

India and Services Outsourcing in Asia:

Trends, Characteristics, and Implications

by

Rupa Chanda
IIM, Bangalore

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Outline

- Global Overview of Services Outsourcing
- Services Context in India
- Overview of Services Outsourcing in India
 - Trends and key features
 - Facilitating factors
 - Emerging challenges
- India's relationship with Asian countries in services outsourcing
 - Comparative aspects
 - Complementary and collaborative aspects
 - Trade and investment agreements
- Economic and social implications of services outsourcing

Global Overview of Services Outsourcing

Definitions

Outsourcing:

- When a firm assigns its activities (and sometimes people) to a third party, it is known as outsourcing.
- Outsourcing can be an on-shore, near-shore or off-shore proposition.

Offshoring:

- Search for lower cost overseas location by firms for business processing
- Migration of existing processes to another country

Global trends

- Businesses increasingly offshoring services horizontally and vertically
 - increase efficiency
 - lower costs
 - focus on core services
 - tap labour market and strengths of other markets
- ITES-BPO market estimated at \$773 bn (2002), projected to rise to \$1,079 bn by 2006
 - BPO segment estimated at \$234 bn (2005), to rise to \$310 bn by 2008
- Rapid growth
 - Annual CAGR of 32% between 1998-2003 (ITAA, 2004)
 - Annual growth of 30-40% projected over next 5 years
- Process driven by demographic and competitive pressures, aided by technological advancements

Business Process Outsourcing

IT-based business processes

Customer service (voice and non-voice)

- Call centre (incoming and outgoing calls)
- Telephone marketing
- Customer surveys
- E-mail service

HR and payroll accounting

- Recruitment advertising
- Education and training
- Payroll accounting / HR administration

Finance and accounting, bookkeeping

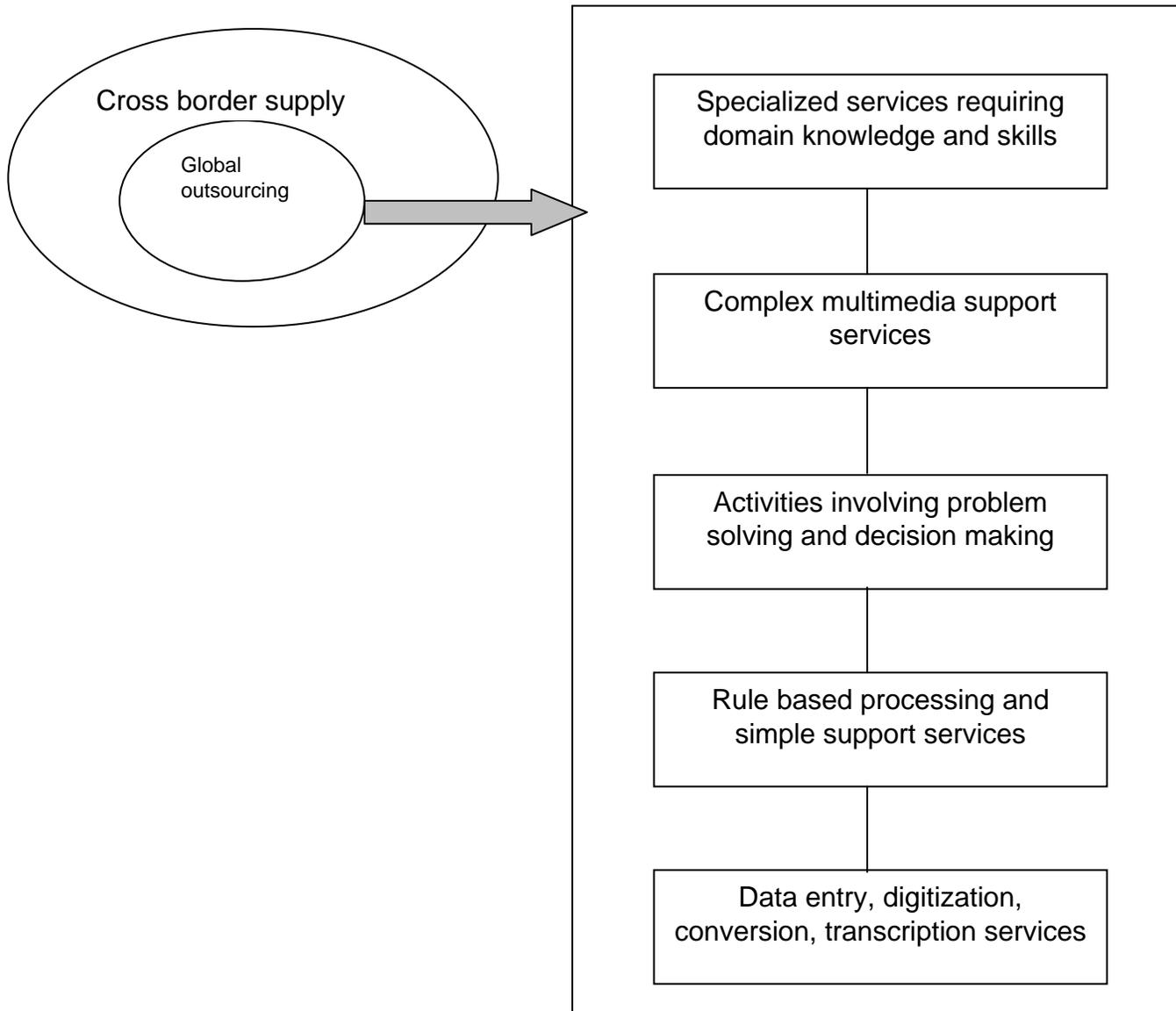
- Tax consulting
- Risk management
- Financial analysis and reporting
- Controlling/collections
- Order processing

Content development

- Animation
- Document management
- Geographical information systems

Purchasing, logistics

Figure 1: Five tier value chain in global outsourcing



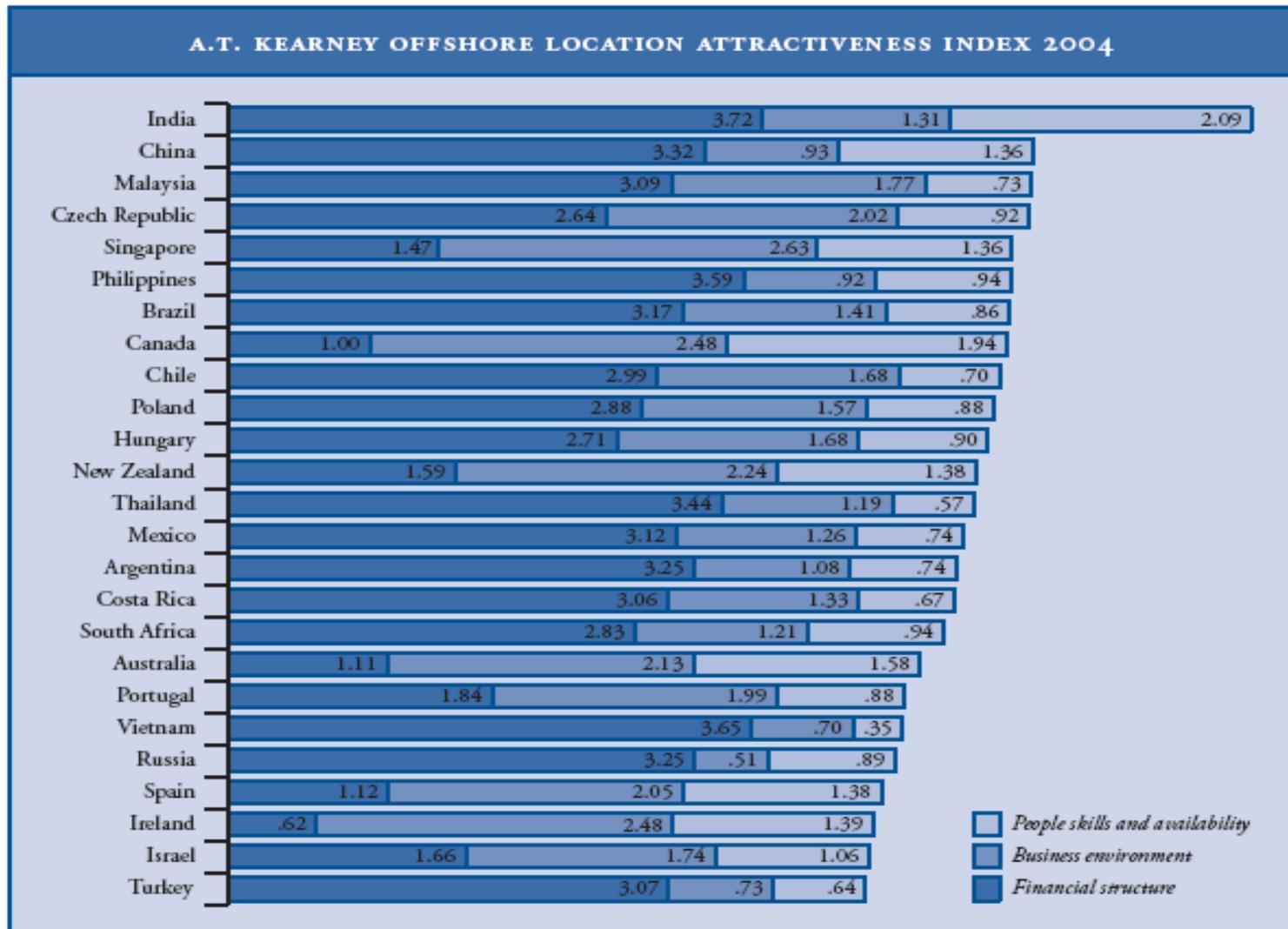
- Different organizational/contractual arrangements and modes of operation
 - Independent service providers, joint ventures/other collaborative arrangement, captive subsidiaries
 - Mixed delivery with complimentary onsite support



- Offshoring destinations
 - Wide range of developing, developed, and transition economies
 - India, Philippines, Ireland, Australia
 - Emerging destinations- Eastern Europe, Vietnam
 - Others include Hungary, Romania, Costa Rica, Barbados
 - Segment occupied by each country depends on inherent and acquired advantages

- Offshoring companies based in developed and developing countries
 - 55% of Fortune 1000 companies outsource service activities to other countries
 - Accenture, IBM, HSBC, GE, Microsoft, American Express, ABN-AMRO, Deloitte Consulting, Matsushita, Prudential
 - Some developing country firms also outsourcing

- Top 20 offshoring destinations (AT Kearney)



Note: The numbers in the bars are index numbers. The weight distribution for the three categories is 40:30:30, meaning that the financial structure is rated on a scale of 1 to 4, and that business environment, and people skills and availability are on a scale of 1 to 3.

