

4

Exporting ICT and Business Process Outsourcing Services

The Mauritian information and communications technology industry: contours and growth characteristics

The export of information and communications technology (ICT) services – including business process outsourcing (BPO) and information technology enabled services (ITES) – is the fastest growing industry in Mauritius. ICT, BPO and ITES are collectively abbreviated to IBI in this chapter.

Annual growth of the island’s IBI industry (i.e. in terms of revenues) has averaged at over 25 per cent since 2004. However, growth in the number of IBI firms has been closer to 37 per cent annually. That is remarkable for an industry established principally to serve domestic market needs in the mid-1990s, an industry that was almost invisible until around 2003–04. Yet, employment in IBI increased from 2,100 in 2004 to over 8,000 at end-2007. The National Computer Board (NCB) expected such employment to climb to over 11,000 in 2008. From fewer than 50 firms in 2004, there were more than 380 firms in IBI at the time of writing, of which about 50 per cent are in the BPO and ITES segments, with the other half being involved in ICT

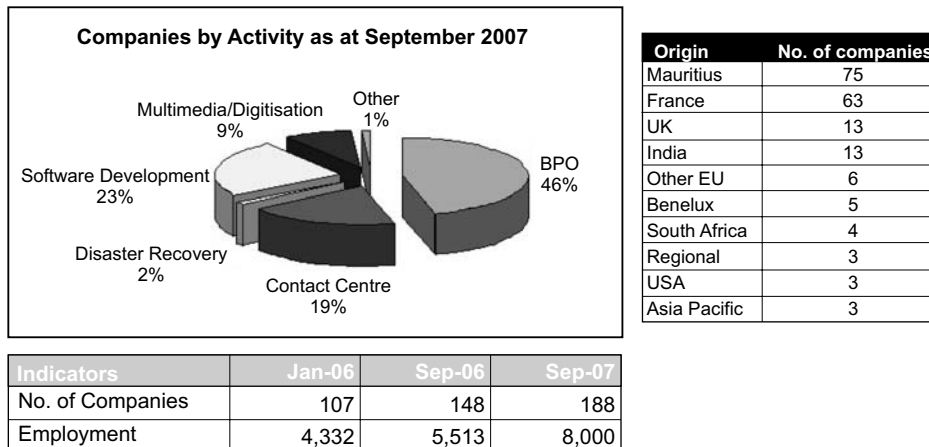


Figure 4.1 Mauritius ICT export sector

Source: Presentation by Mr Vidia Mooneegan at the Symposium on the Export of ICT-BPO-ITES Services, and Mauritius Board of Investment

work. Nearly a fifth of the BPO-ITES firms in existence by mid-2008 had been formed after October 2006.¹

With a few exceptions representing local operations of global firms (e.g. Accenture, Infosys, Oracle etc.) the present ICT-BPO-ITES industry structure in Mauritius is fragmented and disjointed, comprising mainly a host of small, opportunistic firms operating in highly specific niches. Aggregate IBI turnover was estimated to exceed MRs25 billion in 2007 (about US\$1 billion), with exports approaching a tenth of that, i.e. US\$100 million. A handful of large ICT and BPO firms accounted for the bulk (over 60 per cent) of total employment, revenues and exports of the combined IBI industry, while a much larger number of small firms accounted for the minority share of all these measures.

To put that situation in context, the **global** IBI industry turned over more than an estimated \$450 billion in 2007 with outsourcing exports of over \$120 billion. **Thus the revenues of the Mauritian IBI industry represent less than 0.2 per cent of world IBI revenues and its exports represent less than 0.08 per cent of global IBI exports.** According to the National Association of the ICT-BPO Services Industry (in India - NASSCOM), India accounts for total IBI turnover of over US\$45 billion and exports exceeding US\$20 billion (with BPO and ITES accounting for \$11 billion). It is obviously misleading to compare Mauritius directly with India for this (or any other) purpose. However, what the relative difference in size highlights is that Mauritius can make an adequate (and rapidly growing) living from IBI by earning an infinitesimal fraction of what India needs to earn. If the estimates above are taken at face value, with Mauritius's IBI exports accounting for less than 0.1 per cent of global IBI outsourcing exports, there is considerable room for their expansion and diversification to ten times that size.

Unlike India's NASSCOM, the IBI industry in Mauritius does not yet have a representative association acting in the industry's wider collective interests (assuming it has identified those interests), either for market-scanning and dealing with constraints or for capturing regional and global opportunities, since fewer than 15 per cent of the firms in the industry are members of the relevant trade association. This also seems characteristic of Mauritian private firms at large in any industry, which appear to be myopically preoccupied with their own immediate firm-specific concerns and interests, rather than with wider, long-term competitiveness and the collective interests of the industries to which they belong.

Nonetheless, the Government of Mauritius has taken a more systemic perspective in considering the future of the industry, with the Ministry for Information Technology & Telecommunications (MITT) commissioning a comprehensive plan for the industry's development over the next five years.² That plan - known as the National Information & Communications Technologies Strategic Plan (NICTSP) - aims to make IBI the fifth pillar of the Mauritian economy and the premier African ICT hub.

The plan's strategy for attracting inward foreign investment in IBI is not based on tax incentives. It relies instead on providing a high degree of economic freedom for firms, combined with a low and competitive tax regime, a benign and positive business climate, and an openness that permits firms to have considerable operational and financial flexibility in conducting their affairs. Yet, NICSTP seems over-prescriptive, over-programmatic, detailed and deterministic in suggesting how the Mauritian IBI industry should develop in a top-down fashion. It embraces 15 programmes and 124 projects requiring a budget of over MRs2 billion, a part of which MITT hopes will be financed by the World Bank.

By 2011, the NICTSP intends to achieve: (i) IBI services exports of US\$800 million (or 0.25 per cent of global exports in that year), which would be equivalent to 7 per cent of national GDP; (ii) employment for 29,000, of which 13,000 will be non-nationals; (iii) an increase in household personal computer (PC) penetration of 20,000 – for an island with over 300,000 households; (iv) an increase in school penetration by PCs of about 12,000 – for what purports to be a cyber-island; and (e) broadband penetration of 250,000, for a population of over 1.3 million. What is remarkable about these targets is that they seem unusually modest, given the potential that exists for IBI exports from Mauritius. In contrast, the five strategies, 15 programmes and 124 projects identified for financing under the NICTSP seem over-ambitious.

If experience in other countries is a guide, such a plan must be regarded with scepticism, especially in a rapidly changing and fluid industry, where global market developments and niche opportunities are likely to be less clear, less predictable and more volatile, and with products and services being more temporally vulnerable (i.e. having a shorter shelf-life) than such plans anticipate.

What should the Mauritian 'model' be?

With the background described above in view, a symposium on ICT, BPO and ITES was held in January 2008 to consider the likely future evolution of the industry and the scope for expanding IBI exports rapidly. It brought together local industry leaders with carefully selected foreign participants in domains where global outsourcing was established and burgeoning. These verticals included: (i) **financial services**; (ii) **design and architecture**; (iii) **accounting and business consulting**; (iv) **legal processes**; (v) **hospitality, airlines and travel**; (vi) **human resources recruiting and training**; (vii) **media, entertainment and animation services**; and (viii) **business process outsourcing for Africa**.

The symposium attempted to identify appropriate 'partnership models' for Mauritius, particularly with established ICT-BPO firms in countries like India and France. On all key indices (e.g. network readiness digitalisation etc.) Mauritius ranked between first and third in Africa.³ South Africa was its only competitor on any of the relevant measures. The question was whether Mauritius should be comparing itself with Africa or with countries that have carved out a more solid and significant niche for themselves in the global IBI space?

If global experience is a reliable guide, IBI exports from Mauritius would need to be differentiated and unique. Given Mauritius's characteristics and attributes, its IBI development and export model has to be different from models pursued by other larger, established IBI services exporters. Unlike India or China (if it overcame its lack of English-fluency) or countries like the Philippines and Malaysia, it would be unrealistic and unviable for Mauritius to export IBI services in activities/domains that require a large supply of low-cost labour with unexploited potential for continuous back-filling from an even larger, under-utilised national labour pool (as in India). Mauritius does not have those endowments, nor does it possess the immigration or accommodation potential for that purpose.

Neither does it have sufficient investment capital available domestically from public or private sources. For that reason, Mauritius cannot emulate the Dubai IBI export model either. That emirate is attempting to create an entire IBI industry via the import and transplantation of skilled human resources from India and South-East Asia. To these it is adding state-of-the-art infrastructure, financed by a state with a great deal of surplus resources, complemented with executive management, capital investment and cutting-edge IBI technologies imported from the EU, Japan and US. The Dubai model provides a no-tax regime and extraordinary infrastructure incentives to attract every global IBI firm to locate a part of its operations in that city, using a package of inputs that it can provide on a 'ready-to-go, plug-and-play' platform.

Mauritius cannot afford such luxuries. To succeed, it needs to rely on a different model that first focuses on a highly qualified, but small labour pool, allowing for significant immigration, second is targeted at specific, lucrative vertical niches and third has high, specialised knowledge-content, unique firm-to-firm relationships/partnerships, aimed at exploiting Mauritius's multilingual and creative skills. The Mauritius IBI export model needs to be flexible in combining the resources of:

- Global firms like Accenture, Infosys, TCS, Oracle, SAP etc., which are already located on the island, to service traditional verticals (financial services, business support, accounting, auditing, payments processing, back-office customer care etc.) requiring multilingual skills; with the
- Flexibility and adaptability of **smaller specialist niche domestic and foreign firms** utilising creative human resources to develop non-traditional verticals in BPO for: design and architecture, legal processes, media, entertainment and animation services, research and knowledge processes.

It could build such a model by forming partnerships with ICT firms, as well as BPO-ITES firms, in India, France, the UK, Canada and the US that have an established client base, but can use Mauritius's capabilities to extend into new geographies (Africa?) and jointly exploit high-value niche opportunities. These considerations become clearer when viewed in the context of specific-niche BPO verticals, which Mauritius should look to exploit more fully; these are discussed in greater detail below.

Banking and financial services outsourcing

Banking and financial services (BFS) comprises the single largest outsourcing sub-domain, accounting for a 38 per cent share (4 per cent being insurance) of global BPO-ITES business, which amounted to about US\$45 billion in 2007.

