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IT-driven Offshoring: The Exaggerated “Development Opportunity”

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Abstract

This paper considers the recent boom in IT-driven offshoring in India and examines the potential for this to become a major source of economic growth in the future. Currently there is much optimism about the benefits that the new trend can bring to India and other similarly placed countries, as growth in services is seen as more likely to deliver employment, income and export revenue increases than growth in the commodity producing sectors. But such optimism may be misplaced given the relatively small share of this sector in total output and employment, as well as the difficulties of sustaining growth in the area. Most importantly, focus on this potential should not allow the government to ignore jobless growth in other sectors.

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Introduction and Conceptual Issues

Since the late 1990s India has recorded dramatic increases in the aggregate earnings of its software and IT-enabled services (ITeS) sectors, such that these sectors are often quoted as the source of a new dynamism characterising the Indian economy. This experience has also been used to argue that the revolution in information technology offers developing countries new opportunities for services-based export-led growth. This is because of two features of the ICT revolution: first, an acceleration in the process of outsourcing of IT and IT-enabled services by corporations in the developed countries; and second, an increase in the extent of offshoring of these outsourced activities to countries like India. These processes are seen to have the potential to alter the global distribution of incomes at the margin and redress existing international inequalities.

However, notwithstanding the substantial attention devoted to outsourcing, discussions on the subject often lack conceptual clarity. In particular, both estimates and analyses of recent trends do not distinguish between outsourcing, offshoring and outlocation. Outsourcing can be defined (following Parinello, 2004) as the substitution of integrated processes (producing and using an intermediate good or a business service) with distinct processes. Outsourcing brings about both process and commodity innovations, if the element that is outsourced was not initially a vendible commodity. This process can obviously occur within or across national boundaries, so outsourcing *per se* is not necessarily a cross-border or global phenomenon. It can and does tend to occur in the first instance within national boundaries, in the form of outsourcing of in-house production of manufactured intermediates, in-house processing of raw materials, or in-house execution of a range of services (such as after-sales service, accounting, etc.).

Offshoring refers to the relocation of outsourced activities across countries. Once the process of outsourcing a particular activity is generalised across firms, then the shift of the location of the vendor can cause offshoring. That is, if activities that were outsourced earlier, and therefore now exist as independent activities in the countries of origin, are relocated to another country, then this constitutes the offshoring of an already existing independent commercial activity. Finally, outlocation occurs when the producer of the vendible intermediate establishes a commercial presence in the country to which the activity is being relocated.

Conflating these rather different concepts results in attributing an excessive degree of novelty to current processes and generates over-optimism about their implications. Thus, the failure to distinguish between outsourcing and offshoring creates excessive optimism about the economic opportunities for developing countries and excessive pessimism about the loss of employment that would accompany the shift of services out of developed countries. In addition, the failure to distinguish between offshore outsourcing and outlocation results in an overestimation of the benefits to developing country firms and economies from the growth of software and IT-enabled services export and an underestimation of the benefits that accrue internally to firms and the developed countries from outlocation.

It is perfectly possible, and does happen, that the initial outsourcing occurs through the transfer of a separated part of an integrated process to an independent vendor located abroad. This is the only instance where the process broadly categorised as “outsourcing to another country”, is an actual instance of outsourcing and not just offshoring or outlocation. Over time, for each level of cumulative outsourcing there is some of this activity that is undertaken by firms within the country of origin of the demand and some that is undertaken by firms from outside. It is the implications of the latter that concern us here.

Motivating and Constraining Factors

Different kinds of considerations enter into the outsourcing decision. The first is the cost consideration, since there are many ways in which outsourcing can lead to reduced costs. For example, specialised entities are able to reduce costs for certain activities through specialisation either because of the large scale of operations they can sustain by pooling demands from multiple players or because of their ability to keep overhead costs down when running small-scale operations. Outsourcing can also reduce costs by transferring activities to firms operating in a labour market segment different from that of the outsourcing firm, where wages and therefore the costs of undertaking certain activities are lower.

Needless to say, these same factors can encourage offshoring as well. Thus, the effort at cost reduction can encourage developed-country firms to directly outsource to developing country vendors, since they have access to a segment of the global reserve army of unemployed labour where the reservation wage is much below that of the developed countries. Further, competition between vendors of outsourced products or services in the developed countries or between vendors in developed and developing countries could encourage the former to either outlocate or outsource a part of their own operations to environments providing access to cheap labour.