Source: A.T. Kearney

Number of US jobs projected to be offshored to low wage countries

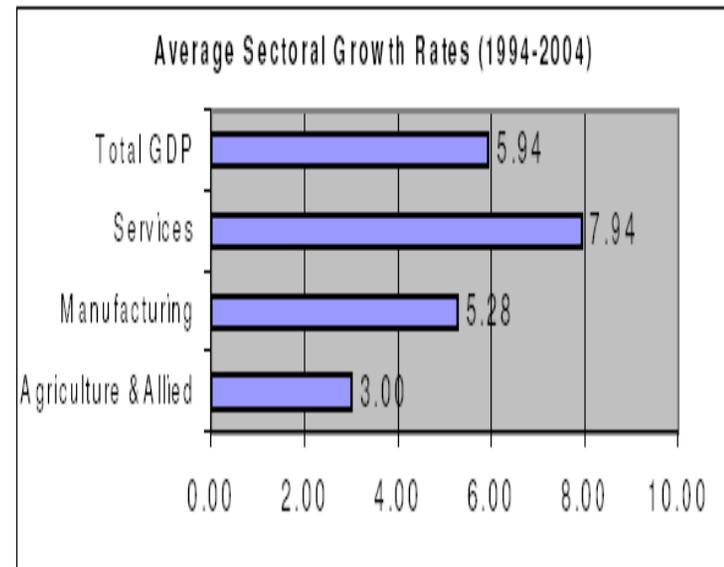
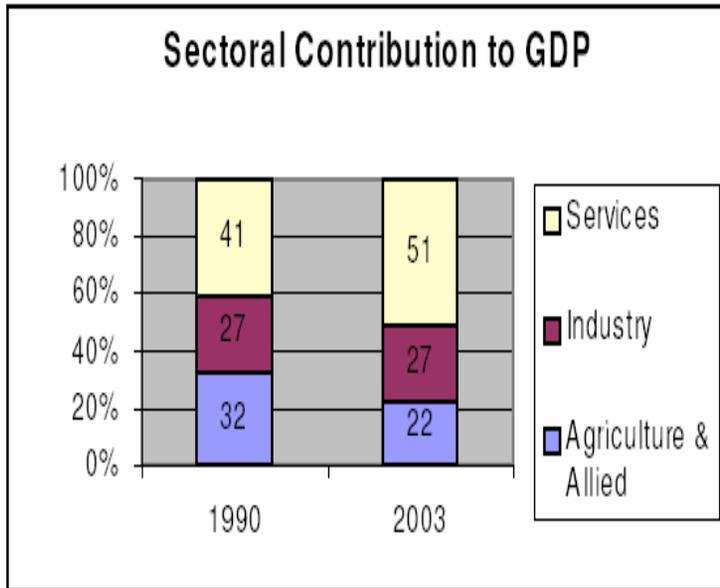
Occupational category	2005 ^{a/}	2010	2015	Difference 2005-2015
Life, physical, and social sciences	4,000	16,000	39,000	35,000
Legal	20,000	39,000	79,000	59,000
Art, design, entertainment, sports, medical	8,000	15,000	30,000	22,000
Management	34,000	106,000	259,000	225,000
Business operations	91,000	176,000	356,000	265,000
Computer and mathematics	181,000	322,000	542,000	524,000
Architecture and engineering	46,000	93,000	191,000	145,000
Sales and related	38,000	97,000	218,000	180,000
Office and administrative support	410,000	815,000	1,600,000	1,190,000
Total	830,000	1,700,000	3,300,000	2,570,000

Source: Forrester Research Inc. (November 11, 2002).

Services context in India

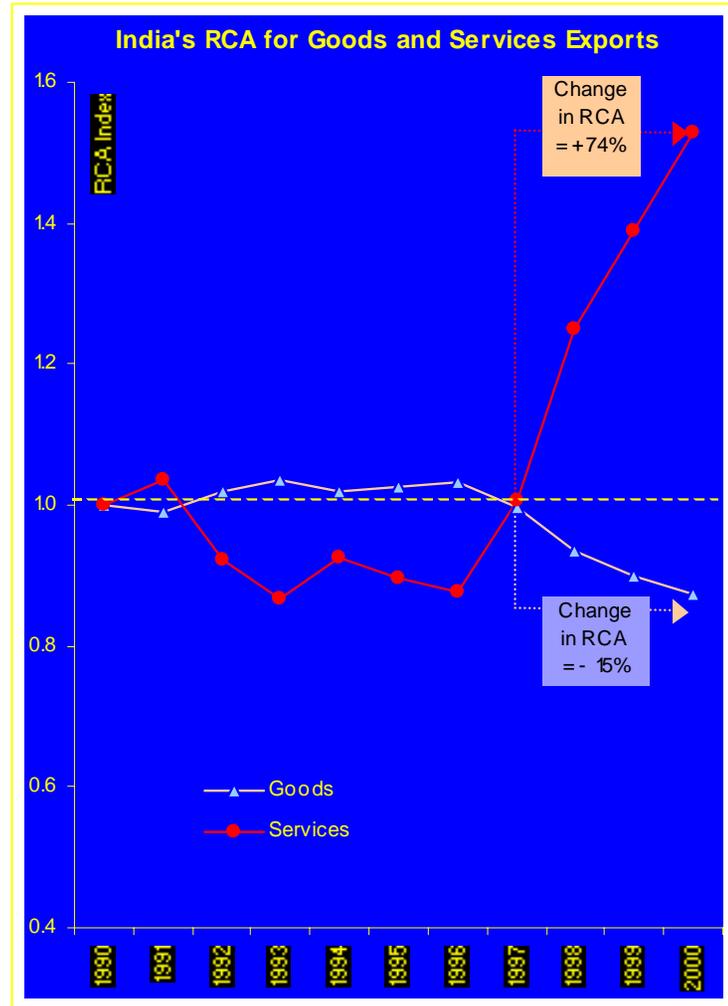
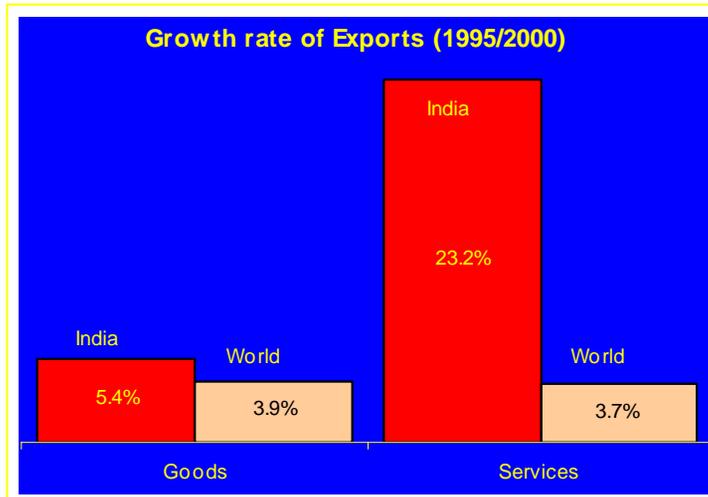
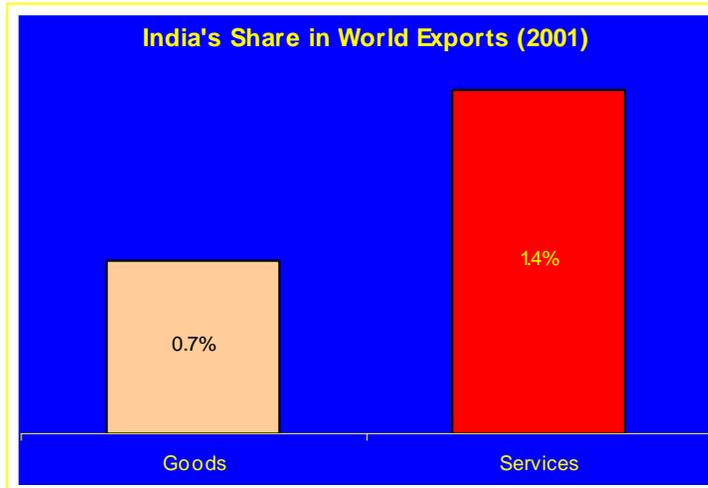
Around 50% of GDP

Fastest growing sector in economy



- Services account for 31% of total export earnings
- Among top 5 countries in growth rate of services exports
 - Trend growth rate risen from around 8% in 1990s to over 20% in recent years
- Comparative advantage growing in services
- Higher penetration in world market for services than for goods
- Fastest export growth in labour and skill-intensive services resulting in compositional shift towards IT, business and professional services
- Increased share of miscellaneous services, around 20% till 2003-04 to 37 percent in 2004, mainly due to business services
 - Global hub of back office services
 - Impressive growth of the Indian IT sector and IT exports
 - Important exporter of other professional and labour-based services

