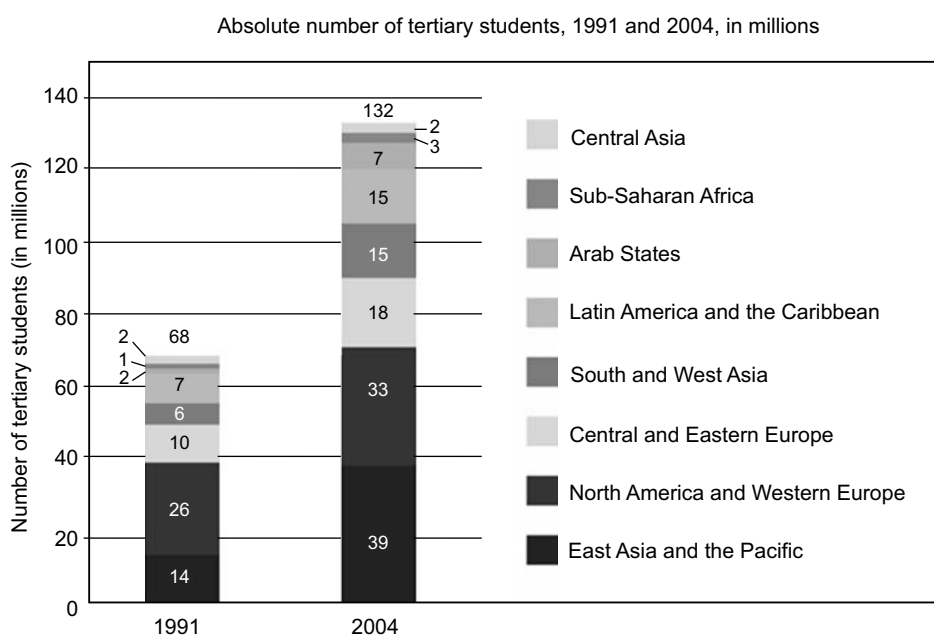


## 6

# Exporting Human Resource Development Services

### Growing market for global human resource development service exports

In an increasingly knowledge-intensive, knowledge-dependent world, global human resource development (HRD) exports in vocational and tertiary education (VTE) and professional training are pervasive and large. At present, such exports are dominated by OECD countries, which have a sophisticated and well-developed institutional infrastructure for the provision of VTE. They have much larger, more diversified faculties and facilities with a head start in knowledge accumulation. However, that reality is changing with two significant trends: (i) the size of the global and export market for tertiary education is increasing rapidly; and (ii) a larger share of the export market is being captured by developing countries, driven largely by cost economics.<sup>1</sup>



**Figure 6.1** Growth in the number of tertiary students worldwide since 1991

Source: UNESCO Institute for Statistics database

Worldwide VTE enrolment in 2005 was more than 40 per cent higher than in 1999, and double that of 1991. There were 138 million students enrolled for VTE in 2005 compared to 68 million in 1991 and 93 million in 1999. In all likelihood, at current rates of growth there will be 250 million students in VTE by 2020. According to the United Nations Education, Science and Culture Organization (UNESCO), 2.5 million students were studying abroad in 2004, with that number rising to over 4 million in 2008. About 3 per cent of students enrolled in VTE worldwide are now studying abroad. That proportion is likely to rise to 5 per cent by 2015.<sup>2</sup>

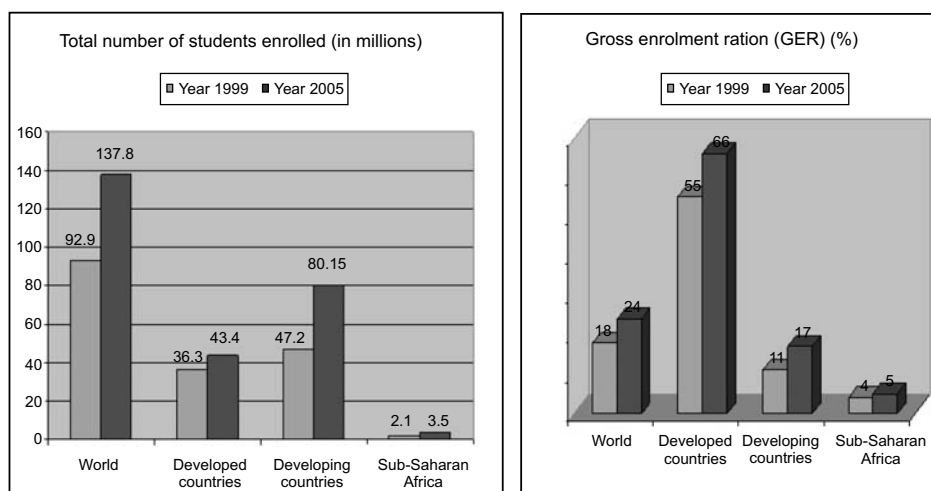
The all-inclusive **annual** costs (between 2005 and 2008) of an overseas education varied from US\$100,000 (in the best US universities) to US\$15,000 in lower-cost countries, with a median of about US\$25,000 per foreign student. That implies an annual global HRD export market of about US\$100 billion in size. **It is a market that Mauritius could quite easily capture a 1–2 per cent share of.**

Students seeking **international** higher education will exceed seven million by 2015 and 15 million by 2025 – i.e. about eight times global demand in 2000. In 2025, the size of the global HRD export market will be between US\$400 and 500 billion, with a 1 per cent share accounting for \$4–5 billion or about 75 per cent of Mauritius's existing gross national income (GNI), but probably less than 20 per cent of the GNI projected for 2025.

The basic drivers for VTE emerging as a major *global* service industry include: (i) a shift in the world's economic centre of gravity from OECD countries to the large emerging economies (mainly of Asia), especially China, India and members of ASEAN; (ii) a larger number of students from developing countries (especially from Asia) enrolling for VTE due to demographics and rising living standards; and (iii) cost escalation in OECD countries, with annual tuition plus living costs of tertiary education now rising to US\$70–100,000 annually for a postgraduate degree, whereas costs in developing countries are still between US\$5–15,000. That size of this differential is bound to drive global VTE provision toward lower-cost economies.

In the 20th century it was normal for individuals to remain in one profession, vocation or occupation for most of their working lives of between 40 and 45 years. By contrast, the 21st century will see individuals change their professions or occupations three to five times in the course of their (longer) working lives, which will stretch between 50–55 years. The challenge will be to maintain:

- a high quality of VTE (and using established brand equity through partnership arrangements with reputable institutions) wherever it is provided from – i.e. with increasing adoption of global standards in course curricula, accreditation, certification of students, institutions and qualifications; and
- ensuring the relevance of VTE (through continuously evolving curricula) for a world in which new technologies are shortening the shelf life of acquired skills and creating hitherto unprecedented demands for continuous training and retraining.



**Figure 6.2:** Progress made in tertiary education

Source: Presentation by Dr Qian Tang at the Symposium on the Export of Human Resource Services

Asia heads the list of regions sending students abroad for higher education at the present time, accounting for 42 per cent of the global total. Europe is second, accounting for 35 per cent, although EU students mainly go to other EU and OECD countries. Africa accounts for 12 per cent of the global total of students abroad, mainly in OECD countries. North America accounts for less than 7 per cent, South America for 3 per cent and Oceania for 1 per cent.

**Over the next two decades, Asia offers the highest potential as a market for HRD service exports.** It is expected to account for 70 per cent of global demand for foreign procured HRD services in 2025. India and China together will account for 50 per cent of global demand, while ASEAN will account for another 15-20 per cent. Thus, while Africa remains a captive regional market for Mauritius to exploit in exporting for HRD services, it cannot ignore the potential of the Asian market to which it is equally well connected and attractive from the viewpoint of Asian students wanting to study abroad.

The highest proportion of VTE students studying abroad is from sub-Saharan Africa, Central Asia and the Middle East - where VTE capacity and infrastructure are least developed. The lowest percentage is from North America - where VTE is advanced. A large proportion of EU students go to another country, but usually to another **European** country (just as US students go to another state to study); however, an increasing number are now studying in North America and Asia.<sup>3</sup>

Asia accounts for a smaller **proportion** of students studying abroad than three other continents. However, it accounts for the largest number of them in absolute terms.<sup>4</sup>

Where do most of the globally mobile VTE students go? As might be expected they go to countries with an established reputation for providing high-quality VTE, offering qualifications that are internationally recognised, and have a well-developed and diversified VTE infrastructure offering courses in a wide range of disciplines. Countries that attract the most foreign students are the **US** (mainly from Asia and Latin America), the **UK** (from former colonies with a similar educational system), **Germany** (which attracts students from Europe in disciplines like engineering), **France** (which is the epicentre for VTE from francophone countries) as well as **Australia** and **Japan**. Together these six countries accounted for over 67 per cent of all foreign students in the world.<sup>5</sup>

Nonetheless, many other countries are establishing a larger presence in competing for foreign students in the growing global VTE market. They include **Malaysia**, **Singapore** and **China**, which together account for about 250,000 students in all with a combined share of 12 per cent of the global market. Malaysia enrolled 44,390 foreign students from over 110 countries in 2006 – i.e. 2.5 per cent of the global market. In 2005, about 66,000 foreign students enrolled in Singapore, an increase of 32 per cent over 2004, with Singapore positioning itself as a regional centre of excellence offering the best of ‘East’ and ‘West’ and hoping to attract 150,000 by 2015 (although it suffered a setback when the University of New South Wales decided to close its Singapore campus (UNSW Asia). That leaves about 140,000 foreign students studying in China as at 2006.

**India** is another country with a large number of foreign students, mainly from South Asia and the Indian Ocean Rim. India’s handful of world-class VTE institutions (i.e. the Indian Institutes of Management and Technology [IIMs and IITs]), are overcrowded. Domestic competition for entry into them is so intense that they do not have room to accommodate foreign students. With exceptions like the Delhi School of Economics and the Manipal Complex, the quality of the rest of India’s VTE is so poor that it does not attract many foreign students. Were India’s VTE system to be privatised, with greater openness to the entry of foreign institutions, India would emerge as one of the largest host countries for a foreign student population, particularly from Asia, the Middle East and Africa.

South Africa also has a large number of foreign students from the rest of Africa. These five countries (i.e. India, China, Singapore, Malaysia and South Africa) provide reference points for, and pose competition to, Mauritius as a potential HRD exporter. However, many more countries are now entering the HRD export market as service providers. For that reason it is essential if not urgent for Mauritius to: (i) develop its capabilities in this sector at a much faster rate than at present, so as not to suffer ‘**last mover disadvantage**’; (ii) pinpoint the areas and disciplines in which capabilities should be developed in order of priority; (iii) identify the partnerships it needs (with countries and established institutions from around the world) to make a success of its initiatives; and (iv) ensure that the quality standards it adopts and the

degrees, diplomas and certificates it awards to students are accepted and recognised around the world.

