that these employment trends may reflect the fact that employment in services is increasingly informal in nature and contract-based, particularly in certain fast-growing subsectors such as retail; construction; and community, personal, and social services. It may also reflect the difficulty in capturing such employment. ILO studies also note that the share of informal and contract-based employment in services in South Asia is high. The data in Table 10 also indicate that services growth has not created a large number of long-term quality jobs in South Asia, with 77.2% of those employed remaining vulnerable, much higher than for the world overall. Available data on gender disaggregation of services employment for the region further indicate that the share of males employed in services in most South Asian economies exceeds that of females. Hence, the contribution of services towards generating gender-neutral, quality employment does not seem to have been significant in South Asia.

Estimates of employment elasticity in different sectors explain this divergence between the service sector's contribution to output versus employment in South Asia. The region has

exhibited much lower employment elasticity for services compared to other regions of the world (Table 11).

Table 11: Sector Employment Elasticities and Growth, 1991–2003

	Agriculture		Industry		Services	
Region	Elasticity	Value-Added Growth	Elasticity	Value-Added Growth	Elasticity	Value-Added Growth
World	0.41	2.0	0.28	2.1	0.57	3.0
Developed economies and the European Unions	-(0.43)	1.2	0.28	1.3	0.56	2.9
Central and Eastern Europe, non-Europe and Commonwealth of Indepdentn States	(0.24)	(0.1)	0.29	(0.4)	0.25	1.5
East Asia	0.23	3.7	0.06	12.5	0.5	8.8
Southeast Asia and Pacific	0.2	2.1	0.68	5.4	0.99	4.6
South Asia	0.71	2.9	0.37	5.9	0.36	6.9
Latin America and Caribbean	(0.32)	2.5	0.51	2.2	1.04	2.7
Middle East and North America	1.06	3.3	0.35	2.0	0.73	4.4
Sub-Saharan Africa	0.82	2.3	0.9	2.0	0.79	2.8

Source: Basu and Maertens. 2009. In *Accelerating Growth and Job Creation in South Asia,* edited by E. Ghani and S. Ahmed. New Delhi: Oxford University Press, table 5.12, p. 117.

It is evident from Table 11 that agriculture was more employment-intensive in South Asia than in most other regions during 1991–2003, explaining its continued high share in total employment in the region. Industry has, on the other hand, tended to be less employment-intensive than in other developing regions and also when compared to agriculture. However, it is in the case of services that South Asia exhibits the lowest employment elasticity among all regions and also when compared with the employment elasticities in agriculture and industry for this region. Basu and Mertels (2010) attribute the low employment elasticity of South Asia's service sector to the low employment elasticity of high-growth segments such as transport, storage, communications, real estate, finance, and insurance. The elasticity estimates thus point to the explanations provided earlier regarding the nature of services growth in South Asia as well as the likely difficulties in capturing services employment in official data sources to the extent that some of this employment is informal. The estimates also underscore the concerns about the long-term employment implications of the growth pattern in South Asia where services have emerged as the dominant sector of the economy.

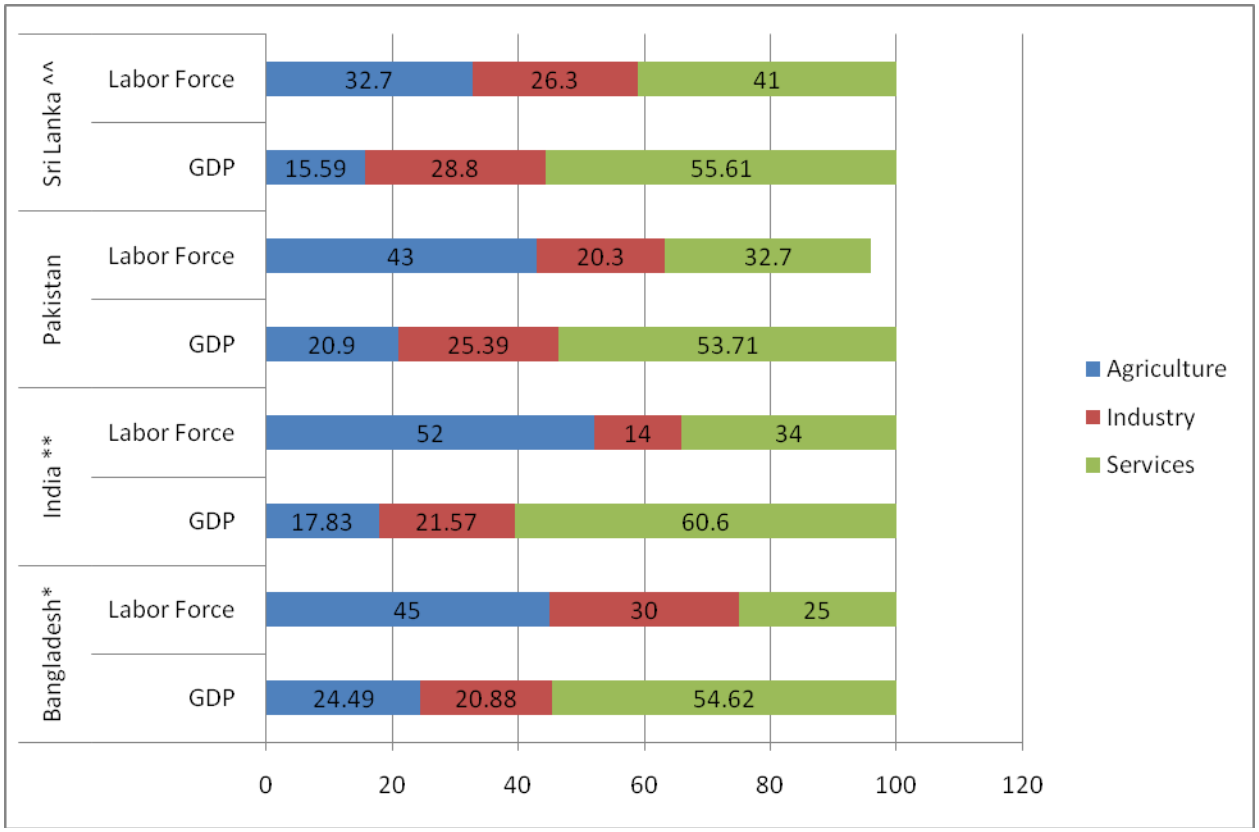
3.2 Country Trends in Services Employment

The regional trends in services employment—particularly the divergence between services contribution to output and services contribution to employment—are visible at the country level as well. Across all four countries in this region the service sector's role as a source of employment has not been commensurate with its contribution to output and overall GDP growth—the rate of growth of employment in services has tended to be lower than the rate of growth of GDP in services. Although one could argue that there are problems with the availability of employment data (particularly with regard to informal and contractual activities which cover many service sector transactions), thus making it difficult to properly capture the full contribution of services to employment, the limited national accounts and labor survey data that are available suggest that services growth in the four selected countries in South Asia has not

been very employment-intensive. Figure 6 shows the divergence between the service sector's contribution to GDP and its contribution to employment in the selected countries.

Figure 6: Services Sector Contribution to Gross Domestic Product and Employment in South Asian Countries

(%)



GDP = Gross Domestic Product

* 2008 Figures-for Bangladesh labor force

** 2009 Figures for India labor force

^ 2005 Figures for Pakistan labor force

^^ December 2008 Figures for Pakistan labor force

Note: Except Bangladesh, all other country figure are estimated figures.

Source: Based on national accounts statistics, labor surveys of the various countries, and Central Intelligence Agency World Factbook, available at https://www.cia.gov/library/publications/the-world-factbook

While services account for over half of GDP in all four countries, the sector's share in the labor force is much lower at 25%–40% and, except in the case of Sri Lanka, agriculture continues to account for the majority of the labor force despite its declining share in total output. The contribution of services to GDP exceeds its contribution to employment by 10 percentage points or more for all the countries. Even in India, where services output and trade have grown most consistently, the sector's contribution to employment remains at only around one-third. This divergence between services GDP and employment has led some researchers and analysts to term the growth of the service sector as "jobless growth," raising questions about the

sustainability of services-led growth and the pattern of services growth in these countries, particularly India. Clearly, services have not absorbed labor from other sectors.

Tables 12–16, which provide the trends in employment and labor force shares for the four countries across agriculture, industry, and services over the past decade, clearly illustrate the slow absorption of labor into services (as well as manufacturing) in all the countries. The share of the labor force and employment in agriculture has remained very high, notwithstanding the sector's declining contribution to output, while the share of the labor force and of paid employment in services has been virtually stagnant in all four countries. Data on the gender distribution of employment across sectors (where available) further indicate that services are not a major contributor to female employment, as is also true regionally; the primary sector remains the main source of employment for women. Tertiary employment, according to data (where available) by urban–rural distribution, is, as expected, mainly an urban phenomenon.

Table 12: Share of Employment and Labor Force by Occupation and Sector – Bangladesh, 1999–2009

(%)

Item	Agriculture	Industry	Services
Employment share			
1999	59.5	15.4	25.1
2007	53.5	18.9	27.6
2008	53.5	18.9	27.6
2009	53.5	18.9	27.6
Labor force by occupation			
2000	62.1	10.3	27.6
2005	48.1	14.5	37.4
2008	45.0	30.0	25.0

Source: ILO. 2008. Global Employment Trends Report. Geneva. Available at http://www.ilo.org/wcmsp5/groups/public/@dgreports/@dcomm/@publ/documents/publication/wcms_150440.pdf

For 2000 and 2005 figures on labor force by occupation: United Nations. A World of Information. Available at http://data.un.org/CountryProfile.aspx?crName=Bangladesh

For 2008 figures on labor force by occupation: Central Intelligence Agency World Factbook, available at https://www.cia.gov/library/publications/the-world-factbook

Table 13: Share of Sectors in Employment – India

(%)

Year		Primary	Secondary	Tertiary
FY1994		64.5	14.3	21.2
FY2005	Overall	57.0	18.2	24.8
	Male	71.4	12.6	16.1
	Female	85.4	8.9	5.7
	Urban	6.6	32.8	60.6
	Rural	17.7	29.3	53.0
FY2008		55.9	18.7	25.4

Source: Economic Survey 2011, Ministry of Finance, Government of India; and Ghani et al., Table 5.9, based on Handbook of Statistics on the Indian Economy, 2006, Table 173.