Growing Comparative Advantage in Services

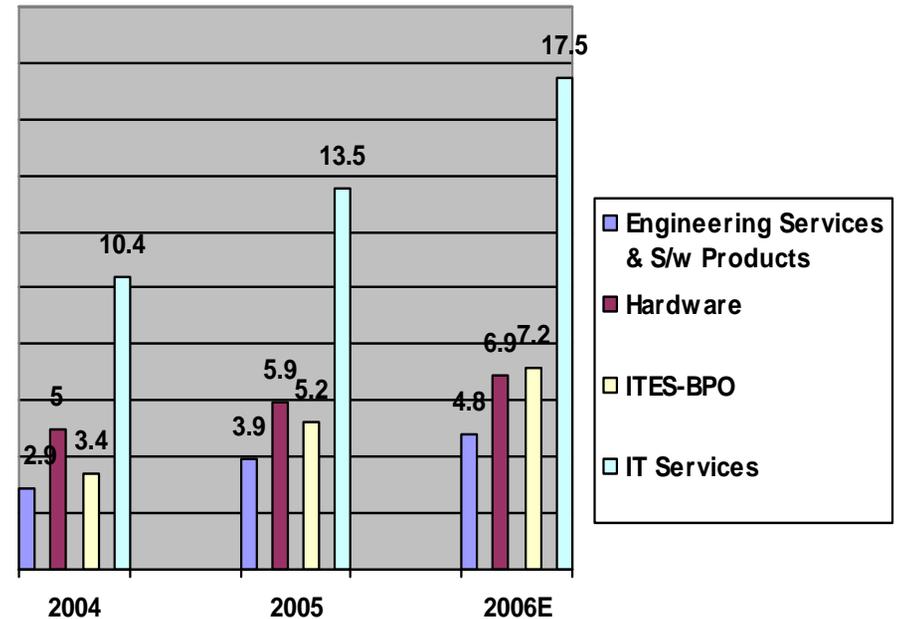
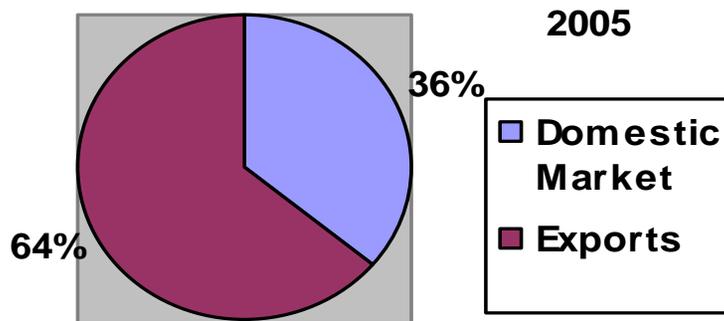




Source: Gupta (2005)

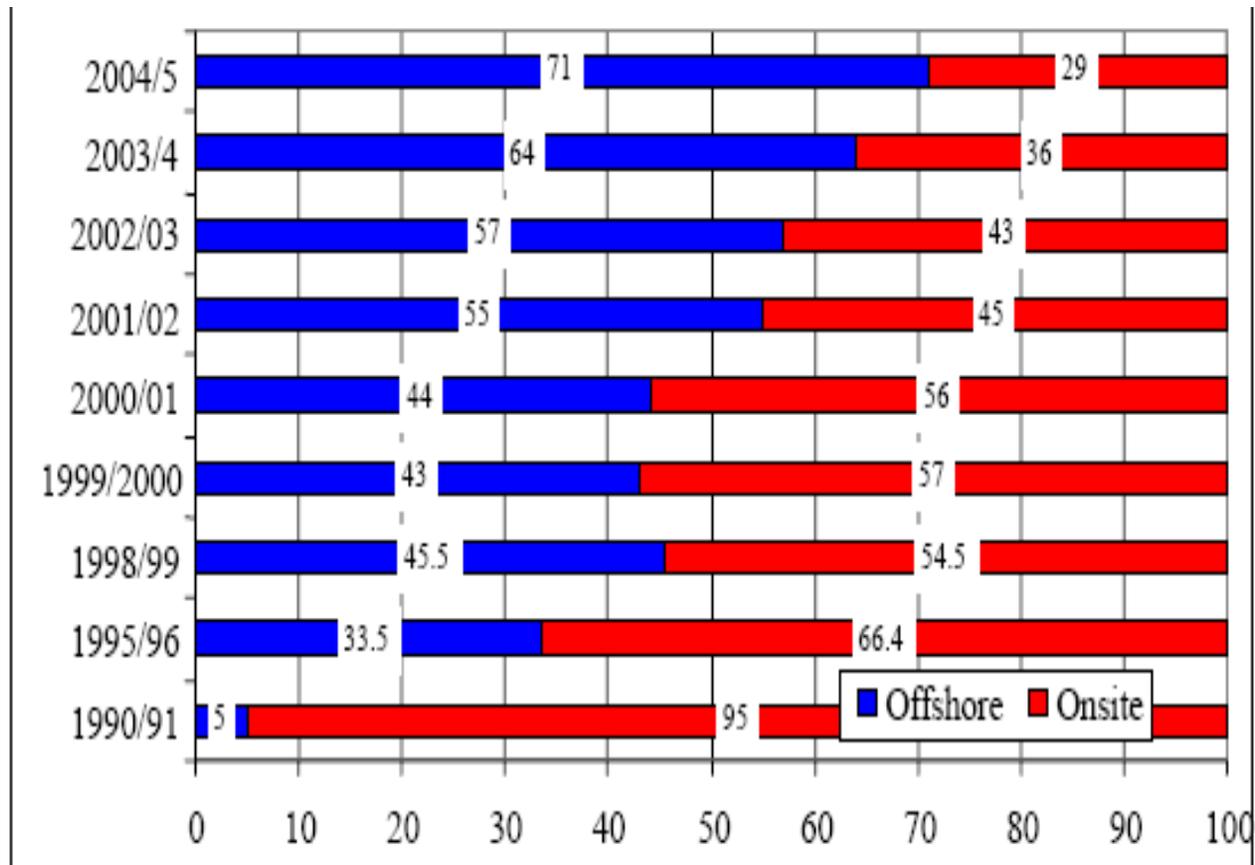
Growing role of services in India's economy and in India's integration with world markets

Growth trends and share of key segments in India's IT sector (including hardware, software, ITES, related business services (USD Billion)



ITES-BPO segment one of the fastest growing parts of the IT industry

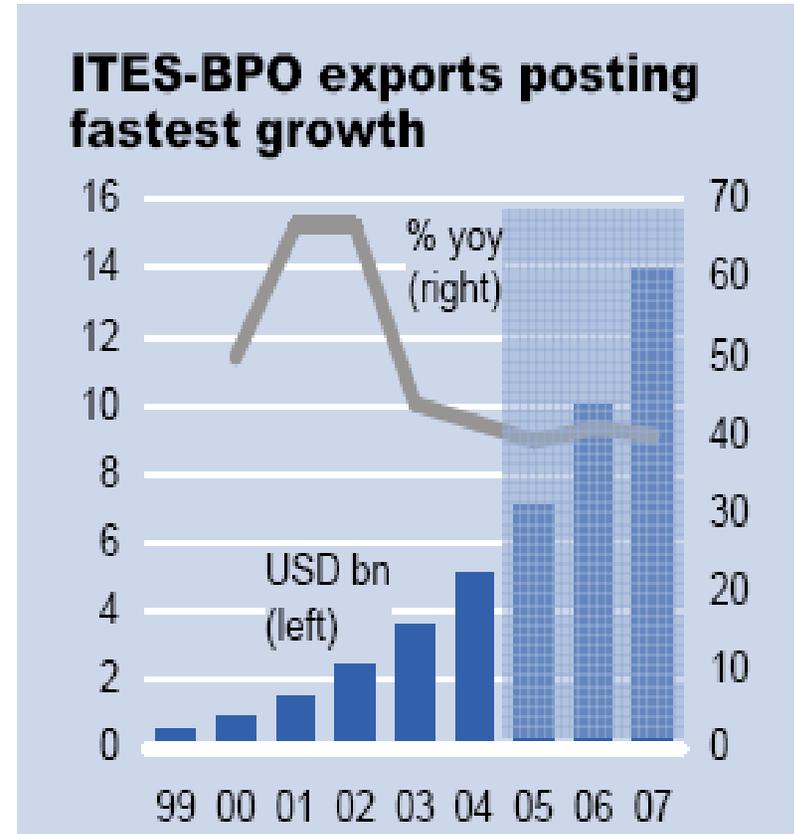
Share of Offshore-Onsite in IT Exports



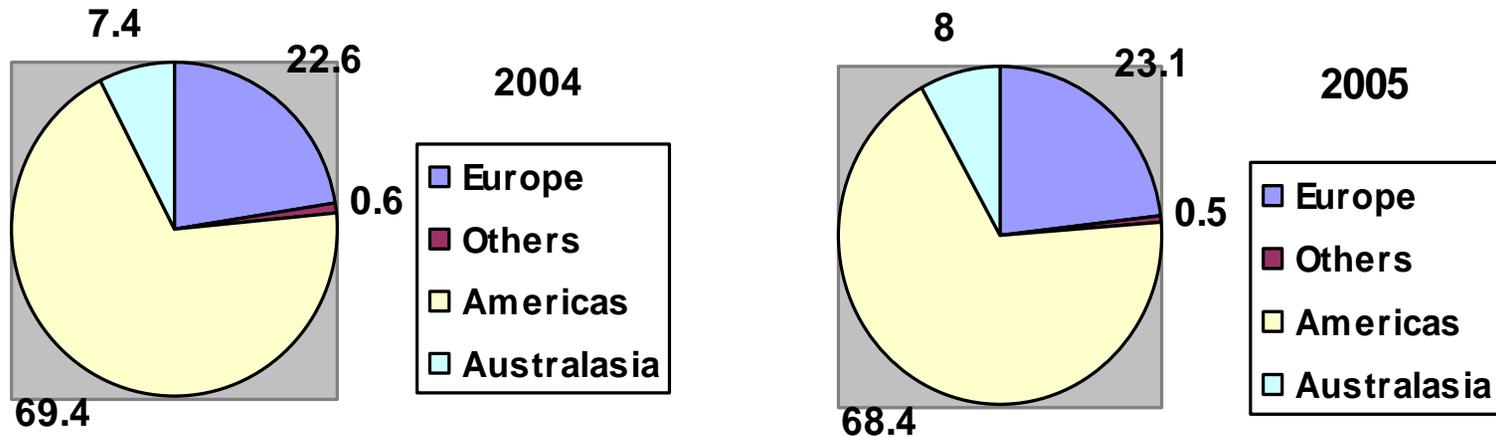
Overview of Services Outsourcing in India

Trends and key features

- India's BPO exports grown by 50-60% per year
 - Exports of \$2.3 bn in 2002-03, risen to \$4.6 bn in 2004-05, \$6.3bn in 2005-06
 - Projected to rise to \$30bn by 2010
 - Share in total exports risen from 4.5% (1999) to nearly 16% (2003-04)
 - Share in IT exports grown from 6.5% (1998-99) to 29% (2003-04)
- India is leading destination for global services outsourcing
 - Share of 55 percent of world market, earlier over 80 percent
- Sixty percent of Fortune 500 companies contracting out IT and business processes to India