Not surprisingly, the greatest advantage of offshoring to India is reportedly the cost savings enjoyed by the offshoring companies, 70 per cent of whom are US-based. Cost comparisons between India and the U.S point to savings of around 80 per cent accruing to the source companies (Patel, 2004). A 2003 study published by the University of California, Berkeley's Fisher Center for Real Estate and Urban Economics (quoted in Richards and Margolis, 2004) indicated that a financial analyst in the US earned around \$35 per hour compared to \$6 for a similar worker in India, and an accountant earned \$23 per hour in the US compared to \$15 per hour in India. Telephone operators and medical transcribers earned \$13 per hour in the US compared to less than \$2 per hour in India. According to a survey by Chicago-based Challenger, Gray and Christmas Inc, "the monthly cost of keeping one tech employee in the Valley is \$15,000 per worker, as against which someone with the same skills, responsibilities and job package would cost \$2,500 a month in New Delhi." This translates into savings of \$12,500 per month or \$150,000 for a year. By sending 10 jobs to India, a start-up can thus reduce \$1.5 million as payroll costs.¹ Investment costs are also lower. The cost of setting up a call centre in Delhi is estimated at around a third of that in the US.²

Besides reduced costs, a second factor that could motivate firms to outsource certain activities is the desire to convert the fixed managerial salary and wage costs involved in undertaking an activity in-house into recurring costs, allowing them to curtail those costs when capacity utilisation falls due to demand constraints. Finally, firms may outsource because they find the need to focus their managerial attention on core areas, and not fritter away their energies in micro-managing non-core activities.

However, a contrary trend is possible as well. In certain contexts, firms may choose to undertake internally a set of activities that can be outsourced because of factors such as economies of scope, insufficient quality

guarantees, or supply uncertainties. This is because in some situations, the costs of outsourcing activities outweigh the benefits.

There may also be external constraints on the ability of a firm to outsource its activities. Mainstream discussions of the boundaries of the firm have noted the existence of activities which cannot be outsourced easily because of “hold-up” problems (Holmstrom and Roberts, 1998). If the vendor of some outsourced activity needs to make substantial investment to undertake the activity, then there is the problem that the outsourcing contract is an incomplete guarantee that the returns on that investment would be fully realized. The outsourcer may choose to pull out of the contract, well before the investment is amortized and returns are obtained. This in turn can deter the potential vendor from entering into an outsourcing contract and thereby restrain the extent of outsourcing that occurs.

Enabling Technological Changes

Technological changes have played an important role in increasing the benefits from outsourcing, initially in manufacturing and subsequently in services. In the case of manufacturing, the acceleration of offshoring and outlocation, which began in the 1980s, was driven by three features of technological change. First, as has been observed in the literature (Fröbel, Heinrichs, and Kreye, 1981), technical change has resulted in the segmentation of production processes, with each segment being characterised by different labour and input requirements. This makes the appropriate location for individual segments different depending upon whether it is being chosen from an input or a labour access point of view. Second, technological changes in the transportation sector have clearly reduced the time required and the costs of transporting commodities over long distances. This allows for the production of parts of a commodity in different global locations and their assembly into the final product in yet another location. Finally, technical changes in the communications industry have reduced costs and facilitated connectivity, enabling and easing centralised management of worldwide production facilities. All of this has favoured global outsourcing in manufacturing.

Thus, Feenstra and Hanson (1996, Pp. 240) had argued that “the fragmentation of production into discrete activities which are then allocated across countries” had resulted in an internal reorganisation of production within particular industries and a consequent increase in international outsourcing. In particular, confronted with import competition from low-wage countries, firms were responding by shifting non-skill-intensive

activities abroad, resulting in a relative increase in the demand for skilled labour in the US. Measuring outsourcing by the share of imported intermediate inputs in total purchases, they estimated that it had increased from 5.3 per cent of material purchases to 11.6 per cent between 1972 and 1990. Overall, differential wage costs appeared to be an important contributor to US outsourcing resulting in an increase in non-skill-intensive manufacturing in low-wage countries and a relative increase in skill-intensive activities in high-wage countries.

Feenstra and Hanson (1996, Pp. 242) also found that firms in certain industries showed a much higher propensity to outsource than others. In footwear, electric and electronic machinery, instruments and “other industries” (jewellery, toys and sports equipment), the share of imported intermediates in material purchases was about 1.5-1.75 times the average. This was because of two characteristics of the mostly semi-durable consumer goods that were produced by these industries. First, the production process could be separated into self-contained stages, facilitating the transportation of inputs across space. Second, production stages varied considerably in the relative intensity with which they used labour of different skill-types, which created a rationale for moving non-skill-intensive activities abroad.

This implied an increase in service-intensive activities in the developed, high-wage economies and assembly operations in the developing countries. Product design and development requires workers with a college education and the production of components may require skilled workers. Product assembly, on the other hand, generally requires only workers with rudimentary skills. The first of these features implies that often a foreign firm may be contracted to manufacture a product which is designed by and will be distributed by a US firm, as is true in the case of athletic shoes “produced” by Nike.