Table 14: Projected Employment in Agriculture, Industry, and Services in India

Year	GDP growth rate (%)	Projected Employment (million)			
		Agriculture	Industry	Services	Total
FY 2012	9	229.2	105.0	153.5	**487.7**
FY 2013	7	225.4	102.0	149.0	**476.4**
FY 2015	5	221.5	99.1	144.6	**465.2**
FY 2017	9	240.2	126.2	189.5	**555.9**
FY 2018	7	232.0	116.8	174.8	**523.5**
FY 2019	5	224.0	108.1	161.2	**493.3**

GDP = gross domestic product.

Source: ASSOCHAM. 2009. *The Challenge of Employment in India - An Informal Economy Perspective.* New Delhi: April, Table 3, p.11.

Table 14 provides the projected employment figures for India for the three sectors up until 2018/19. As shown in the table, while agriculture will continue to constitute the main employment source in the Indian economy in the near future, an additional 20 million–30 million jobs are projected to be created in the service sector of the economy between 2011/12 and 2016/17, surpassing employment in industry. Hence, employability in services will play an important role in the near future. Projections regarding incremental human resource requirements till 2022 indicate a need for 14.0 million additional persons in real estate services, 17.3 million in organized retail services, and 33.0 million in the building and construction services industry (ICRA 2010). According to ASSOCHAM estimates, shortage of qualified and skilled labor is expected to affect the IT-BPO, education, engineering, hospitality, health care, and finance services subsectors.

Table 15: Share of Employment and Gender Distribution by Major Sectors – Pakistan

(%)

Year		Primary	Secondary	Tertiary
1999	Overall	47.4	16.9	35.6
	Male	44.5	19.4	36.1
	Female	72.9	9.0	18.1
2005		43.1	20.2	36.6
2008		44.8	20.0	35.3

Sources: For overall employment distribution, ILO Statistics available at http://laborsta.ilo.org/

For gender-wise distribution, Population Association of Pakistan, available at http://www.pap.org.pk/statistics/employment.htm#tab3.7

Table 16: Share of Labor Force and Employment by Sector – Sri Lanka

(%)

Item	Agriculture	Industry	Services
Employment share			
2002	40.4	16.5	43.1
2006	39.6	19.2	41.2
2008	40.1	18.9	41.0
Labor force by occupation			
2002	34.5	22.4	43.1
2006	32.2	26.6	41.2
2008	32.7	26.3	41.0

Sources: For data on labor force by occupation: Sri Lanka Labor Force Survey Annual Report 2009.

For data on employment: ILO statistics available at http://laborsta.ilo.org/

The evidence thus suggests that services have exhibited low employment elasticity, not only regionally but also at the individual country level.[6] Table 17 provides the estimated employment elasticities for agriculture, industry, and services in the four countries for 1991–2003.

Table 17: Sector Employment Elasticities and Growth in South Asia, 1991–2003

	Sector employment to value added (elasticity)			Sector value added (growth)			Total GDP
Country	**Agriculture**	**Industry**	**Services**	**Agriculture**	**Industry**	**Services**	**growth**
Bangladesh	0.35	0.51	0.03	3.0	7.2	4.9	4.9
India	0.78	0.27	0.41	2.8	6.0	7.7	6.0
Pakistan	0.69	0.65	0.37	3.4	4.2	4.5	3.8
Sri Lanka	2.67	0.04	(0.16)	1.7	5.6	5.2	4.6

( ) = negative, GDP = gross domestic product.

Source: Basu and Maertens. 2009. In *Accelerating Growth and Job Creation in South Asia,* edited by E. Ghani and S. Ahmed. New Delhi: Oxford University Press, Table 5.13, p. 119.

For all the countries, services employment elasticity has been less than that for agriculture and, except for India, has also been lower than that for industry. Table 18 provides the trend in sector employment elasticities for the 1980s, 1990s, and 2000–2004. The estimates show that employment elasticity in services has been less than 1 almost throughout, and has in fact declined over the decades for the higher service growth economies like India.

Table 18: Employment Elasticity Trends by Sector

		Employment elasticity with respect to GDP		
Country	**Sector**	**1980–1990**	**1990–2000**	**2000–2004**
Bangladesh	Agriculture	0.16	0.84	2.020
	Industry	(0.16)	0.42	0.820
	Services	2.89	0.79	0.560
	All sectors	0.36	0.76	0.820
India	Agriculture	0.52	0.01	0.003
	Industry	0.49	0.29	0.050
	Services	0.60	0.42	0.100
	All sectors	0.42	0.15	0.020
Pakistan	Agriculture	0.49	0.45	0.200
	Industry	0.33	0.27	1.070
	Services	0.46	0.94	1.260
	All sectors	0.39	0.60	0.710
Sri Lanka	Agriculture	0.10	(0.10)	0.100
	Industry	0.10	0.20	0.300
	Services	0.20	0.20	0.300
	All sectors	0.10	0.10	0.300

( ) = negative, GDP = gross domestic product

Source: Basu, K. and A. Maertens in E. Ghani and S. Ahmed (eds). 2009. *Accelerating Growth and Job Creation in South Asia*. New Delhi: Oxford University Press Table 5.8, pp. 108-110

[6] Employment elasticity measures the ratio of employment growth to growth in output, where an elasticity of 1 implies that every percentage point of GDP growth is associated with a percentage point of employment growth.

These trends indicate the point made earlier that, at the regional level, services growth in South Asia has not been very employment-intensive. Disaggregated information for employment elasticity in individual services such as trade and distribution, transport, communication, and financial services confirms this fact. The employment elasticity is mostly less than 1 for these segments and has been declining in almost all these countries during the 1980s and 1990s. In contrast, employment elasticity in the informal sector shows a largely upward trend and is higher than for the formal sector. Hence, the evidence suggests that there has been informalization of employment in services and that high-growth service segments have relied more on productivity and efficiency gains, thus not contributing to employment in the same measure as to output and overall growth. Similar inferences can be drawn from an examination of the service sector-wise distribution of employment for each of the countries, presented in Table 19, data constraints notwithstanding.

Table 19: Sector-Wise Disaggregation of Service Sector Employment in South Asia

(%)

Sector	Bangladesh (2005–2006)	India (2006)	Pakistan (2005–2006)	Sri Lanka (2007)
Electricity, gas, and water	0.61	0.92	1.55	17.07[g]
Construction	6.71	17.01	14.36	(…)
Wholesale and retail trade	(…)	(…)	34.36[d]	29.33
Hotels and restaurants	47.56	36.74[b]	(…)	3.73
Transport, storage, and communication	24.39	14.11	13.45	14.37
Financial intermediation	4.27	6.19[c]	2.58[e]	6.77[h]
Real estate and associated activities	31.10	(…)	(…)	(…)
Public administration, defense, and compulsory social security	15.85[a]	(…)	33.61[f]	13.62
Education	(…)	(…)	(…)	8.16
Health and social work	(…)	(…)	(…)	3.65
Other community and personal services	15.85	25.01	(…)	3.29

Notes: n/a – not available at all or separately; a - includes education and health; b - includes trade; c - includes real estate and related activities; d - includes hotels and restaurants; e - includes real estate and related activities; f - includes heath, education, and other services; g - includes construction; h - includes real estate.

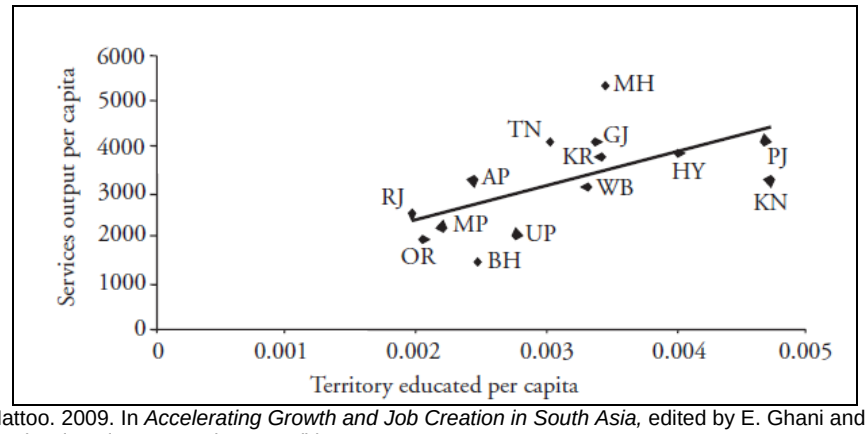
Data is latest available for each country.

Source: Labor surveys and censuses of the four countries.

The data on employment shares in individual service segments for the four countries shows that services which have a high share within the service sector also account for a higher share of services employment. However, several of the services which have experienced rapid growth, in particular communication and financial services in the case of India, still account for a relatively low share of overall services employment, indicating their lower employment intensity, whereas segments such as construction and hotels and restaurants, which have not grown as rapidly, account for much higher shares of services employment.

Although it is difficult to gauge the skill orientation of services growth in South Asia, the pattern of growth within the service sector that emerges from the preceding tables and figures, particularly in the case of India, would suggest that it has been oriented towards skill-intensive services. Figure 7 confirms this.

Figure 7: Per Capita Services Output and Tertiary Education Across Indian States



Source: Mattoo. 2009. In *Accelerating Growth and Job Creation in South Asia,* edited by E. Ghani and S. Ahmed. New Delhi: Oxford University Press, Figure 7.2(b), p. 179.

Note: AP- Andhra Pradesh, BH- Bihar, GJ- Gujarat, HY- Haryana, KN- Karnataka, KR- Kerala, MH- Maharashtra, MP- Madhya Pradesh, OR- Orissa, PJ- Punjab, RJ- Rajasthan, UP- Uttar Pradesh, TN- Tamil Nadu, WB- West Bengal.

Figure 7 shows the positive correlation between tertiary education levels and services output across Indian states. Given the large numbers of low- and semi-skilled workers in the labor force in this region, such a skill orientation for services output can in large part explain the low employment intensity of the service sector and its failure to absorb surplus labor from agriculture, as highlighted earlier.