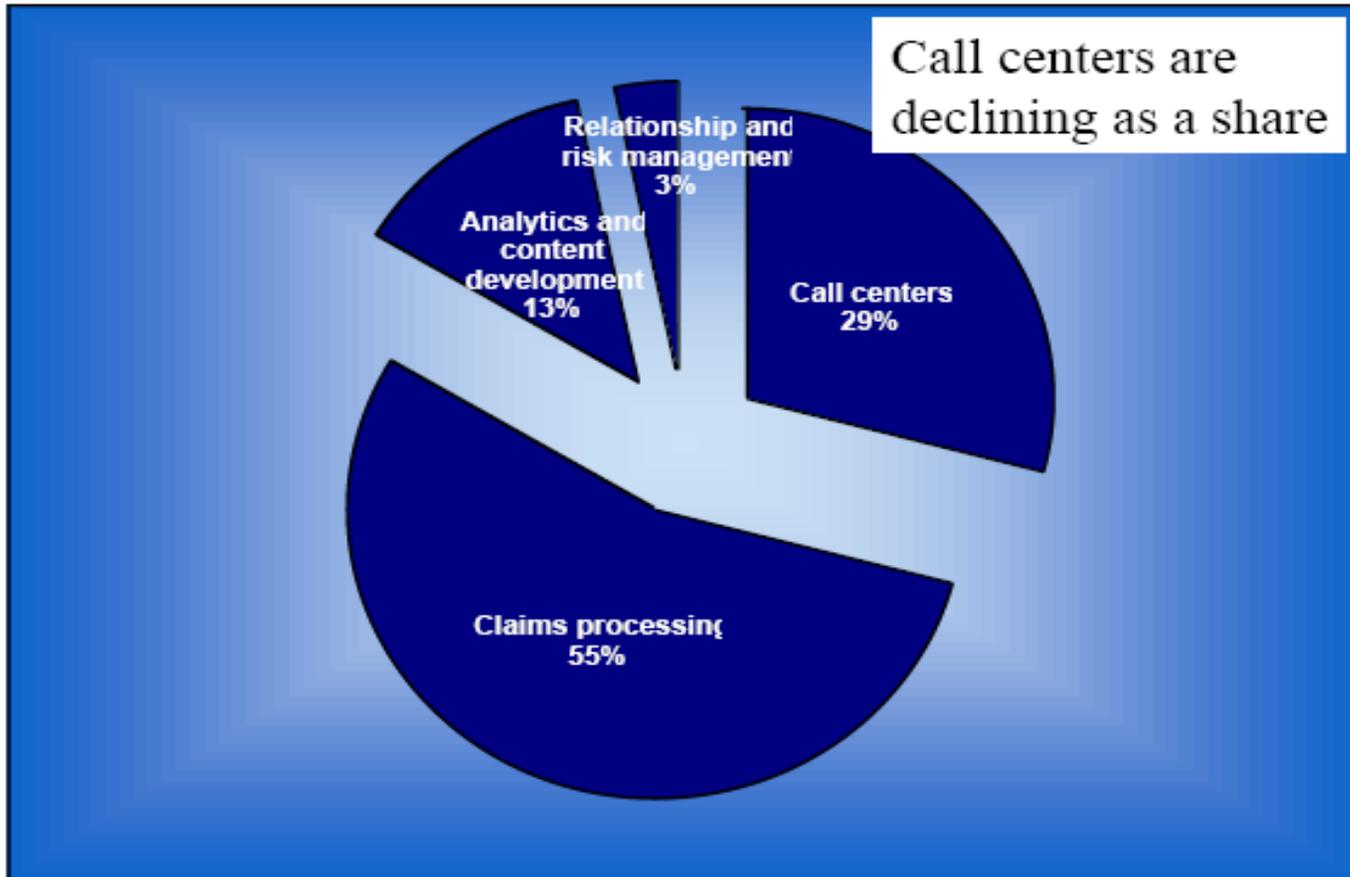
India's Services Outsourcing Exports: Share of Key Geographic Regions (US\$ billion)



North America most important market (US- 69%) followed by Europe (23%), Japan (7%), others (1%)

- Major segments driving BPO and ITES market in India are:
 - customer care
 - Finance and accounting
 - human resource management
 - payment & admin. services
 - content development
 - engineering logistics
 - sales
 - legal services
- Indian outsourcing providers engaged in work across all levels of value and skill
 - Transcription, call centre
 - Reservation and collection services
 - Process reengineering services
 - IT solutions, technical desk support
 - Bioinformatics, design, financial analysis, prototype testing
- Revenue composition
 - 70% in call centres, 10% high value
- About 200 call centers in India with a turnover of US\$ 2 billion
- Variety of business models
 - Captives, third party providers, joint ventures, partnerships, BOT

India's BPO exports (2004-05)



- Gradual shift in composition of offshore work towards higher skilled and more sophisticated services
 - Chip design, architecture, engineering and design, business consulting, pharmaceutical research, financial analysis, data mining, analytical and modelling services
- Revenue from product development and R&D services rising
- Indian vendors moving to high margin segments and diversifying markets
- Driven by setting up of R&D centres by MNCs like IBM, GE, Motorola, Texas Instruments, Cisco
- Research and development outsourcing market expected to grow from \$1.3 bn (2003) to \$9.1 billion (2010)
- Could generate 200,000 plus jobs by 2010
- Examples of such services
 - Detailed analysis of X Ray pictures by Indian radiologists for US hospitals
 - Risk analysis, business research, equity research
 - Balance sheet analysis and risk modelling for firms
 - Editorial selection and publishing

Facilitating factors

- Large pool of computer literate English speaking persons
 - 2 mn college graduates per year
 - 0.3 mn post graduates per year
 - 0.9 mn engineers per year
 - 2,000 MBAs per year
 - Over 270 universities, 2400 colleges
 - 200,000 to 250,000 computer literate workers
 - Scalability not available in other countries (except China)
- Low labour costs
 - Offers savings of 40-60%
 - Labour costs one-tenth to one-fifth of IT wages in US
 - \$6-8,000 in India versus \$50-70,000 in US and Germany
- Good telecom infrastructure
 - Low cost bandwidth, falling costs
 - Large telecom network, good satellite & cable communication links
 - Over 100,000 fibre optic cable
 - Private sector competition

- Time zone advantage
- Existence of a well established, relatively mature domestic IT sector
 - Quality certifications in industry
 - Leads in number of companies with highest level Capability Maturity Model certification (50)
 - Superior project management skills
 - Mature and stable vendors, many indigenous companies
 - Skills in wide range of application services, ability to handle complex operations
- Government policies
 - Tax, investment, subsidy incentives for industry
 - Setting up of IT parks and dedicated zones
- Improvement in other infrastructure (power)
- Active industry association (NASSCOM)

- Growth in demand for IT experts from various industries
 - Software programmers, specialists, network architects, consultants
 - Y2K problem and surge in demand around 2000
 - Cost imperatives of Western companies
- Role of diaspora
 - Over 1 mn Indians residing in US (2001)
 - Second largest group of doctoral candidates in US
 - Large number of firms set up by Indians in Silicon Valley
 - Share up from 3% (1980s) to 10% (1995-2000)
 - Many returning and setting up/heading companies in India
 - 95% of firms located in Software Technology Parks in Bangalore by returnees

Wage differentials between the United States and India (2002-2003)

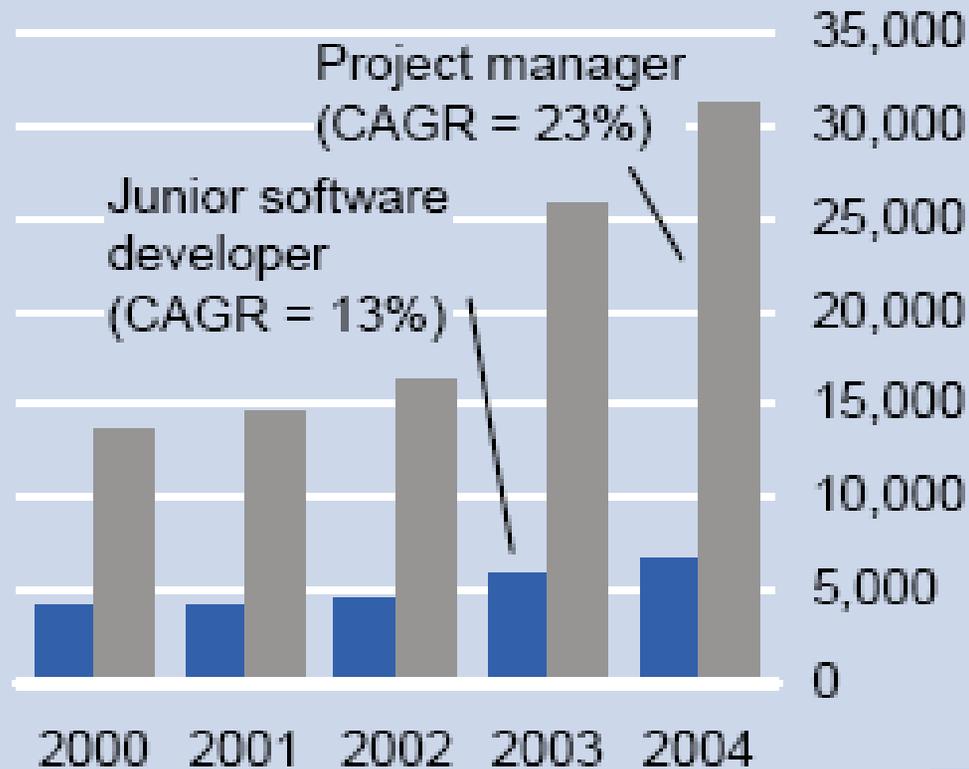
Profession	U.S. wage per hour	Indian wage per hour	Silicon Valley wage per hour
Telephone operator	\$12.57	Less than \$1.00	\$13.24
Health-records technologists, medical transcriptionist	\$13.17	\$1.50 to \$2.00	\$14.54
Payroll clerk	\$15.17	\$1.50 to \$2.00	\$19.50
Data entry clerk	\$20.00	\$1.50 to \$2.00	\$24.44
Legal assistant, paralegal	\$17.86	\$6.00 to \$8.00	NA
Accountant	\$23.35	\$6.00 to \$10.00	\$27.00
Computer programmer	\$28.90	\$3.00 to \$10.00	\$38.85
Financial research analyst	\$33.00 to \$35.00	\$6.00 to \$15.00	\$34.00
Software designer	\$60.00	\$6.00	NA
Software engineer	\$120.00	\$18.00	NA
Entry level programmers (annual salary)	\$50,000 to \$60,000	\$8,000 to \$10,000	NA
Sources: Nasscom, Hindustan Times, McKinsey Global Institute, U. Cal Berkeley, Department of Labor (BLS).			