In this highly competitive arena, the main outsourcers are the large global banks. Most BPO (>60 per cent of the total) is carried out by US banks (such as Citigroup, Bank of America, Morgan Stanley, JP Morgan-Chase and Goldman Sachs) primarily to India, but also to other English-speaking countries in Asia. India has a 50 per cent market share in the BFS outsourcing domain. Banks from Britain (e.g. Lloyds TSB, Barclays and HSBC), continental Europe (ABN-Amro, ING, CSFB, UBS and Deutsche Bank) and Australia (National Australia Bank and ANZ-Grindlays) account for another 30 per cent of BFS outsourcing to India and the Philippines. The principal BFS offerings by outsourcing destinations include: processing of payments transactions and handling customer account queries; mortgage back-office document processing and checking; back-office processing of leasing activities; credit card transaction processing and customer queries; managing customer contact for front and back-office demands; managing customer contact for collection of arrears; customer origination processes, such as solicitation for credit card applications, mortgages, car loans, personal loans, direct debit payment orders etc; software systems development for IT applications support; and maintenance of banking IT networks and support infrastructure.

BPO requirements of the major banks (with millions of customers) in the above areas demand large, low-cost, labour pools, which countries like Mauritius cannot provide but India and the Philippines can. What Mauritius, with its attributes and limitations, needs to focus on is:

- Becoming a BFS regulatory centre of excellence for Africa that specialises in assisting regulators with monitoring the quality and probity of outsourced processes and activities in BFS;
- **Smaller and medium-sized** banking and other financial services players (e.g. securities brokerages and boutique corporate finance units), especially in non-English speaking Europe, which need to outsource a plethora of functions and processes to reduce their costs in order to compete with larger banks;
- Targeting private banks around the world and particularly in high-cost private banking and wealth management jurisdictions, offering tailored BPO-ITES services for their HNWI clientele;
- Providing high value-added knowledge process/research process outsourcing (KPO/RPO) activities, such as detailed corporate, credit, industry and country research and analysis that smaller banks need;

- Offering outsourcing services for managing the IT/ASP (applications service provider) functions of smaller banks in high-cost locations; and
- Offering regulatory expertise in outsourcing for smaller, less-capable regulatory institutions in Africa.

Such BFS outsourcing offerings are unlikely to be feasible for small firms specialising in particular niches of this large market. Smaller banks/financial firms interested in outsourcing to Mauritius are more likely (and have an easier time convincing their regulators) to outsource:

- To established global BPO firms (such as Accenture, Infosys, TCS, Wipro, SAP, IBM, EDS etc.) already located on the island; or
- To global accounting and auditing firms (such as DTT, PWC, EY, KPMG etc) with a local presence, which may be able to undertake some but not all of this work, due to constraints on auditors becoming involved in conflicts-of-interest by providing what might be construed as integral services; or
- To their own fully- or majority-owned subsidiaries set up specifically to undertake 'insourcing' in locations like Mauritius, managing their business processing under the same corporate umbrella; for example, Deutsche Bank is now doing this in Mauritius and expanding its intra-group BPO business rapidly.

As far as BFS outsourcing for **French** banks is concerned, Mauritius faces competition from Morocco, Tunisia and Romania. However, banks in *Canada* requiring bilingual capabilities, which are outsourcing a limited amount of work to the Caribbean, could outsource to Mauritius. Smaller banks in a number of EU countries (e.g. Ireland, the Netherlands, Germany, the Channel Islands, Portugal, Scandinavia, Italy and in 'new' Europe) could also benefit from outsourcing to Mauritius. To access such customers, the Government of Mauritius and the country's Board of Investment need to support larger Mauritian firms (e.g. Accenture) to compete for such business on a targeted basis. Alternatively, they may need to partner with established Indian, South African, French or Canadian firms to provide assurance to customers that Mauritius can deliver what it promises by way of banking and financial services outsourcing.

Engineering design and architectural services outsourcing

Global spending on engineering services in 2007 was about US\$750 billion, with only US\$10-15 billion (or 1-2 per cent) of that being outsourced. This suggests enormous potential for the growth of engineering services outsourcing (ESO) in the coming years. Industry estimates are that, by 2020, the ESO market - driven by firms in the US, EU, Middle East and Japan - could grow to **US\$150-225 billion**. The major beneficiaries of this shift to ESO are expected to be India, Canada, and Mexico (for the US and Middle East); China (for Japan, Korea and Taiwan) and Eastern Europe (for the EU).

A survey conducted in 2004⁴ suggested that only 11 per cent of US architectural firms had outsourced work on one or more projects, with the cost savings realised being 40–70 per cent of total project costs. By 2007, that figure had increased to 25 per cent of US architectural firms resorting to outsourcing, indicative of the considerable future potential for architectural service outsourcing (ASO) that exists.

Up to now, ASO has comprised: automated mapping and facilities management; layering; conversion services; space planning; digitisation; and 3D-rendering with virtual room design. Core work outsourced involves schematic design and design development work, while non-core work comprises pre-design, model/presentation, construction document or computerised working drawings for client preview.

The main reasons cited for resorting to ASO are to alleviate unmanageable office work loads, achieve significant cost savings and achieve faster production to meet tight client deadlines for viewing alternatives and options. Research on ASO undertaken by the American Institute of Architects and Harvard University⁵ suggested that:

- ASO depended critically on confidentiality and transparency in relationships between the outsourcer and the ASO service provider;
- Higher productivity and shortening of project development time spans was the main motivation;
- Process customisation for individual clients and individualised service was the principal focus;
- ASO was particularly effective either for basic services or for highly specialised services;
- Overcoming the learning curve drove success for adoption of outsourcing as a practical and desirable alternative to in-house work with high-cost and long-time implications; and
- ASO facilitated the emergence of global networks of knowledge and expertise that fed back into strengthening the overall capacity of the worldwide architectural industry.

A recent Booz Allen Hamilton study,⁶ conducted in conjunction with NASSCOM, suggested that India was likely to be the main beneficiary of rapidly growing ESO/ASO, capturing 25–30 per cent of outsourcing work in these areas in 2007 from 12 per cent in 2004. This is because India has the largest pool of engineering talent required for ESO (graduating from world-class Indian Institutes of Technology, IITs) among emerging countries, more than Russia and China combined. The current graduate talent pool suitable for ESO/ASO work in India represents 28 per cent of the total estimated technically qualified resource pool in low-cost (i.e. developing and transition) countries. The next largest sources of such labour are in Russia (11 per cent) and China (10 per cent).

Mauritius has much to offer Indian firms specialising in this domain in terms of extending their reach into francophone and African markets. However, the island needs a larger number of qualified and trained engineers and architects to capitalise on this opportunity, opening itself to immigration by people with these skills from other parts of Africa. Triangulation with South Africa would enable Indo-Mauritian firms to cater to Dutch, German and other non-English speaking European markets.

Apart from partnering with specialist Indian firms working in ESO/ASO to enable them to extend their market reach (into the francophone and African countries), Mauritius also needs to attract onshore:

- specialist and innovative space development firms like Technopolis of Finland;
- major global architectural and engineering **consulting** firms (e.g. Ove Arup & Associates, WS Atkins etc.) from the developed world; as well as
- construction firms that have embedded pools of architectural and engineering staff – e.g. Shapoorji Pallonji, Tata Realty & Infrastructure, Reliance Infrastructure, Larsen & Toubro, DLF and IVRCL Infrastructure from India.

These firms need to locate in Mauritius to serve the large continental African market for construction and infrastructure, and to lower their costs for undertaking global ESO/ASO by enabling them to hire Mauritian, African and Asian engineering and architectural talent. The African market could be a magnet to attract such operations into Mauritius.

Those familiar with ESO/ASO potential, suggest strongly that a ‘technical ecosystem’ is needed for exporting such services. In this context, while not perfectly endowed, Mauritius seems to have a number of inherent advantages:

- An open economy with ease of entry and few restrictions on doing business
- Reliable infrastructure – six internet providers, connectivity through SAFE
- A base of skilled human resources – two universities; close to 70 per cent of the working population being bilingual; and a literacy rate of 88 per cent (this skills base still needs to be expanded organically and through immigration to exploit ESO/ASO opportunities with sufficient critical mass)
- A vibrant local industry, with 49 architectural firms and nearly 200 BPO companies
- Ranking of 25th out of the top 50 offshoring locations for Mauritius in an AT Kearney survey
- Supportive government policies that are amenable to encouraging ESO/ASO growth
- A good location for niche knowledge-based operations, offering an attractive lifestyle to highly skilled human capital

However, some interesting dimensions and imbalances need to be appreciated. *First*, there is an obvious global asymmetry driving ESO/ASO. While 75 per cent of the world's engineers/architects are located in **developed** countries, 67 per cent of the world market for engineering services and architecture is now located in the **developing** world. India has a million qualified engineers, but only 35,000 architects. Africa has fewer than 400,000 engineers and 50,000 architects, of which 25 per cent are in South Africa. Mauritius has barely 2,000 qualified engineers and 120 architects. Europe has over 8 million qualified engineers and 500,000 architects, while the US has over 15 million engineers and over 700,000 architects.⁷

These asymmetries suggest that the availability of technical/professional skills is now concentrated in a different geography to the location of most future engineering and architectural work. That imbalance will drive the growth of ESO/ASO, as surplus engineering and architectural talent in OECD countries is deployed to meet the needs of the developing world. To lower their costs, engineering consulting and architectural firms will need to outsource more work. Somewhere in between, there are opportunities for Mauritius to play a specialised niche role in bridging the gaps. However, to do so it will need to expand its output of technically qualified engineers and architects dramatically.

The **second** dimension/imbalance exists in that there are different policies and standards governing ESO/ASO in the developed and developing worlds. BPO service providers need to contend with different design standards for public health and safety, building design standards, environmental protection and climate-change standards, materials-handling standards, codes of professional ethics, social responsibility and so on.

Third, architectural firms that outsource have more than 100 professionals with multi-disciplinary skills. As of 2008, that figure represents nearly the entire architecture profession in Mauritius.

These dimensions illustrate the challenges that Mauritius faces in developing even a small niche capability for exporting ESO/ASO services. It is unlikely that such capability can be developed, or sufficiently well directed, to address the needs of the emerging global market for ESO/ASO without carefully conceived and intelligently structured **partnerships**.

Nonetheless, the size and attraction of the African market for construction and infrastructure provides an opportunity for Mauritius to open the door in developing its capabilities in this specialised, high-value market with potential for explosive growth in 2008–20. Clearly the Government of Mauritius, MITT, the two universities, the engineering and architectural professions, and local IBI firms need collectively to formulate ways in which this emerging outsourcing market can be exploited to Mauritius's advantage, through carefully targeted niche-service offerings to potential outsourcers.

Accounting and business support services outsourcing

Accounting and business support services outsourcing (ABSOS) is the best-established BPO domain after BFS (with which it is often combined). Such outsourcing started the late-1980s with TNCs in financial services, airlines and manufacturing (e.g. General Electric) from the US and the UK outsourcing accounting functions and processes to India. However, it has spread rapidly to other industries and countries, and is still expanding as outsourcing from Europe, other parts of the OECD and the Middle East catch up with levels of outsourcing undertaken by US and UK firms.