Overall, services employment exhibits a mixed picture. While the sector has grown in importance in terms of its contribution to growth and output, its role in terms of creating gender-neutral and quality employment remains more limited. The evidence indicates that there is still considerable scope for employment creation, particularly in low- and semi-skill intensive services in South Asia. It is also worth noting that while the service sector exhibits certain unique characteristics in terms of its growth, employment, and skill patterns, in some respects it reflects trends also witnessed in other sectors of these economies. For instance, the growing informal nature of employment is not unique to services; a similar trend is evident in manufacturing. Thus, there are common institutional and policy constraints which have also affected the nature and quality of services employment. It would also be interesting to examine the industry–services links in these economies and to assess how fragmentation in manufacturing output and employment has affected the pattern of services growth and employment.

4. EMPLOYMENT TRENDS IN INFORMATION TECHNOLOGY AND BUSINESS PROCESS OUTSOURCING

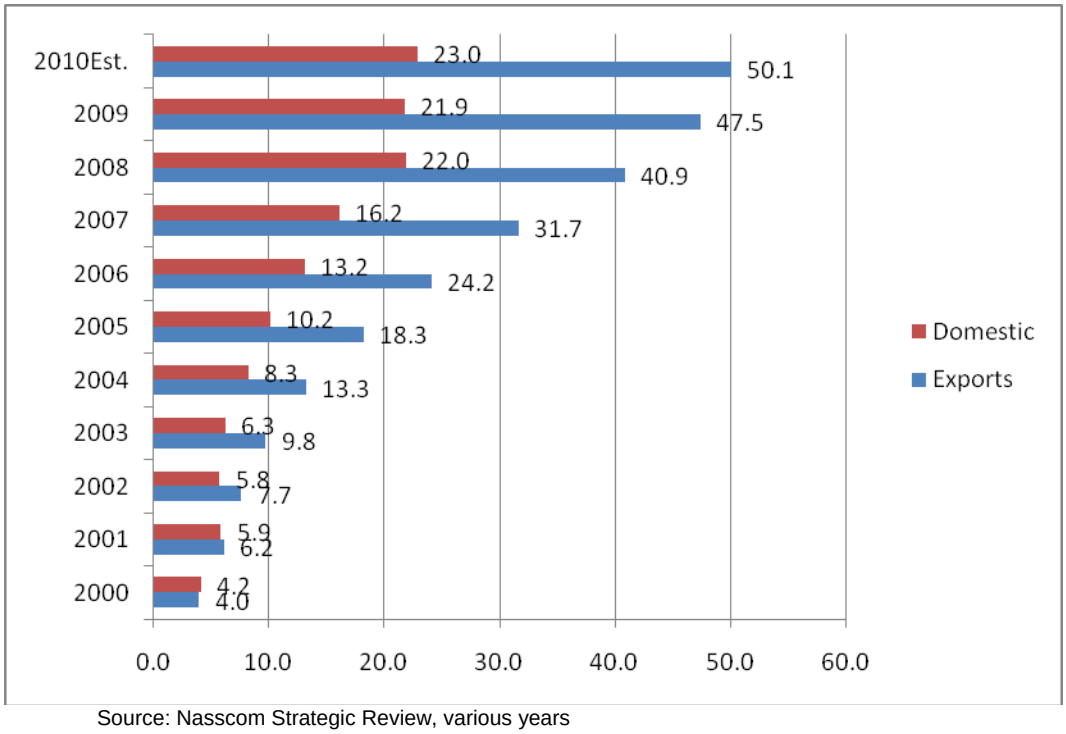
One of the most significant growth segments in services has been information technology and business process outsourcing (IT-BPO) services. Although services have in general not exhibited employment growth that is commensurate with their growing role in output, the IT-BPO segment has witnessed rapid growth in employment in all four countries. All the countries share a common source of comparative advantage, which is their sizeable, skilled, English-speaking labor force. However, all the countries are facing problems of shortages of IT professionals, issues of quality, and attrition which they are trying to address through investments in training and consultation with industry associations, among other initiatives.

4.1 India

Within the service sector, the IT-BPO segment has been the fastest-growing subsector in India's exports, registering double-digit annual growth rates for exports in the post 2000 period. Information provided by the National Association of Software Services Companies (NASSCOM) indicate that India's IT-BPO services exports have risen from a mere $754 million in FY 1996to $9.6 billion in FY 2003 and $47.5 billion in 2009, with the industry's total turnover reaching $70.0 billion, or 6% of GDP, in 2009. In 2010, aggregate revenues of the IT-BPO sector are expected to reach $73.1 billion, with projected export earnings of $50.0 billion (or 70% of total industry turnover). As a result, the IT sector's share in India's total export basket has increased from less than 4% in 1998 to around 26% in 2010. Within the industry, IT services alone are expected to account for more than 50% of export earnings ($27.3 billion) in this industry in 2010, BPO services for another 25% ($12.4 billion), and engineering services and software products for another 20% (NASSCOM 2010, 58–9). Figure 8 illustrates the trends in IT-BPO revenues since 2000 and the significant external orientation of this industry.

Figure 8: Trends in Information Technology and Business Process Outsourcing Revenue – India, 2000–2010

(US$ billion)



Source: Nasscom Strategic Review, various years

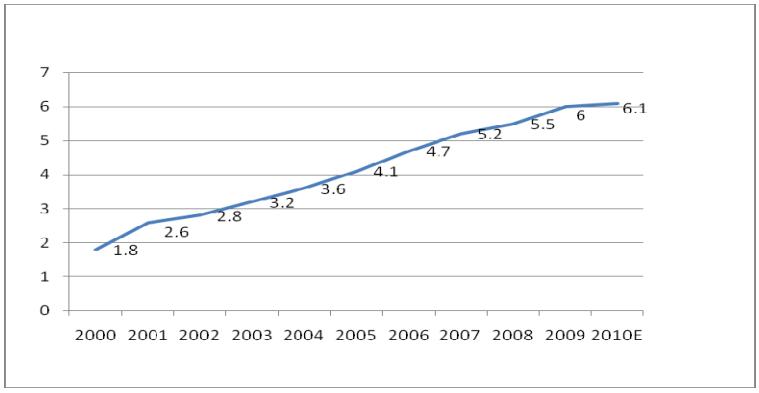
These exports cover a variety of domain industries, including the banking and financial services industry, telecommunications, manufacturing, retail, health care, and travel and tourism. There has also been a gradual movement up the value chain, with a growing number of offshore research and development centers being established in India and a shift towards higher-end services such as business analytics, equity research, and market research. Multinational firms operating in the Indian market through captive subsidiaries; offshore development centers; and large, small, and medium-sized Indian firms are engaged in IT-BPO services exports.

India's IT-BPO services exports take the form of onsite delivery through the temporary movement of software professionals to other markets, as well as offshore delivery of services through data, voice, and information flows over the internet and phone. With increased possibilities for IT-enabled services delivery, there has been a gradual shift from a predominantly onsite mode of delivery to a primarily offshore mode of delivery in order to further leverage India's labor cost advantage. The onsite–offshore mix changed from 57% onsite and 43% offshore in 2000 to 30% onsite and 70% offshore in 2005; the current onsite–offshore mix is 15%:85% (Infosys Chief Executive Officer 2010). As per a recent Reserve Bank of India survey on software services exports, mode 1 accounted for the majority of India's IT services exports in value terms, or 56% in 2008/09, followed by mode 4 based exports at 27% and mode 3 at 17% (Reserve Bank of India 2010).[7] According to the AT Kearney Offshore Location Attractiveness Index, India has consistently ranked highest among destinations offering offshore services, due to the combination of its skill availability, favorable business environment, and low cost.[8] Today, India accounts for 51% of the offshore IT-BPO market and is expected to remain an important part of the global outsourcing market in future, notwithstanding emerging competition from other developing countries and regions (NASSCOM 2010, 9).

Growth in outsourcing and establishment of offshore development centers in India has had important spillover effects on the Indian economy. This is reflected in the sector's contribution to GDP, which has increased from 0.72% in 1997/98 to 1.8% in 2000 and to an estimated 6.1% of GDP in 2010, as shown in Figure 9.

Figure 9: Contribution of Information Technology and Business Process Outsourcing Revenues to Gross Domestic Product – India

(%)



Source: Nasscom Strategic Review, various years

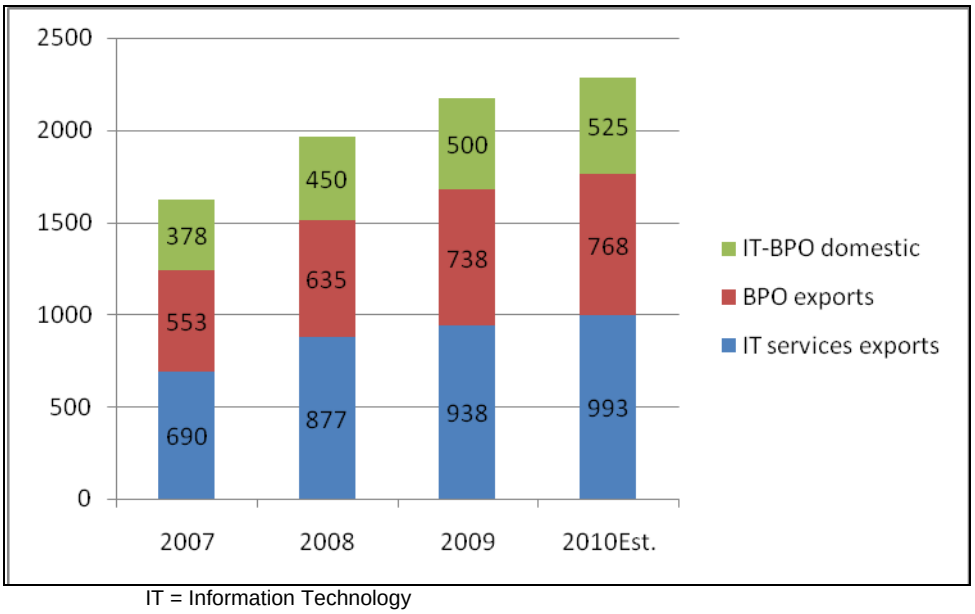
The rapid growth in IT-BPO services exports has been accompanied by a significant increase in direct and indirect employment in this subsector. Today, the IT-BPO services subsector is one of the largest employers in India's organized private sector. It provides direct employment to more than 2.3 million people as shown in Figure 10, up from less than a few hundred thousand in 2000. It provides indirect employment to more than 8.2 million people in support activities such as training, transport, and real estate. Tier 1 Indian cities contributed to 91% of this employment in 2009. However, second and third tier cities in India have seen a 50% increase in employment in 2009 and 2010. NASSCOM data further suggest that IT-BPO subsector employment in India has important implications for upward mobility of women, youth, and disadvantaged social classes, with 30% of employment in the 18–25 year age group, 4% of the

[8] http://www.atkearney.com/index.php/News-media/geography-of-offshoring-is-shifting.html?q=offshoring+india

sector's employment being accounted for by economically backward groups; 31% of the industry's total employees are women (NASSCOM 2010).