Emerging challenges

- Infrastructure deficiencies (power, transport)
- Rising shortage of skilled and quality manpower, saturation of first tier cities
 - Demand for 20-25,000 graduates/per year in NCR
 - 17-20,000 graduates/per year in Bangalore
 - Only 10-30% of graduates employable with given skill sets
 - Projected labour shortfall of 500,000 by 2010
 - Need to meet increased demand for KPO with requisite skill sets
- Other labour issues
 - High attrition rates (25-40%)
 - 10-15% rise in wages
 - Shortage of middle management
 - Employee screening and monitoring and control mechanisms
 - Heavy English accent
- Growing competition from other countries

Pay pressure

Annual income, USD



- Absence of requisite legal and regulatory frameworks
 - data protection, privacy, consumer protection, on-line payments
 - Amendment to IT Act seeks to exclude BPOs from being network service provider, i.e., not held liable for any data theft
 - Lack of national data protection legislation can hurt industry
 - Time for cases to be settled through judicial system
- Lack of office space in major hubs and rising rental costs/real estate prices
 - McKinsey report calls for 5 more Gurgaons and 7 Punes
 - Asking rate of 25 mn square feet of new office space per year
- Possibility of trade unions playing a bigger role in this industry
- Concentrated in low value services which easily moved to other countries
 - Need to move from application development, maintenance or call handling to new lines of activity, more value per head, handling of entire processes than just transactions
 - Indian vendors only 5% of global outsourcing of engineering services (\$7bn to \$10bn), but need to expand to process engineering and plant operation areas
- Protectionist backlash to outsourcing in developed countries

India's Relationship with Asian Countries in Services Outsourcing

Comparative perspective

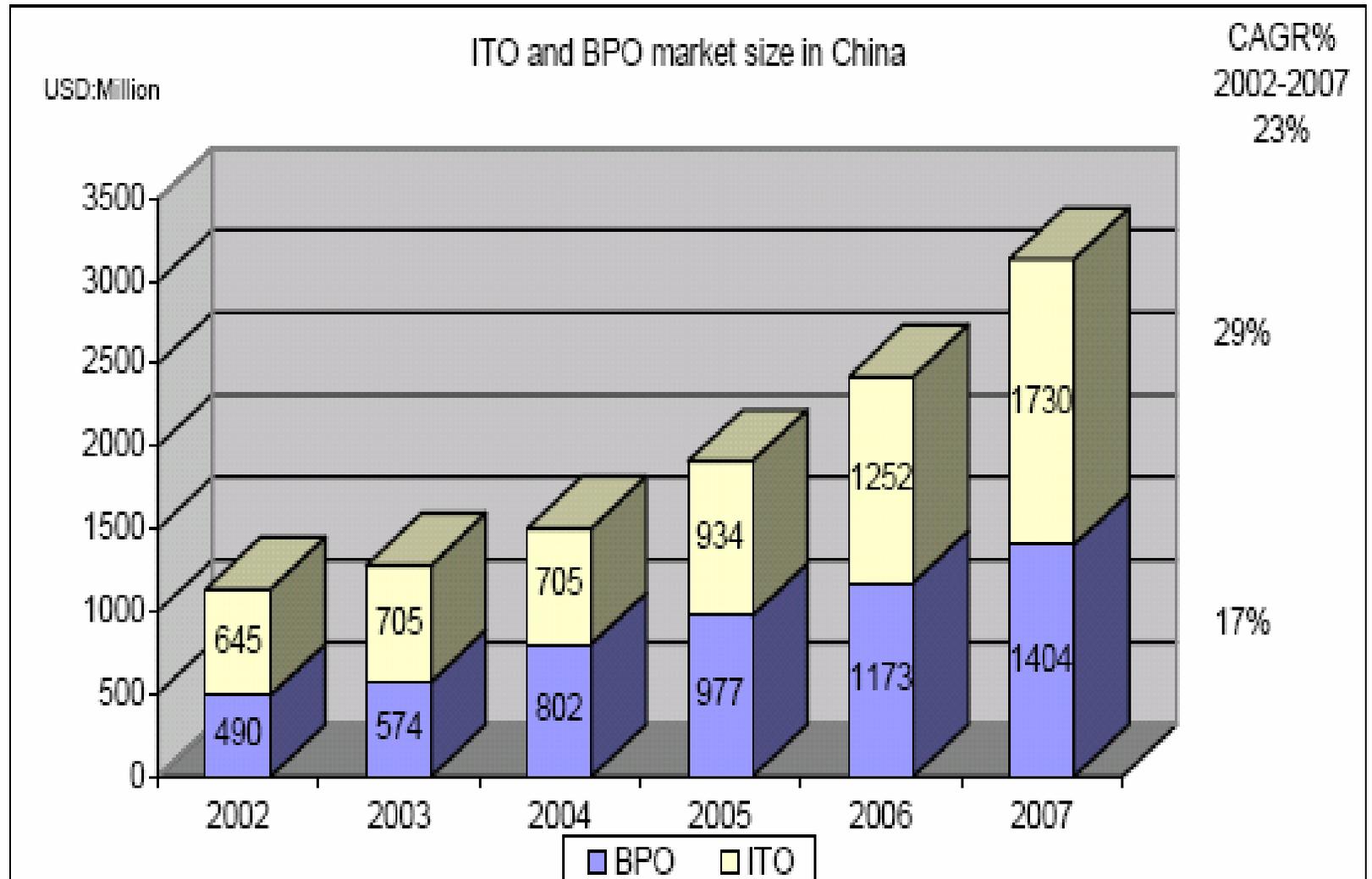
- How does India compare with other Asian countries, especially China and the Philippines
 - Quality, cost, availability of requisite manpower, government policies
- India clear leader but several other Asian countries engaged in services outsourcing
 - 6 of top 20 offshore destinations in Asia
 - Philippines: graphic design, architectural blueprints, accounting
 - Singapore: Asia Pacific hub for companies, robotics management, genetic diagnostics
 - China key product development centre for electronic giants, hardware design and embedded software
- India's main advantage over other Asian countries is scalability of human resources
- Comparable to other countries on financial structure and business government

India versus China

- China also has large talent pool
 - 1.6 mn engineering graduates
 - 9.6 mn young professional graduates
- China has a well developed domestic IT industry able to engage in IT outsourcing
- China can tap voice based outsourcing market from Japan and Korea
- China has a supportive government
 - Investment of over \$5bn in education to attune skill sets to needs of industry and English voice based business
 - Established technology parks as in India
 - Second tier cities (Xian, Nanjing, Dalian, Guangzhou)

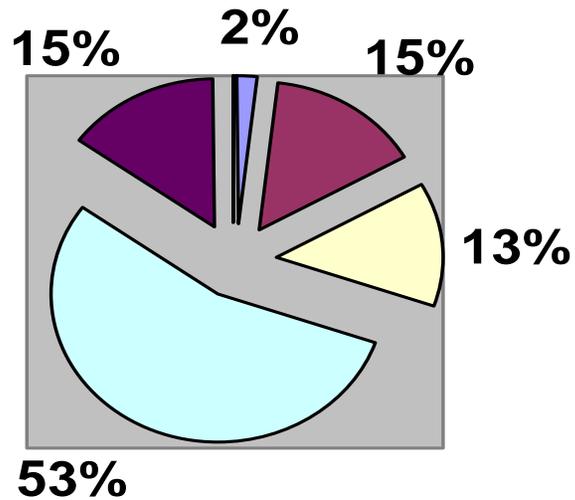
Features of China's outsourcing industry

- Rapid growth in recent years
 - \$490 mn (2002) to \$977 mn (2005), projected to grow to \$1.4 Billion (2007)
 - Growth rate of 17% in 2002-2007 period
- Main market is Japan
- Bulk of revenue from IT and telecom services segments (47%) followed by BFSI, limited voice based services
- Voice based business caters to Japan and Korea
- Main limitation is lack of English language capabilities but advantage due to scalability
- Very fragmented industry, no industry association presence



Source: Gartner, Mckinsey

Offshore outsourcing revenue by geography (2004)



■ Taiwan ■ Others ■ US ■ Japan ■ Hong Kong

- But China lags far behind India
 - Availability of English speaking capabilities and ITES professionals
 - Only 18,000 ITES professionals compared to 144,000 in India (2002) and 66,000 compared to 500,000 (2006)
 - Existing human resource base expected to be around 970,000 in China in 2006 compared to nearly 1.8 mn in India
 - Quality issues with Chinese manpower
 - Problems of attrition
 - Dearth of middle and project management skills
 - Poor communication skills
 - Lack of practical orientation
 - Limited domain knowledge graduates
 - High demand for talent from the rest of the economy
 - Lack of international quality certification, more fragmented industry
 - ITO and BPO revenues far behind India's
 - BPO revenues at \$977mn compared to over \$6bn in India (2005)

- Geographic orientation very different from India's
 - mainly to Japan, US small share

- Content wise different from India
 - mainly from IT and telecom

- Very little independent work done by Chinese outsourcing companies

- IP regime

- China competes with India only in scale, not in terms of business segments or markets

- China in a better position to do outsourcing related to its manufacturing capabilities, as in IT, telecom, related engineering and design services

- China unlikely to overcome India's lead due to language limitations as US and UK likely to remain main client countries

India versus the Philippines

- Though not comparable with India on scale, large human resource pool
 - Some 350,000 university or college students
 - 15,000 technical students graduating per year
 - 70,000 IT or computer science graduates
 - 35,000 engineering graduates
 - 100,000 commerce or business administration graduates
 - High degree of English proficiency
 - Large number of international quality professionals in financial and accountancy services
- High degree of cultural affinity with US
- Low labour costs
- Strategic location in ASEAN, plus good infrastructure, improving telecom infrastructure
- Government support
 - Special IT parks, economic zones