The net result, however, is that much of the value-added is due to activity in the US (Tempest, 1996 and Feenstra 1998). As an example of outsourcing, consider the Barbie doll. The raw material for it comes from Taiwan Province of China and Japan, while the doll itself is assembled in Indonesia, Malaysia and China using moulds imported from the US. The cost of Chinese labour (35 cents), raw materials (65 cents) and transportation and overheads including profits, takes the export value of the doll to \$2 when it leaves Hong Kong. On the other hand, the doll sells for \$10 in the US, of which Mattel earns at least \$1 and the rest goes to cover the costs of transportation, marketing, wholesaling and retailing in the United States. Thus, much of the value-added accrues in the US.

In sum, manufacturing outsourcing, resulting from the segmentation of production processes and the shift of unskilled labour-intensive activities to developing countries, does not affect the profitability of US firms, but helps shore it up in the face of competition. Nor does it affect value-added and GDP generated in the US. But it does reduce the share of unskilled workers in the total in the US. In the process, it has the danger of pitting poorly paid workers in countries like the US against similar workers in low-wage, developing economies. Finally, since skill-intensive activities like R&D and design are undertaken in the source country, offshoring in manufacturing appears to contribute to a *relative* increase in service sector output and employment in the developed countries.

The Shift to Services

More recent outsourcing/offshoring has involved a noticeable spread in the direction of services. There could be three reasons for this: first, changes in the organisational structure of firms, which permit the dissociation of a growing set of service activities from the core operations of the entity; second, changes in technology which permit the remote delivery of an intermediate service, even though its production and supply must occur simultaneously and not sequentially; and, third, the growing global homogenisation of skills of certain kinds of service workers, partly because of capitalist development in the peripheral countries characterised by lower wage structures.

There has been a significant degree of in-country outsourcing of services in developed countries like the US, before the current offshoring boom began. Thus, a survey conducted in the United States by the Outsourcing Institute reportedly found that companies with over \$80 million in annual revenues increased outsourcing by 26 per cent in 1997 to \$85 billion in 2000. IT was the fastest growing activity being outsourced, accounting for 30 per cent of total outsourcing expenditures. Human resources were the second largest (16 per cent), followed by marketing/sales (14 per cent) and finance (11 per cent). Manufacturers accounted for nearly two-thirds of the outsourcing, with information and professional services each accounting for 13 per cent of the total. (OECD, 2000).

Even so, this phenomenon should not be exaggerated. According to Edwards (2004), IBM executives reckon that while the world's companies spend a total of around \$19 trillion each year on sales, general and administrative expenses, only \$1.4 trillion of this has been outsourced to other firms.

Like in manufacturing, services outsourcing, too has been enabled by technological advances, especially in ICT. While improvements in transportation technology biased the process of outsourcing in favour of manufacturing (involving material and heavy goods), those in ICT encouraged more outsourcing of services and immaterial goods, given the need for simultaneous interaction between the provider and the user of services, and the informative content of the immaterial goods.

ICT-enabled decline in the costs of data generation, storage, transmission and dissemination has allowed for the remote delivery of a range of services, resulting in an increase in cross-border outsourcing of services. Prior to the digital revolution's transformation of service activity, the provision of most services required the presence of a service provider at the point of delivery of the service. As a result, services export took the form of migration of personnel to the location where the service was provided, as epitomised by the migration of skilled technicians, doctors and nurses to the US and of semi-skilled and unskilled workers, including carpenters, masons, chauffeurs and housemaids to the Gulf countries from India. Benefits to the home country came in the form of *remittances* of hard currency earnings by these migrants to their families, which augmented the scarce pool of foreign exchange available to these countries. But the magnitude of such income was limited by the restrictions on the movement of skilled and semi-skilled and unskilled personnel set by the immigration laws and practices of countries where the relevant service demand originated. In the IT services area, this form of delivery was reflected in the use of H1B visas to provide IT services onsite in the US, India's principal market.

The digital revolution has helped to overcome this obstacle. Now there is a range of services being provided by workers located in a country different from the one in which the service is actually delivered. These services are outlocated or outsourced and delivered via telecommunication or data networks from remote locations such as India's metropolises. These changes, while driven by substantial savings in wage costs, also imply that the managerial costs of offshoring have been reduced, and that the difficulty of finding suitable vendors has fallen substantially. The evolution of technology and the increase in the spatial spread of potential vendors have made it easier to find vendors for activities that firms seek to outsource, despite the hold-up problem noted above. As a result, firms tend over time to move activities beyond their national boundaries to producers outside, at locations where transportation costs do not neutralise any net pecuniary benefit the firms may derive from outsourcing. Once the process begins, competition drives all firms in an

industry to adopt a similar strategy, since cost-reducing organisational changes have this in common with technical change.