The **markets** that Mauritius should focus on are: **Africa** – eastern, southern and francophone; **Indian Ocean Rim** islands; the **Gulf States**; **India**, in partnership with Indian institutions; the rest of **South Asia**, especially **Bangladesh, Nepal and Sri Lanka**; ASEAN, especially **Burma, Cambodia, Laos and Vietnam**; **China** and **Taiwan**; **Australia, New Zealand** and **Oceania**; and **Europe**, particularly **new Europe** as well as **Britain** and **France**.

To penetrate those markets systematically and credibly, Mauritius will need to consider partnerships with governments, educational establishments and private players in South Africa, India, Malaysia, Singapore, China and Australia as well as with the UK and France.

### **Background, evolution, challenges and obstacles**

It was to explore the possibilities and challenges of expanding HRD service exports that a symposium was held in April 2008. At that event, the Government of Mauritius's intent to make the island a **regional** centre for HRD service exports was underlined. However, it was noted that a national strategy had been announced **five years ago** to:

- Position the island as a knowledge hub for the region;
- Attain world-class status in vocational and tertiary education;
- Attract an international student community – with special focus on IOR and Africa;
- Attract high-quality institutions of higher learning from around the world; and to
- Attract a highly qualified international teaching staff.

Accordingly, procedures were streamlined by the Ministry of Finance and Economic Development (MFED) for rapid approval of applications by institutions providing VTE (private and public, foreign and domestic). The Ministry of Education and Human Resources (MFED) went even further and prepared a National Policy Framework for the Board of Investment to attract FDI in VTE. However, after five years it was reasonable to ask what exactly had been achieved? Had regionally focused objectives been met? Had HRD service exports been increased to any significant degree?

Since 2000, Mauritian VTE has expanded and diversified, but only to meet its growing *domestic* needs. It now has two public universities – the **University of Mauritius (UoM)** and the **University of Technology in Mauritius (UTM)** – providing undergraduate and postgraduate education in a number of disciplines. In addition, there are four specialised institutions.<sup>6</sup> These six **public** entities are regulated by the Tertiary Education Commission (TEC). Three public polytechnics – managed by the Technical School Management Trust Fund – along with the **Industrial & Vocational Training Board**, offer diploma and certificate programmes for vocational

training. The **Mauritius Institute of Health** provides specialised tertiary education in the medical field. Augmenting this **public** VTE infrastructure (and regulated by an unduly complex regulatory regime given the size of the country) are four '**regional**' institutions viz. the **University of the Indian Ocean (UIO)**, the **Institut de la Francophonie pour l'Entrepreneuriat (IFE)**, the **SSR Medical College (SSRMC)** and the **Mauras College of Dentistry (MCD)**.

In addition to these 15 public institutions, there are over 40 **private** institutions licensed to deliver tertiary education/training in specific areas. They cover subject areas such as: IT, law, management, business studies, accountancy and finance. Most such entities are local counterparts, agencies or franchisees of overseas institutions; however, they are not all of a high enough standard to establish the right brand image for Mauritius in this competitive domain. They offer courses ranging from sub-degree diplomas and certificates to postgraduate degrees through a mixed-mode system involving distance learning, as well as face-to-face tutorials in classroom settings. Enrolment in **private** institutions has been outpacing that in **public** institutions by a significant multiple. The steady expansion of private institutions has also enabled Mauritius to attract a higher calibre of fee-paying student and permitting it to offer multi-cultural exchange programmes and offshore campuses. In addition, the rapid growth of the ICT, BPO and ITES service industries has been encouraging applications for distance and e-learning.

Yet, taken together or separately, does this panoply of more than 55 public and private institutions provide appropriate or adequate foundations upon which to build the institutional structure needed for HRD exports? What do these institutions contribute to HRD service exports at the present time? The reality is that almost all these institutions cater to the local market, although there are some foreign students in Mauritius. They do not constitute an important enough market for export earnings from HRD services to register as a significant source of revenue. Statistics from the Tertiary Education Commission revealed that in December 2007, the total number of foreign students in Mauritius was 570.<sup>7</sup> The gap between this figure and the more than 66,000 overseas students in Singapore, suggests illustratively the potential for HRD exports from Mauritius. The island's foreign students originate from the Seychelles, Comoros, South Africa, Uganda, Kenya and India, among others.

So far, Mauritian stakeholders have been more concerned by the gap between **local human resources demand** (i.e. the needs of the evolving labour market in Mauritius) and **local supply**, i.e. the output of the VTE system. The mismatch has resulted in the paradox of a high and growing unemployment rate (more than 10 per cent) in the face of acute labour shortages (for high-level personnel) in all sectors of the economy, particularly in financial services and ICT industries where expansion has been constrained by the unavailability of qualified personnel. Studies will have to be carried out on the same demand-supply gap for the surrounding **region** (IOR and Africa) or the **rest of the world** to establish the context for Mauritius's plans to expand HRD services. The focus of these studies should be on: (i) which markets -

other than Africa – present opportunities for exporting HRD services and which of these Mauritius should be focusing on; (ii) which areas of VTE it should specialise in; (iii) how VTE should evolve from where it is now (serving the domestic market) to where it aspires to be (catering to regional and global markets); and (iv) what needs to be done by a variety of players (government, regulators, domestic and foreign stakeholders) to move the island to its intended destination as a significant HRD services exporter.

The pertinent question should be how a successful HRD **export** capacity might be developed. Given where Mauritius is now, what is the optimal path? With too much emphasis on the domestic scene, there tends to be insufficient focus on the policies, mindset and infrastructure (hard and soft) needed for **exporting** such services: i.e. by attracting the requisite FDI from educational institutions abroad. An export-orientated focus would result in establishing a VTE infrastructure that was far larger than required or justified by domestic needs, but commensurate in the context of wider regional and global needs for such services.

Discussions at the symposium in 2008 reflected the difficulty experienced by domestic policy-makers/regulators (the Ministry of Education and Human Resources and related commissions) in visualising what needs to be done to develop **HRD service export capabilities**, regardless of implications for domestic VTE. These discussions suggested an implicitly closed mindset, reluctant to open VTE space to foreign competition or to depart from a **public** to a **private provision** model in education. This fundamental attitudinal difficulty has to be overcome before progress toward exporting HRD services can be made.

It is also questionable whether the TEC is qualified (in terms of constitution and capacity) to apply **global** standards for regulating **private** VTE institutions that exported HRD services. There is a clear risk that if the TEC's **domestic** regulatory function was extended to the export domain, it could compromise exports by adopting a protectionist stance, for example, using its accreditation and certification powers to restrict or delay entry, competition and innovation. This seems to be happening now, with a queue of private entrants complaining about being blocked from investing for no good reason. What was said in chapter 5 on this issue, insofar as it concerns the healthcare domain, applies with equal validity and force to the education domain. The underlying difficulties and fears are the same and should be dealt with in the same way.

In terms of the disciplines that Mauritius needed to focus on for HRD/VTE exports, the ones identified at the symposium included (not necessarily in order of priority): areas in which the island has established and demonstrated strengths; areas in which it is developing a capacity for future growth; and other areas of global market interest and special African interest.

Areas in which Mauritius has established and demonstrated strengths include sugar technology and plantation management (for students from Africa – particularly

Mozambique, Zimbabwe, Madagascar and Tanzania - and India/Asia) as well as undergraduate and postgraduate education, along with vocational training, for all levels of personnel in the hospitality and tourism industry. In the latter area, Mauritius needs to establish strong partnerships with established hospitality industry schools in Switzerland and India. Finally, given Mauritius's ambitions to move up the value chain in textiles, garments and haute couture, it was thought that VTE in the fashion and design industry would be useful as well.

Areas in which Mauritius is developing a capacity for future growth include financial services with a wide range of VTE offerings, ranging from basic bookkeeping and accountancy to more sophisticated financial analysis for corporate finance and quantitative finance, with MBA and MSc. course offerings (with a finance major) as well as VTE in banking, insurance, corporate and trust management services, private banking and asset management. Other areas are the full gamut of training for the rapidly growing ICT/BPO/KPO/RPO industry; medical education for doctors, nurses and paraprofessionals, as well as for hospital and health system administration; specialised teacher training for an growing education sector intent on expanding its export capability; and VTE in civil and mechanical engineering, as well as architecture, design and urban planning for the growing construction industry.

The foregoing areas play to Mauritius's own needs and strengths while serving the needs of export markets. In addition, other areas of global market interest and special African interest might include possibilities such as business administration and management sciences; public administration and parastatal organisation management; central banking; and regulation and regulatory agency management in areas such as regulation for financial services, utilities and for ensuring fair competition in the economy. With its plurality and multilinguality, Mauritius has the potential to become a major regional centre for language training for students from the Asian, Antipodean, Middle-Eastern and African markets.

Some of these specific areas are discussed further in the following sections, beginning with the critically important issue of the approach that should be taken to accreditation and regulation of VTE institutions, especially those in the private sector.

### **Accreditation and regulation of VTE institutions**

As with healthcare and life science services (see previous chapter) accreditation and regulation (A&R) assumes a critical significance in exports for vocational and tertiary education. While it is not 'a matter of life and death' as in healthcare, educational A&R influences 'reputation' in a way that could result in the difference between success and failure in global market acceptance of the human resource development (HRD) services that Mauritius would wish to export. With the Treaty of Bologna (1999), the globalisation of HRD services requires globally recognised/accepted standards to be applied and maintained. At the same time, increased access to export

opportunities on the part of more countries/players is increasing global competition and innovation in course curricula, teaching methods/modes and materials. Such competition now occurs mainly among *private* institutions. The pervasive influence of the Internet and world wide web offers hitherto unimagined opportunities for increasing access to global markets by making the world effectively borderless. However, it also encourages fraud and malpractice on a significant scale.

Given these circumstances, successful export of HRD services depends on quality institutions awarding recognised qualifications. For consumer confidence to be inspired and maintained, both of these need to be assured and continuously upgraded through credible accreditation, regulation and reporting, undertaken by qualified bodies (whether public or private, international or national).

The most meaningful regulation is imposed by the marketplace when similar services are exported competitively around the world. Providers of good services flourish from the market's favour and patronage, while poor service providers fail through lack of patronage by the marketplace. Consumers would not use poor services in VTE and this is even less the case in HLSS. However, such market outcomes do not materialise overnight. It takes time for reputation to be built and established, but less time for it to be lost.