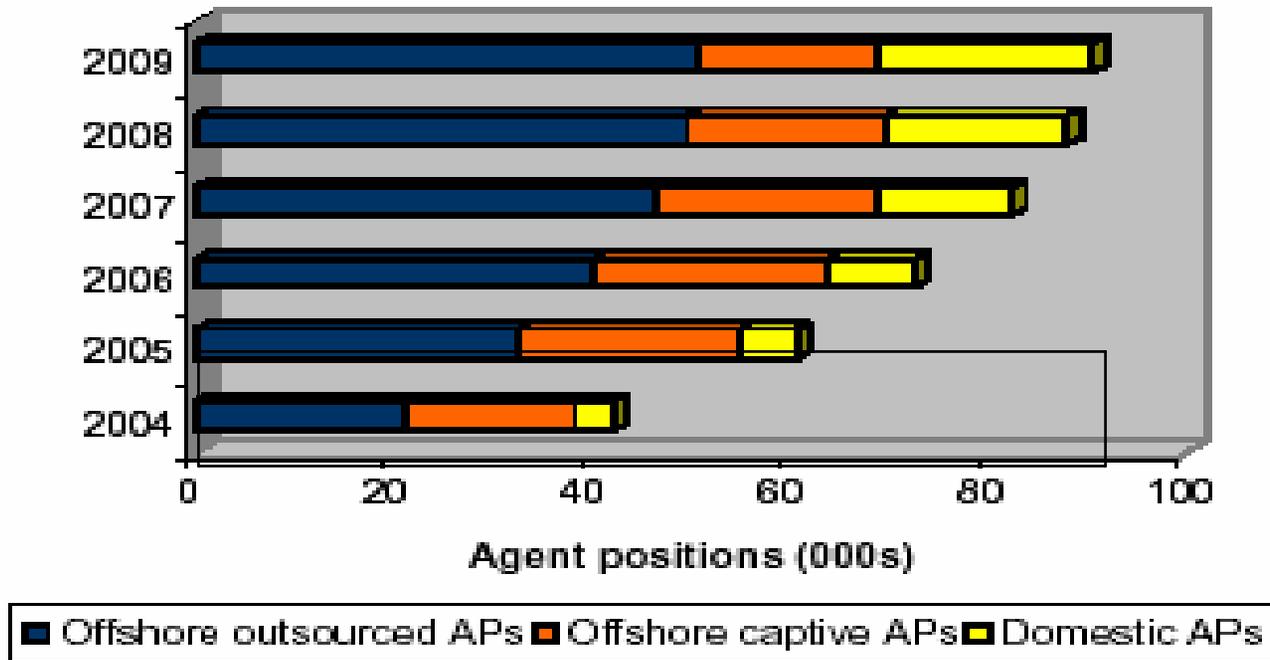
Features of the outsourcing industry in the Philippines

- BPO industry dominated by contact services segment and concentrated in Metro Manila area (Sykes Asia, Convergys, AOL Member services)
- Growth of over 50 percent per year recently
- US accounts for 90 percent of business
- Revenues from call centre services increased from \$640 million (2004) to \$960 million (2005).
- Number of seats up from 20,000 (2003) to 40,000 (2004), employed over 50,000 agents (2005), compared to less than 1,000 (2000)

- All types of customer interaction handled
 - Telemarketing
 - Advisory
 - sales verification, collection, reactivation, reinstatement, loyalty programmes, order and entry, inquiries
 - technical help desk
 - payment authorization, complaints, disputes
 - Transcription
 - electronic eligibility, support, billing
 - on-line business to consumer support
 - on-line business to business support
 - customer relationship management.

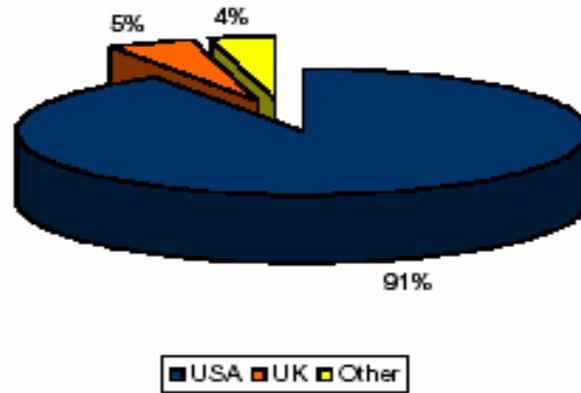
- Other services outsourced include medical transcriptions, animation, finance and accounting, software development services.

Recent and projected trends in contact centre positions in the Philippines, 2004-09

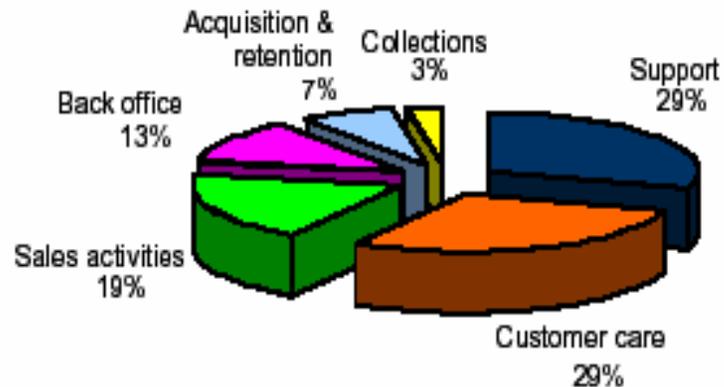


Source: DataMonitor, Future of Contact Centre Outsourcing, pp.45-46

Demand for contact centre outsourcing in the Philippines by source country, 2004



Composition of the Philippines' contact services industry by activity, 2004



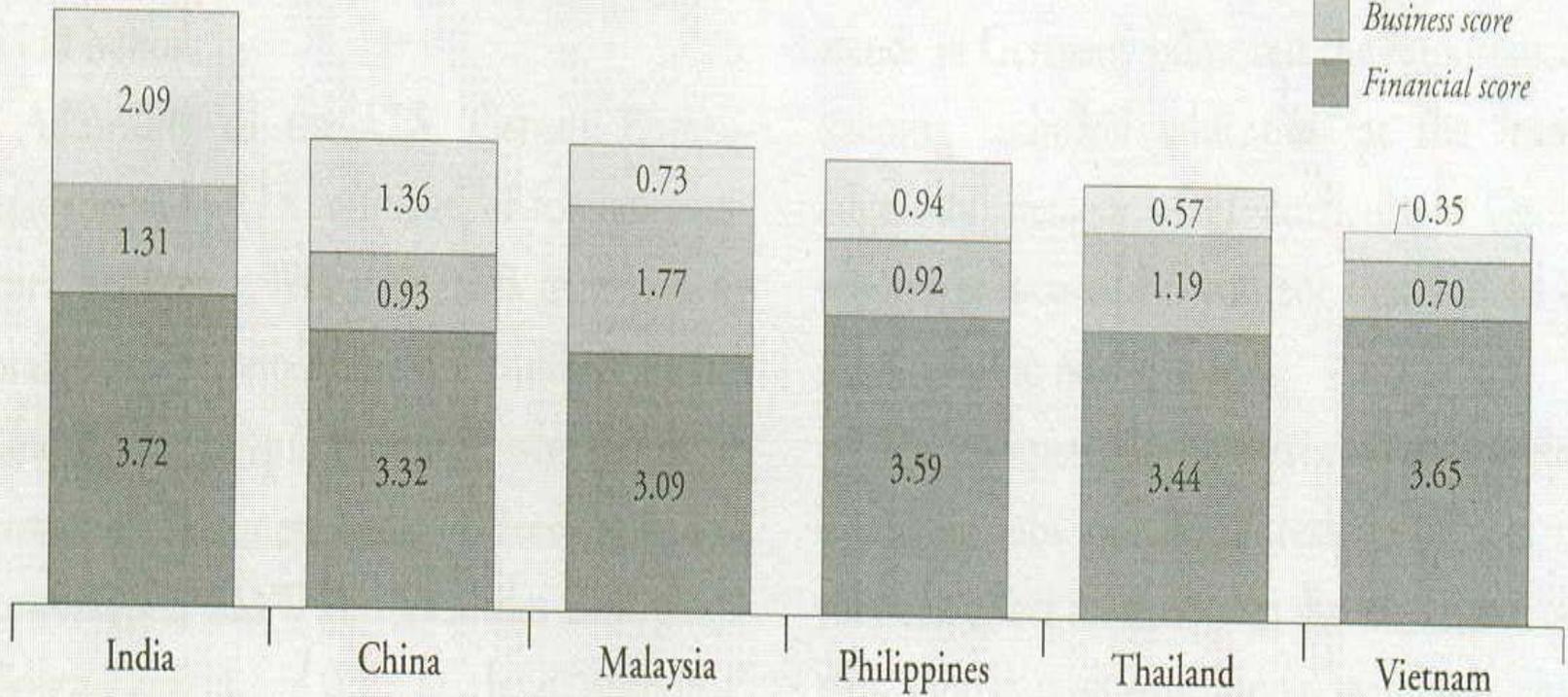
- Closer competitor to India than China in terms of content and orientation of outsourcing industry
- But India able to scale at all levels, has much bigger IT outsourcing segment, more high end KPO services
- Philippines currently oversaturated with call centre work
- Philippines does not have as mature and reputed a software industry
- Filipino outsourcing industry excessively concentrated in Manila
- Political stability and disaster recovery issues in the Philippines

India and other Asian countries

- Malaysia a potential competitor
 - English speaking manpower, good infrastructure, government support, but much costlier
- Singapore
 - Pool of professional manpower with multilingual capabilities but high labour costs
 - Attractive for strong IP legislation, good litigation procedures for data fraud and theft
 - Good infrastructure
- Vietnam
 - Able to tap Japanese and Korean markets
 - But limited to low end transactional work
- Other countries (Bangladesh, Sri Lanka) either lack scale or have poor infrastructure, political instability, too concentrated