Outsourcing/offshoring of IT and IT-enabled services refers not only to services *per se*, but also the process of production of intangible goods such as software, which have been segmented and some segments outsourced. As has been noted often, services increasingly resemble commodities. The conventional idea that services differ from commodities because they cannot be stored, that they have to be consumed at the point of production and that their consumption requires the direct interaction of service providers and consumers is no more true of a range of services.³ Thus, the outsourcing and offshoring of services is all the greater because the services sector has substantially changed its character.

There are two features of the outlocation, as opposed to offshoring, process that need to be noted here. First, this is not akin to foreign firms establishing capacities in host developing countries to produce for local markets, since the transfer of productive facilities is with the express intent of export. Second, while both offshoring and outlocation imply new employment in the host country, the value added benefits to the host are greater in the case of offshoring because the profits from local operations (even if based on lower costs and prices) are not appropriated by foreign firms and subsequently repatriated.

The Global Outsourcing Market

How large is the global outsourcing market in the IT and IT-enabled services area? Since outsourcing as a business practice is itself relatively recent and offshoring to developing countries is still so novel, assessments of the size of the market are all in the nature of predictions or projections. Consider, for example, a set of estimates quoted in the WTO's annual trade report (2005, Pp. 265-302). The European Information Technology Observatory (EITO) estimates the size of the IT services market, excluding business process (BP) services, at \$710 billion (£591 billion) in 2003. On the other hand, the OECD estimates the size of the global market for outsourced IT and business process services to be close to \$260 billion in 2001. Taking into account reasonable estimates of exchange rate changes and market growth, this makes the EITO estimate much larger than that of the OECD's, despite its narrower coverage. Further, Gartner estimates that out of a total of \$663 billion of software and IT services expenditure in 2003, a little more

than 50 per cent or \$322 billion was outsourced. This is closer to the OECD's outsourced services estimate.

Similar discrepancies are seen in estimates of offshoring as well. The OECD places the value of offshored IT and business service activities at \$32 billion in 2003, representing 12.3 per cent of the global IT market. McKinsey, on the other hand, estimates that US companies offshored IT and business process (BP) services worth \$26 billion to 12 major markets in 2001. The 12 markets exclude major EU markets and therefore the figure somewhat underestimates the global offshoring of US companies worldwide. Even if we ignore this, since the share of US companies in global offshoring activities is estimated at 70 per cent, this suggests that the global value for all offshored IT and BP services was at \$35 billion in 2001, higher than the OECD's 2003 value.

Outsourcing: The Indian Experience

Estimates made by the National Association of Software and Service Companies (NASSCOM) suggest that revenues from software and IT services increased from \$5 billion in 1997-98 to \$12.1 billion in 2000-01 and \$28.2 billion in 2004-05.⁴ The growing importance of software and IT services in the total IT revenues was the result of a rapid expansion in the export of software and services, as indicated in Table 1. If this trend persists, ITeS would come to dominate the revenues and exports of the IT industry.

Global and domestic trends are expected to result in an intensification of these tendencies. For example, according to one estimate (Lui, 2003), offshore BPO represents only 1.5 per cent of the total BPO market. This could be seen as pointing to the space still available to Indian companies for growth. However, even India's current presence in global outsourcing implies its domination of the market, at 80 per cent of the total according to an estimate from *Le Monde* quoted by UNCTAD (2003). If that market is unlikely to grow rapidly, then the space available for new players is indeed limited, unless the market is redistributed. That could mean, as we argue below, that BPO would not necessarily provide a great economic opportunity even for a country like India. It would also mean that, as in the case of primary products, competition between developing country providers of lower end services would drive prices down and transfer the benefits of low wages to international corporations leaving little behind in the developing world.

Table 1. The Structure of IT Production and Exports in India

Year	Ratio of IT software and services to total IT market (%)	Ratio of IT software and services exports to total revenues (%)	Ratio of ITeS exports to software and services exports (%)
1997-1998	58.47	59.91	NA
1998-1999	66.70	64.81	NA
1999-2000	66.28	71.52	14.26
2000-2001	66.86	74.92	14.96
2001-2002	75.25	76.79	19.55
2002-2003	77.76	77.52	24.10
2003-2004E	79.39	78.34	29.51

Source: www.nasscom.org, accessed January 30, 2005

The point is that even in the model country, namely India, BPO-ITeS is only an opportunity in the making. This comes through even from figures quoted by NASSCOM, the industry body that is gung-ho about the potential in this area and has (unfortunately) emerged as the leading purveyor of information in this regard. NASSCOM estimates that in 2003-04 IT software and services yielded revenues of Rs, 709 billion or about 2.6 per cent of India's GDP. Direct employment created by the ITeS-BPO sector is expected to touch just 245.5 thousand in 2003-04, up from 42 thousand in 1999-00 (Table 2).