Growth in this area is therefore being driven by geographical **and** sector (or vertical) diversification. Most ABSOS business is dominated by large firms such as Accenture, IBM, Infosys, TCS, Wipro, EDS etc. These firms have established a large and growing presence in low-cost countries to undertake outsourced work. However, a significant amount of ABSOS is also carried out by smaller, specialised firms servicing particular clients and industries.

In Mauritius, the continued expansion of ABSOS exports will depend largely on the growth of firms like Accenture, which offers an instructive case study.⁸ This business was established in 2002, and has grown rapidly since. Accenture is a **global** market leader (one of the top five global TNCs in outsourcing), with over 625 clients in more than 30 industries and 45 countries. Its outsourcing revenues in FY2007 were US\$7.84 billion or 40 per cent of its total revenues. Accenture offers a full range of outsourcing services from BPO to applications outsourcing (AO) and infrastructure outsourcing (IO) as well as systems integration (SI). In 2007 it had more than 75,000 outsourcing employees worldwide, of which 750 (or 1 per cent) were in Mauritius.

Accenture accounts for 11-12 per cent of total employment in the Mauritian IBI industry. Of its 750 staff, 550 work on BPO (with 400 dedicated to ABSOS) and 200 for AO/SI. Its Mauritius centre is expected to double from 750 to more than 1,400 employees by 2010; BPO employment will grow to 1,000 employees and AO/SI to 400. These numbers could be larger, if more qualified labour was available. This example demonstrates the potential that still exists for ABSOS exports from Mauritius.

Typically, ABSOS exports include: managing and recording accounts payable and receivable; billing; general ledger recording and maintenance; treasury transactions recording and management; tax transactions management; risk management transactions recording; and a variety of payment and collection services, including arrears notification and management. These activities fall into three groups classified as: (i) procure to pay (PTP); (ii) order to cash (OTC); and (iii) record to report (RTR).

Global firms specialising in ABSOS work have assessed Mauritius (in terms of its capacity to expand ABSOS exports) (see table 4.1).

The advantages Mauritius has to offer include a sound economic performance over a sustained period of time, a track record of relative political stability, with respect for democratic processes, institutions and rule-of-law and a relatively good legal

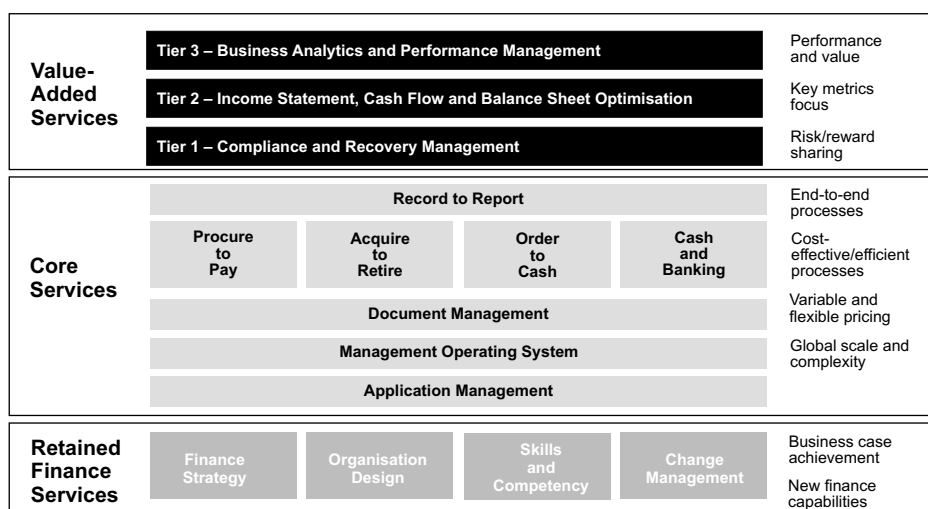


Figure 4.2 Accenture – finance and accounting BPO scope of services

Source: Presentation by Ms Josie Lapierre at the Symposium on the Export of ICT-BPO-ITES Services

Table 4.1 Mauritius’s capacity to expand ABSO exports

Criterion	Rating: South Africa	Rating: Mauritius	Mauritian L-T Advantage
Multiple language skills	Excellent	Excellent	(French)
Government support for IBI	Fair	Good	Good
Intrinsic quality of labour pool	Fair	Fair	Fair
Quality of infrastructure (ICT + other)	Fair	Good	(ICT ok)
Educational system	Good	Good	Fair
Labour and other costs	Fair	Good	Deteriorating
Political & economic environment	Good	Very good	Low risk
Cultural compatibility with clients	Very good	Very good	Very good
Rule-of-law & legal maturity	Good	Good	Good
Data and IPR security and privacy	Very good	Good	Good

framework for rule-of-law, data protection etc. Additional advantages are its a limited pool of talented, tactile, trainable people, bilingual advantage of functional literacy in English and French, relatively good ICT-telecom infrastructure when measured against African standards and a business-friendly environment, especially post-2005, with ease of entry and exit and diminished obstacles to inward/outward movement of key managers and staff. The island also: has a favourable time zone vis-à-vis Europe for undertaking outsourcing work outside core working hours, with a 3-4-hour working daytime overlap; provides a gateway for the African regional market; has

strong ties with India, which is the global bastion of BPO in general and ABSO in particular; provides cultural understanding of and compatibility with European clients; and is adaptable to rapidly changing global and market circumstances, which characterises the global BPO industry in terms of demand and supply factors.

In addition, as far as ABSO exports are concerned, Mauritius already has:

- A strong existing BPO-ITES sector, which is growing rapidly
- A strong presence of international players like Accenture
- A strong accounting profession, with globally recognised qualifications
- An adequate educational set-up, although this needs further strengthening
- An international financial service centre, although this needs to become more active

By the same token, the constraints operating on Mauritius's growth as an ABSO centre are: its limited ability to scale-up operations quickly in terms of staff numbers, thus making investment by global majors in BPO subject to a finite cap in growth potential; insufficient skills in the right areas, the result of a mismatch in human resources between what the educational system produces and what the labour market demands; the relatively low priority that appears to be given by government and the population at large to the IBI industry, compared to other priorities like the financial services sector, construction etc; and high connectivity costs, coupled with a lack of redundancy and service reliability standards that need substantial improvement, despite the progress made by MTL so far.

The main challenges to be addressed from the experience of firms like Accenture, in terms of bolstering the ability to expand and diversify ABSO exports from Mauritius, include the following:

- Change the mindset/culture of the Government of Mauritius and the population through PPPs
- Educate the population at large on BPO career opportunities
- Target information campaigns at parents, students, potential employees, the business community at large and government
- Operate in a globalised world by facilitating access to key services outside core working hours
- Remember that Mauritius is competing globally in every time zone, not locally
- Close HR skills gap through customised training programmes for the IBI industry
- Training programmes need to be intensive, short term and delivered through PPPs (like, for example, the private IBI industry working with the Empowerment Programme)

- Improve bilingual skills (English/French)
- Increase proficiency in other global languages
- Improve core technical skills (finance, accounting, computer skills and business processes)
- Improve soft communication and interaction skills through exposure to the global environment
- Tap directly into the school certificate/higher school certificate school-leaving pool – short-term access to 12–15,000 per year
- Facilitate diplomas/degrees for people who work – short term, through PPPs
- Provide continuous classroom, on-the-job and online training in IBI
- Provide training from recognised, accredited institutions outside core working hours
- Review the national secondary education programme to match it to labour-market demand (for languages, technical and soft interpersonal and communication skills)
- Focus on quality of delivery – build BPO expertise and reputation through PPPs
- Scan the global business environment for emerging opportunities in new BPO areas
- Focus on sustained economic development across key sectors of the economy
- Pay particular regard to accelerated infrastructure development and improved security
- Establish an amenable regulatory environment, one that adapts quickly to changing global demands

Mauritius's ability to increase ABSO exports would be bolstered if it acted as hub to triangulate Indo-Mauritian-South African partnerships. At the symposium, ABSO exporters from all three countries felt that such a troika would be 'unbeatable' in developing a globally dominant profile for ABSO work, because of the advantages that would accrue from exploiting/leveraging language skills, geographical affinities (to particular customer bases) and the technical capabilities of each country. However, such triangulation could best be experimented with under the organisational umbrella of a single global firm like Accenture or Deloitte, rather than being left to independent firms unaccustomed to working with such an organisational culture and operating processes and protocols.

For the Mauritian IBI industry to develop a recognised and distinct brand image in the outsourcing world (as India has), it would need to form a more effective industry association to project such an image, and learn lessons from the Mauritian tourism industry, which has succeeded in developing a unique brand image as an exotic, high-value destination that is globally recognised.

Legal process outsourcing

In 2005, worldwide expenditure on legal process outsourcing (LPO) was estimated to be US\$20 billion and was growing at 8 per cent annually. Of this figure, about US\$6bn was related to 'legal' services comprising: litigation support (US\$4.9bn or 82 per cent of total expenditure); customised legal research (US\$0.62bn, over 10 per cent); and patent and trademark prosecution (\$0.4bn or nearly 7 per cent).⁹

Most LPO work is outsourced by US and (to a lesser extent) UK law firms that operate globally. A small but rapidly increasing amount of LPO work is shifting from onshore to offshore, with India being a favoured destination. The current activity breakdown of the Indian LPO market shows a bias towards International Patent Review (IPR) solutions. Current LPO revenues in India are about US\$100 million, with US\$42mn being earned from patent and trademark filing support services; another US\$32mn from customised legal research and the remaining US\$26mn from litigation support.¹⁰

As with ESO/ASO, the LPO business is in a nascent stage with enormous future growth potential. In advanced, high-cost, English-speaking countries, for example, the legal industry is structured as follows: (i) **the US** has over 231,000 law firms, employing one million attorneys and five million support staff; (ii) **the UK** has over 9,000 legal firms and chambers, employing some 100,000 solicitors, 13,000 barristers and 22,000 paralegal staff; (iii) **Australia** has over 35,000 solicitors and barristers and 57,000 other legal staff; (iv) **Canada** has about 16,800 registered law firms, with over 36,500 lawyers; and (v) **New Zealand** has over 9,050 barristers and solicitors.