Figure 10: Direct Employment in Information Technology and Business Process Outsourcing, 2007–2010

('000)



IT = Information Technology

BPO = Business Process Outsourcing

Source: NASSCOM Strategic Review 2009 and 2010

Projected human resource scenarios in the Information Technology and Information Technology-Enabled services (IT-ITeS) subsector show an incremental employment requirement of anywhere between 3.8 million and 8.5 million people between 2008 and 2022 across the domestic and export segments of this subsector. So, the employment creation potential in this service sector is immense, as are the likely constraints with regard to labor availability, quality, and employability. According to ASSOCHAM estimates, the IT-ITeS subsector is likely to experience a serious shortage of skilled labor, from management to frontline operations, resulting in salary increases of 30%–40% in the near future.

Table 20: Projected Human Resource Requirements in Information Technology-Information Technology-Enabled Services

(millions of persons)

Human Resource Employment Scenario		FY2008	FY2022	Change
Pessimistic	Exports	1.7	4.9	3.2
	IT exports	0.9	2.0	1.1
	ITeS exports	0.8	2.9	2.2
	Domestic	0.5	1.1	0.6
	Total	**2.2**	**6.1**	**3.8**
Likely	Exports	1.7	6.0	4.2
	IT exports	0.9	2.4	1.5
	ITeS exports	0.8	3.6	2.8
	Domestic	0.5	1.5	1.0
	Total	**2.2**	**7.5**	**5.3**
Optimistic	Exports	1.7	8.6	6.9
	IT exports	0.9	3.5.	2.5
	ITeS exports	0.8	5.1	4.3
	Domestic	0.5	2.1	1.6
	Total	**2.2**	**10.7**	**8.5**

FY = financial year.

Source: National Skill Development Council (NSDC). 2009. *Human Resource and Skill Requirements in the IT-ITES Industry Sector (2022).* New Delhi: Table 11, p.36.

However, it is worth noting that, to date, the IT-BPO subsector's overall contribution to employment in India remains much smaller than that of traditional industries such as textiles and clothing. Concerns have also been voiced about the cost and equity implications of this subsector's rapid growth given its skill-intensive nature, and the rapid increase in wages (10%–15% per annum) experienced in this industry given its growing demand for skilled workers and rising export opportunities.

4.2 Sri Lanka

The software service subsector in Sri Lanka, though much smaller than that in India, has witnessed impressive growth. Exports have grown from around US$5 million in 1996 to around US$80 million in 2003, and then tripled to reach US$271 million in 2009.[9] There has been a steady upward trend in IT-BPO exports over the past decade; by 2007, the IT and IT-enabled services sector was the fifth-highest export earner for the country. More than 300 IT and BPO companies, mostly small and medium-sized companies and a few large global players, operate in Sri Lanka. The main industries served include telecommunications, banking and financial services, insurance, and software testing.[10] Sri Lanka is also an offshore development center for many Fortune 600 companies and a joint-venture development center for companies from several developed countries.[11] Even leading Indian providers of third-party BPO services have set up operations in Colombo. The country has also emerged as the leading disaster recovery

[9] Sri Lanka Export Development Board website: http://www.srilankabusiness.com/trade_info/srilankaproduct/ict.htm

[10] Sri Lanka Export Development Board website: http://www.srilankabusiness.com/trade_info/srilankaproduct/ict.htm

[11] This is an annual list of the 600 largest industrial corporations in the U.S., published by Fortune magazine. The corporations are ranked based on such metrics as revenues, profits, and market value.

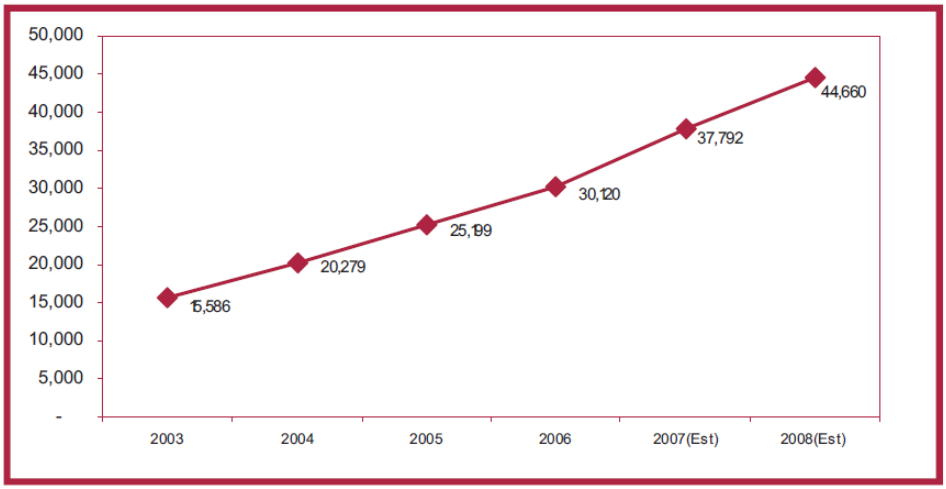
location for Indian IT operators. The Software Exporters Association has targeted to achieve total exports of US$2 billion in 2012 and to make the IT-ITeS industry the largest net foreign exchange earner for the country in the long run.

Growth in the IT-BPO services subsector has been accompanied by growing employment in the industry. A recent survey of the Information Communication Technology Agency of Sri Lanka found that the industry employed 60,000 people in the country, with around 50,000 employed in Colombo alone. The workforce in this subsector has been growing at more than 20% per year, with attrition rates of 10%–15%. Most of this employment (around 54,000) is in private companies and the rest is in the state sector. An estimated 79% of IT-BPO industry employees are male, according to Information Communication Technology Agency reports. By 2012, the IT-ITeS industry is expected to employ a workforce of more than 100,000. [12]

Figure 11 shows the growing workforce in Sri Lanka's software service subsector for 2003–2008, while Figure 12 shows the relative growth in the IT workforce compared with the non-IT and the government sector workforce in Sri Lanka for the same period. It is evident that employment in the IT industry has grown much more rapidly than in the other parts of the economy.

Figure 11: Overall Information Technology Workforce Growth Trend – Sri Lanka, 2003–2008

('000)

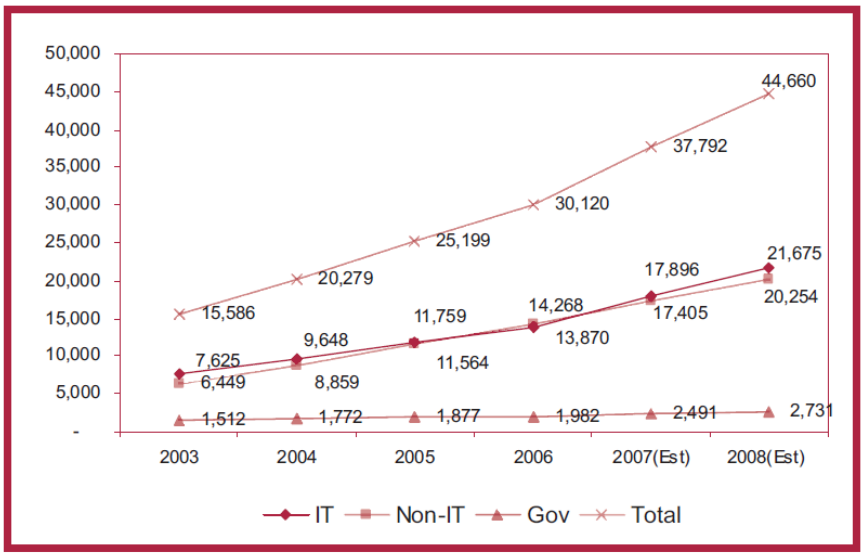


Source: Sri Lanka Information and Communication Technology Association. 2007. *Rising Demand.* Colombo: Figure 1, p. 6.

[12] Sri Lanka Information and Communication Technology Association website: http://www.slicta.lk /advantage/industry/ and http://www.colombopage.com/archive_10/Apr1270129682JR.php

Figure 12: Comparison of Information Technology Workforce with the Non-Information Technology and Government Workforce – Sri Lanka, 2003–2008

('000)

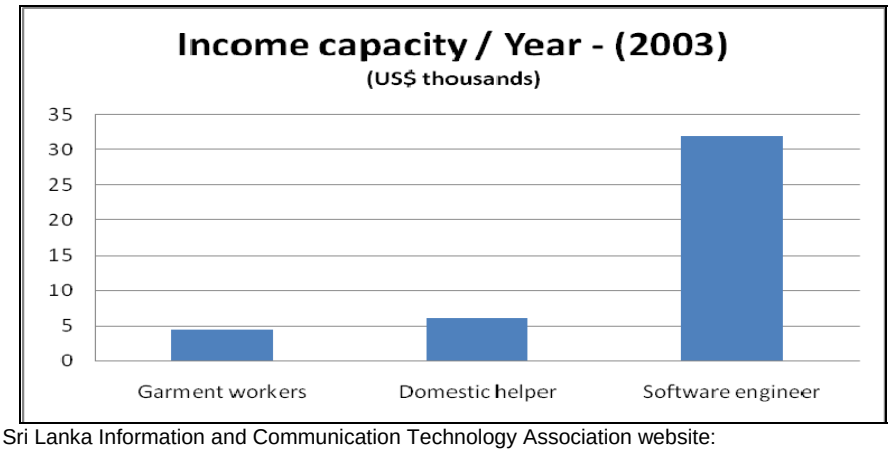


Est = estimated, Gov = government, IT = information technology.