India, however, is currently enjoying the top slot in most rankings of the top ten outsourcing destinations around the world. The reasons why offshoring to India dominates are obvious. It is an excellent location in terms of the availability of manpower with the requisite skills (say, basic computer literacy) and the necessary characteristics (e.g., knowledge of English). It is also a low cost location with access to cheap, skilled and highly qualified labour.

Service Lines	Number of people employed
Customer Care	95,000
Finance	40,000
Human Resources	3,500
Receivables Management	21,000
Administration	40,000
Content Management	46,000
Total	245,000

Source: www.nasscom.org, accessed January 30, 2005

India's competitive advantage in the software export area is also substantial. Even before the downturn of the late 1990s, wage costs in India had been estimated at one-third to one-fifth of US levels for comparable work (Tables 3 and 4). Taking all costs into consideration, some estimates suggest that the cost of software development in India is half of that in the US. Relative to outsourcing competitors like Ireland, wages in India are estimated at a half to a third.

Category	United States	India ²
	(USD per annum)	(USD per annum)
Help-desk support technician	25 000 - 35 500	5 400-7 000
Programmer	32 500 - 39 000	2 200-2 900
Network administrator	36 000 - 55 000	15 700-19 200
Programmer analyst	39 000 - 50 000	5 400-7 000
Systems analyst	46 000 - 57 500	8 200-10 700
Software developer	49 000 - 67 500	15 700-19 200
Database administrator	54 000 - 67 500	15 700-19 200

Notes:

1. Figures are starting salaries for large establishments employing more than 50 software professionals. They may be marginally lower for smaller firms. Salaries for a particular designation vary owing to factors such as educational and experience profile of the professional; platform of operation; nature of the assignment (contract/full-time); location of the employer; and additional technical/professional certification.

2. Converted at exchange rate of INR 41.50/USD.

Source: INFAC, Bombay quoted in OECD 2000, p. 140.

As a result of these visible advantages that countries like India have and the observed rapid increase in IT- and IT-enabled services outsourcing, there is much optimism about the benefits of employment, income and export revenue increases that the new trend can bring to India and other similarly placed countries. As has been repeatedly observed, leading Indian IT companies, like TCS, Infosys and Wipro are rapidly overtaking the giants of Indian manufacturing such as Telco, Hindalco and L&T, when it comes to the number of people employed. The manufacturing sector in India seems to be witnessing its own version of jobless growth as companies shed workers to gain cost efficiencies and automation of menial jobs drives down the need for more workers. On the other hand, IT and ITeS companies are hiring and leveraging technology to grab the worldwide outsourcing market.

Country	Computer Programmer		Systems Analyst	
	US \$	Index (India=100)	US \$	Index (India=100)
India	4002	100	5444	100
USA	46600	1164	61200	1124
Japan	51731	1293	64519	1185
Germany	54075	1351	65107	1196
France	45431	1135	71163	1307
Britain	31247	781	51488	1287
Hong Kong	34615	865	63462	1166
Mexico	26078	652	35851	658

Source: Gupta (2000) quoted in Joseph (2002).

The Question of Sustainability

However, there are questions relating to the benefit to the host country from the recent boom and the sustainability of the boom itself. There are a number of grounds for caution. To start with, India's operations in the ITeS area are characterised by the increasing dominance of one area, Customer Care, which accounted for close to a third of BPO revenues in 2003-04 (Table 5).

Further, while the IT-enabled services sector is diversified, excepting for medical transcription, which records abysmally low revenue per worker, there is not too much difference in the revenue per worker,

which averaged Rs. 600,000 (or around \$12,200) per year. This points to the fact that low wages do drive the industry. As countries like the Philippines and even China seek to enter this market, the possibility of a profit squeeze in the IT-enabled services area cannot be ruled out. What seems to be likely is that as in the case of manufactured exports, a few developing countries would account for an overwhelming share of total exports and even limited spread could be accompanied by a race to the bottom.

Service Lines	2002-03	2003-04
	(in \$ mn)	(in \$ mn)
Customer Care	810	1,200
Finance	510	820
HR	45	70
Receivables Management	210	430
Administration	310	540
Content Development	465	520
Total	2,350	3,850
Source: Nasscom		

Source: www.nasscom.org accessed January 2005.