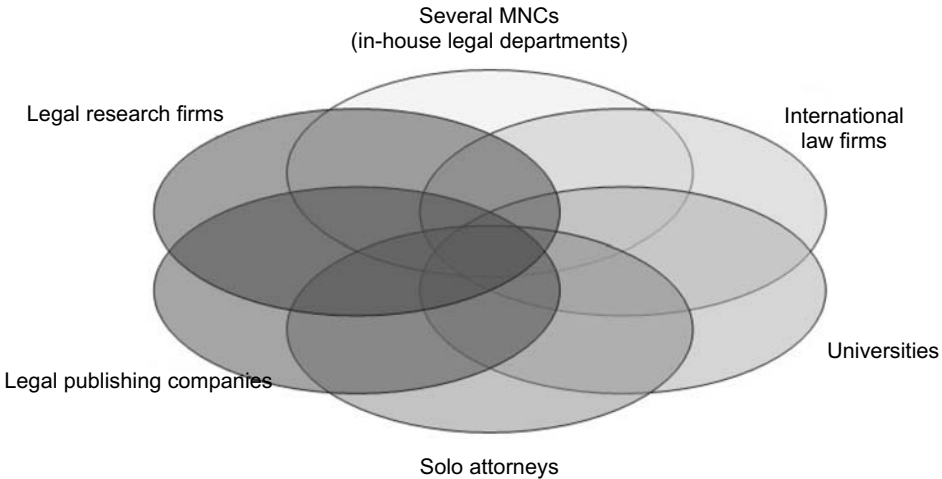


Figure 4.3 Legal process outsourcing - source of demand
 Source: Presentation by Mr Pankaj Parnami at the Symposium on the Export of ICT-BPO-ITES Services

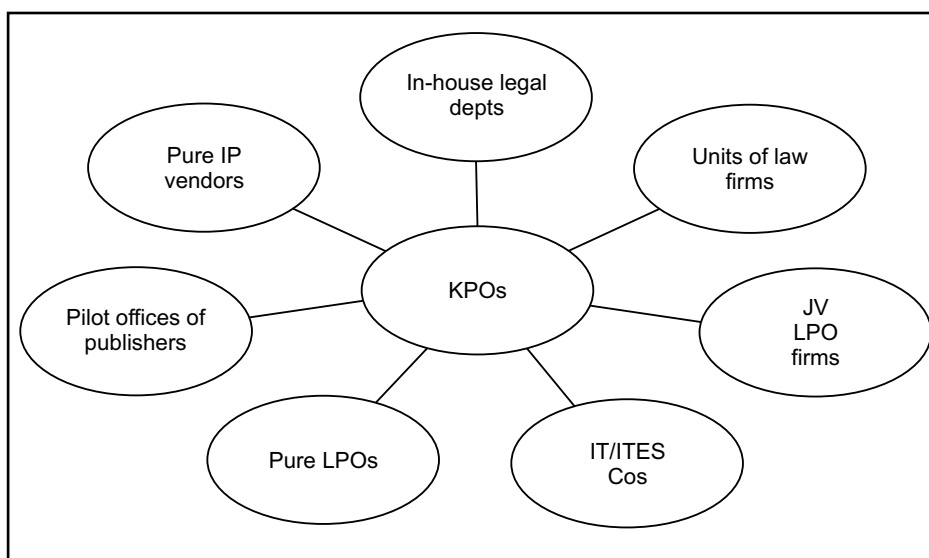


Figure 4.4 Legal process outsourcing – source of supply

Source: Presentation by Mr Pankaj Parnami at the Symposium on the Export of ICT-BPO-ITES Services

On average, professional fees for qualified lawyers in these countries range from US\$500–2,000 per hour. Paralegal billing rates vary between US\$200–800 per hour. Given growing client resistance to these high rates, law firms in the developed world are under pressure to reduce costs. With the advent of corporate law firms that are public and listed on stock exchanges, these cost-cutting pressures will increase. LPO is likely to be resorted to a great deal more in future.

This will happen simply because of the substantial cost differentials between similarly qualified legal professionals in the developed and developing worlds. The latter’s hourly costs are a fraction (between 15–25 per cent) of those in the former. Table 4.2 provides an indicative picture of the total amount of spending by the top 200 US law firms (out of a total of 231,000) by category of activity undertaken.

Table 4.2 Spending by US law firms by category of activity

Expenditure of top 200 US law firms Category	Annual spend (US\$ bn)	Share of total spend (%)
Office operations	6.2	31.1
Litigation support	4.9	24.6
Word processing & secretarial support	2.9	14.6
Information systems	2.5	12.6
Marketing & legal research	1.5	7.5
Support functions & HR	1.6	7.6
Patent prosecution	0.4	2.0
Total	19.9	100

Based on table 4.2, it would be reasonable to estimate total expenditures by the top 5,000 US law firms as being \$200 billion, with their counterparts in the rest of the developed world (EU and Japan) together probably spending a similar amount. Compared to that expenditure, extant LPO amounts to barely 5 per cent of the total (probably less, as only the largest law firms are included for the total spend estimate).

There are over 1.7 million patents filed around the world each year (with 90 per cent of these being filed in OECD countries), with the cost of processing each exceeding US\$2,000 on average. A classic LPO function, for example, would be to carry out the patent art search involved as a first step and to prepare documents for filing the patent as a second.

Extrapolating from crude figures, and cutting across the functions listed in the table above, the LPO market could easily exceed US\$100 billion in size within the next five years. **This is a highly specialised market, within which Mauritius could service a significant niche in the English-speaking and francophone worlds.** Table 4.3 shows the services offered under legal process outsourcing.

The pricing trend analysis emerging from Indian billing rates for LPO is shown in table 4.4, below.

Mauritius could levy a premium on these billing rates and still attract LPO business from the US and developed Commonwealth countries, as well as from the EU with

Table 4.3 Services offered under legal process outsourcing

Litigation support	International patent review services	Paralegal support
<ul style="list-style-type: none"> • Contract review • Memo & brief writing • Legal research • Drafting • E-discovery • Business research 	<ul style="list-style-type: none"> • Prior-art search • Freedom-to-operate research • Patentability search • Product clearance investigation • Patent & technology landscaping • Patent data mining services • Patent watch services • Trademark & copyright 	<ul style="list-style-type: none"> • Image scanning • Document coding, indexing & tagging • Legal transcription • Archiving • Deposition summary • Document/evidence review

Table 4.4 Pricing trends from Indian billing rates for legal process outsourcing

Services	Description of activity	Indian billing rates
Paralegal support	Document management: word processing, legal transcription, legal coding and document conversion	US\$12-25/hr
Legal support	Drafting and proofreading contracts/agreements, legal research, including case and statutory law	US\$30-125/hr or more for specific services
Patent services	Helping file patent applications, infringement studies and patent /trademark prior-art searches	US\$25-80/hr

its language skills. Many of the factors that make Mauritius an attractive proposition for ABSO apply to LPO as well. Additional attractions include a nascent existing base of LPO and law firms exposed to the operation of global business activities, and amendments in the Law Practitioners Act by the government to open entry, enable large multi-disciplinary law practices to be set up and permit the pooling of skills and resources that would enable LPO to be undertaken. The island has a hybrid legal system, which enables familiarity with both British Common Law and the French Napoleonic Code, and steps are also being taken toward data protection and confidentiality via the Data Protection Act 2004, ICT Act 2001, Copyright Act 1997, Computer Misuse and Cyber Crimes Act 2003, among others.

However, the constraints that affect other outsourcing domains also restrict opportunities for LPO. These include limited prospects for upward scalability, resulting from a small existing pool of legal professionals compared to competing countries like India and the Philippines,¹¹ and the absence of core local professional expertise needed for developing this domain, with most Mauritian law firms being ‘one-man (or woman)’ offices. At the same time, there is a lack of interest on the part of a myopic domestic legal profession, who are interested mainly in litigation (to deploy amateur theatrical skills, as one experienced practitioner put it) and inclined to erect protectionist barriers to competition from outside. The legal profession is also generally complacent/unwilling to consider new sources of revenue from global business activities like LPO and to become a Centre of Excellence for LPO work pertaining to the activities of TNCs and multilateral agencies in Africa.

Given the attributes and characteristics of the legal profession in Mauritius, it is unlikely that LPO will take off if it is left to the local legal community. For LPO

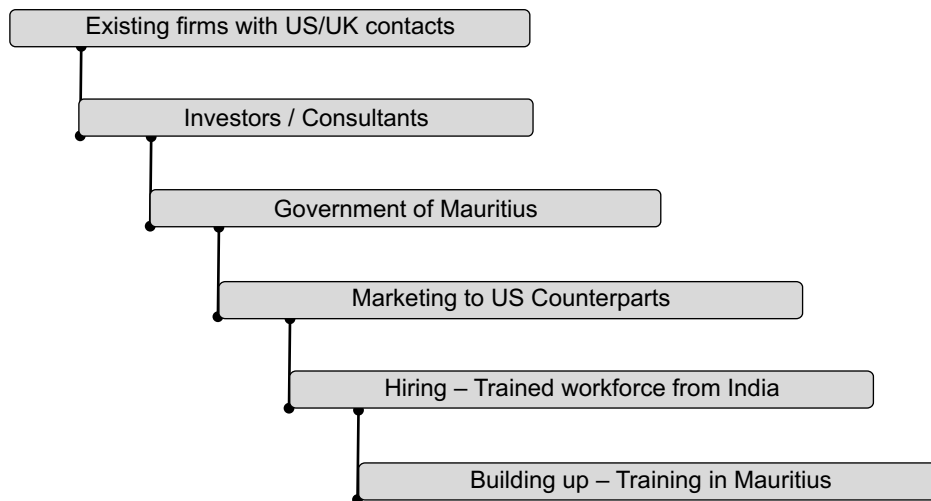


Figure 4.5 Strategies for developing a legal process outsourcing industry

Source: Presentation by Mr Pankaj Parnami at the Symposium on the Export of ICT-BPO-ITES Services

capability to materialise, Mauritius will require: (i) the entry of foreign firms specialising in LPO activity; (ii) interest on the part of locally established large BPO firms to enter LPO space through appropriate alliances with domestic and foreign law firms; and (iii) government-induced and sponsored large-scale import of qualified legal and paralegal professionals from India and Africa to staff the Mauritian LPO industry and help it to achieve take-off. However, like other areas of BPO activity, Mauritian legal process outsourcing will need to be geared towards special niches and client needs. It cannot be geared to ‘mass production’.¹²

Hospitality, travel and tourism outsourcing

In 2006, the global hospitality, travel and tourism (HTT) industries added value of about US\$1.76 trillion (or about 3.6 per cent) to world output. That amount is estimated rise to US\$3 trillion (or 4 per cent of world GDP) in 2016. HTT is presently characterised by **in-country** outsourcing. However, as costs in OECD countries rise, and as new travel markets emerge (especially in India, China and ASEAN), there is ongoing customer demand for lowering the overall costs of HTT. The result has been **offshore** outsourcing increasing at an accelerating pace (from 10 per cent annual growth in 2006 to an estimated 15 per cent by 2010), although this still accounts for an insignificant proportion of HTT business.¹³

Global trends in HTT suggest that every segment of the industry faces:

- i. **intensive global competition**, with large rates of attrition but also new entrants in new geographies and new niche areas emerging continuously – e.g. ecotourism, adventure tourism, knowledge tourism etc;
- ii. **pressures to lower the cost of distribution** – on the part of the **hospitality industry**, **tourism-transport industry** (airlines, cruise ships, railways, coach tours, car rental firms etc.), the **restaurant industry**, the **tourism-dependent entertainment industry** and the **package-tour industry** – with a progressive shift to an internet-based, ITES-driven ‘direct-to-customer’ service replacing reliance on ‘agents’;
- iii. **a higher degree of customer choice and empowerment**, permitting them to keep changing their preferences and their service providers at will and with speed;
- iv. **demands for higher levels of individualisation and customisation**;
- v. rapidly rising fuel and labour costs, which are triggering **pressures to lower all other operational costs**;
- vi. **pricing pressures** from ‘bulk HTT buyers’ – such as major corporate travel accounts – on ‘bulk sellers’ of HTT services (e.g. airlines, car rental companies and hotel chains); and
- vii. **rapid changes in technology** in every sphere of HTT operations, which is reducing the life cycles of products, services and tourism equipment, with customers demanding the ‘latest’ technology in every segment.