Source: Sri Lanka Information and Communication Technology Association. 2007. *Rising Demand.* Colombo: Figure 4, p.11.

Growth in IT-BPO employment reflects Sri Lanka's competitive advantage in this industry. This is due to the availability of a competitive and educated English-speaking population, a large number of professionals (especially finance and accounting professionals), cost-effective labor whose cost is around one-twentieth of that overseas, the presence of accredited IT-enabled service training centers to ensure labor availability, and the presence of a large number of engineers to work in troubleshooting and technical support operations. In recent years, the government has given much thrust to this industry as it provides high-paying jobs for the educated youth. Figure 13 shows how income in the IT service subsector compares with incomes in other export-oriented industries in Sri Lanka.

Figure 13: Annual Income in Software and Other Industries

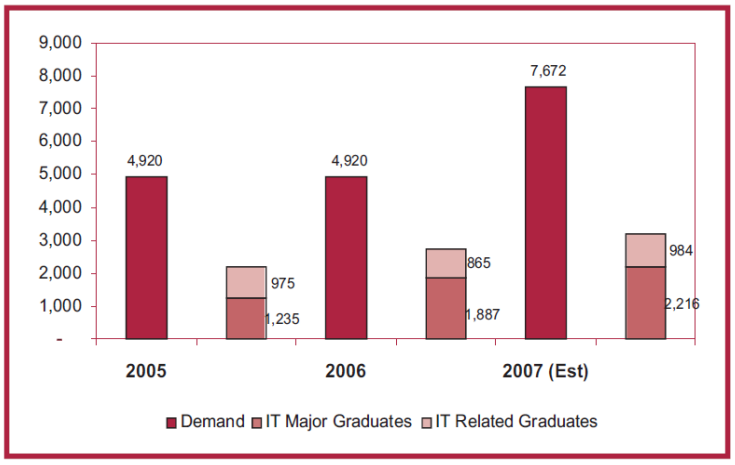


Source: Sri Lanka Information and Communication Technology Association website: http://www.slicta.lk/advantage/industry/

The industry has, however, been facing a shortage of quality IT professionals as the number of IT graduates is inadequate for the growing demand from the industry. This is further compounded by growing overall attrition rates for IT workers. For instance, it was estimated that 5,755 graduates were needed by the industry in 2007 but only 2,216 IT major graduates were added to the workforce that year. The shortage is most acute for programming and software engineers as well as testing and quality assurance engineers. Figure 14 illustrates the growing demand–supply gap for IT professionals.

Figure 14: Demand for Information Technology Professionals Versus Supply of Graduates – Sri Lanka, 2005–2007

(number of persons)



Est = estimate, IT = information technology

Source: Sri Lanka Information and Communication Technology Association. 2007. *Rising Demand.* Colombo: Figure 3, p.10.

4.3 Bangladesh

A similar picture emerges for Bangladesh, where the IT-BPO subsector has grown from virtually nothing from a negligible size to an industry worth US$350 million in annual revenues in 2009,

with software exports accounting for US$35 million in 2009.[13] Although the industry constitutes a very small part of overall GDP and exports, its growth has been significant. The industry has grown at an average annual rate of 40% over the 2004-09 period, driven by export trends as well as growing IT demand in the domestic market.

Today, Bangladesh has more than 60 call centers with a combined capacity of over 2,000 seats. Such growth is expected to continue with expansion of operations by Bangladeshi IT entrepreneurs and increased entry of foreign companies, many of which are setting up captive units in the country. According to the World Bank, Bangladesh's IT and IT-enabled service exports are projected to exceed US$500 million by 2014 (*Daily Star* 2010). The country has also been ranked high in terms of its competency in software services. Table 21 shows the huge increase in IT exports between FY2005 and FY2010.

Table 21: Value of Export of Software and Information Technology-Enabled Services–Bangladesh

(US$ million)

Fiscal Year	Value of Exports
2005	12.68
2006	27.01
2007	26.08
2008	24.09
2009	32.91
2010	35.36

Source: http://www.basis.org.bd/index.php/resource

As in the other South Asian countries, growth in IT-BPO exports has been accompanied by a significant growth in employment in this industry. An estimated 20,000 or more skilled and semi-skilled professionals are employed in the IT-ITeS sector, compared to around 35,000 who are employed outside this industry (including in business enterprises, the government sector, and nongovernment organizations). The country has benefited from its large number of English speakers and pool of graduates. There are an estimated 5,500 or more graduates each year in IT-related subjects providing a ready source of cost-competitive and competent labor for this industry.[14]

4.4 Pakistan

The IT industry in Pakistan has witnessed high growth in exports. According to the Central Bank's statistics, IT exports amounted to $187.9 million in 2009/10, although according to the World Trade Organization (WTO), these exports were four times higher at US$490.4 million; according to estimates of software developers, exports were close to US$1 billion. The BPO industry has grown rapidly, registering double-digit growth in exports in recent years. The industry provides contact center and offshore back-office services such as finance functions, software development, data processing, IT support, administrative support, and marketing

[13] Bangladesh Association of Software and Information Services (BASIS) website: http://www.basis.org.bd/index.php/resource

[14] Bangladesh Association of Software and Information Services (BASIS) website: http://www.basis.org.bd/index.php/resource

services. Experts estimate an annual average growth rate of 33%, with export revenues surpassing US$10 billion by 2015.[15]

Pakistan's cost advantage stems from its large untapped pool of English-speaking graduates who are willing to work at 60% of the wages of their United States counterparts, as well as its infrastructure advantages such as high-speed connectivity in all major cities at competitive rates. Employment in this subsector has been growing rapidly, registering an increase of 27% in 2006/07 and 41% in 2007/08,. The number of full-time IT professionals had risen from 4,619 in 2004 to 12,232 by the end of 2007. Around 20% of the professionals in the industry were found to be foreign-qualified. The country produces approximately 20,000 IT graduates each year and there are over 100 universities in the country which offer IT and computer science programs. There are more than 24,000 IT professionals engaged in export-oriented activities such as software development, call centers, and technical support services, and the total number of IT professionals in the country is estimated at around 125,000.[16] Given the lack of traditional job opportunities, many young graduates are seeking employment in the IT-BPO industry. Growth has been aided by proactive measures by the Government of Pakistan to develop the industry, including tax exemptions until 2016, liberal foreign investment policies, establishment of IT parks, and infrastructure investments in telecommunications.

5. OVERSEAS EMPLOYMENT IN THE SERVICE SECTOR AND SOUTH ASIAN WORKERS

South Asia is one of the main source regions for low-skilled, semi-skilled, and skilled migrant workers in the world.[17] The five major South Asian labor-sending countries— Bangladesh, India, Nepal, Pakistan, and Sri Lanka—sent more than 1.5 million migrant workers abroad legally in 2005. Of this, Bangladesh sent 253,000 migrants, India 549,000, Nepal 184,000, Pakistan 142,000, and Sri Lanka 231,000. An estimated 24 million South Asians were abroad in 2000.

The significance of overseas employment for South Asian countries is evident from the fact that the five major labor-sending countries in this region received US$74.83 billion in remittances in 2009, with India receiving US$49.25 billion, Bangladesh US$10.52 billion, Pakistan US$8.72 billion, Sri Lanka US$3.36 billion, and Nepal US$2.98 billion Figure 15 shows the consistent increase in remittances during 1985–2006 for all the South Asian countries, with a more than doubling of remittances from $12 billion to over $24 billion between 2000 and 2006 in the case of India. Table 22 further shows that remittances constitute 3% - 23% or more of the GDPsof these countries.

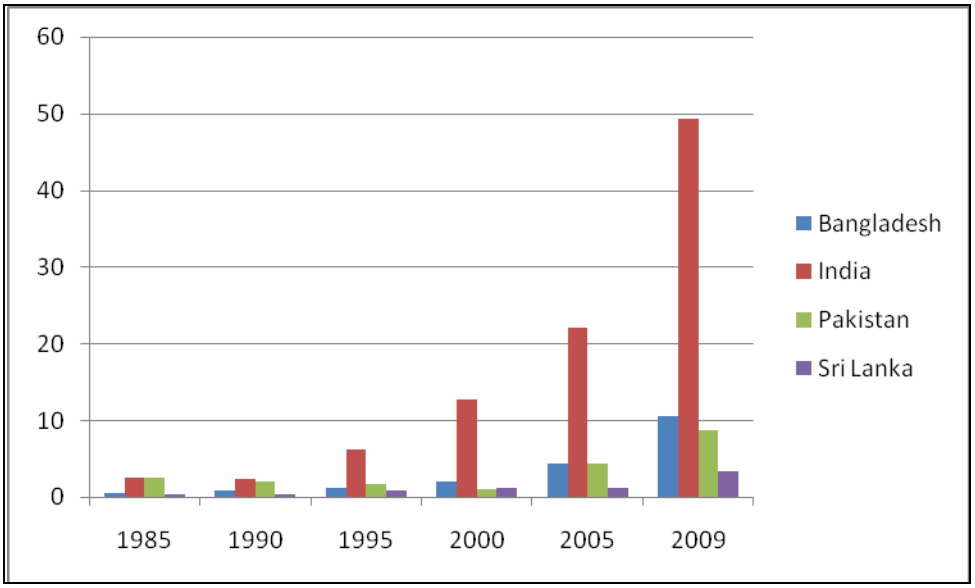
[15] Pakistan Software Export Website: http://www.pseb.org.pk/item/industry_overview

[16] Pakistan Software Export Website: http://www.pseb.org.pk/item/industry_overview

[17] Much of the discussion in this section is based on: Chanda and Sasidaran (2011), unless otherwise specified.