A recent report of A.T. Kearney (Annual Global Services Location Index, 2005) indicates both the current lead of India and the extent to which it is narrowing. This index analyzes the top 40 services locations worldwide against 40 measurements in three major categories: cost, people skills and availability, and business environment. The study finds that while India remains the best offshore location by a wide margin, wage inflation and the emergence of lower-cost countries have recently decreased its overall lead. The gap between India and the second-ranked country, China, is larger than the gap between the next nine countries combined. Nevertheless, India's lead has shrunk slightly compared to 2004. This is mainly due to a slight reduction in India's financial attractiveness, which is the result of wage inflation in several of these services in India and the emergence of new and even lower-cost contenders such as Ghana and Vietnam.

Meanwhile, China has maintained its second place ranking in the A.T. Kearney Index and has reduced the gap with India, thanks largely to continued improvement in its infrastructure quality and the availability of relevant people skills, making it a low-cost option for servicing Asian markets. For a growing number of Asian and Western multinationals, China remains the best choice for serving their growing operations

throughout the East Asia region - the logical location for IT and back-office support and call centres for China itself, but also a low-cost option for servicing established markets in Japan, Korea, Taiwan, Hong Kong and Singapore. All this points not only to the increasing complexity of the location-decision calculus of firms across the world, but also the difficulty of ensuring that India remains the preferred destination for such activities.

This implies that the real beneficiaries from the offshoring movement are the firms engaging in offshoring themselves, which reap substantial cost-reduction benefits and profits. According to the McKinsey Global Institute (2003, Pp. 9), for every dollar spent on offshoring by the US in 2002, the total value derived by the global economy was \$1.40 to \$1.47. While 78 per cent of this value was retained in the US, only 22 per cent accrued to offshoring destinations like India. Further, every dollar spent in this manner resulted in savings of 58 cents to US investors and customers. It also resulted in an increased import of US goods and services by providers in India. According to the study, for every dollar spent in this way, offshore service providers buy an additional five cents worth of goods and services from the US economy, ranging from computers, telecommunications equipment and other hardware and software equipment to legal, financial and marketing services. Since several providers in the US offshoring market are incorporated in the US, these companies repatriate their earnings back to the US, which amounts to an additional 4 cents out of every dollar. (ibid, Pp. 9). Finally, the report argued that labour freed due to offshoring adds another 45 to 47 cents of value, which assumes some degree of labour market flexibility. The total value retained in the US thus adds up to \$1.12 to \$1.14; in other words, "Offshoring creates net additional value for the US economy that did not exist before, a full 12 to 14 cents on every dollar offshored." (ibid, Pp. 9).

By contrast, offshoring destinations like India capture only 33 cents out of every dollar offshored. Out of this, 1 cent goes to the state government, including sales tax on the supplier industries and supply of power. Another 3 cents go to the central government in the form of income tax and corporate tax. While the labour employed gets 10 cents, profits retained in India add up to another 10 cents. The suppliers only get 9 cents. Thus unless India hopes to or manages to capture an ever larger share of each dollar offshore, the projected growth patterns are far-fetched.

Not surprisingly, therefore, globalisation of services has created a trade surplus in IT services for the US. US exports rose from \$2.4 billion in 1995 to \$5.4 billion dollars in 2002 in computers and data processing services while imports rose from \$0.3 billion to \$1.2 billion. Thus the US trade surplus in these services has expanded from \$2.1 billion to \$4.2 billion. (Lindsey 2003: 8).

Further, it is not clear how much of India's "exports" are based on activities undertaken in the country. This emerges from a report of the United States Government Accountability Office (2005). The report shows that the gap between U.S. and Indian data on trade in business, professional and technical (BPT) services is significant. For example, data show that for 2003, the United States reported \$420 million in unaffiliated imports of BPT services from India, while India reported approximately \$8.7 billion in exports of affiliated and unaffiliated BPT services to the United States. For 2002, the United States reported \$240 million in unaffiliated imports of BPT services from India, while India reported about \$6.5 billion in affiliated and unaffiliated exports in similar services categories.

This is partly because India counts the earnings of temporary Indian workers residing in the United States as exports to the United States. However, the United States only includes temporary foreign workers who have been in the United States less than 1 year and who are not on the payrolls of firms in the United States. According to the report, Indian officials estimate that this factor may account for 40 to 50 percent of the difference between U.S. and Indian data.

Other sources of difference are: (i) Indian data on trade in services include packaged software and software embedded on computer hardware, which the United States classifies as trade in goods (10 to 15 percent); (ii) India includes in its data certain information technology-enabled services, such as some financial services, that are not included in BEA's definition of BPT services; (iii) India treats sales to U.S.-owned firms located outside of the United States as exports to the United States, but the United States does not count these as imports; (iv) U.S. import data on BPT services from India are available for unaffiliated parties only, while Indian data include both affiliated and unaffiliated trade but do not separate them.