Confronted with such circumstances, and with potential for customer-centric market opportunities, it is surprising that the industry structure of hospitality, travel and tourism outsourcing (HTTO) service providers remains so fragmented. Specific BPO activities that need to be managed in the HTT domain are portrayed below. The universe of HTTO operators is specialised by activity (i.e. by hotel chain, airline or package-tour operator) with a bias towards promoting in-house brands/services rather than offering optimal price-and-quality customer solutions. As yet, no significant BPO player has emerged with a low-cost **global** delivery model, that is to say providing HTTO in all services areas (hotels, transport, food etc.) and in all major languages, including English, 'FIGS' (French-Italian-German-Spanish), Chinese etc. The services being offered by large players are often provided without segment-specific geography or domain expertise outside their own domains. Customer feedback from around the world suggests a lack of well-trained staff knowledgeable about all aspects of HTT, who customers can deal with online or by phone.

To put things in perspective, if just 1 per cent of the HTTO market in the EU were outsourced to Mauritius, HTTO firms in the country would need 5,600 direct-selling agents and 12,000 call-centre and other employees. Although Mauritius has developed a unique global image as an HTT destination, it does not have even a fraction of that kind of BPO employment in HTTO. Clearly, with its limited labour resources Mauritius cannot begin to handle HTTO business volume related to the **personal** travel market - i.e. the business associated with retail package-tour sales. What it must specialise in is HTTO for the corporate 'bulk buy' market in parts of the world that are, at present, being inadequately served.

Most service providers like airlines, hotels, car rentals and so on have already established vendor relations for (home) in-country and offshore outsourcing, which is why the HTTO industry is as fragmented as it is. Stand-alone, specialist HTTO vendors have little chance of survival. Success is likely to accrue to established group players already in the industry (like Indigo or other well-known HTT groups in Mauritius) branching out into the HTTO domain and partnering with an appropriate Indian BPO partner (like Quattro), which is experienced in setting up the right BPO service platform.

As a niche player, Mauritius needs to focus its HTTO capabilities on the corporate and 'bulk-purchase' travel market, especially in geographies where it has language, cultural and competitive advantages (for instance, in France and other non-English speaking countries in the EU) over other HTTO service providers (such as India). There is little point in Mauritius attempting to capture HTTO business from the US. The island is too remote, culturally incompatible and unfamiliar with the demands of that marketplace. Instead, it needs to focus on the continental (and especially southern and new) EU, as well as the growing Australian, Indian, Chinese and ASEAN HTT markets, especially as far as Africa-related travel is concerned. There are also HTTO opportunities to be exploited in cargo operations and in the

non-tourism travel market. Ticket processing is unlikely to be profitable, however, because of IATA licensing/qualification barriers.

For Mauritius to achieve HTTO success, intensive staff training will be necessary in languages, geography, food, cultural preferences, airline and shipping schedules, travel, safety and security anxieties, and other intricacies of the HTT business. There is no large local skill base with naturally acquired experience in the global HTT industry, people who are familiar with its ever-changing, complex demands. Given its middle-income status, and its relatively high employee cost structure, Mauritius cannot be a lost-cost, volume supplier of HTTO services. Nonetheless, it still needs to reduce costs in every other area that it can.

From that point of view, the cost of bulk connectivity and the absence of redundancy feed into the overall BPO cost chain counterproductively. Such costs might not be 'deal breakers' for firms aspiring to exploit the HTTO market, but they must, nevertheless, be lowered further. Moreover, it is important to realise that while connectivity costs might not be deal breakers, they are still sufficiently high to deter potential customers for HTTO services from considering Mauritius as a BPO location. The number of customers/BPO investors who stay away because of their own analysis of how Mauritius performs on key cost parameters, is unknown.

Triangulation involving Indian-Mauritian-South African partners might make sense in developing an HTTO capability in Mauritius. Such a partnership would widen the market that could be exploited if such resources were combined, and would lower overall operating costs as well. Yet bilateral deals are difficult enough to construct; trilateral arrangements would be even more complex. What is clear is that in this space, Mauritian firms will not be able to 'go it alone'.

Human resources recruitment, training and development outsourcing¹⁴

Recent research¹⁵ undertaken to examine how the human resources (HR) function was being performed in the Fortune Top 500 companies suggested that, even as costs continue to rise, HR staff spend 56 per cent of their time on programme delivery and transactional activities. Only 32 per cent of their time is spent on value-added activities such as recruitment, monitoring benefits and compensation, HR performance and arranging appropriate HR training/development.

There has been rapid growth in human resources outsourcing (HRO) since 1998, with total contract value of HRO transactions projected to reach US\$25.4 billion in 2007.¹⁶ There are a variety of corporate needs driving the transformation of the HR function, including the need: (i) for HR to be more global and strategic; (ii) to find ways to significantly reduce the functional costs of HR-related activities; (iii) to improve service and quality to the HR base of a corporation; and finally (iv) to minimise or avoid repeated large capital investments in HR. Often, major companies resort to

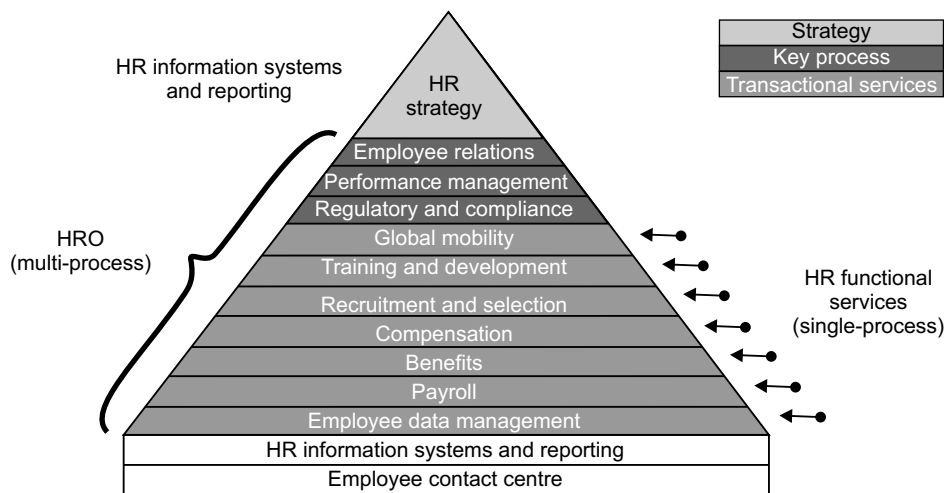


Figure 4.6 Multi-process human resources outsourcing versus single-process human resources functional services

Source: Presentation by Mr Vidia Mooneegan at the Symposium on the Export of ICT-BPO-ITES Services

outsourcing the HR management function when driven by a significant compelling event such as a merger, takeover or shift of geographic location. Alternatively, the function may be outsourced as a spin-off of the extant HR department to make it independent and enable more aggressive timelines to be achieved in delivering HR services. Often, given their core competencies (e.g. in IT or logistics) companies lack the specialised people, technology and processes needed to support HR in-house. Other reasons for outsourcing include:

- The need to completely transform the HR function in a particular context
- The need to improve service levels
- The need to lower the administrative cost of delivering HR services
- The need to increase business focus with retained organisation and to raise productivity
- Cost-cutting considerations, by replacing expensive managers
- Capital-cost avoidance
- Access to the latest technology at lower costs
- Compliance
- The need to comply with the Sarbanes Oxley Act (passed by the US Congress after the Enron debacle), EU directives and/or other regulatory mandates.

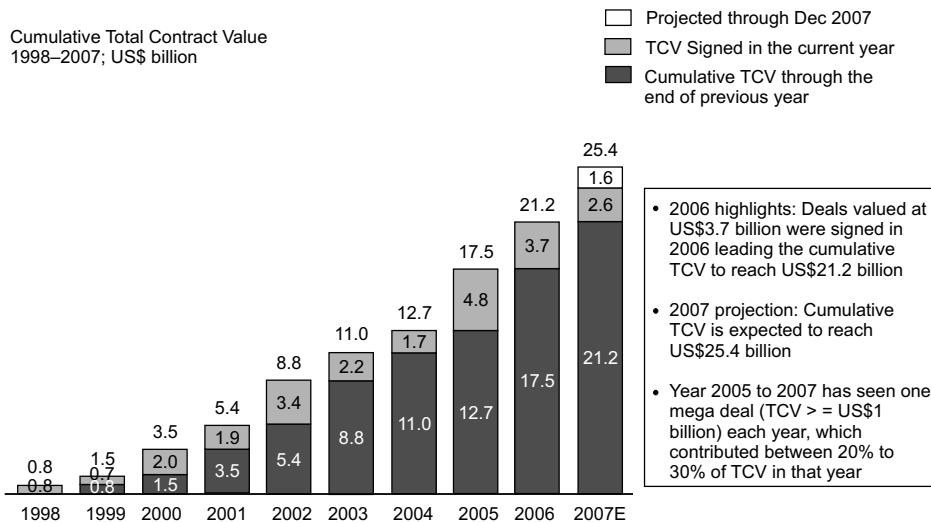


Figure 4.7 Cumulative total contract value of human resources outsourcing transactions
Source: Presentation by Mr Vidia Mooneegan at the Symposium on the Export of ICT-BPO-ITES Services

There are a variety of approaches to this transformation including: greater use of technology to execute HR transactions more efficiently, greater scale leverage and **HR business process outsourcing (HRO)**, defined as outsourcing of three or four transactional services, including but not limited to payroll, benefits, workforce administration and so forth.