Figure 15: Trends in Worker Remittances to South Asian Countries, 1985–2006

(US$ billion, current prices)



Source: UNCTAD (United Nations Conference on Trade and Development) Handbook of Statistics 2008 (online version

http://unctadstat.unctad.org/ReportFolders/reportFolders.aspx?sCS_referer=&sCS_ChosenLang=en

Table 22: Worker Remittances (Receipts) as Percentage of Gross Domestic Product for South Asian Countries, 1980–2009

(%)

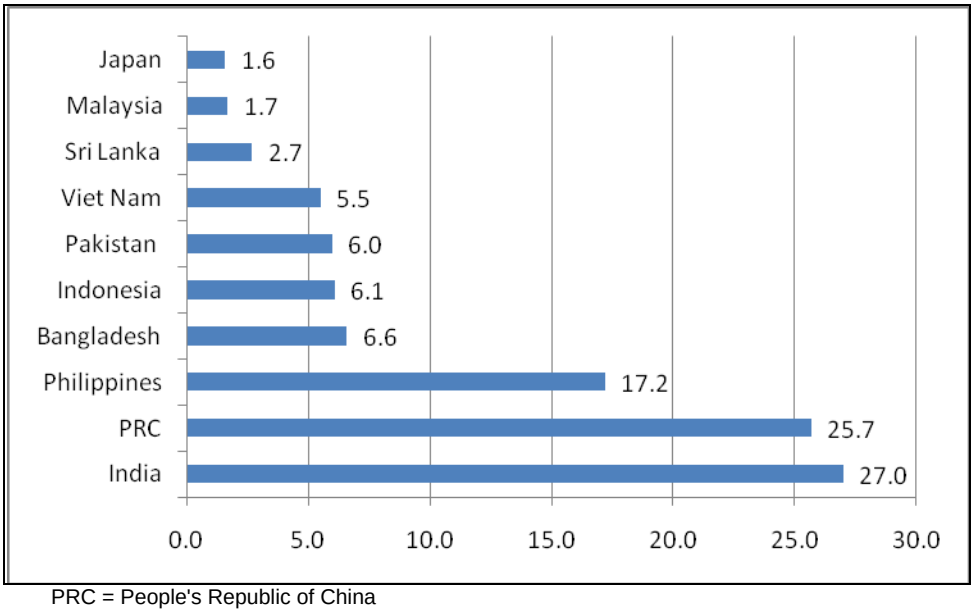
Region	1980	1985	1990	1995	2000	2005	2009
Bangladesh	1.72	2.14	2.72	3.41	4.33	7.28	13.98
India	1.77	1.22	0.87	1.76	2.75	3.38	5.54
Pakistan	6.67	6.10	3.64	2.49	1.37	4.11	6.89
Sri Lanka	2.29	3.43	4.00	6.19	6.97	9.78	13.10
World	0.24	0.19	0.33	0.37	0.42	0.75	1.05
South Asia	1.94	1.64	1.52	2.06	2.46	3.54	5.84

Source: Source: UNCTAD (United Nations Conference on Trade and Development) Handbook of Statistics 2008 (online version)

http://unctadstat.unctad.org/ReportFolders/reportFolders.aspx?sCS_referer=&sCS_ChosenLang=enUNCTAD

Within Asia, the four South Asian countries of India, Bangladesh, Pakistan, and Sri Lanka also feature among the top 10 recipients of remittances, as shown in Figure 16. In fact, India receives the largest amount of remittances in the world.

Figure 16: Remittances Received in Asia by Main Countries of Origin, 2007 (US$ billion)



PRC = People's Republic of China

Source: Reproduced from: International Organization for Migration. 2008. *World Migration Report 2008.* Figure 15, p. 449.

5.1 Destination Markets for South Asian Workers

It is difficult to ascertain the occupational and sector breakdown for these outflows. Service activities in areas such as construction, transport, tourism, housework, IT, engineering, and health account for a significant part of this overseas employment for South Asian workers.

The main destinations for South Asian migrant workers are the Middle East and Persian Gulf region, the English-speaking Organisation for Economic Co-operation and Development (OECD) countries, and parts of Southeast Asia, in addition to intraregional movement within South Asia (much of it undocumented). There is a clear pattern to these outflows, with the bulk of low- and semi-skilled migrants going to the Middle East and Gulf countries and outflows to developed countries mostly consisting of skilled workers. According to Ratha and Shaw, of an estimated 20.20 million migrants from South Asia, 2.11 million were in the Middle East, 5.60 million in the high-income OECD countries, 7.60 million within South Asia itself, and 0.29 million in East Asia and the Pacific (Ratha and Shaw 2007, 6).[18]

5.1.1 Migration to the Middle East and Persian Gulf Region

Migration to the Gulf region mainly consists of low- and semi-skilled movement for work in the construction sector, in transport operations, infrastructure projects, and as domestic help. Around 90% of Pakistani temporary contractual workers to the Gulf countries are engaged in low- and semi-skilled jobs (IOM 2008, 443). Sri Lanka and Bangladesh are important source countries for domestic workers to the Middle East (which has also resulted in the feminization of migration from South Asia). The four countries together accounted for around 80% of temporary contractual workers in this region. To the extent that a large part of this movement pertains to

[18] According to the International Organization for Migration (IOM) (2008), however, the number of South Asian migrants in the Middle East is estimated to be much higher, at 8.7 million temporary contractual workers.

work in construction, transport, and various labor-intensive services such as manual trades, there is considerable labor export from South Asia to the Middle East for delivering low- and semi-skilled services. Hence, mode 4 is an important means of providing service sector employment to South Asian workers and has implications for alleviating unemployment and poverty and contributing to source regions through remittance flows.

5.1.2 Migration to Developed Countries

There is sizeable movement of workers from South Asian countries to English-speaking developed countries. More than two-thirds of South Asian migrants in OECD countries have had a tertiary education, i.e., they were skilled immigrants. For India, the proportion of highly educated immigrants in the total stock of immigrants for 2000 was more than 75%. For Pakistan and Sri Lanka, the share was more than 65%, while for Bangladesh it was slightly lower at around 50%. Knowledge workers in particular constitute a particularly important category of migrant service providers for India, particularly to the OECD markets. According to a 2001 study, there were more than 3 million Indian knowledge workers working and living in various countries around the world, with the US, the United Kingdom (UK), Canada, and Australia together accounting for around 75% of this workforce (Sami 2001). The service sector has played an important role in driving skilled migration from South Asia to OECD countries. The following discussion on the US and the UK—the two main OECD host countries for South Asian workers—illustrates the significance of service sector employment for South Asian migrants to these countries.

(i) United States

The occupational profile of South Asian workers in the US highlights the prevalence of skilled migration from South Asia to this market and the importance of specific services such as health care, IT, engineering, accounting, and finance as a source of employment. Table 23 provides statistics on nonimmigrant admissions and foreign workers for the US.

Table 23: United States Nonimmigrant Temporary Worker Admissions (I-94) by Country of Citizenship, FY2009

Country of Citizenship	Total temporary workers and families	Workers in specialty occupations (H1B)	Seasonal agricultural workers (H2A)	Seasonal non-agricultural workers (H2B, H2R)	Workers with extraordinary ability or achievement (O1, O2)	Athletes, artists, and entertainers (P1 to P3)	Intra-company transferees (L1)	Treaty traders and investors (E1 to E3)	Other
Bangladesh	915	389	(…)	(…)	4	158	46	6	312
India	262,654	123,002	(…)	133	930	2,165	54,556	197	81,671
Pakistan	4,537	2,176	(…)	4	25	126	388	183	1,635
Sri Lanka	1,260	630	(…)	D	D	20	249	17	328

D = data withheld to limit disclosure.

Source: US Department of Homeland Security. 2009. Yearbook of Immigration Statistics.

As shown, most nonimmigrant temporary admissions of South Asian workers in the US have been in the H1B (or specialty occupation) category and in the L1 (intracompany transferee, i.e., managerial) category, indicating the prevalence of skilled temporary movement from South Asia to the US. The large number of H1B admissions mainly reflects the presence of Indian service

providers in the IT subsector who provide onsite services in the US market. The large number of L1 admissions from India reflects the overseas presence of Indian IT firms through subsidiaries and branches and the associated movement of IT personnel.

India is a particularly significant source of skilled manpower, accounting for nearly half of all H1 admissions in certain years and for the majority of H1B visas in certain sectors and occupations, as shown in Table 24.

Table 24: India's Share in H1B Visas to the United States, 2000–2002

(%)

	2000		2001		2002	
Category	**India % Share in Asia**	**India % Share in World**	**India % Share in Asia**	**India % Share in World**	**India % Share in Asia**	**India % Share in World**
Computer related	79.62	68.18	81.53	71.39	76.43	63.21
Fashion models	10.53	0.33	2.00	0.11	11.63	0.67
Managers and officials	32.45	12.28	37.16	13.92	31.79	11.42
Miscellaneous professional, technical, and managerial	27.62	11.49	33.63	15.98	30.82	13.97
Administrative specialization	23.69	13.88	28.98	17.14	22.26	12.74
Architecture, engineering, and surveying	39.47	26.01	42.36	27.87	38.10	22.94
Art	6.09	3.36	8.81	4.64	7.62	3.90
Education	17.26	8.36	19.99	9.45	18.64	9.26
Entertainment and recreation	38.42	17.37	19.26	6.74	23.08	8.89
Law and jurisprudence	12.90	4.77	15.31	5.02	14.40	5.01
Life sciences	19.76	11.06	19.03	10.52	18.85	10.52
Mathematics and physical sciences	18.40	10.03	21.95	12.21	22.33	12.73
Medical and health	27.86	18.00	31.86	20.34	30.50	19.58
Museum, library, and archival sciences	18.99	8.06	14.18	5.65	9.48	3.49
Religion and theology	10.34	4.41	14.71	6.02	15.56	5.93
Social sciences	29.64	16.37	26.01	13.46	25.47	13.30
Writing	12.12	6.18	15.38	7.73	10.24	5.23
Unknown	38.93	18.88	50.00	23.66	31.71	13.22
Total	**61.64**	**44.42**	**65.82**	**48.78**	**50.91**	**32.89**

Source: Statistical Yearbook of the Immigration and Naturalization Service, United States Immigration and Naturalization Services, various years.