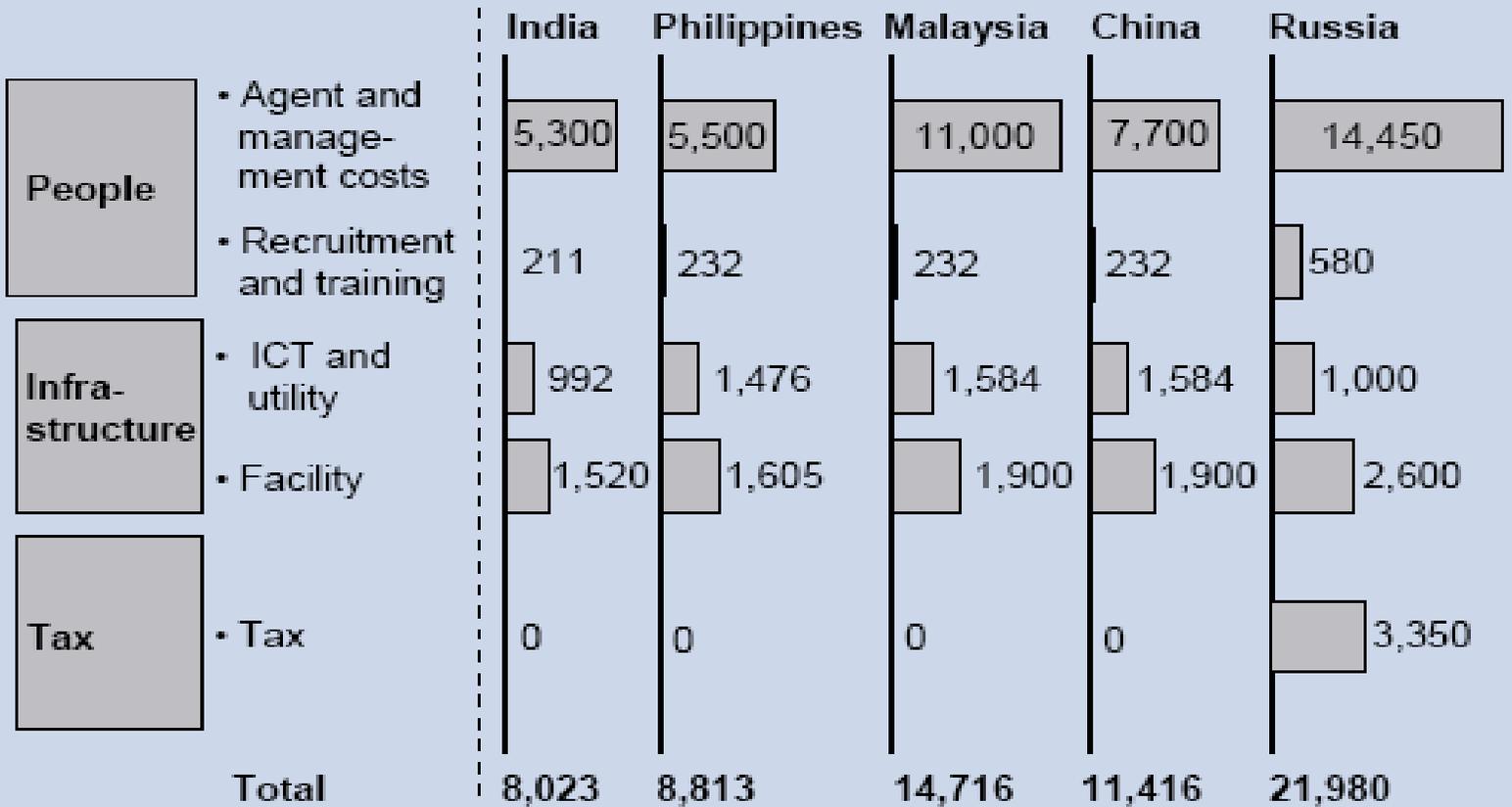
A.T. KEARNEY OFFSHORE LOCATION ATTRACTIVENESS INDEX 2004

□ *People score*
■ *Business score*
■ *Financial score*



Offshore location: India offers the best package

USD p.a. (ongoing costs), per employee



India's main source of advantage is labour cost and scale

- Competition limited for India from other Asian countries at present
- As labour costs rise in India, other capacity constraints become binding in India, other Asian countries promote their outsourcing industries, competition will increase for India
- Growing competition at lower end from Vietnam, Philippines, to limited extent from Malaysia, and at middle and higher end from China

Complementary perspective

- Potential for complementarity in skill sets, service lines
- Collaborative arrangements, subcontracting, cross border investments likely to increase between India and other Asian countries
- Three ways to understand complementarity
 - India moves up value chain and others move into lower tier activities
 - Indian and other outsourcing firms meet different needs and tap different markets, so client companies base operations in India and other Asian countries for offshoring different kinds of service activities
 - Firms entering into cross border collaborations like joint ventures and training arrangements to learn from each other

Complementarity in the value chain

- India's services outsourcing industry moving into specialized and domain knowledge intensive services
- Other Asian countries in lower end work like data entry, conversion
- In IT outsourcing India moving towards application oriented and consulting services while other Asian countries more in routine software development and maintenance services
- Value chain segmentation is emerging
- Interviews:
 - Several respondents in India noted that companies focusing more on higher value work
 - Dynamics of job migration changing as Indian companies also moving some of their low end offshore work to other low cost countries in region and outside
 - But due to scalability advantage, India likely to continue all through value chain

Outsourcing by Indian firms

- Indian companies outsourcing to other countries, setting up subsidiaries overseas
- Directly providing services from these offshore bases
- Using overseas operations as part of larger global or regional strategy
- Main reasons for reverse outsourcing include:
 - Entry into various new services and markets
 - Enhance service offerings in different languages
 - Broaden vertical focus
 - Exploit nearshore opportunities
 - Improve visibility and marketing
 - Disaster recovery in case of natural calamities or other emergencies
 - Front-end interface for overseas clients
 - Provide services with special focus on overseas market
 - Evalueserve opened center in China to provide Business Research and Investment Research services with special focus on the Chinese and Asian markets
 - Enter new markets, access new clients
 - HTMT set up center in Philippines as part of its growth strategy

Tata Consultancy Services

- Asian countries part of TCS's global and near shore delivery centres
- China is TCS' global delivery centre
 - Has scale allowing expansion of global operations
 - Helps diversify geopolitical risk
 - Helps address regional requirements of major client companies with interest in Asia Pacific and Chinese market
 - Can leverage local capabilities to meet client requirements
 - Get additional business from MNCs in China to Indian centres
 - Can tap growing offshore business available in China from MNCs which domestic Chinese outsourcing companies not in position to tap
 - China's scale enables Indian companies to hire locally and manage with Indians
 - Can provide offshore testing, design, etc. services to Japan from its bases in China
- Singapore is near shore delivery centre
 - Front end office, liaise with customers
- Segmented delivery model evolving as certain functions provided directly from India, some via network of global delivery centres, some provided directly to customers through overseas establishments

Wipro

- Business from Japan growing rapidly
 - Mainly for product and component development, porting, testing, and sustenance services
 - Main source sectors are consumer electronics, semi conductor, telecom industries
- Development centres in Shenzhen, Beijing, Japan for onshore and offshore engineering services
- Strong link between manufacturing and higher end outsourcing like engineering design
 - Scope to expand engineering services outsourcing from Asia Pacific countries to India (Fujitsu, Hitachi, LG) which do contract manufacturing and require engineering services
 - Potential to outsource manufacturing related support services to India or Indian companies located in China
- India and China can be complements
 - India's skills more on software side, China's more on hardware side

Infosys

- China and some other Asian countries can be means of overcoming talent shortage in India and to meet demands of US and European client companies
- Indian companies with centres in China can take advantage of large contracts being offshored to China which Chinese companies not in position to secure
- Work on Chinese operations of MNCs
- Will eventually consider tapping language capabilities for Japanese and Korean markets using centres in China
- Only China has sufficient scale and depth in talent pool

Collaborative arrangements in outsourcing

- Opportunities for collaboration and joint ventures
 - Indian companies can contribute to CAD, CAM, embedded systems design for Chinese semiconductor, IT and electronics equipment manufacturing companies
 - Indian training companies providing technical and management training to Chinese professionals
 - Huawei technologies set up centre in Bangalore for software research and development to leverage software development skills in india
 - CDC Outsourcing joint venture with vMoksha Technologies gto strengthen CDC's outsourcing capabilities in Asia and broaden ITO services to global clients

Bilateral and regional agreements

- India moving towards bilaterals and regionals, comprising of services
- Indo-Singapore CECA has implications for outsourcing due to provisions on:
 - double taxation
 - withholding taxes on technical fees
 - cross border movement of professionals
 - entry related conditions
- Give boost to bilateral trade and investment in ITES area with increased trade in computer hardware, peripherals, telecom equipment, ODCs and JVs in ITES

Economic and Social Implications

Evidence from India

- Outsourcing of services impacts delivery economies through direct and indirect channels
- Evidence points to possible win-win relationship between host and delivery economies
- Client countries
 - McKinsey study shows for every US \$1 offshored, value created of \$1.43 to \$1.47, of which \$1.12-\$1.14 to client countries
 - Source of gains are increased profits, efficiency, expanded trade, investment flows
 - Job loss in host economies overstated, more in normal course of job destruction and creation
- Delivery countries
 - Primary survey based evidence and secondary sources indicate positive effects in various development dimensions
 - Mc Kinsey study indicates gain of \$0.33 to delivery economy like India

Benefits of offshoring to the United States

Direct benefits	Items	Value (\$)	Total value (\$)
	Savings to U.S. investors and customers through cost differentials	0.58	0.67
	Import of U.S. goods and services by India (computer hardware devices)	0.05	
	Profit repatriation by U.S. companies back from India	0.04	
Indirect benefits	Value from U.S. labor redeployed		0.45 to 0.47
Total benefit of outsourcing to the U.S.			1.12 - 1.14
Source: McKinsey Global Institute.			