The dominant companies operating in the global HRO space include Hewitt, Convergys, IBM, Accenture, ACS, ADP, ExcellerateHRO and Northgate ARINSO. For geographic and functional share the major companies in the HRO space see Everest Research Institute (2007).¹⁷

Geographical scope	Global	ADP Northgate ARINSO Ceridian Fidelity Hewitt	Accenture ACS Capgemini Convergys Excellerate HRO IBM
	Local/regional	AON Mercer	Capita LogicaCMG
		HR-centric	Multi-function
		Functional scope	

Figure 4.8 Global human resources business process outsourcing market 1
Source: Everest Research Institute

Global HRO supplier market share by geographic scope
ACV in US\$ million

Leading

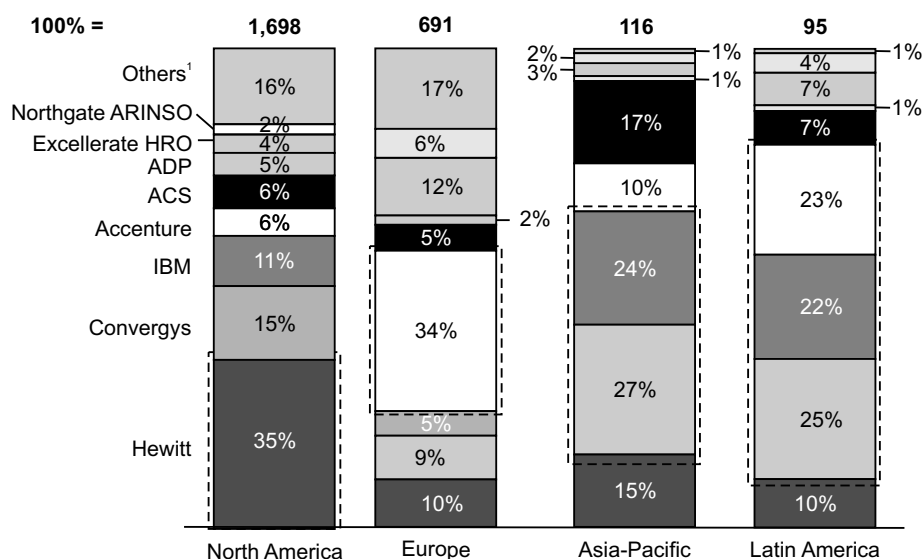


Figure 4.9 Global human resources business process outsourcing market 2

¹ Others include AON, Capita, Ceridian, Fidelity, Fujitsu, LogicaCMG, Mercer, Xansa, and Xchanging

Sample size: 207 HRO transactions signed as of July 2007

Note: We apportioned the revenues of global deals based on number of employees served in each geography

Source: Everest Reaserch Institute (2007)

The projected breakdown of HRO revenues (in US\$ billion) between 2007 and 2010 can be found in table 4.5.

Table 4.5 Projected breakdown of HRO revenues, 2007-2010¹⁸

Service	CAGR*	2007	2008	2009	2010
Total HRO revenues (US\$ billion)	13%+	35-38	40-42	45-47	48-54
› Payroll	10%+	18-19	20-21	22-23	23-25
› Benefits	11%+	10-11	11-12	13-14	14-16
› Talent management	20%+	2-3	3-4	4-4	4-5
› Other HR BPO**	15%+	4-5	5-6	6-7	7-8

* Compound Annual Growth Rate

** HR BPO is defined as outsourcing 3-4 transactional services, including but not limited to payroll, benefits, workforce administration etc.

HRO involves a multiplicity of functions, of which the most commonly outsourced are (in terms of frequency of inclusion within HRO transactions): employee contact centre (92 per cent), payroll (90 per cent), employee data management (85 per cent), benefits and compensation (77 and 60 per cent respectively), recruiting and selection (63 per cent), training and development (52 per cent), regulatory and compliance (51 per cent), performance management (35 per cent), global mobility (20 per cent), employee relations (7 per cent) and HR strategy (5 per cent).¹⁹

In terms of **future growth, trends and directions** for the **global** HRO industry, the following picture emerges:

- Market size is increasing at a more moderate pace than over the previous decade, with annual revenue growth of about 14 per cent in 2007;
- Global offshoring of HRO will continue to increase, with the main HRO service suppliers continuing to build global delivery networks to leverage capacity, capabilities and competitive pricing;
- The comfort levels of HRO buyers with offshoring is continuing to increase with experience, as offshoring emerges as one of the key value levers;
- An increasing number of smaller HRO deal sizes are being agreed and HRO services are becoming less packaged and more **'componentised'**;
- The EU market is seeing increased activity – it accounted for only 16 per cent of global HRO business in 2000, but for 26 per cent in 2007 – with regional and emerging HRO suppliers in 'new Europe' growing rapidly;
- Technology is becoming an increasingly critical component of the HRO evaluation and decision;
- HRO will become an increasingly attractive option for mid-size TNC and small and medium-sized enterprises (SME) buyers, especially as there is considerable untapped demand, given the low penetration of only 1.5 per cent of potential HR business being outsourced in the mid-size market;
- Under-served and under-outsourced segments of the HRO market are likely to be penetrated systematically over the next decade, resulting in global transformation of the HRO industry; and
- The trend toward HRO becoming an integral part of the multi-functional BPO market will accelerate, with established large firms (i.e. Accenture, Infosys, TCS etc.) absorbing more of that space.

Given this scenario, what niches can Mauritius exploit in this large, growing global service market? Mauritius has a track record with key HRO suppliers (Ceridian and Accenture), which have already established core competence with process expertise. This BPO segment offers considerable scope for Mauritius to move to higher-value activities by attracting as many of the principal global HRO vendors as possible to

Table 4.6 Global human resources outsourcing market size by service (US\$ billion)

Service	Compound annual growth rate	2007	2008	2009	2010
HRO		35-38	40-42	45-47	48-54
Payroll	>10%	18-19	20-21	22-23	23-25
Benefits	>11%	10-11	11-12	13-14	14-16
Talent management	>20%	2-3	3-4	4	4-5
HR BPO1	>15%	4-5	5-6	6-7	7-8

¹ HR BPO is defined as outsourcing of generally three to four transactional services including but not limited to payroll, benefits, workforce administration, etc.

Source: Rajeev Grover, Hewitt, presentation at symposium on the export of ICT-BPO-ITES services

expand their global delivery models from a Mauritian centre. The island is ideally positioned to serve the growing European market, because it is more competitive than Eastern European locations and can exploit its bilingual capabilities to better advantage.

What Mauritius needs to do is upgrade its existing HRO centres to offer better-priced HRO services, such as employee contact and employee data management services. The mid-size company market has the highest growth potential. This is because HRO covers a wide spectrum of functions, making it possible for small-size service providers to develop a niche approach. Mauritius needs, therefore, to pursue a strategy of encouraging – through direct and indirect support – large multi-function BPO service providers to expand and grow into HRO and, at the same time, encouraging the emergence of small-niche players to exploit specialised corners of the global HRO market that are not yet being fully exploited by the global majors.

The particular challenges Mauritius faces are that: (i) the bundling of IT into BPO is higher in HRO compared to other outsourced functions; (ii) the confidentiality and security of personal data, of HR processes and the integrity of people employed, are critical for customer confidence; and so (iii) Mauritius needs to have a stronger Data Protection Act in force as soon as possible.

Media, entertainment and animation services

Media, entertainment and animation (MEA) services is a rapidly growing segment of the information technology enabled service (ITES) industry, yet it is a difficult one to encapsulate as easily as other BPO segments. The structure, dimensions and rapidly expanding contours of MEA outsourcing embrace several segments, many of which are still nascent. It includes outsourcing for: the print and electronic media, both general and specialised (technical/professional) media; the conceptualisation, design and production of hard and soft audiovisual content for the global and local

advertising industries; media companies engaged in producing or altering for different markets (i.e. through translation, dubbing etc.) any conceivable form of hard or soft audio, visual or combined audiovisual content (music, games, interactive situations, documentaries, reality shows, entertainment, drama, theatre, opera, ballet, educational or information) for television, cinema or the web; and increasingly animation. There are no overall industry studies available that provide a sense of the dimensions of this aggregated grab bag of creative and highly skilled technical services.

The kind of service opportunities that exist in the media, entertainment and animation outsourcing (MEAO) domain are perhaps best exemplified by:

- A specialised publishing/digitisation enterprise headquartered in France, but with most of its people and production located in Bucharest, Mauritius and Madagascar
- A film studio operating from Germany and Mauritius
- A rapidly growing animation company from India, which is considering locating in Mauritius

These vignettes are perhaps more evocative and illustrative of the possibilities that exist for Mauritius in this particular creative domain than any reiteration of statistics might be.

Diadeis

The first of these case studies concerns **Diadeis**, a French company established in 1676. It is a highly specialised **precision engineering** company dedicated to the production of data and documents through two divisions: publishing and data digitisation. Both divisions process, industrialise, harmonise, manage, structure and deliver highly detailed, precise, sophisticated material of different types published with very short lead times. It does this at lower cost than would normally apply in the OECD world through **in-sourcing** from wholly owned **offshore** locations. To manage and update in real time its customers' large databases, Diadeis processes and digitises the proprietary data upon which they rely. The publishing division's outputs include: printed material and information disseminated on CD-ROMs and on the web. Its publications are multilingual and highly technical (e.g. manuals and legal reference books). For example, Diadeis publishes the official *EU Journal*, which requires the production of 133,000 pages annually in 23 languages using 38 processes (27 automated and 11 manual); produces technical and marketing brochures for Renault (25,000 pages annually used in 15 countries); and produces over 1,000 different types of packages for Nestle foodstuffs in seven different languages for global use.

The digitisation division uses manual inputs, optical character recognition (OCR) technology and XML structuring to vectorise and scan vast quantities of data and to organise the output into usable information. This division has undertaken, for example: the digitisation of French land registry archives (GILFAM), a task that

involved digitising eight million pages using 16 automated and nine manual processes, which took more than three years; and the creation of a geographical reference index of French cadastral surveys, which involved 200,000 detailed cadastral maps providing 3,000,000 national co-ordinates and 9,000,000 local references, with 160 operators undertaking 42 tasks (25 automated and 17 manual). These maps were developed using four principal data sources: topographic, ortho-photographic, parcel maps and individual addresses.