(ii) United Kingdom

The UK constitutes another important destination country for South Asian migrants. Inflows from the Indian subcontinent constituted a significant 12.6% of total inflows of non-British employed migrants during 2000–2004 (Salt and Millar 2006, Table 2, 337). Nearly half of all inflows from the Indian subcontinent into the UK market are in the professional and managerial categories (Salt 2006).

The significance of skilled workers in inflows from South Asia is also evident from the admissions under the UK's Highly Skilled Migrant Programme (HSMP), which admits thousands of South Asians every year into the UK. In 2005 alone, of 17,631 people from over 100 countries who were admitted into the UK under the HSMP, Indians and Pakistanis accounted for 50% of all approvals; Indians alone accounted for 38% of total admissions under this scheme,

and dominated in most categories. Around 78% of all HSMP approvals were for people looking to pursue their careers in four main occupational categories—medical (33%), financial (19%), business (14%), and information technology (12%). With the exception of finance, the largest proportion of approvals in all the other occupational categories was for Indians, who constituted 59% of all those admitted in the medical field and 45% of those admitted in IT (Salt 2006). Table 25 shows the number of applications approved by nationality under the HSMP for the four selected South Asian countries.

Table 25: Highly Skilled Migrant Programme Applications Approved by Nationality, 2002–2005

Country	2002	2003	2004	2005
India	181	837	1,933	6,716
Pakistan	59	309	977	2,080
Sri Lanka	10	46	84	269
Bangladesh	15	58	113	245

Source: Based on J. Salt. 2006. International Migration and the United Kingdom. Report of the United Kingdom (Systeme d'Observation Permanent des Migrations de l'OCDE-SOPEMI) Correspondent to the OECD.

Immigration data for Indians and Pakistanis by occupational categories indicate that the majority of work permits were obtained by workers in professional, technical, and managerial occupations (Table 26).

Table 26: Work Permits and First Permissions by Occupation for Indians and Pakistanis in the United Kingdom, 2005

	India		Pakistan	
Occupation	Number of Work Permits	Proportions of Occupation by Nationality (%)	Number of Work Permits	Proportions of Occupation by Nationality (%)
Managers and senior officials	2,831	9.7	313	10.9
Professional	17,053	58.3	807	28
Associate professional and technical	7,156	24.5	926	32.1
Administrative and secretarial	16	0.1	1	0
Skilled trades	924	3.2	475	16.5
Personal service	512	1.7	261	9.1
Sales and customer service	4	0	1	0
Process, plant, and machine operatives	20	0.1	7	0.2
Elementary	745	2.5	92	3.2
All occupations	**29,261**	**100**	**2,883**	**100**

Source: Based on J. Salt. 2006. International Migration and the United Kingdom. Report of the United Kingdom (Systeme d'Observation Permanent des Migrations de l'OCDE-SOPEMI) Correspondent to the OECD.

Thus, temporary mobility of service providers to other countries (or mode 4) is an important contributor to services employment in South Asia, and especially for India. Mode 4 in services such as IT and health care has contributed to the growth of these services in the source countries by expanding trade and investment flows, enabling the transfer of technology and knowledge, enabling the internationalization of firms, and building social capital and transnational networks.

5.2 Barriers to Mode 4 Exports from South Asia

There are broadly two types of impediments to mode 4 exports by South Asian countries—border measures, and domestic regulatory barriers.[19] One of the main border barriers is immigration regulations, such as visa requirements and procedures which may be quite restrictive, cumbersome, and costly. Given its dependence on movement of software professionals to provide onsite services to clients in overseas markets, the software services subsector is one area where such barriers have come under considerable focus. There are numerical ceilings on visas and work permits in major host countries such as the US. Industry associations, such as the National Association of Software Services Companies (NASSCOM), have argued that Indian software professionals have been subjected to time-consuming and burdensome procedural requirements for obtaining work permits and visas. Employers filing for such work documents on behalf of foreign workers must meet certain preconditions, such as providing evidence of an extensive search for a local person before hiring a foreign national, meeting stringent advertising requirements and search specifications, and demonstrating the unfeasibility of training a local person. There may also be additional conditions, such as wage parity requirements, which can delay the labor certification process and issuance of the visa or work permit.

Lack of recognition of qualifications, skills, or experience is another major barrier affecting mode 4 exports from South Asian countries across a variety of professional services. South Asian countries do not have Mutual Recognition Agreements (MRAs) with key developed country host markets in professional services such as health, accountancy, legal, nursing, and dental services. As a result, in markets such as the US and UK, South Asian service providers in certain licensed professions are required to take host-country examinations and undergo tests of competence to qualify for practice. There may also be procedural requirements in order to be able to practice, such as registration with local bodies or associations and multiple layers of certification with professional bodies in the host market.

South Asian countries have strongly advocated the liberalization of mode 4 under the WTO. They have submitted communications on mode 4 and have been signatories to developing-country proposals on mode 4 in order to facilitate market access for their service providers (WTO 2003). These proposals focus on two broad sets of issues. The first pertains to market access and how temporary movement can be separated from permanent migration by improving administrative procedures for entry and stay, and also how these procedures can be reflected in the framework of mode 4 commitments. The second pertains to domestic policies and measures, the use of which can be shaped by stronger General Agreement on Trade in Services (GATS) disciplines so as to increase transparency in their application and prevent such policies from becoming undue barriers to mode 4.

6. SERVICES EMPLOYMENT POLICIES

All South Asian countries have recognized the importance of employment generation, given their growing labor forces. They are faced with the challenge of reforming their national education and training systems to equip their workforce to meet the changing skill requirements of industry and services and a growing knowledge economy.

[19] Much of this discussion draws on Chanda (2004).

There are two broad approaches visible in their strategies to promote employment opportunities. The first is to develop skills and human resource capacity, the second is to develop labor for the overseas market. While neither of these approaches is specific to services, many initiatives do target service sector activities. The following discussion highlights the key elements of these strategies.

6.1 Skills and Human Resource Development

A major focus in all four countries has been on developing skills, creating a knowledge and innovation-oriented workforce, raising productivity and quality of human resources, enhancing employability, and aligning supply with the needs of the labor market. Skill development councils have been established in several countries, often in consultation with industry chambers and associations to provide a link between employers and training programs, and with assistance from multilateral institutions such as the World Bank and Asian Development Bank.

The target of these skill development and employment creation schemes has mainly been on the rural, small and medium-sized enterprise, and informal sectors, and on vocational and technical education. Several services do feature commonly as thrust areas for skill upgrading, quality assurance and certification, and investment in training. Some of these include the IT-ITeS subsector; tourism and hospitality services; construction; and, in some countries, health care, retail trade, and education services. For example, the National Employment Policy in India makes specific mention of services such as tourism, construction, IT and BPO, and retail services with regard to skill development, matching training with demand, improving institutional capacity, ensuring standards and certification mechanisms, and creating better links with the education system. Gender and migrant worker issues are also focus areas in some of these services. The National Skill Development Council in India, which is a public–private partnership organization set up by the Indian Ministry of Finance, focuses on human resource development in the aforementioned services as well as other services such as entertainment, broadcasting, health care, banking, insurance, finance, transportation, trade, logistics, and education and skill development. The Skill Development Report of the 11th Five-Year Plan for India notes the high growth in infrastructure services such as construction, power, and airport development, and other services such as retail, tourism, hospitality, and aviation. It calls for demand-driven training to meet the short- and long-term skilled human resource requirements of these emerging sectors, in terms of both quantity and quality.

Similarly, the Bangladesh Skill Development Institute provides training courses for the IT, tourism, health care, and telecommunication services subsectors in affiliation with government and industry. Partnership arrangements are also being considered with overseas agencies (e.g., Technical and Further Education, an Australian agency) to facilitate offshore training for workers to compete in the global labor market.[20] Technical and vocational education and training is being made an integral part of the National Poverty Reduction Strategy. Similarly, Pakistan has established the National Vocational and Technical Education Commission (NAVTEC) to expand access to post-school vocational and technical education. Some of the programs are in partnership with industry and overseas training institutes.

Table 27 shows the incidence of vocational training across various sectors for Bangladesh, India, and Pakistan. Most of the sectors covered are services.

[20] http://www.thefinancialexpress-bd.com/search_index.php?news_id=2149&page=detail_news

Table 27: Percentage of Employees Receiving Vocational Training by Sector of Employment

Bangladesh (1995)		India (2004)		Pakistan (2003/04)	
Sector	**%**	**Sector**	**%**	**Sector**	**%**
Electricity and gas	39.5	Utilities	23.6	Utilities	17.7
Finance, real estate, financial services	17.7	Real estate, renting, business activities	19.4	Finance and business	12.8
Social and personal services	12.9	Finance	14.6	Social services and public administration	8.8
Transport	8.3	Community, social, personal services	10.6	Transport	6.9
Manufacturing	13.9	Public administration	9.0	Manufacturing	10.0
Housing and construction	7.4	Transport	7.2	Trade	2.9
Business, hotel, and restaurant	2.5	Manufacturing	7.1	Construction	4.1
Mining and quarrying	0.0	Trade	5.5	Mining	37.7
Agriculture	1.4	Construction	4.4	Agriculture	0.9
		Hotel and restaurant	3.8		
		Mining and quarrying	1.7		
		Agriculture	1.4		

Source: Riboud and Tan. 2009. In *Accelerating Growth and Job Creation in South Asia* edited by E. Ghani and S. Ahmed. Oxford University Press: New Delhi, Table 8.5, p. 225.

The data indicate that the incidence of training is very low, at less than 20% across all segments and all three countries. Services such as trade, construction, hotels, and restaurants, which have potential to generate employment, exhibit very low incidence of vocational training. These numbers compare poorly with those for other regions such as Southeast Asia or countries such as the People's Republic of China.

The need for greater focus on vocational and technical education is evident from projections by India's National Skill Development Corporation regarding the incremental human resource requirement in the vocational stream between 2008 and 2022 across a wide variety of services. As shown in Table 28, in absolute terms, millions of additional people need to be trained in India in services such as retail, transport and logistics, and construction over this period.