In the burgeoning HRD export domain, new private institutions compete with, among others, Harvard, Stanford, Oxford, Cambridge, the Sorbonne etc. These institutions have reputations built up over centuries. Some of them are private, strengthened through endowments. Many (especially in the EU) are publicly funded. They pose 'unfair subsidised competition' to new private institutions competing in the global HRD service export market: it is not a level playing field as far as endowments and attributes are concerned. Players in HRD exports are also competing with newer institutions such as the Open University of the UK and UNISA in South Africa (both of which are also publicly funded), which have now built up global reputations in distance and e-learning even more rapidly than the ancient universities.

Over the last few decades, a loose network of global A&R in HRD services has emerged in Mauritius, more through default and coincidence than through design. It embraces: **national** accreditation systems in every country, **regional** systems such as the European Higher Education Area, Bologna beyond Europe, the National Academic Recognition Information Centre and the European Network of National Information Centres and, at the **global** level, UNESCO and the International Network of Quality Assurance Agencies in Higher Education (INQAAHE), which include regional branches.

Accreditation is important for an educational institution exporting HRD services because of the: credibility it engenders in the minds of potential students; recognition it creates of an institution's quality and reputation; linkage that it provides in joining the world's academic and professional communities; spur it provides to continuous self-improvement; potential it creates for introduction to more desirable

suitors (i.e. if a particular institution has internationally recognised accreditation, it becomes more attractive as a merger or takeover target); and the 'risk insurance' it gives in protecting against uncertainty.

At present most A&R in the VTE domain is national. However, its credibility is enhanced if the national A&R system is tied to a globally recognised body such as the INQAAHE. The credibility that membership of such a body provides can be strengthened by enabling national laws that protect higher and further education and punish fraud. It can be enhanced by the adoption and use of benchmark standards and criteria. Having the right standards is necessary, but not sufficient. Conformance of day-to-day practice with such standards has to be monitored and enforced, and that can only be done by having inspection teams that are beyond reproach. Such teams are usually drawn from a range of disciplines, but they need to be trained as 'integrated teams' rather than as a loose collection of disparate individuals and specialisations. A sound A&R system for VTE needs to define progression and pathways. It has to have decision-making independence on the part of the apex A&R body, yet needs to involve all stakeholders in the decisions it makes. It has to be transparent, but not in a way that embarrasses the well-intentioned.

A model from which Mauritius might learn, or use directly to meet its own A&R requirements for HRD exports, is that of the British Accreditation Council. BAC is a body recognised by governments and other stakeholders in education all over the world. It is the leading UK provider of accreditation for independent higher education. At the same time, the UK is the world's second largest exporter of HRD services. BAC was set up in 1984 as a 'charity' (i.e. not-for-profit NGO) limited by guarantee and governed by a council of stakeholders. It operates through an executive committee and an accreditation committee. It has developed common global standards by working with accreditation bodies around the world, through INQAAHE and its regional groups and also with the Australian Quality Assurance Association (AQAAN).

BAC is dedicated to establishing and raising standards in education through teams of skilled inspectors (mainly Her Majesty's Schools Inspectors from the Quality Assurance Association [QAA], the Office for Standards in Education [OFSTED] etc). It works with private and public educational institutions and government ministries. BAC is an accrediting agency registered with OFSTED in the UK to accredit institutions under the new Home Office points-based system for managed migration. It maintains good relations with all government departments with a vested interest in improving education at all levels, including VTE: i.e. the Department of Children, Schools and Families (DCSF), Department for Innovation, Universities and Skills (DIUS), Home Office/Border and Immigration Agency, British Council, Open and Distance Learning Quality Council (ODLQC), QAA and NARIC-UK.

Though British in nationality and location, BAC's remit is not limited to the UK. It has accredited over 260 educational institutions in 12 countries including the UK,

Bulgaria, the Czech Republic, France, Germany, Greece, India, **Mauritius**, Pakistan, Spain, Switzerland and the UAE. It employs a three-stage inspection procedure (see below), coupled with ongoing spot checks and frequent visits, to substantiate accreditation.

**Stage 1** comprises **vetting of application documentation** through comprehensive checking of the subject institution's legal status, audited accounts, references and company records; employers' liability insurance; health and safety compliance and record; comprehensive risk assessment; its publicity (i.e. prospectus and website); staff and student handbooks; and faculty CVs. Prior to stage 1 and during it, BAC ensures conformity with statutory requirements such as: requirements for fire, health and safety standards; rules on visa students and employment; copyright regulations; checks of residential accommodation, if offered as part of the course; background checks of all staff, if students are under 18 years of age; and responses to disability or other anti-discrimination legislation.

**Stage 2** comprises **compliance with statutory requirements and minimum standards** which involves inspecting: (i) the institution's premises and the efforts made to respect health/safety regulations, to ensure that premises are secure, properly equipped and offer suitable accommodation; (ii) arrangements in place for student background checks and ensuring student welfare, e.g. support for local and overseas students and meeting special needs (in terms of diet, disability or language for example), accommodation and other statutory requirements e.g. criminal record bureau checking; and (iii) the institution's management and staffing, i.e. to ensure effective management, the right quantity of qualified staff, staff and student attendance monitoring and ability to meet all statutory requirements in conforming with applicable employment legislation, PAYE, clear entry requirements etc.

**Stage 3** is **management of quality, teaching and learning**, which involves: (i) examining detailed course requirements, student progress, standards review and monitoring, student feedback and complaints handling, monitoring accredited qualifications, internal awards and degree programmes and the quality control system; and (ii) reviewing/monitoring on a regular basis the planning and delivery of courses, staff knowledge and skills, EFL support, study resources and learning materials, and advice provided to students on further study and employment

Following this three-stage inspection process, accreditation is awarded by BAC's accreditation committee for up to four years. In terms of **post-accreditation**, BAC expects to see continuous improvement over this period i.e. a commitment from the accredited institution to keep upgrading itself, its staff, its courses and its facilities. It monitors performance of accredited institutions through spot-checks, interim visits and a complaints procedure, with no advance notice of spot-checks being given.

BAC is an example at the high end of the A&R continuum. India offers another, different kind of example for A&R in the HRD/VTE domain. Its regulatory structure and architecture is more complex than UK's, because its size and federal

constitution require different levels of statutory control. Unfortunately, the education and VTE sectors in India are dominated by **public** institutions of a low quality. Emphasis on public education has retarded delivery of proper education to the country's large population.

India's regulatory structure and practices reflect weaknesses that a country like Mauritius must avoid. A complex, multi-layered Indian regulatory structure for VTE has failed to ensure quality education and the effective use of public resources, a large proportion of which are diverted from the purposes they are intended for. This situation has created much regulatory conflict and failure.<sup>8</sup> It has impaired India's ability to be an effective competitor in the global market for HRD service exports, despite endowments that give it a natural advantage in this domain. Prolonged and counterproductive government intervention in, and domination of, education have prevented India from being as competitive an HRD service exporter as it otherwise would be if such exports were left to the private sector and to its world-class institutions.

Under a model proposed by the *Conservatoire National des Arts et Métiers* (CNAM) for the development of HRD services in Mauritius, the suggestion is that the authorities (i.e. the government and the Ministry of Education and Human Resources) draw up a strategy for the future with the participation of all stakeholders, including regulators. That would involve: (i) setting up Centres of Excellence in specific disciplines; (ii) encouraging foreign and local specialists to share experience and practical know-how; (iii) encouraging collaborative partnerships between local companies and established foreign VTE-multinational corporations; (iv) supporting distance and lifelong learning; (v) establishing a benchmark for Africa; and (vi) creating a climate conducive to setting up foreign HRD institutions.



Figure 6.3 HRD services model proposed

What is unclear under this model is what the regulatory structure and protocol would be for new private institutions (many of them foreign or local-foreign partnerships) set up to cater to the HRD export market? Would TEC regulate them? What would that imply? What risks would it entail? Alternatively, should an A&R solution be sought that would bypass TEC, relying instead on existing international bodies to assure quality and reputation (e.g. BAC)? That would have the advantage of eliminating any possibility of A&R being used as a protectionist rather than quality control device, and would avert any hint of bias where existing **domestic** private VTE institutions are concerned, especially when connected to politically vested interests.

During the symposium, the Mauritius Employers Federation (MEF) – which provides a significant amount of VTE – had a firm view on the over-complexity of A&R in Mauritius. For what is a small, self-contained sector, the governance of VTE seems to MEF to be too elaborate and fragmented. Disparate legislation has created too many governing bodies. Legislation governing VTE includes: the Education Act, the TEC Act, the Mauritius Qualifications Authority (MQA) Act, the Human Resource Development Council (HRDC) Act and the IVTB Act. These multiple acts had created multiple institutions charged with governance and oversight responsibilities including IVTB, TEC, MQA and HRDC.

In MEF's view, to attract investment by the private sector in VTE exports, the government has to act as facilitator. It has to delegate to private institutions the role of investors, promoters and operators. Regulatory institutions have to catalyse inward investment in VTE rather than block it. Broadly, MEF agrees on government policies, but it has reservations about the way in which these are being implemented. Instead of promoting and facilitating HRD service exports, existing regulatory institutions focus on control, blockage and the exercise of statutory power in the name of 'regulation' for quality control.

TEC and MQA operate in ways that are not conducive to expanding HRD service exports from Mauritius. For that reason, MEF feels that their powers to accredit and regulate **in the export market** have to be removed. It is also debatable whether they have the competence or knowledge needed to regulate the export market for HRD services with its large, challenging and continually evolving needs. Moreover, with the international market acting as a regulator in its own right, there is no need for TEC and MQA involvement in that market. It would be better to get established international A&R institutions involved instead.

These concerns of the MEF are not trivial. They are supported by anecdotal evidence from a variety of sources, which suggest that the present A&R infrastructure in Mauritius for VTE, and particularly for **exports** of VTE, needs to be overhauled. If concerns expressed at the symposium about the manner in which these regulatory bodies operate are even partly valid, it is unarguable that they would pose bottlenecks to the expansion of HRD service exports.

The following sections provide brief accounts concerning particular fields of VTE provision in which Mauritius might choose to specialise.

### Vocational and tertiary education in the ICT and business process outsourcing industry<sup>9</sup>

Of all the disciplines in which there is a global, regional and national shortage of qualified people, the ICT/BPO industry is top of the list and requires urgent expansion of VTE capacity. In Mauritius there remains a clear need for a diversified, results-oriented, localised IT education platform. It is needed at all levels of IT skill development, moderate as well as high, and in a number of niche sectors (as discussed in chapter 4). Mauritius has attracted a number of Indian training institutes that specialise in this domain, but their output barely meets the needs of the island’s domestic IT labour market. These and other institutions need to expand and ramp up scale to create sufficient capacity for IT/BPO/KPO training to meet *regional* needs as well, through triangulation with India, South Africa, Malaysia and Singapore to diversify the partnership base.