It is still too early to judge whether the GAO has arrived at a correct conjecture. But if that conjecture were true it does have implications for the nature of India's software success. To start with, it does suggest that onsite delivery is still an extremely important component of India's software success. Further, it speaks for

the nature of the software services provided by Indian firms. The argument is that Indian companies are earning substantial sums based on a per hour or per man-day fee charged to firms, which use imported workers to customise software, solve problems or develop specific applications. Since these workers are paid a salary in India and an allowance while they are abroad, the consultancy fee paid by the importing firm is the revenue of the exporting firm and the difference between the per employee fee and the cost per employee is the surplus accruing to the exporting firm. It has been argued that body-shopping of this kind is representative of activities that are at the lower end of the software services spectrum. This has implications for both the quality and sustainability of India's IT export boom.

What is more, over time there is growing evidence of offshore activities being set up or taken over by firms from the developed countries. For example, in India captive offshore back-office operations of foreign enterprises like GE, Amex, HSBC, AOL, and so on play an important role though many captives like American Express, Citibank, HP, Dell and AOL also outsource substantially to third parties. Many captives like British Airways have also turned into third parties like WNS. According to the WTO (2005) "many surveys confirm that at present, most offshoring takes the form of captive offshoring. This view is supported by data on US IT services imports. In 2003, affiliated trade accounted for 63 per cent of US computer and information services imports, and for 77 per cent of US imports of other business, professional and technical services, a proxy for business process services."

Estimates by Dataquest India suggest that the Rs 17,830-crore Indian BPO pie in 2003-04 primarily comprised of four segments—the MNC captives who contributed around 56 per cent of the total, the India-centric third party BPO service providers with around 29 per cent, the MNC BPOs with around 8 per cent, and domestic call centres that were primarily captives which accounted for the remaining 7 per cent.⁵

Acquisition has also become quite common. Some time back IBM acquired Daksh eServices, one of the large and successful Indian BPO service providers. This is a step further in IBM's ongoing efforts to strengthen its India delivery capabilities. Daksh will certainly increase IBM's capabilities in the offshore contact centre market, since 80 per cent of its revenue comes from voice and web support. Daksh focusses on e-commerce (its first client was Amazon) and the retail, consumer electronics and telecom verticals. According to Gartner, the Daksh acquisition raises serious questions about the viability of Indian-owned

business process outsourcing providers. In its view, managing rapid growth is proving to be a big challenge for many “local” Indian entrepreneurs. As a result, many MNCs are making major moves into offshore outsourcing, and this raises questions about how many “pure-play” Indian providers can survive their pressure. Established information technology service providers like Infosys, Wipro, TCS and HCL Technologies have been able to develop their skills in these areas over many years. For the new players, human resource issues like attrition and security are reportedly emerging as serious management challenges. According to Gartner, enterprises considering pure-play offshore BPO providers must recognise that offshore outsourcing requires a long-term commitment from both parties involved. As the offshore BPO market accelerates and consolidates, size and management experience will become critical decision factors.

Further, the offshoring trend seems to be partially reversing itself. In March 2004, Bharti, an Indian telecommunications provider, announced a major hardware, software and IT services outsourcing agreement with IBM. Under the terms of the 10-year, \$700 -750 million agreement, IBM will manage all of Bharti’s customer-facing IT applications, including billing, customer relationship management and data warehousing; support Bharti’s internal applications, including Internet services, e-mail and online collaboration; manage Bharti’s IT infrastructure; provide disaster recovery services; and support Bharti in delivering voice, data and content-based services.

Similarly, Dabur India Limited has signed the US consulting major Accenture to outsource its information technology infrastructure and application management functions. Under this 10-year agreement, the IT employees of Dabur were shifted to Accenture with consistent terms of employment. These tendencies together imply that a large share of the value-added benefits from offshoring go to firms from the developed countries and as a result the implications for developed-country GDP would, as in the case of manufacturing outsourcing, prove to be positive.

Thus, conceptually, India’s software thrust of the last decade is not as spectacular as it appears. It is substantially export of lower end software and IT-enabled services facilitated by the availability of cheap skilled labour. So it is in large part a technology-aided extension of the earlier waves of migration by service-providers of different descriptions: doctors, nurses, and blue-collared workers of various kinds. An expansion of that kind cannot be self-sustaining.