Table 28: Incremental Human Resource Requirement in Vocational Stream – India, 2008 and 2022 ('000)

Sector	2008	2022	Incremental	Proportion in vocational stream	Incremental human resource requirement in vocational stream	Annual requirement in vocational stream
Organized retail	283	17,623	17,340	80	13,872	991
Building, construction, real estate	35,698	83,270	47,302	70	33,111	2,365
Banking, financial services	14,250	8,500	4,250	65	2,763	197
Tourism and hospitality	3,530	7,172	3,642	65	2,367	169
Transportation, logistics, warehousing	7,374	25,101	17,727	40	7,091	506

Source: National Skill Development Corporation. 2009. Human Resource and Skill Requirements in the Education and Skill Development Services Sector (2022). New Delhi: p. 18–9.

One service segment which has received targeted attention in South Asia is IT-ITeS. The subsector has been an integral part of the skill development and capacity building strategy in all the countries, mainly due to the rapidly growing demand for labor in this subsector, which is not met by the existing supply of engineering and IT graduates in these countries, and also the growing need for computer literacy across a variety of jobs in the economy. In India, several skill gaps—such as lack of domain knowledge, lack of soft skills (such as communication, interpersonal, and group skills), and lack of project management skills—have been identified in the context of the IT services subsector. The aim, therefore, is to provide targeted skill building programs for industry in association with employers, industry chambers, and educational and training institutions.

In Sri Lanka, as the number of graduates required is not being met currently by the training institutions, an attempt is being made to ensure that diploma holders who are hired in this industry meet certain vocational and educational requirements or are certified in specific technologies to ensure quality. The government is also looking at IT initiatives aimed at the public sector which could create numerous job opportunities in the government sector for IT professionals.

In Bangladesh, the ICT and telecommunications services subsectors have been identified as potential employment-creating areas. Hence, cost-effective training programs oriented to these services have been set up in different regions and at the federal, provincial, and local levels. As a result, the proportion of the workforce that reported having computer training has increased considerably, from 12.3% to 17.4% for men and from 4.4% to 12.6% for women between 1993 and 2003 in Bangladesh. The private sector has played an important role in skill development and training in this subsector. For example, the leading Indian IT companies have innovated and improved training systems to meet the growing demand. The Infosys Global Education Centre in Mysore trains over 13,000 people at a time.

Overall, it is evident that there are huge training and capacity building requirements in the service sector in South Asia. To date, the countries in this region do not appear to have been successful in repositioning their workforces. Issues of infrastructure, financing, lack of in-house skill and training capacity, and inadequate industry participation have acted as constraints on

expanding the reach of vocational education programs in the region. The demand for skills has outstripped supply from the educational system. In-service training and vocational education has lagged behind that in other developing regions. There is clearly a need to increase the reach and efficacy of vocational and technical skill development programs across a wide range of services.

6.2 Managing Labor Mobility

Given the importance of mode 4 as a source of foreign exchange earnings and employment, in recent years the governments of South Asian countries have become proactive about managing these flows through unilateral, bilateral and/or regional, and multilateral initiatives.[21] They have been coordinating with host country governments and major employers to address issues of deployment, capacity building and welfare of migrant workers overseas, remittances, and repatriation. Some have also established separate ministries and cells to identify employment opportunities in the global labor market, disseminate information, and provide predeparture training and orientation. South Asian countries have also pushed strongly in the multilateral services negotiations for greater transparency, predictability, and ease of access for their service providers in overseas markets.

6.2.1 Unilateral Policies to Regulate Mode 4

There is considerable variation in migration management policies and frameworks across source countries in South Asia. Generally these countries have not had comprehensive or integrated policies on migration or elaborate institutional mechanisms to manage migration. Their approach has tended to more be laissez-faire in nature, with private intermediaries playing an important role and rendering the migration process subject to problems of rent seeking, abuse, and violations in the case of low-skilled migration.

Sri Lanka has perhaps been the most proactive among the South Asian countries in managing labor outflows. The Foreign Employment Policy in Sri Lanka, like the overseas employment program in the Philippines, aims at promoting employment opportunities for the country's workers. There is also a specific strategy to address the needs of domestic female workers, given the large number of female migrant workers from the country. The Sri Lanka Bureau of Foreign Employment, under the Ministry of Employment and Labour, is the nodal agency responsible for administering programs related to overseas employment, supported by other government ministries (Foreign Affairs, Women Affairs, and Vocational Training). The various government agencies regulate the recruitment process through registration and control measures on foreign employment agencies, and the registration of migrant workers and monitoring at the point of departure. Model contracts have been introduced to curb exploitation and malpractice. Predeparture orientation and training are also provided to workers in general and to housemaids specifically. The welfare of overseas workers is ensured through overseas labor attachés posted in host countries. There is a welfare fund financed through an employer levy and the funds are used to provide welfare services to the migrant workers. There are also financial support measures, such as provision of loans to meet departure expenses. Remittance transfer through formal channels is encouraged by permitting migrant workers to operate foreign currency accounts, called nonresident foreign currency accounts. Reintegration is also supported through loan schemes for migrant workers wanting to invest in self-employment activities and through a family development program that helps families to invest their savings in self-employment activities.

21 Much of this discussion is based on Chanda and Sasidaran (2011).

Although India lacks an integrated migration policy, it has recently introduced several institutional mechanisms to address migration issues. For example, the Government of India has set up a separate ministry—the Ministry of Overseas Indian Affairs—as well as the Overseas Workers Resource Centre to provide information and assistance to emigrants about employment opportunities and risks. The government plans to expand the center's role to that of a one-stop shop for emigrants. The Council for Promotion of Overseas Employment has also been set up to identify employment opportunities overseas, disseminate information, and conduct research. The focus areas for these initiatives include predeparture orientation, controlling and monitoring the licensing of recruitment agents and intermediaries, protecting migrants' rights overseas, maximizing remittances, and aiding reintegration of migrants on their return. The government has also been negotiating bilateral agreements on the transfer of social security contributions.

Pakistan and Bangladesh have also established institutions and enacted national legislation to oversee emigration. The Government of Bangladesh has set up a separate ministry to deal with overseas contract workers and with the diaspora community. It has also introduced the Overseas Employment Policy and legislation on emigration. Pakistan's Bureau of Emigration and Overseas Employment aims to promote overseas employment and orderly conditions of employment and return for its workers and to ensure their welfare and security. The first ever National Emigration Policy was prepared and finalized by the Policy Planning Cell of the Ministry of Labour and Manpower in 2009 to better manage migration by focusing on issues of predeparture, reintegration, and worker safety.

Notwithstanding the setting up of institutional mechanisms and coordination efforts with important host countries, there remain certain limitations in the migration frameworks of South Asian countries. One major problem is the continued lack of proper and effective implementation of migration policies, also evident from the earlier discussion on problems arising from unregulated private intermediaries and exploitative practices faced by South Asian workers.

6.2.2 Managing Labor Mobility through Agreements

In recent years South Asian countries have entered into bilateral labor agreements and memoranda of understanding with key host countries. These agreements are being used to both facilitate and regulate labor mobility, including augmenting the role of public employment agencies in the recruitment process and ensuring adherence to international conventions for the protection of migrant workers. They are mostly limited to low- and semi-skilled workers, given the importance of temporary contractual labor mobility for the region, and focus on issues of recruitment, regulation of intermediaries, return, and protection of migrants' rights overseas.

South Asian countries, in particular India, are also increasingly entering into comprehensive bilateral integration agreements (e.g., Comprehensive Economic Partnership Agreements-CEPAs, Comprehensive Economic Cooperation Agreements-CECAs, and trade and investment agreements) which include labor mobility provisions. Cases in point in services are the India–Singapore Comprehensive Economic Cooperation Agreement, the India–[Republic of] Korea Comprehensive Economic Partnership Agreement, the [People's Republic of] China–Pakistan Free Trade Agreement (FTA), and prospective agreements between India and the Association of Southeast Asian Nations (ASEAN) and India and Japan. These agreements focus on highly skilled workers, such as business visitors, intracorporate transferees, and professionals in selected areas. They mostly cover categories that are closely related to investment flows or where there are labor shortages which can be met by one of the partner countries.

7. CONCLUSION

It is evident that the service sector has grown rapidly in all South Asian countries and is contributing to a growing share of employment, although this is not yet commensurate with the sector's growing share in GDP. The service sector provides employment across a wide range of activities in this region. Construction, tourism and hospitality, retail trade, health care, and IT-BPO services are some of the main areas in the service sector where there is significant employment in South Asia and where the incremental employment is anticipated to be high in future. The IT-BPO services subsector is an area that has shown very high growth in employment in all the countries and where all the countries are also facing problems of labor availability and quality. In recent years, all governments in this region have shown a keen interest in expanding employment opportunities and in ensuring adequate supply of quality workers to retain their competitive advantage in this subsector.

Services also constitute an important part of overseas employment for South Asian countries. Service providers from the region work in both skilled and less-skilled services in developed and developing countries. The IT services subsector is one of the main sources of skilled employment in other countries. The contribution of migrant workers to the region has been significant through remittances, knowledge and skill transfer, and investments. Growth in IT export earnings in the region, especially for India, has in large part been driven by the mobility of IT professionals to developed-country client markets.

The discussion in this paper, however, reveals that, notwithstanding the emergence of services as a growth driver over the past decade, South Asian countries have not really focused on the employment needs of this sector in any targeted manner, except perhaps in the case of IT-BPO services. Although all the countries have introduced capacity building and human resource development programs to increase the employability and productivity of their workforce, these program tend to be general in nature and not specifically oriented towards services. Hence, there is an urgent need to prepare the region's labor force for the emerging needs of the tertiary sector, meet professional and quality standards, and absorb surplus labor from agriculture which, at present, is a low-productivity subsistence sector in this region. For this purpose, greater thrust is required on vocational and technical programs and in-house training across a variety of services. Greater involvement of private industry and industry associations is required in developing and implementing these programs. Human resource development for the service sector has to become an integral part of national employment strategies if South Asia is to build a competitive tertiary sector and also make effective use of services growth for poverty alleviation and long-term development. Investment in skills and capacity building in the service sector is also needed to enhance overall competitiveness in trade and industry, as services are a vital input to other sectors of the economy.

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