- More service jobs being created than outsourced in developed outsourcing economies
 - Average of over 2 mn new service jobs projected to be created per year versus 200,000 services jobs that will be outsourced in US
 - ITAA estimates 90,000 net new jobs created due to incremental activity resulting from offshore IT outsourcing in 2003, possibly 317,000 net new jobs by 2008
 - Global sourcing added \$33.6 bn to US real GDP (2003), expected to contribute \$124.2 bn (2008)
 - Misplaced fears in developed countries about outsourcing and job losses

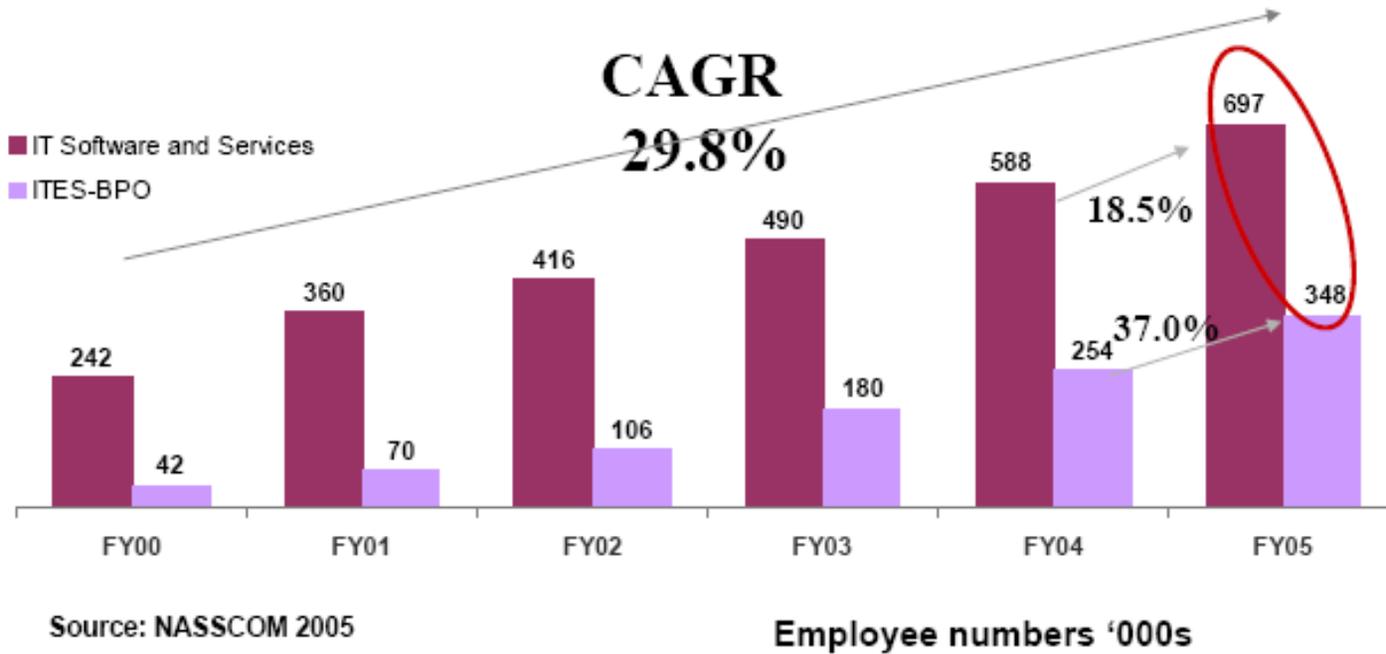
Benefits of offshoring to India, according to McKinsey Global Institute

Offshore sector	Items	Value (\$)	Total value (\$)
	Labor	0.10	0.20
	Profit retained in India	0.10	
Suppliers	Revenue to supplier industries net of taxes	0.09	0.09
Government taxes	central government	0.03	0.04
	state government	0.01	
Total benefit			0.33
Source: McKinsey Global Institute.			

(i) Employment creation

- BPO creates direct and indirect employment opportunities
- Within BPO industry better working environment and compensation than in jobs requiring similar skill and educational levels
- Economic empowerment of young adults, going beyond IT and engineering to include wider range of skills and qualifications
 - Contact services alone created income of \$375 million (2001-02) in India
- Diversification of employment opportunities
- Faster upward mobility and improvement in living standards
- Greater labour force participation by different groups in society , gender friendly
- Employment opportunities beyond mainstream graduates
 - Less advantaged and minority groups (women, retirees, disabled)
 - Companies experimenting with flexible work hours, work from home
- As industry spreads beyond major cities, employment and income gains likely to become more widely spread

Rapid employment growth in outsourcing industry



- Workforce projected to reach 1.1 mn by 2012
- Customer services (call centres) dominate employment, followed by content development, administration, financial services

Service line	Employment (2002-03)	Revenues (2002-03) (\$million)	Employment (2003-04)	Revenues (2003-04) (\$million)
Customer Services (including call centers)	66,400	830	96,000	1,200
Finance	25,000	540	41,000	835
HR	2,100	45	4,500	75
Payment services	12,000	230	21,000	430
Administration	26,000	325	40,000	540
Content development	48,000	510	51,000	550
Total	180,000	2,480	243,500	3,630
Source: Nasscom				

Impact of India's services outsourcing industry on direct employment (% of firms)

<u>Nature of impact</u>	All Firms	Tier 1 Firms	Tier 2 Firms	Tier 3 Firms
Moderately Significant	14	14	17	10
Highly Significant	86	86	83	90

Source: Calculated based on survey data obtained from Indian firms

- Demand created for wide range of ancillary services
 - For every job created in BPO industry, five created in other industries (multiplier effect) – 875,000 additional jobs worth Rs. 310 mn in revenues per year (2004-05)
 - Transport, catering, housekeeping, security, computer equipment provision and maintenance, training, real estate
 - Incentives created for entrepreneurial activity and small supporting scale businesses in ancillary services
 - Temporary staffing in supporting areas like HR, administration, finance in ancillary service firms (training and recruitment)
 - Spillover effects on employment via consumption channel to other sectors
 - Estimated 2.5mn indirect jobs generated in 2004-05

Impact of services outsourcing industry in India on indirect employment (% of firms)

<u>Nature of impact</u>	All Firms	Tier 1 Firms	Tier 2 Firms	Tier 3 Firms
Not Significant	2.5	0	3.5	5
Moderately Significant	32	34.5	17	50
Highly Significant	65.5	65.5	79	45
<u>Sectors most impacted</u>				
Transport	81	76	85	83
Catering	54	58.5	40	58.5
Training	50	48	55	48

Source: Calculated based on survey data obtained from firms

(ii) Skill and knowledge transfer

- Specific and generic skills acquired in delivery economies
- Specific skill transfer and acquisition in high end, specialized support services
 - Development of capabilities to undertake prototype designs for testing for mass production (drug testing, engineering design, research)
 - Exposure to cutting edge technology, practices (inventory and supply chain management, GAAP) and related upgrading of skills, technology, infrastructure
 - Productivity gains from specialization and adoption of new technologies and processes
 - Help develop indigenous capabilities for production, R&D, technical analysis without necessarily doing core processes
 - Potential diffusion of technology to other sectors

- Generic skills developed in delivering business support services
 - Knowledge acquisition and transfer in migration phase of outsourced project
 - Learn about client's functional, technical, maintenance, management processes, technical applications, products, marketing techniques
 - Hands on experience through supporting on-site presence
 - Customer relationship management skills
 - Exposure to global, demanding customers causes changes in approach, skills, attitudes
 - Learn importance of efficiency, costs, optimal processes, performance metrics, quality, on-time delivery
 - Improve work discipline, greater professionalism, accountability
 - Help in improving organizational systems, adopting more globally oriented competitive strategies at firm level
- Generic skills portable to other sectors and activities
 - Survey results indicate positive effect on efficiency in other sectors (financial services, telecom, transport, hospitality)
- Can help improve work and management practices in other parts of economy

Impact of services outsourcing industry in India on skills (% of firms)

	All Firms	Tier 1 Firms	Tier 2 Firms	Tier 3 Firms
<u>General Skills Development</u>				
No Effect	20.5	21	27.5	10
Mildly Positively	43.5	41.5	48	40
Very Positively	36	28	24	50
<u>Specific Skills Development</u>				
No Effect	28	27.5	34.5	20
Mildly Positively	38.5	41.5	31	35
Very Positively	33	31	34.5	35

Source: Calculated based on survey data obtained from firms

(iii) Creating resources

- Net value addition to outsourcing and delivery economies
- Export earnings
- Foreign investment
 - strategic investments by MNCs, setting up of subsidiaries, R&D centres, JVs with local firms
 - Confidence and image building attracts investments and further contracts
 - Attract investments to other areas like auto component and pharma industries where scope to outsource design, testing, specialized services
- Reinvestment of profits (around 40% according to survey results)
- Stimulus to government investments in related infrastructure
- Domestic investment
 - establishment of small and mid size entrepreneurial firms, strategic acquisition of smaller players, ramping up of investment by larger companies

	All Firms	Tier 1 Firms	Tier 2 Firms	Tier 3 Firms
<u>Effect on FDI in BPO Sector</u>				
No Impact	25.5	24	34.5	15
Positively	64.5	76	65.5	85
<u>Effect on FDI in non-BPO Sectors</u>				
No Impact	43.5	45	45	40
Positively	56.5	55	55	60
<u>Effect on Domestic Investment in non-BPO Sectors</u>				
No Impact	4	0	7	5
Positively	96	100	93	95
<u>Stimulus Government Investment</u>				
Telecom	96	96.5	96.5	95
Power	78	76	83	75
Transport	43.5	52	34.5	45
Roads/Rail	42	34.5	38	60
Training/Education	41	41	27.5	60
Real Estate Facilities	36	38	21	55

(iv) Retention and reversal of skilled persons

- Reduced incentives for migration by skilled persons with expanded job opportunities and attractive wages in offshore centres
- Reverse migration with relocation of expatriates by overseas companies
- Return migration by senior professionals and managers to set up own business, manage MNC subsidiaries
- Associated investment, knowledge, technology flows and contracts

- 50% of firms surveyed in India indicated that BPO industry is helping in retaining skilled people and reversing brain drain
 - better income opportunities
 - global character of industry
 - greater expectations

- But for reversal to be significant, need industry to move into higher value operations

(v) *Externalities*

- New class of consumers created with large demand effect on other sectors
 - Real estate, durables, financial markets, consumer goods
- Real estate
 - Growing demand for office space by BPO industry in major cities but likely to spread as industry expands to other areas
 - Associated rise in property rentals
 - Real estate acquisition by BPO industry grown from 2.59 mn sq ft (2001) to 11.28 mn sq ft (est. in 2005) across major cities in India
- Spread of education and training and incentives for human capital accumulation (IT, computers, language and communication courses)
 - High share of firms responded that positive effect on education and training (74% for China, 53% for India)
- Emergence of domestic outsourcing

- Some negative effects are evident and also emerged from survey results
- Adverse effect on social and cultural norms
 - Loss of cultural identity
 - Loosening of social and cultural values
- De-skilling due to underutilization of training and qualifications
- Skewing of educational incentives affecting broad basing of education
- Redirection of resources from other sectors
- Exacerbating inequalities across sectors, occupations, regions
- Occupational health issues

- Adverse effects often a function of kinds of services and level of maturity of BPO industry
- Not specific to outsourcing industry but often related to globalization in general