The Backlash

Besides the uncertainty created by all these factors, the backlash in the developed countries, especially the US, is threatening the Indian boom. It should be clear that the process of offshoring has first-order adverse employment implications in the developed countries and positive first-order implications in the developing countries. But just as the extent of the benefit to host countries should not be exaggerated, so should the loss to the developed countries not be hyped. According to the NASSCOM annual industry survey, the IT Software and Services Industry was estimated to employ 650,000 IT professionals in March 2003. This is a small share of even organised sector employment in the US which was placed at 27.8 million in 2001, and almost negligible relative to the aggregate workforce. Further, the employment loss in the US has not been significant and is not likely to be in future. In November 2003, the premier information technology body in the United States, Information Technology Association of America, released an assessment that not more than 7 to 9 per cent of all IT jobs would move out of the US in the next 10-15 years.⁶

Contrary to media reports on the rising trend of American companies resorting to outsourcing and moving jobs offshore, a 2003 report by Forrester Research found that few were actually doing so. The study showed that 60 per cent of Fortune 1,000 companies were doing nothing at all with offshore outsourcing, and that 25-30 per cent of companies spent only 1-5 per cent of their total IT services budgets overseas. Around 25 per cent of the companies had some experience and relationships with offshore vendors, but offshore was not a key element of their overall strategy, as just 1 per cent to 5 per cent of their IT services budget went toward offshore. Only 10 to 20 per cent of the firms committed anywhere between 10 and 50 per cent of their services budgets to offshore ventures. Thus the level of participation in offshoring was relatively limited.

However, given the declining responsiveness of employment to output growth in the US, the reaction to even this limited degree of offshoring has been aggressive. Unions have released estimates of likely job losses that are huge. And politicians, faced with such a response have been quick to take up the issue with a flurry of attempted and actual legislation. Although the Bush administration and US corporations are known to be in favour of outsourcing, this backlash against the phenomenon is unlikely to go away. And there is a strong possibility that the clamour would die only when the issue is resolved through a slowing of the process of offshoring.

The reasons for this need to be spelt out. Outsourcing was in the first instance an effort to exploit segments of the labour market within the developed countries where wages were lower to shore up profitability. When that proves inadequate and opportunities arise to exploit the global reserve army (including in developing countries such as India), offshoring gains momentum. But this cannot be an endless process. Either union pressure in the developed countries must stop the process, or the unions have to succumb to it and accept lower wages and meet, even if partly, the profit aspirations of contemporary capital. Thus there must be limits to the offshoring process, not in the sense that it must end, but that it must at the least slow down.

All this raises questions about the premises underlying the ‘BPO as development opportunity’ argument. One is that the Indian experience hitherto can be replicated on the same scale in other developing countries, if supported with governmental and international assistance. The other is that the Indian experience marks a significant development advance and is sustainable. However, the hype surrounding the Indian experience is based more on growth rates from a small base rather than the aggregate figures and their relation to economy-wide estimates. It also is because the tendencies triggering the offshoring “boom” have immanent in them the basis for their own termination.

On the other hand, in the developing countries, the optimism generated by the boom in IT services allows the government to ignore the fact that growth of employment in the commodity producing sectors has not merely decelerated sharply but is increasingly less responsive to increases in output – the jobless growth syndrome. Needless to say, growth in IT services employment is relevant only to those capable of finding employment in the organised sector and even in that sector, the share of IT services is still a small proportion. The optimism that IT services generate is only because this is the only segment where employment is increasing significantly. But that growth may be inadequate for most of the population except the middle class minority.

Notes

- ¹ Refer “Outsourcing slowing new job creations: Survey”, *Times of India*, Saturday April 10, 2004, available at <http://timesofindia.indiatimes.com/articleshow/609538.cms>, accessed June 2004.
- ² Refer “Slimmer call centres sprouting”, *The Economic Times*, Wednesday, March 13, 2002, available at http://www.nasscom.org/artdisplay.asp?Art_id=461 accessed June 2004.
- ³ As an OECD study points out, “Copies of movies and most other performances can be recorded and mass-produced for future consumption, like manufactured products. Software is developed and boxed like any other manufactured product, and is considered, for all intents and purposes, a good – albeit with a high service-related content. In these instances services have, in a sense, taken on the characteristics of commodities – one provider is mass-producing a common product for many people.” (OECD, 2000, Pp. 7).
- ⁴ Data from http://www.nasscom.org/artdisplay.asp?cat_id=809 accessed January 2006.
- ⁵ Figures from “BPO: Growth all the Way, Despite the Backlash”, from <http://www.dqindia.com/dqtop20/2004/ArtIndseg.asp?artid=59660> accessed February 2005.
- ⁶ Refer “Only 7-9 per cent IT jobs to move out of US” available at <http://www.rediff.com/money/2003/nov/19bpo2.htm>. Retrieved July 2004.

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