For VTE in the ICT/BPO industries, particular attention needs to be paid to enhancing skills in **IT engineering and R&D services**, which are likely to form a significant part of many service providers’ revenues and contribute to expansion of the outsourcing market; **systems integration and IT infrastructure management; and enterprise resource planning (ERP), product development and testing**. In these three areas, vocational training based on a modular higher education approach is crucial. A specialised area related to the second of these skills areas is ‘network development’ – i.e. construction of corporate IT networks for email, voicemail, customer support and supply chain management – from the bottom up. With even

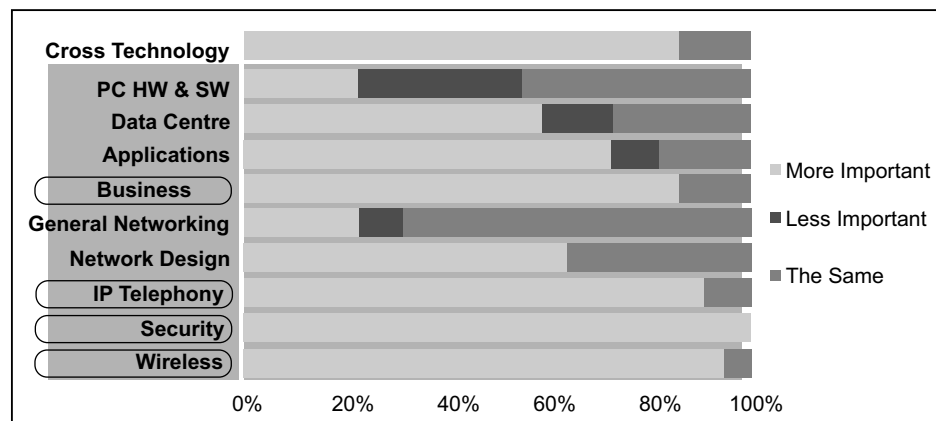


Figure 6.4 Future importance of skills by technology/skills area

small and medium-sized enterprises (SMEs) now having dedicated internal networks (intranets), the demand for skilled network specialists has exploded.

For example, a survey carried out in South Africa recently involving a number of companies, suggested that 36 per cent of them had hired network engineers in the last 12 months. Of these, 62 per cent found it difficult to find network engineers with the right skills, while 60 per cent struggled to find any IT people with the right skills and 40 per cent felt that the right skills were too expensive. The findings of that survey were typical and would probably be the same in any country.<sup>10</sup>

Specific ICT skill sets that Mauritius needs to develop the VTE capacity to provide for the domestic and export markets include (in order of importance): security, wireless, IP telephony, business, applications, network design, data centre, general networking and PC hardware/software.<sup>11</sup>

### **Vocational and tertiary education in financial services**

Exporting VTE for financial services requires building on sound education foundations in basic and advanced mathematics and computing skills. Such VTE is best provided in/from environments where there is a science and mathematics culture in high schools, complemented by the teaching of micro/macro economics at 'A' and undergraduate levels. VTE in finance has to focus on financial markets, institutions and analytical financial economics. The ideal postgraduate Master of Science (MSc.) degree in finance is invariably built on a high-school mathematics background, with an undergraduate economics education heavy on quantitative skills. It is only on such foundations that postgraduate work can be structured to include quantitative financial and statistical analysis, econometrics, corporate finance analysis, derivative structures and contracts, options pricing, portfolio and stock analysis and value analysis.

Postgraduate qualifications apart, the financial services industry requires continuing education for the professionals involved through tailored vocational training geared to specific job functions. Such training has to be made mandatory by regulators, and must be certification-linked. Generally, for entry-level professionals, this requires certificate courses of the kind provided in India by the National Stock Exchange (NSE) and NSE Certification in Financial Markets (NCFM). Other courses that emphasise quantitative finance need to be designed for frontline supervisors and middle managers. Such training helps finance professionals with weak quantitative maths foundations to operate successfully. It enables people with the right foundations to deal with real-world applications and stay abreast of current developments. For senior finance managers finance, continuous exposure to high-end strategic thinking and to knowledge about new market developments, derivative contracts and risk management, is essential if not critical. This is usually achieved through conferences with a strong substantive training/learning component aimed at senior management (for example, of the kind provided by the Invest India Economic Foundation).

As far as Mauritius is concerned, particular features worth emphasising if the island is to provide properly designed VTE in finance probably include:

- **Multinational exposure:** As far as financial VTE is concerned, Mauritius has to project itself as a blend of Africa, the Middle East, India and East Asia. That regional geography adds a dimension of region-specific expertise that aspiring graduates would wish to acquire.
- **Hugging the frontiers of financial knowledge:** Finance VTE in Mauritius has to emphasise the global shift away from bank-dominated finance to market-dominated finance, emphasising the roles of derivatives for risk management and speculative price discovery.
- **Emphasis on quantitative finance training:** Highly sophisticated mathematics and statistics are required as foundation pre-requisites for training in financial economics and derivatives trading. The highest value VTE for finance is in those two sub-specialisations, where there is an acute global skills shortage.
- **Dealing with computational complexity:** All the new ideas in quantitative finance work only when they are turned into operational algorithmic IT systems that can trade automatically.
- **Development of strong financial real-time databases:** No sophisticated analytical training in finance can be provided without strong operational databases. This may require buying databases on (say) India or South Africa. However, there is an opportunity to create unique databases on Africa and Mauritius so as to get an IPR and region-specific training edge.

### **An ecosystem for providing/exporting VTE in finance**

Providing VTE in finance successfully to a global population of students requires a complex supporting ecosystem. If Mauritius (or any country) were to offer recognised VTE in finance, it would need a globally respected financial services industry, rooted in the domestic economy but with global reach. A financial services industry focused only on the Mauritius market would be inadequate as an 'applied research laboratory' for finance students, who are likely to operate on a regional if not global basis. In addition to a credible international financial services industry, such an ecosystem also needs a critical mass of senior finance and economics academics and intellectuals working at universities and think tanks. They need to be tightly linked in a systematic, programmed way to knowledgeable senior managers/professionals in the financial services industry and other industries that provide it with crucial support (for instance, the consulting industry and the IT industry).

Private firms can provide short-term training and conferencing in finance successfully. For example, in India the Invest India Economic Foundation (IIEF), Dun & Bradstreet, the Institute of Management Accountants (IMA), the Economist Intelligence Unit and a number of similar entities (domestic and foreign) have established

a global reputation in this domain. However, they draw on extant intellectual and practitioner resources in the local (and global) financial world to deliver such training, as do other Indian institutions like IIMs, IITs and leading business schools.

Building multiple academic-industry linkages in economics and finance is crucial if Mauritius is to capture a market share of high-value added VTE in finance. The only way of establishing such linkages quickly is to attract foreign talent. That is, the country should contract globally known financial academics (from South Africa, India, Singapore, Hong Kong and China) to commit to spending a certain number of weeks/months each year in Mauritius. In part, they could organise key conferences and seminars for regional/global attendance with a strong training feature attached. More importantly, a core group of such people spending part of their time in Mauritius on a regular basis would help to incubate and grow similar local capabilities.

Building such an ecosystem would result in VTE **supply** capacity and **demand** for Mauritius-based financial education reinforcing one another. On the supply side, Mauritius needs to attract (with private rather than public financing) about 50 top-quality finance scholars from around the world to its two universities, and to two or three more financial and economic policy research institutes that need to be created. These scholars would do research and teach on a part-time basis for one or two terms each year under contracts stretching over five years. This 'critical core' need comprise no more than 20 'senior fellows' resident in Mauritius at any given time, with the remaining 30 being on call abroad. In terms of infrastructure to support such a 'faculty', Mauritius would need four or five finance 'departments' or institutions with 10-15 senior fellows each.

The body of available 'tutors' attracted to Mauritius on a part-time basis would meet three specific demands: (i) consulting and research, which local and regional financial services industries require and are willing to pay for; (ii) engagement in local/regional policy debates and policy-making processes; and (iii) delivering the fully array of VTE in finance. The Government of Mauritius's role would be critical for kick-starting the building of such an ecosystem. It would need to make a large intervention at the outset, which would taper off to roughly half its start-up intensity over a ten-year period and down to virtually no public input after 15 years.

It was proposed at the symposium that Mauritius could be used as a base for training professionals in **Islamic banking and finance (IBF)**. At the time of writing, there were over 300 Islamic banking financial institutions operating out of 75 countries worldwide, with total assets managed under IBF exceeding US\$1 trillion. The growth rate of the global Islamic financial industry is 15-20 per cent annually. Private wealth in the Arabian Gulf is estimated to be more than US\$1.5 trillion. Switzerland is home to an estimated US\$200 billion or more in Muslim-owned private accounts. Kuala Lumpur, Jakarta, Singapore and Dubai are now developing dedicated systems and expertise to manage Muslim wealth. Since the September 11 attacks in 2001, this

wealth was looking for safer havens outside the western world, which is seen as increasingly hostile to Islam and to predominantly Muslim countries.

Of the 1.6 billion Muslims in the world, over 22 per cent (or 442 million) reside in Africa, making the continent an enormous potential market for IBF. Sudan, Egypt, Gambia and South Africa are among the African countries that have IBF operations. Mauritius is in a unique position to be an IBF hub for the continent given its location, infrastructure and government support. The island has a strong independent judiciary, which is essential for the resolution of disputes arising out of contracts upon which IBF is based, and has a legal system that is easily adaptable to accommodating Islamic financial services. The present tax regime allows IBF products to compete on a level playing field with conventional financial products.

Several types of training programmes need to be put in place for the implementation and development of IBF in Mauritius and Africa. Specialised IBF courses need to be designed for accountants, auditors, regulators, risk-management specialists, lawyers, bankers, insurance operators and other professional groups. Such programmes would cover Islamic accounting; Islamic jurisprudence and Islamic law; IBF products and services; Islamic insurance; and permissible risk management under Islamic law. Training for regulators in IBF is also needed through special arrangements with:

- **The Islamic Development Bank (IsDB):** through its technical co-operation programme.
- **The Accounting and Auditing Organization for Islamic Financial Institutions,** which is the main standard-setting organisation for Islamic finance. It has issued 56 standards on accounting, auditing, governance, ethical and Shariah standards, including a statement on capital adequacy. At the time of writing, its membership stood at around 140 financial institutions from 30 countries.
- **The Islamic Financial Services Board (IFSB):** an international standard-setting organisation that promotes and enhances the soundness and stability of the IBF industry by issuing global prudential standards and guiding principles, broadly defined to include banking, capital markets and insurance. The IFSB also conducts research and co-ordinated initiatives on industry-related issues. It had 20 full members, 15 associate members and 90 observer members, including central banks, international organisations and financial institutions.