Organising itself on an ‘**offshore in-sourcing**’ model, Diadeis has 70 staff in France and 40 in Romania, complemented by 780 employees in Madagascar and Mauritius. The Paris HQ has 35 people who manage the company, undertake major project management, R&D and technical consultancy functions. A satellite unit in Nancy has 35 people undertaking scanning, automatic page layout and R&D functions. In Bucharest, Romania, 40 people carry out multilingual proofreading, page layout and quality control. These EU-based skills are leveraged by a larger employee base in Mauritius, where 180 people undertake highly skilled work involving DTP, publishing, geographical referencing and packaging artwork and reproduction. Diadeis has an even larger base in lower-cost Madagascar, where 600 people undertake work related to XML inputs, file conversions, cadastral map conversions and automatic page layouts.

Having established itself in Mauritius in 1996, on the basis of its experience, Diadeis ranks the island highest as an outsourcing destination for a French employer in the MEAO domain for the following reasons:

- It is located in a convenient time zone, with a two or three hours difference from Paris time
- It is bilingual, making it possible to employ people fluent in French and English
- It is familiar with sophisticated IT technology
- The working environment is similar to that of Europe, but expensive compared to other offshoring locations
- Its educational system is good, but nonetheless produces limited qualified human resources; as a result, scalability is focused in Madagascar rather than Mauritius
- Its society and culture are more occidental, rather than African or Asian in nature
- Confidence in its political system and adherence to rule-of-law is relatively high
- Compared to the EU, its labour costs are competitive and flexible (although not compared to Asia).

A comparison provided by Diadeis of a number of possible outsourcing destinations, indicating the level of attractiveness, is given in Table 4.7.

Table 4.7 Offshore countries comparison by level of attractiveness

Country\Criteria	Labour cost	Time zone	Language	Technology	Education	Culture	Political confidence
Mauritius	high	high	high	high	medium	medium	high
Romania/Poland/ Bulgaria	medium	high	medium	high	high	high	high
Tunisia/Morocco/ Senegal	high	high	high	medium	medium	medium	medium
Madagascar	high	high	medium	medium	medium	medium	low
India	high	low	low	high	high	low	high
China/Indonesia/ Vietnam	high	low	low	medium	medium	low	medium

Source: Presentation by Mr Eric Legent at the Symposium on the Export of ICT-BPO-ITES Services

Yet Diadeis has found that locating in Mauritius is not problem free, challenges being that (i) the output of the local education system is insufficient in both quantitative and qualitative terms for the needs of this industry; (ii) consequently, Diadeis has had to create its own school of design and training, which is a high-cost activity for a small, specialised company; (iii) the ‘*pena problema* syndrome’ (i.e. the automatic ‘no problem’ response resulting in everything becoming a problem), which requires intensive management and control procedures to ensure that things get done when they should, deadlines are met and quality control is not compromised; (iv) telecom costs limit the firm’s global competitiveness. These constraints result in Diadeis not recruiting as many Mauritians, nor locating as much activity in Mauritius, as it would ideally like to do.

Under its tailored, offshore in-sourcing model, Diadeis does not see Mauritius as a BPO/MEAO destination where low value-added processes can be externalised. Instead, Mauritius is a place where highly specialised SMEs like Diadeis can invest and locate skilled EU managers and professionals (because of an amenable environment, climate and lifestyle) to achieve global standards of productivity and competitiveness in a win-win deal. Mauritius leads in attracting similar French firms. However, the Government of Mauritius should understand that this leadership position is not embedded nor guaranteed for all time. In fact it is quite precarious, with a balance that can tip the other way at any time. Despite this, Diadeis’ dealings with the authorities have engendered considerable confidence that issues will be dealt with efficiently and with flexibility in policy-making and action.

Eruption Studios

The second case study involves a production studio (Eruption Studios) that carries out the following tasks.

- A. Audio work using Pro-Tools configurations and related audio software to do:
- Production of commercial spots for TV and radio advertising
 - Sound designing
 - Audio conception for video games and/or related projects
 - External sound recording for TV and film production
 - Audio-dubbing for TV and film production
 - Conceptualisation and production of corporate ‘jingles’ for TV/radio commercials
 - Audio post-production on video
 - Advertising spots conceptualisation
 - Pre-production for radio programmes, theatrical shows etc.
- B. Video work using Avid Xpress and Beta SP DVPro to undertake:
- Film editing on outsourced TV productions and language dubbing
 - Video post-production and video animation
 - Commercial advertising spots and corporate films
- C. Multimedia work using Flash MX, Dreamweaver MX and Adobe Suite CS2 to do:
- Web designing, hosting and maintenance
 - Flash animation
 - Graphic design
 - Corporate ID
 - Music and video online
 - CD ROM/Interactive etc.
 - Programming: Action Script, PHP, CSS, Javascript, XHTML, DHTML

In its specialised domain, Eruption employs top-level skills from abroad to acquire contracts and undertake production for its EU and global clientele. These include: **sound engineers and designers** for creative audio and video work, including experienced specialists from France for audio engineering and sound-editing for films; **IT developers and Web designers** to run the company’s multimedia facility and train local staff, as well as to develop the company’s service export markets by sourcing foreign clients; and **experienced film editors** from the EU who have edited prime-time movies made for TV, to outsource film editing contracts (mainly from Germany) and to train local staff.

With its expatriate and local staff base, the studio has: carried out radio and TV commercial work for global clients (including Coca Cola, Pepsi Cola, Orangina, KFC, Nestle's HSBC, Barclays, Renault, Nissan and IBL Products) as well as regional/local clients such as (MCB, Chantecler, BAI, Emtel, Cellplus, Canal Sat, Parabole Maurice & Reunion); produced corporate films for local groups such as Beachcomber, Bois Cherie, Floreal and Novel); and has carried out a host of miscellaneous productions, such as musical conception/production of the AAA awards, musical productions of theatrical and comedy shows, dubbing for Bollywood films and son-et-lumiere productions.

Maya Entertainment

The third case study for entry into Mauritius is that of a rapidly growing Indian animation company, Maya Entertainment. A recent NASSCOM Report (2007)²⁰ estimated the value-added of the global animation industry at US\$70 billion, with Indian animation value-addition at US\$900 million by 2010. Animation production services generated revenue of US\$350mn in 2006 and the Indian animation industry will employ more than 30,000 professionals by 2010. Animation is an ITES activity particular suited to Mauritius because it is:

- A niche domain with specialised training needs
- Independent of geography, source or ethnicity
- Characterised by somewhat high barriers to entry
- An industry where firm size matters less: a studio with 50 people is mid-sized; one with 250 people it is large (Pixar was sold for US\$7.5bn with less than 1,500 employees)
- An ITES service area that provides opportunities to move up the value chain rapidly

Animation verticals comprise: films, TV series, e-learning, video games, corporate videos, scientific visualisation, social networking and Web content. The value-chain in animation includes: infrastructure services (game hosting, grid computing clusters); localisation services (subtitles, dubbing, menus); production services (work for hire, WFH); design and creative services (WFH); co-productions; intellectual property (IP) creation; and distribution and merchandising. The degree of specialisation involved has led Maya Entertainment to establish its own academy for training in response to a shortage of talent, even in a vast labour pool like India's. The Maya Academy has grown from one in-house centre in 2002 to over 60 centres (directly owned and franchised) in six years. It teaches industry standard courses certified by Cambridge University Exams and has graduated more than 10,000 animators since its start up.

With its considerable artistic and creative talent, Mauritius is an ideal location for establishing a number of niche firms in the growing area of animation services,

starting by encouraging proven firms like Maya to locate in the island. The government, BoI and Enterprise Mauritius need to prioritise animation services as a key thrust area for future development and explore what needs to be done to make that happen. Specifically, the following objectives have to be achieved:

- Promoting creative and fine arts as commercial, not just cultural, activities;
- Promoting awareness in local industry and the community at large of the commercial potential that media and animation services have;
- Setting up training programmes for media outsourcing specialists and animators;
- Establishing an ASIFA (*Association International du Film d'Animation*) chapter in Mauritius;
- Attracting captive offices of animation production studios from India, the EU and North America (especially Canada);
- Encouraging local industry and government to commission animated content as part of their own promotional and advertising programmes on TV and the web;
- Negotiating co-production treaties for media services and animation with key countries (e.g. the UK, France, Canada, the US, India, China, Singapore and South Africa); and
- Framing strong intellectual property rights (IPR) laws for the protection of content.

Mauritius as an African outsourcing gateway

In attracting FDI – whether in financial services, establishing regional headquarters, creating an African transport hub and so on – Mauritius has invariably been represented by Board of Investment (BoI) to, for example, Indian and Chinese investors, as an ideal entrée into Africa (particularly into francophone Africa, i.e. Madagascar and Central/West Africa). This has been done with global ICT firms as well. Is such representation myth or reality? Where ICT is concerned, four questions relating to Africa are critical: (i) Does Mauritius have privileged access to the regional market in Africa? (ii) What is the state of Africa's ICT industry, which reflects its absorptive capacity to handle outsourced services? (iii) What is the width and depth of the African outsourcing market? and (iv) Are African countries sources of ICT skills that Mauritius does not have **in the quantity it needs** to achieve minimum critical size in many of the specific outsourcing segments identified above?

Mauritius may appear to outsiders to have good access to the **sub-regional** COMESA market, and beyond that to the continental and francophone African markets. That impression is fortified by membership in a number of regional arrangements, i.e. COMESA, SADC, the Francophonie, the African, Caribbean and Pacific (ACP) group of states, the Commonwealth, the Indian Ocean Rim, the African Union (AU) etc.

Asian and EU citizens often feel more comfortable living in Mauritius to carry out African business, than to live in Africa, other than perhaps in South Africa (which itself has security, political and ethnic problems to deal with).

In reality, it has proven difficult to convert the superficial **'notion'** of Mauritius as a gateway to Africa into a practical business reality, except to say that Mauritius has access to opportunities in Madagascar and, possibly Mozambique, because its sugar and tourism (and to a lesser extent textiles) industries have established business beachheads in those countries. Mauritius's access to Africa is arguably worse than that of South Africa or other countries on the continent. Intra-regional investment and trade in Africa, or in any of its sub-regions, is minuscule. Mauritius's membership of COMESA, SADC and the AU give it no particular advantage. The island's air and telecom connectivity to Africa is worse than Nairobi's or Johannesburg's; indeed, Dubai has better air and shipping connections to African capitals than Mauritius, as do London, Paris, Frankfurt and Rome. Thus the notion that Mauritius has privileged access to Africa – however often repeated – may be no more than a self-serving, but erroneous, mirage.