## **Vocational and tertiary education in business and management studies**

Business and management education influences the growth of companies and economies at the local, regional and global levels through: (i) **training** and specialised skills development in marketing, operations management, HRD, finance and accounting; (ii) **innovation**, which requires management teams capable of prioritising investment, allocating resources and aligning human capital to achieve key

objectives; and (iii) **research** conducted by business school faculty that contributes to expanding knowledge and helps companies to acquire a better understanding of their strategies for competition and innovation.

The classic Master of Business Administration (MBA) is now a well-accepted, globally recognised degree replicated in almost every country as a university course. MBAs from different universities vary considerably in terms of the recognition they attract, depending on the school they have been awarded by and the majors or minors that students have specialised in. MBAs have also developed various regional and lingual flavours. European schools specialise in offering multilingual and multidisciplinary degrees that equip students to operate better across borders in an increasingly globalised business environment.

Business and management schools have three main missions: (i) **knowledge creation**, which requires original research to be done and made accessible to a broad constituency, with research contributing to improving continually the practice of management and helping managers/firms to improve performance; (ii) **knowledge dissemination**, which necessitates that research is translated into applied know-how through skills that can be taught to students; and (iii) **knowledge certification**, which requires the qualifications awarded through degrees to be widely recognised and relevant in today's business world.

However, the content and nature of business education and the qualifications sought by students around the world keeps evolving and changing. What seems apparent from the London School of Economics' experience is that in the UK there has been a strong increase in applications for all postgraduate programmes, with a growing interest in **part-time** programmes (MSc. and MBA). There has also been an increase in foreign and female applicants, confirming the trends toward globalisation and gender equalisation of management education at the top level. North American MBA programmes are admitting younger candidates (i.e., graduating students or very recent graduates with little or no work experience) and encouraging the introduction of more pre-experience Masters (MSc.) programmes, including the London School of Economics MSc. in management in 2008. The London Business School (LBS) and Massachusetts Institute of Technology have announced plans for their own MSc. degrees in management in 2009 or later.

The new two-year MSc. in management course being introduced by the LSE combines the best aspects of the MSc. and the MBA. It offers an integrated management course that requires both academic rigour *and* practical work experience over a 21-month period, with the degree offering customised career programmes and internships. The course has been designed for recent graduates from any discipline with demonstrated quantitative abilities and superior communications skills. Students tap into 'the LSE experience' to gain a global political understanding in addition to the business studies knowledge they acquire.

This is a feature that Mauritius could emulate in a different way by offering a unique MSc. course that immerses students in specialised knowledge about the business environments, economies and financial systems of Asia and Africa (as well as IBF). The LSE Master's course has an optional international exchange via the Community of European Management Schools (CEMs). This is another feature Mauritius could emulate, by offering similar exchanges with top universities in South Africa, India and Singapore/Hong Kong/China.

A useful outcome of the symposium was the interest expressed by the SP Jain School of Management & Finance in India to set up a satellite school and campus in Mauritius. With some effort by the Board of Investment (BoI), interest could be attracted on the part of a number of other Indian institutions (such as the Manipal Group), which have established campuses abroad and acquired a regional reputation. Yet Mauritius's attempts to attract private investment in this domain should not be restricted to Indian institutions. The BoI should attract qualified institutions from the UK, France, South Africa, Singapore and Australia to set up in Mauritius and enhance their capacity to serve the African, Middle-Eastern and Asian student markets by doing so.

## **Vocational and tertiary education in the hospitality industry**

Mauritius has established a global reputation in the hospitality and tourism industry. Its training facilities in that industry are world class for lower and mid-level personnel, but not yet of that standard for top personnel. There is no reason why in this industry Mauritius cannot aspire to offer the best VTE available in the world, through partnerships with hotel and hospitality management schools in Switzerland, Australia, France and India.

A pertinent case study presented at the symposium was that of the *Ecole Hôtelière de Lausanne (EHL)*, which seems to be the type of partner Mauritius should attract to set up a campus in the country for Asian and African student populations. EHL has been in existence for over a century, developing talent and encouraging innovation in the hospitality industry. EHL undertakes research in the hospitality industry (Lausanne Hospitality Research) and carries out hospitality consulting and executive education. It also undertakes a technology and entrepreneurship (EHLITE) programme. Each term it attracts more than 1,700 students representing 82 nationalities and runs three accredited university-level degree programmes:

- **Masters degree in hospitality administration** – 40 students (taken by 2 per cent of students). This postgraduate programme is designed for professionals aiming to develop their capacity to anticipate changes, seize opportunities at the right time and analyse complex problems facing the hospitality industry.

- International hospitality management programme (Bachelor of Science) – 1,520 students (i.e. taken by 90 per cent of EHL's students). This BSc. course stretches over four years including two practical internships (of 16 and 20 weeks). After a grounding in hospitality operations and theoretical knowledge, students acquire transferable knowledge to broaden their career prospects in other fields (such as banking, the healthcare sector etc.).
- Hotel and restaurant management programme (Associate of Science) – 140 students (or 8 per cent of the intake). This programme stretches over four semesters, including two spent on in-company experience for six months each. The course is designed for working professionals aiming for top careers, while encouraging entrepreneurship.

VTE provided in Mauritius for this industry needs to emulate EHL's approach, which aims to: (i) develop managerial competencies while emphasising the strategic dimension of hospitality business management; (ii) expose students to a culture of service (*savoir-être et savoir-vivre*); (iii) test management and service theories through practical application; (iv) develop the personality needed to be successful in the industry, i.e. open-minded, energetic, diplomatic, innovative, at ease in different social situations, a leader, but also part of a team; (e) develop students' instincts for coping with a mix of cultures/languages, an appreciation of quality, an eye for detail, a strong sense of making sure that everything is 'just right'.

When one considers these attributes, it becomes obvious that Mauritius is a 'natural' for specialising in this particular field. It has all the ingredients, the recipe, the environment and a plethora of resorts and hotels for providing practical training – not just for its own nationals, but for regional students as well from Africa, the Indian Ocean Rim, South Asia, East Asia and the Antipodes.

## **Vocational and tertiary education in public administration**

The idea of establishing a regional Centre of Excellence in Mauritius for vocational and tertiary education/mid-career training in public administration and professional parastatal management has been mooted on several occasions, the first dating back to the late 1970s. However, this aspiration has not yet taken shape, despite oft-declared intent (but no follow-up) on the part of the Mauritian authorities to proceed with such a CoE; and equally frequently declared intent on the part of multilateral and bilateral donors to provide capital and recurrent funding for such centre if it were ever established.

The African Capacity Building Initiative aimed at improving governance on the continent was launched in the 1980s, but located in Harare rather than Mauritius. Subsequent events in Zimbabwe have shown how misguided that decision was, although foresight is always foggier than hindsight. The consensus at the symposium was that this idea should be revived again and followed up on this occasion by the BoI and MFED to translate Government of Mauritius intent into reality.

Mauritius has one of the better performing public administrations in the developing world, indeed it is probably the best model of public administration in Africa. It is often regarded as **non-African**, discounting its ethnicity. For that reason, if no other, it would make the most sense to locate a regional CoE for Africa's public administration in Mauritius. There are a number of other reasons for this location, including: the island's remoteness, which insulates it from the conflicts that plague every other part of Africa; political stability under a plural democratic regime for over 40 years; reasonably good rule of law; the continuity of professional civil administration, regardless of the political hue of the government in power; and, not least, the ability to attract partners from the EU, Asia and the Antipodes, as well as multilateral partners (such as the AfDB, the World Bank, IMF and the European Development Fund) to provide and fund programmes designed to rectify, over the medium and long term, the serious public administration deficits that Africa confronts.

VTE in public administration cannot be confined to the **national** civil service. It must include **provincial** (sub-sovereign) and **local** governments (rural or urban), as well as supra-national **regional** institutions, of which Africa has a plethora. Such institutions employ large numbers of people engaged in activities whose purpose is unclear and whose outcomes are often unintended. Public administration VTE would also embrace parliaments and parliamentarians, parastatals (state-owned corporations), the police force (which usually has its own specialised academy) and the judiciary, for which legal training and knowledge alone is grossly insufficient. As in private firms, it is the human dimension that is **the** crucial factor in determining the quality of public administration.

Africa faces enormous challenges in improving the quality and knowledge base of its public administration across the board. Resort to advanced technology could help to re-shape public administration and facilitate communications at the government-citizen interface, ensuring efficiency, effectiveness and transparency. E-governance can transform traditional modes of operating by providing access to public services that cut across ministries, departments or public agencies through electronic networks. It can enable better real-time monitoring of government performance. E-governance can re-engineer archaic procedures and eliminate civil service dysfunctionality. It can make officialdom more citizen-friendly than traditional government-to-citizen interfaces, adding value to improved governance by greater exercise of the public's right to information, by encouraging transparency and accountability to prevail.

Nonetheless, 'public administration VTE' poses more complex challenges than meets the eye. Such training is much more complicated and difficult to provide/deliver effectively than business education or education in the hospitality, financial services or ICT industries.

**First**, basic VTE in public administration at the entry level (reinforced through mid-career and senior executive ranks) has to inculcate a culture/ethos of commitment to national interest and public service. It has to develop strong personality traits

among civil servants of loyalty, honesty, integrity, immunity to corruption, and a commitment to ensuring fairness and impartiality in the treatment of – and extension of public services to – all citizens regardless of their tribe, colour, caste, creed, race, religion or ethnic affiliation. It has to inculcate a culture of responsibility in the deployment and use of scarce public resources, funded by taxpayers and society at large. It has to assure equality of access to all public services/goods and create a culture of transparency, accountability and acknowledgement of responsibility in policy-making, decision-taking and for administrative action. It also has to create in the civil service the essential capability of dealing with **supranationalism** at regional and global (multilateral) levels, especially given the increasing importance of multi-lateral collaboration for tackling problems/issues that can only be dealt with sensibly at the global level. It has to cope with the reality of globalisation in the corporate and private worlds, while coping with the asymmetry of political governance proving ineffectual beyond the national level.

**Second**, the substantive content of public administration VTE courses and training of various types (conferences, symposia, seminars, study tours, government-to-government exchanges etc.) must embrace a wide range of line ministerial disciplines. These range from foreign diplomacy (with specialised knowledge in such areas as global finance, trade, global commons, environmental issues and economics, conflict situations, peacekeeping etc.) to internal security, immigration, emigration and defence, as well as sectoral disciplines such as agriculture, marine resources, manufacturing industry, commerce, health, education, welfare, energy, communications, transport, new technologies, social services, sports, culture, media, arts and so on. VTE in public administration must therefore embrace and engage other educational institutions in the public and private sectors (at home and abroad) in enhancing the quality, knowledge and capability of the civil service at all levels. It must strive to bring together those with the necessary knowledge and experience (again from home or abroad) to with those that need to acquire it.

**Third**, public administration in the 21st century must enable governments at all levels to adapt and redesign public services and administrative coping capabilities continuously, to meet evolving requirements in rapidly changing socio-economic circumstances that engender higher expectations on the part of citizens and the electorate. It has to facilitate modernisation of anachronistic administrative structures inherited from colonial times, by deploying modern ICT and learning from BPO models in the outsourcing and offshoring worlds. It has to create enabling policies and structures, as well as an overall economic-social-political environment, to encourage rapid growth of investment, employment, output, trade and exports by the private sector. At the same time, it has to strengthen social development, deal with poverty alleviation and provide access to basic services, as well as minimum incomes for the poor to ensure that the fruits of growth are equitably shared to assure its sustainability.

Increasingly, public administration has to be sensitive to regional and global commons, such as checking the cross-border spread of endemic diseases (such as HIV-AIDS or tuberculosis, cholera, bird-flu, SARS etc.) as well dealing with the effects of climate change, global warming, global crime and large-scale cross-border movements of people (legal and illegal) for economic or security reasons. It has to be able to create the capacity to cope with natural disasters (floods, famines, tsunamis, earthquakes, chemical explosions, building collapses etc.), wars, riots and civil disturbances of all kinds.

In short, it is critical to create VTE in public administration (PA-VTE) structures for Africa in Mauritius capable of producing civil servants and administrators who have the knowledge, skills and understanding required to perform the crucial responsibilities of government and adapt governance to constantly evolving requirements in an effective and efficient manner. For that reason, it is essential that the PA-VTE capacity can discern clearly which of the many transitions occurring in the contemporary world will impact most significantly upon the African public sector, and understand what the implications of these changes are likely to be for the training of effective public managers.

That PA-VTE capacity must take into account, for example: (i) the steady weakening of state capacity and disintegration of the state (in the face of global economic forces) alongside growing demand for increased standards of governance; (ii) the implications and consequences of new technologies and media power in instant mass communication, which makes information far more freely available and impossible to filter or control; (iii) the increasing necessity for negotiating with international organisations on matters that affect everyday lives; and (iv) new approaches to political and administrative leadership in a rapidly changing national, regional and global environment.

The PA-VTE structures and institutions built in Mauritius for Africa will need to develop effective public administrators/managers of the future, who will require:

- **New technical competencies** in areas such as strategic planning capability, collaborative capability, substantive policy expertise in the emerging areas, performance measurement skills, presentation skills and regulation in specific areas such as finance, utilities, competition etc.
- **Managerial skills** in areas like understanding of individual and organisational psychology, professional and personal development, capacity to build and nurture a multicultural, multiethnic environment, analytic capability etc.
- **Leadership skills** that understand the demands globalisation will place on future leaders of public ministries and organisations for more creative and effective leadership. This includes the ability to adapt rapidly to change, ethical awareness, sensitivity and commitment, encouraging entrepreneurial and risk-taking ability etc.

- Accordingly, the themes on which PA-VTE should focus are:
  - o Developing future leaders
  - o Fostering public service excellence
  - o Fostering people-centric governance and public service
  - o Strengthening the political and public service interface, as well as fostering public-private partnerships
  - o Fostering integrity and honesty in public service
  - o Developing new ways of working and regulating the economy

Taking the foregoing into consideration, what should the PA-VTE in Mauritius focus on? It should consider formulating courses for African public-sector managers, with participation from other developing countries for experience sharing. In doing so, it should rely on examples of other countries with similar environments, such as Indian institutions, and international exposure of its 'students' through country visits, industry visits etc. The design of courses should combine sector and management issues, emphasising technical knowledge and management principles. The island should make its training as practical as possible, by focusing on governance and policy along with management in specific areas such as trade, investment etc. Financial constraints impinging on African governments should not lead to curtailment of training. Quite the opposite: capacity building should be enhanced with a modified three-pronged approach that incorporates technical and policy aspects, managerial aspects and leadership issues in training programmes. Inviting participation from civil servants in other countries should be encouraged as far as possible.

One of the most valuable outcomes of the Symposium on the Export of Human Resources Services was a gesture by the Administrative Staff College of India (ASCI), which was represented at a senior level. Weeks after the symposium ended, ASCI indicated to the Government of Mauritius and the Commonwealth Secretariat that it would be willing to consider a partnership arrangement with a counterpart in Mauritius to establish joint capacity for PA-VTE on the island, aimed at serving the African regional market for public service training and education. It indicated that, if officially invited to do so by the government via MFED, it would formally undertake to visit Mauritius and work out a basis for taking such a partnership forward to create permanent institutional capacity for providing PA-VTE, with supporting donor funding. As ASCI has considerable cross-border experience in providing PA-VTE and is a respected institution in India and Asia, it would be worthwhile for the government to follow up on this initiative immediately, and create the kind of capacity in Mauritius for establishing a regional Centre of Excellence for PA-VTE that has eluded it for too long.

## **Vocational and tertiary education in central banking**

Training for central bankers and financial system regulators (like the Financial Services Commission) is a specialised extension of VTE for public administration. Equally, it might be considered an extension of VTE in finance. Both perspectives are correct, but only partly. Vocational and tertiary education in central banking (CB-VTE) involves both disciplines, but it involves more than that. For example it also requires specialised knowledge of monetary economics, the formulation of monetary policy, the interplay between fiscal and monetary policy, central bank accounting, and payment settlement and clearing systems.

CB-VTE requires an understanding of relationships between financial and real economies: the impact of liquidity and interest rates on the real economy through public, corporate and household investment, savings and consumption behaviour. It also requires knowledge of inflationary processes and drivers, exchange rate policy/management, open-market operations and intervention, sovereign debt markets and structures, reserves management, liquidity emission and broad as well as narrow money and currency control, along with an understanding of the shifting tectonics in global economics and key commodity prices. It requires knowledge of quantitative economics and quantitative finance, along with knowledge of regulation and supervision of financial systems, markets, institutions and complex financial instruments. In that context, CB-VTE needs to offer training on anti-money laundering and countering the financing of terrorism (AML-CFT) and fraud detection. Finally, it necessitates understanding of international monetary economics and, increasingly, the need for internationally co-ordinated central bank intervention and action, especially in times of financial crises when the impact is almost always globally transmitted.

The above paragraphs make clear why a proper grounding and continuous training (delivered on a regular as well as exigent basis) is so important for central bankers, and they convey an impression of the sort of training needed. Before asserting that an institute for CB-VTE should be set up in Mauritius, it is important to ask which institutes currently train central bankers around the world and in Africa? Can Mauritius serve as a base for training Africa's central bankers? What facilities should be offered? And what are the problems likely to be encountered?

Given the highly specialised nature of central banking, and the reality that there is only one central bank in each country (although there may be a separate regulatory authority, as in Mauritius), it is usual for each central bank to have its own training institute. The better known ones include, for example: the Federal Reserve Training Center in the US; the Centre for Central Banking Studies at the Bank of England in the UK, which provides training to central bankers of former British colonies; the Studienzentrum Gerzensee of the Swiss National Bank, and its national counterparts in almost all continental European countries; and the Bankers Training College, the National Institute of Bank Management and the Indira Gandhi Institute for Development Research, all of which are financed by the Reserve Bank of India (RBI) to

deliver different programmes for training central bankers in banking, central banking, monetary economics, econometrics and quantitative finance. More pertinent and proximate for Africa are the South African Reserve Bank College, the Kenya School of Monetary Studies and the Bank of Tanzania Training Institute, to mention but a few.

In smaller countries (such as many in Africa) the cost of a training institute for each central bank is unaffordable. For that reason, some are created by several central banks pooling their resources. These include, for example, the Southeast Asian Central Bank (SEACEN) Research and Training Institute in Malaysia, which is a joint effort of the central banks of Brunei, Cambodia, Fiji, Indonesia, Korea, Malaysia, Mongolia, Myanmar, Nepal, Papua New Guinea, Singapore, Sri Lanka, Taiwan, Thailand and Vietnam; the West African Training Centre for Banking Studies in Dakar, Senegal; the Institute of Banks of Central African States in Yaoundé, Cameroon; and the West African Institute for Financial and Economic Management (WAIFEM), established by the central banks of The Gambia, Ghana, Liberia, Nigeria and Sierra Leone. More to the point for Mauritius, there is the Macroeconomic and Financial Management Institute of Eastern and Southern Africa (MEFMI), owned by 13 countries, namely Angola, Botswana, Kenya, Lesotho, Malawi, Mozambique, Namibia, Rwanda, Swaziland, Tanzania, Uganda, Zambia and Zimbabwe.

Regional multilateral banks and some regional monetary authorities and central banks (such as the European Central Bank (ECB) and the West African Central Bank for the Central African franc [CFA] zone) also sponsor programmes, conferences and seminars for training central bankers in their respective regions. This is done through either regular or episodic pooled arrangements to provide exigent training when a special situation arises, or to address common urgent concerns (for example, AML-CFT, co-ordinated intervention in a currency crisis, co-ordinated liquidity provision in a systemic crisis etc.)

Then there is the IMF Training Institute and the VTE function in the Bank of International Settlements (BIS), to support central bank training at an apex global level. There is also the more recently established Financial Stability Institute, a joint effort of the IMF, World Bank and the BIS. Apart from providing training at its headquarters in Washington DC, the IMF Institute has set up a number of **regional** training arrangements:

- The Joint Regional Training Centre for Latin America in Brazil, established by the Government of Brazil and the IMF. Courses are generally offered in Spanish, with interpretation into Portuguese, for officials mainly from Latin America and the Caribbean.
- The Joint China-IMF Training Program (CTP), which organises courses in China for Chinese Officials in collaboration with the People's Bank of China.