When it comes to the state of ICT, it has to be accepted that outside of Mauritius, South Africa, Botswana and Namibia, ICT infrastructure in Africa is undeveloped. As at November 2007, Internet penetration in Africa was only 5 per cent, although 'use growth' in 2000–2007 was 879 per cent compared to 214 per cent for the rest of the world. African communications infrastructure is extremely weak, but major projects are being undertaken that will change that situation over time. The regional African outsourcing market for Mauritius is almost non-existent at present, with the only serious market prospect being South Africa. Yet South Africa is also Mauritius's strongest competitor in Africa for the outsourcing business.

Prima facie, there might be opportunities to undertake outsourced work for national or sub-regional companies operating transport services (especially airlines and shipping companies); financial services (such as banks, exchanges, brokerages and insurance companies); media services (such as production of content for TV stations in anglophone and francophone Africa); HR services; and possibly for e-government. There might be isolated opportunities for capturing BPO from **foreign** companies (e.g. mining companies, as well as manufacturing and services firms) operating in all or parts of Africa, which might want to have back-up and security in a location that is commercially viable and politically stable. There may even be unexplored opportunities for BPO and KPO from **regional institutions** like COMESA, SADC and the AU (e.g. for ABSO, LPO, HR, media services etc.) not to mention **multilaterals** like the African Development Bank (AfDB), World Bank and the European Development Fund (EDF), as well as **bilateral aid agencies** operating across the continent.

However, 'conceptual possibility' is far removed from practical achievability. Most African companies in areas that offer the largest BPO opportunities are **parastatals**. They are subject to public procurement rules (and inhibitions), which are open to

corruption to secure contracts. Their proclivity to outsource offshore (even if lower cost, greater efficiency and better quality might be achieved) is limited. Outsourcing decisions are not made strictly on commercial criteria.

Taking all that into account, it becomes clear that exploiting BPO opportunities from Africa will need substantial front-end investment, i.e. investment of a kind that global companies like Accenture, Infosys, TCS etc. can afford. But can local Mauritian ICT services companies invest in this way without public support? In addition, outsourcing contracts in domains like ABSO, E/ASO and LPO, will require larger numbers of low-cost workers than Mauritius has. This situation might require: importing skills from Madagascar, Mozambique or other low-cost countries and coping with the immigration consequences; Mauritian ICT companies investing in Madagascar to acquire a low-cost workforce; or working with Indian partners that have the low-cost processing capacity, but need to use Mauritius as a front-end interface for dealing with African and French clients.

Finally, are African countries a potential source of critically needed HR in the IBI industry? If instructive examples like Diadeis are to be taken seriously, the answer has to be affirmative. It is possible that, relying on its own limited base of human resources, Mauritius will not be able to exploit BPO opportunities in areas where rapid scalability is important, i.e. to attract and retain core clients around the world whose needs will expand. That constraint can be relieved if Mauritius can access qualified labour (e.g. accountants, lawyers, engineers, architects etc.) from South Africa, Madagascar, Mozambique and other East African countries, or countries like Zimbabwe, which has experienced mass emigration of highly qualified professionals in the last few years.

By the same token, Mauritius can attract the HR it needs from the EU, South Asia and ASEAN. Although this would perhaps be at a higher nominal cost, it may not necessarily be at a higher 'risk-adjusted' overall cost (including the cost of training, local absorption and/or possible eventual repatriation). The issue is one of **optimising** HR sourcing, given what the Mauritian labour market might need and what Mauritian society is prepared to absorb, as the IBI industry develops.

There, will, of course, be consequences for immigration and absorption into the local economy, regardless of the sources from which HR is attracted. Mauritian policy-makers and society at large will need to take these into account, and adjust labour market and immigration policies to accommodate and ameliorate (rather than exacerbate) local socio-cultural and politico-ethnic sensitivities. However, the **realpolitik** of increased immigration aside, in an overall sense there can be no doubt that Africa, along with the EU and South Asia, is an important source of HR to meet Mauritius's IBI labour market needs, as that industry grows and becomes more specialised and sophisticated.

Based on that overall assessment, Africa as a **market** for BPO provides relatively infertile ground as far as immediate opportunities are concerned. Yet it may be

essential for Mauritius to exploit first-mover advantage in developing African BPO opportunities for the **medium and long term**, if only because Africa is the next major emerging market frontier. The continent may provide Mauritius with a useful source of IBI opportunity growth beyond the next decade, if local firms have the foresight and resources to look beyond the horizon.

Nonetheless, if Africa is to be developed as a future BPO source market, some key challenges will need to be addressed. These include, *inter alia*: (i) close collaboration between the IBI industry and government, with both being required to understand properly the precise nature of each client industry's focus, its costs, constraints and pattern of evolution, and where BPO might help that industry to transform its prospects; (ii) much larger amounts of public and private investment in strengthening and expanding communication gateways, i.e. air, sea and wavelengths; (iii) investment in a larger pool of qualified, professional staff; (iv) substantial product/service knowledge about the unique BPO needs of each industry being targeted as a possible source market; and (v) bringing to bear an extraordinarily high level of technical competency, along with professional ethics and integrity.

There are four main constraints to developing African BPO opportunities: technical, governmental, structural and socio-political constraints. To elaborate, the **technical** constraints concern: the limited availability of reliable/efficient world-class port and airport services; the high-cost, limited reliability and indifferent quality of communication gateways with no back-up redundancy; and insufficient (i.e. less than world-class) competency of key players in local industries that have BPO market potential in Africa (e.g. airlines, airport, shipping, logistics, banking, insurance etc.).

Similarly, the **governmental** constraints include: insufficient understanding on the part of ministries and civil servants of various industries' capabilities, needs and strategies; a lack of trust and confidence between public and private sectors when it comes to each other's motives, practices and tendencies; and confusion about the values that Mauritius must have to be successful as a global centre for BPO - i.e. a more obvious 'hard-work' rather than 'work-to-rule' or 'work-to-hours' ethic, combined with honesty, efficiency, professionalism and integrity as personal attributes across the labour force.

There is no obvious ingrained sense of social responsibility in the Mauritian private corporate sector. Nor is there a lack of corruption, favouritism or perceived adherence to ethnic affiliations and loyalty, in the public sector. On all these individual attributes - critical where BPO value-addition is concerned - Mauritius needs to examine how short it falls.²¹

Structural constraints include the lack of quality/quantity of HR output compatible with meeting the needs of a labour market, which has to compete on equal terms with the rest of the world, and a public sector ethos/culture that is **not** attuned to quality, competency, efficiency, innovation or competition, but is geared to outmoded protectionist postures that emphasise what cannot be done, rather than focusing on

what can be done and how. Additional structural constraints are: a private corporate sector that has traditionally been inward-looking, managerially weak and concerned more about protecting domestic market space, rather than having the vision and developing the ability to compete globally; a national attitude that is lacking in confidence, and that is wedded to political and social practices that rely on ethnic linkages, patronage and political connections rather than meritocracy in promoting talent; and a relative lack of emphasis – at the country, industry, company and individual levels – on investing in knowledge, innovation, competitiveness, and R&D.

Finally, the island's **socio-political** constraints concern the high, seemingly inherent instability of Africa, where democratic roots have not yet taken hold, and the risk of ethnically- and tribally-driven social unrest remains high. Security for people remains a major concern, with weak governments incapable of providing law and order. Africa is also plagued by uncertainty about policy and administrative consistency and continuity: will decisions taken by today's government be implemented under a new government tomorrow? While Mauritius remains a stable safe haven compared to its counterparts on the continent, will that situation always remain, in a polity that still places so much emphasis on ethnic loyalties rather than merit? These large and difficult questions remain to be answered.

Notes

1. Figures derived from National Information & Communications Technologies Strategic Plan (NICTSP).
2. The *National Information & Communication Technologies Strategic Plan* (NICTSP): Ministry of Information Technology & Telecommunications, Government of Mauritius, Port Louis, 2007.
3. AT Kearney Global Services Location Index 2007. As presented by Mr Johan Gott at the Symposium on the Export of ICT-BPO-ITES Services.
4. Survey carried out by the American Institute of Architects and the Harvard Design School at Harvard University, 2004 (reported in a book published by the Harvard Design School in 2005 entitled *Understanding Architectural Services Outsourcing*. See <http://harvarddesignbooks.stores.yahoo.net/unouarse.html> [accessed 5 January 2009].
5. Ibid.
6. The NASSCOM/Booz Allen study *Globalization of Engineering Services – The Next Frontier for India* is the first to take a systematic and comprehensive view of the role of emerging markets in engineering services, assessing the evolution of the engineering market from 2005–2020. The study examined product and component design, plant design, process engineering and plant maintenance operations, for industries including automotive, aerospace, high tech, utilities, construction and industrial machinery. See: <http://www.boozallen.com/news/8471428> [accessed 5 January 2009].
7. See above two footnotes for sources.
8. See presentation by Ms Josie Lapierre, Symposium on the Export of ICT-BPO-ITES Services.

9. Source: Hildebrandt International. See <http://www.hildebrandt.com/> [accessed 5 January 2009].
10. Source: Value Notes. See <http://www.valuenotes.biz/> [accessed 5 January 2009]. Business research and competitive intelligence firm Value Notes is the number two market analysis and research vendor per survey results published in the 2007 edition of *The Black Book of Outsourcing*.
11. The Mauritian legal profession comprises some 500 practising lawyers and another 500 paralegals, with an annual output of 50 new law graduates. This compares to over a million lawyers in India, with an annual output of 80,000 new law graduates, and over 400,000 in the Philippines, with an annual output of 25,000 new graduates.
12. For more details, see presentation by Mr Pankaj Parnami, Symposium on the Export of ICT-BPO-ITES Services.
13. Note: Outsourcing HTT customer-service jobs, mainly to in-country phone agents, is still only a \$3-billion-a-year business, according to PRC Inc.
14. For more details see presentations by Mr Vidia Mooneegan and Mr Rajeev Grover, Symposium on the Export of ICT-BPO-ITES Services.
15. HR Analyzer (2007). Hewitt Associates, LLC, New York, USA. The online HR Analyzer provides the factual insight you need to verify that HR resources are aligned with your organisation's business strategy, taking the guesswork out of assessing where and on what HR is spending its time and money.
16. Mr Vidia Mooneegan, Managing Director, Ceridian, Mauritius.
17. See <http://www.everestresearchinstitute.com/> [accessed 5 January 2009].
18. Mr Rajeev Grover, HR Outsourcing, Asia/Pacific Leader, Hewitt.
19. Mr Vidia Mooneegan, Managing Director, Ceridian, Mauritius.
20. See: http://www.nasscom.in/Nasscom/templates/NormalPage____28721.aspx [accessed 5 January 2009].
21. Note: While these attributes are seen as critical for BPO success, if Mauritius is compared with India on these criteria, it comes out ahead on most.