- The Joint India–IMF Training Programme in Pune, India, is a co-operative venture of the Reserve Bank of India and the IMF, with support from the Government of Australia.
- The Joint Africa Institute (JAI) was established by the African Development Bank, the IMF and the World Bank. It is located in Tunis, with courses offered in English and French.
- The IMF and Arab Monetary Fund, located in Abu Dhabi, United Arab Emirates. It established the Regional Training Programme (RTP) to increase and coordinate the training offered to member countries in the Middle East and North Africa region
- In collaboration with the Government of Singapore, the IMF organises courses for officials from countries in the Asia/Pacific region at the IMF–Singapore Regional Training Institute
- The Joint Vienna Institute in Austria, which is supported by two primary members (IMF and the Austrian authorities) and four contributory members (the European Bank for Reconstruction and Development, the International Bank for Reconstruction and Development, the Organisation for Economic Co-operation and Development and the World Trade Organisation) and other bilateral donors.

Any initiative to set up a CB-VTE institute in Mauritius would necessarily require Bank of Mauritius (BoM) to be involved. It could be: an initiative of the BoM alone; undertaken jointly with other banks in Mauritius; in collaboration with other central banks, such as the Bank of England or Reserve Bank of India; with the IMF and/or BIS; or it could be any combination of the above. There would clearly be a financial cost involved. The institute would need to attract high-quality lecturers, resource persons and top academicians from the region and around the world to focus on topical, complex central banking and monetary management issues.

Given the specificities of central banking and the particularly challenging problems that the African continent faces (including the unique peculiarity of monetary management being complicated by proportionally excessive aid flows), it is important that the training provided is relevant to Africa. It must combine Africa's special situation with what pertinent lessons might be learnt from other countries and regions in which similar problems have been encountered and successfully dealt with (e.g. India in the 1970s and 1980s). One of the projects the Bank of Mauritius could undertake is to develop, with the collaboration of other African central banks, the IMF, the World Bank and the BIS, an accurate and comprehensive unified statistical monetary and economic database that could be used by local, national and international researchers. At present, monetary data on Africa – compiled by different sources, using different methodologies and hardware as well as software systems – is fragmented, contradictory and confusing.

However, to add real value, a CB-VTE institute in Mauritius would need to avoid duplication with what is already being done by institutions such as MEFMI, as well as by other national and regional CB-VTE arrangements in SADC, in other regions of Africa, and by the IMF or BIS independently or jointly with these institutions. Given the number of institutions currently providing training to central bankers in the region, duplication would result in a waste of scarce resources and would make it difficult to convince partners to participate. If a CBT-VTE institution in Mauritius was to be established, it would need to be located somewhere with a serene, isolated atmosphere for learning on land donated either by the government or BoM. It would need to have the latest multilingual translation facilities, as well as a well-equipped up-to-date library with the latest books, periodicals and e-resources in central banking. It would also need to have boarding and lodging facilities of a high standard (whose operation might be outsourced to one of the local hotel management groups), with adequate recreation, sports and medical facilities.

Short of setting up a CB-VTE institute in Mauritius, the BoM could on its own, or with others, take a lead in organising training courses, seminars, workshops and conferences on a regular/scheduled as well as *ad hoc* basis. The cost of this less-ambitious option would be much lower. However, it would not have the same impact in the medium and long term as a CB-VTE institute in making Mauritius an regional Centre of Excellence. Clearly some preliminary work has to be done in analysing what other institutions established in the region are doing, and what type of training/research they are **not** undertaking that is needed in Mauritius, in the immediate SADC/COMESA region and more widely in Africa. Only after such an analysis can clear ideas be developed on what a CB-VTE institution in Mauritius could do to add value.

If the case for value-addition can be made clearly and unambiguously, the next step would be to explore options on how such an institution could be set up, funded and what role would be played in the process by the Government of Mauritius, the BoM and external players (e.g. MEFMI, the IMF, BIS, RBI, Bank of England, Banque du France, ECB and Monetary Authority of Singapore) in making available the necessary financial and human resources that would be needed, along with the necessary know-how inputs, to ensure the long-term success and value of such an institution.

## **Distance learning and e-learning**

Distance education and e-learning (DEEL) was institutionalised in Mauritius with the Mauritius College of the Air (MCAIR) being established in 1985 to promote education, arts, science and culture through mass media and distance education. Interest in media and distance education was reinforced with World Bank interest in funding the development of the education sector in Mauritius in the 1980s. Emphasis on the potential of distance education was highlighted in two reports published in 1989: i.e. *Open Learning and its Potential in Mauritius* by Lord Young of Dartington, and *Distance Education for HRD in Mauritius* by John Daniel.

Following those reports, MCAIR collaborated with Napier University in 1993 to develop a Higher Certificate in librarianship and information science, which enabled over 100 people to enhance their professional competence. In 1994, the AfDB helped to fund the Department for Distance Education (DDE). In 1995, MCAIR was asked to help with upgrading the skills of 500 secondary school teachers through course material developed collaboratively with the National Extension College and Oxford Open Learning (OOL) in the UK with special funding provisions to offer a Master's degree in education and human resources (MEd. and HR).

Over the last decade, MCAIR has established a number of international partnerships to expand its repertoire for open distance learning (ODL) with: the National Extension College/OOL in the UK; Napier University in Canada; Stevenson College, UK; the Chartered Institute of Logistics & Transport (UK) through its counterpart in Mauritius; the Indira Gandhi National Open University (IGNOU) of India; UNICEF/MIE; the Chartered Institute of Marketing (UK); the Tele University of Canada for capacity building; and IGNOU/COL through the Rajiv Gandhi Foundation Science Centre in Mauritius (RGFS).

MCAIR has also developed **local** partnerships with: the University of Mauritius (UoM) for an MSc. course in risk management; the University of Technology, Mauritius (UTM) for a diploma as well as undergraduate (BSc. Honours) degree courses in management; the Mauritius Institute of Education for a course offering a Certificate of Proficiency in early childhood education (CPECE) as well as a Teachers' Certificate for pre-primary schooling; (d) the Ministry of Civil Service and Administrative Reforms for distance education courses in customer care and quality management; and the Ministry of Co-operatives for an Advanced Diploma in co-operative studies.

The advantages of these international and local partnerships have been to: (i) lower the costs of courseware engineering for MCAIR that the college could not afford on its own; (ii) make MCAIR more cost-effective and able to offer quality education on a flexible basis at an affordable cost to mid-career working professionals; (iii) enable economies of scale; (iv) provide wider access to sources of course material, as well as to a wider potential market; (v) permit MCAIR to share/pool limited public resources with other educational institutions and ministries; (vi) facilitate adaptation of course material; (vii) provide IPR negotiating rights for material developed with MCAIR inputs; and (viii) enable MCAIR to cope with changes in the environment and opportunities/challenges thrown up by the globalisation of education.

Over the 16 years from 1993 to 2008, MCAIR has offered 42 programmes/courses through ODL to over 11,400 distance learners. Its students comprise the public at large (for 'A' levels, undergraduate/postgraduate degrees and diplomas in management). It has also tapped into more specialised adult student pools through specially designed programmes. These pools include police officers, teachers, professionals in the ICT industry, fire officers, trade union officials and workers, personnel from various ministries and National Transport Authority (NTA) officers.

However, as the above list indicates, MCAIR has focused exclusively on the domestic market in a limited set of specialised study domains. The question is whether providing VTE for an average of about 700 students a year justifies public expenditure on a separate institution, when DEEL could be provided by a dedicated department of the UoM, UTM or both? For MCAIR to be economically viable, its capabilities need to extend to DEEL exports over a regional geography and beyond, by offering a wider range of general educational and specialised career-specific courses. To do so, it must compete with the University of South Africa (UNISA) in the same regional space.

It can compete in this manner effectively by engaging in a partnership with the Open University of the UK, which has an established global brand and an internationally respected repertoire of courses and tutors, an Indian DEEL institute or by triangulating with both to reach the Asian-African-Antipodean markets. It could also bring in a partner from France, like the *Conservatoire National des Arts et Métiers* (CNAM) operating out of Reunion for DEEL exports to francophone African and Asian markets.

Entering into such partnerships would enable MCAIR to focus on the world, rather than the domestic market, which is trivial in size and less demanding in nature. MCAIR could also be transformed by being privatised and freed from existing domestic regulatory constraints to evolve in a market-determined manner and develop state-of-the-art capabilities in DEEL for the general public, as well as the more specialised corporate markets (especially for e-learning).

MCAIR specialises in **distance learning**, which is not the same as **e-learning**, although the two terms are often used synonymously. E-learning refers specifically to use of the power of the Internet (and the corporate intranet) to deliver a broad array of VTE solutions that contribute to the enhancement of knowledge and performance. While all e-learning is distance learning, the opposite is not the case: not all distance learning involves e-learning – in fact, much of it is still conducted via hard copy correspondence courses. Both distance and E-learning enable tutoring/learning (i.e. VTE delivery) costs to be reduced. They also enable larger economies of scale to be achieved than through traditional teaching modes. E-learning is superior to distance learning in enhancing responsiveness; it can be customised and updated more quickly than any other form of teaching/learning in real time, with learning being made possible on a 24/7 basis. E-learning encourages universality and community building, it is rapidly scalable, permits easy cross-platform accessibility to course materials and it saves on travel and time costs for students and tutors.

Yet not all the aspects/attributes of e-learning are necessarily positive. It has some drawbacks. For instance, it has bandwidth limitations. Disparate computers replace human contact and instantaneous face-to-face interaction, which can be an indispensable feature of effective learning. With e-learning, unless there is a human at the other end, the level of interactivity is limited. The capital expenditure (capex) cost involved in establishing the requisite technological infrastructure and maintaining the relevance of course material is large and continuous. It requires

constant updating to keep pace with rapidly evolving technology (in order to remain competitive) and frequent changes in course content to retain relevance. Not all courses are amenable to being delivered well by computers (e.g. courses for artisans).

An effective strategy for exporting e-learning services needs the right kind of learning architecture, a good technological and faculty/resource infrastructure and a champion to promote it. Such a strategy also requires a sound business case. In addition, for Mauritius to expand its e-learning capacity and gear it for exports there must be a clear national strategy to support such an initiative, unwavering political support for it and requisite investment in the necessary infrastructure and 'info-structure', which Mauritius has with its rapidly developing ICT/BPO/KPO/RPO industry.

To move forward the idea of MCAIR developing wider regional and global capacity, requires fundamental re-thinking of the original ideas behind it and gearing its focus and activities to the offshore market, with the domestic market being treated as a residual rather than the other way around. If MCAIR can develop global reach and capability through appropriately structured partnerships with the right partners from India, France and the UK, it can compete more effectively with UNISA for the African market and can carve out a significant share of the Asian and Antipodean DEEL markets as well. Yet MCAIR is not the only player in town. The University of Mauritius also has its own centre for virtual learning.

The entry of Mauritius into the global market for e-learning is justified by the size and growth of that market. For example, the worldwide e-learning industry is estimated to be worth about US\$60 billion, according to conservative estimates. By 2006, nearly 3.5 million students were learning online at institutions of higher education in the US alone. Students generally appear to be at least as satisfied with their online classes as they are with traditional ones. Online education is no longer a myth; it is a well-established pedagogical alternative in its own right in many leading universities worldwide (The Sloan Report).<sup>12</sup>

Mauritius would have some advantages (with its relatively advanced endowments) as a relatively low-cost e-learning 'content provider', with a number of resident 'subject experts' and bilingualism as its main advantages. It would have an advantage in areas such as instructional and pedagogical design, multi-media development, e-based consultancy services for e-learning initiatives and hosting solutions and providing technical support.

However, Mauritius would need to scale up from a compact self-contained shell catering to its domestic market, to a regionally 'distributed' institution. It would need to build on existing infrastructure, expertise, experience and assure quality of content, pedagogy, outcomes, delivery, service and certification standards. The questions that arise in the area of e-learning certification are whether certification should be carried out by only one university? Or should it be done through a joint/consortium approach involving UoM, UTM and MCAIR? That would imply adopting common qualifications with an open content philosophy.

The main obstacle to making faster progress in establishing Mauritius as a player in the global e-learning domain remains an absence of the right mindset at political and senior-academic levels in the educational establishment. This is reflected in resistance to change on the part of academics and educational policy-makers/managers steeped in the old school of thought, who remain sceptical of the efficacy of new technologies (in which they are untutored) and of new pedagogical alternatives and techniques (for fear that deploying these would displace them and make them redundant). There is also a shortage of e-learning and innovative pedagogical design experts in Mauritius, as well as a lack of research facilities and funding related to innovative pedagogies and technologies.

Yet it would be negligent for the Government of Mauritius to not capitalise on the opportunities that exist as a result of inertia and lack of sufficient initiative on the part of the educational establishment, which is too remote and inward looking, content to focus only on the domestic market cushioned by state policy. The world wide web (www) is the largest freely accessible knowledge resource platform ever created in history. It permits any individual anywhere in the world to **'learn anytime and anywhere, but most important of all to learn differently and just-in-time'**. It is estimated that there are already 1.3 million users of e-learning facilities in the entire African continent, of which 750,000 are in Southern Africa and 75 per cent of those in South Africa. However, the real number of African users may be five times that.<sup>13</sup> The main player in the field is UNISA and Mauritius does not even feature on the African e-learning map. It should be a priority government policy to rectify that shortcoming.

### **Developing human resource development export capacity in Mauritius: next steps**

Human resource development (HRD) exports present an immediate opportunity for Mauritius to diversify its sources of external revenue and develop a fertile area of opportunity, without much domestic effort or investment. Institutions from around the world have queued up waiting to invest in Mauritius. It provides a naturally idyllic environment for global educational institutions to locate in order to tap new student populations in the Asian and African markets. What is holding up progress is an antediluvian, anachronistic mindset on the part of the extant educational establishment (i.e. Ministry of Education and Human Resources, the Tertiary Education Commission [TEC] and public institutions). That establishment is attempting to protect the domestic market by blocking foreign participation in the education sector (even for exports) in a way that is no longer tenable. The Government of Mauritius has come to accept over the three years since 2005 that the private sector's previous efforts to block foreign competition in the domestic commercial space have been, overall, detrimental to the longer-term economic interests of the country.

That is no less true of the public sector's efforts to protect domestic space in areas like healthcare and education. Efforts to protect the past in this manner can only

result in seriously compromising the future. The present educational establishment appears either unable or unwilling to see the opportunity that exporting HRD services holds in terms of future growth. It seems more concerned with an imagined loss of privilege, budget, power and control if the VTE sector is opened up to foreign private entry to make tertiary education in Mauritius more competitive, innovative and world class. However, such resistance has to be overcome by the government at a higher political and policy (cabinet) level to get HRD exports moving. If not, then Mauritius will lose out on the opportunity to develop exports in a domain where they could amount to the equivalent of between 20-30 per cent of future GNI by 2020.

What do the next steps for expanding HRD exports entail? Essentially they call for a strategic focus, a new and better policy framework and milestones for measuring progress. They require the right kind of interplay between Mauritius's natural and HRD endowments, its educational infrastructure and its institutions. There are both explicit and implicit barriers blocking more rapid progress.

Explicit barriers include: (i) prohibitions and quotas of various kinds that are imposed on foreign providers, if not by the new supposedly open policy regime then by those implementing it in the VTE sector keeping it effectively closed; (ii) restrictive visa regimes, which although becoming more open are still not open enough; (iii) an investment regime in the education sector that is artificially restrictive and contrary to the openness to FDI underlined in the last two budgets; and (iv) an adherence to preferential procurement of educational services by the public sector from public institutions rather than from all institutions.

Implicit barriers include regulatory bodies using accreditation, regulation, qualification and licensing requirements, as well as other criteria and standards (for instance, those used for approving new institutions and courses) as protectionist barriers rather than as quality control measures. When it comes to accreditation, for example, it is important that the TEC sends an unambiguous message about what it is effectively looking for: is it the curriculum, the faculty, the investment in infrastructure facilities being proposed or the examinations? It is clear that the capacity and knowledge of the TEC will have to be enhanced for it to be able to deal with the new landscape. If this is not done quickly, this may have an adverse impact on the aspiration of Mauritius to become a knowledge hub. The example of New Zealand may be relevant. There, transnational providers of HRD services can operate with no restrictions other than those that relate to any type of foreign investment.

Foreign investor willingness to provide foreign direct investment for HRD-VTE and get things moving is clear and unambiguous. For example:

- There are a number of applications pending by UK universities to establish themselves in Mauritius
- The SP Jain School of Management has expressed an interest in investing in Mauritius

- A number of medical and nursing schools have applied to invest in the country
- Maya Entertainment has expressed interest in establishing an animation academy there
- The financial services industry is interested in starting finance programmes
- The ICT industry wants to ramp up industry-focused VTE on a substantial scale
- The Mauritius Employers Federation (MEF) wants to progress with VTE tailored for its membership
- The Administrative Staff College of India has expressed definite interest in collaborating with the Government of Mauritius to set up VTE for public administration

These are just a few examples of the interest being shown by potential foreign and domestic investors and VTE providers in this sector. In other areas, the Board of Investment may need to take the lead in attracting investors/partners to develop capacity and infrastructure in the right areas. It is clear what geographical export markets Mauritius needs to target with HRD services. The issue is how it should go about doing this.

To market effectively, Mauritius needs first to create sufficient minimum core capacity in each area of advantage. In some areas it already has a core that it needs to expand rapidly. These areas include **business and management studies** in which more than one institution has established credence, but many more are needed, and **VTE for the hospitality industry**, where core capacity exists for training lower- and middle-level professionals, but where Mauritius needs to establish significant partnerships (e.g. with EHL, La Rochelle in Switzerland, the Oberoi Training centre in India or the Cornell Hotel Management School in the US) to upgrade its ability to train the highest levels of professionals as well. Other areas are **the ICT industry**, where basic VTE capacity has been established but needs to be significantly upgraded through the right partnerships with Indian and other training institutions, **DEEL**, where a minimum core capacity already exists but needs to be expanded dramatically through appropriate partnerships, and **VTE for the healthcare sector** including medical education for doctors, nurses and a number of paraprofessional categories.

The Government of Mauritius needs to ensure that the accreditation and regulation (A&R) process as wielded by TEC, MQA and other concerned agencies in the tertiary education sector is not used as a device for delay, obfuscation and protectionism. The TEC needs to be relieved of any responsibility for regulating institutions set up to export HRD services. For that purpose and to acquire global credibility, Mauritius needs to adopt global VTE quality standards applied by an institution that is familiar with and properly qualified to apply such standards and monitor performance in terms of adherence to them.

## Notes

1. See table: Growth in the number of tertiary students worldwide since 1991, UNESCO Institute for Statistics database.
2. Böhm, Anthony (2003). Also UNESCO Institute of Statistics, Table 18, International flows of mobile students at Tertiary Level, updated annually. See: <http://stats.uis.unesco.org/unesco/TableViewer/tableView.aspx?ReportId=171> [accessed 6 January 2009]. And UNESCO, Global Education Digest, 2006, 2007.
3. UNESCO Institute of Statistics; reference year 2004: Statistical Tables 9 and 10; previous years: UIS Database.
4. UNESCO Institute of Statistics Database.
5. UNESCO Institute of Statistics; reference year 2004: Statistical Table 9; previous years: UIS Database.
6. These are: the Mauritius Institute of Education, set up for the training of teachers and educational research; the Mahatma Gandhi Institute, which provides training in languages, the performing arts, fine arts and ethnic studies; the Mauritius College of the Air, which encourages distance learning in collaboration with recognised overseas institutions; and, in 2002, the Rabindranath Tagore Institute, which was established for the study of Indian culture and traditions.
7. These were broken down as follows: University of Mauritius - 50; UTM - 10; Mauritius Institute of Health - 38; SSR Medical College - 277; College of Dentistry -121; and Institut Francophone de l'Entreprneuriat - 71.
8. For example, there are a number of regulatory contradictions concerning the provision of distance learning within and outside individual states in India that create major complexities and hinder the spread of distance learning. Similarly there are a number of regulatory contradictions in the treatment of public vs. private VTE institutions resulting in a small proportion of private institutions not seeking accreditation or certification yet providing education to a large number of people in absolute terms because of the feedback that the market provides on their quality and the widespread acceptability in the labour market of the qualifications that they award.
9. For more details on this and other fields of VTE provision, see presentation by Mr Altaaf Hamid at the Symposium on the Export of Human Resources Services in April 2007.
10. Industrial Development Corporation (IDC), Johannesburg, Networking Skills in South Africa, May 2006.
11. IDC: Networking Skills in South Africa, May 2006.
12. See: <http://www.sloan-c.org/publications/survey/index.asp> [accessed 6 January 2008].
13. The number of PCs and laptops available in Africa with Internet access are unknown despite a plethora of initiatives by multilateral and bilateral donors and the private sector to expand e-learning. Access to PCs/laptops is growing, but the exact statistics are unknown. Access seems to be limited to the elite, employees of public/private corporations and institutions, and the middle class in big cities (i.e. civil servants, teachers, doctors, lawyers, engineers, consultants, bankers etc.). Fixed-line Internet access costs to individuals in African countries are still high, ranging from US\$30-130 per month compared to US\$15-50 per month in OECD countries. There are a limited number of Internet cafes that poor students can use in Africa. Communication bandwidth is still low for accessing streaming multimedia, for example.