

Executive Summary - Developing Singapore's Education Industry

Prepared by the Education Workgroup

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Overview

1. Singapore has several competitive advantages that position it well as a global education hub. These include a strategic geographical location, reputation for educational excellence, a vibrant business hub (which presents opportunities for institutional-industry collaboration), and a safe and cosmopolitan environment.
2. However, there are various constraints, including regulation at various educational levels, lack of a quality assurance system for the private commercial schools, high land and building costs, lack of a central agency to market Singapore's educational services overseas, and onerous student visa

requirements.

3. By overcoming these constraints, Singapore can capture a larger share of the global educational market (estimated at US\$2.2 trillion), and increase educational services' contribution to GDP from the existing 1.9% of the GDP to a projected 3 to 5% in 10 years. The growth in the education sector would come from the increases in institutional and student spending, particularly from full-fee paying international students. The efforts to build education as a business through attracting full-fee paying international students should be **over and above the existing MOE talent attraction schemes**.

Background

4. Education was one of the 18 service sectors that the 1985 Economic Committee identified to nurture and promote because of its revenue growth potential, net worth to the economy, and export earnings potential. While the economic potential of the education sector was recognised, socio-political concerns limited efforts to promote this sector and develop education as a business.
5. The education industry is estimated to contribute S\$3.0 billion to the Singapore economy, which is 1.9% of the GDP (Department of Statistics, 2000). The sector employs 47,000 people and enrolls 50,000* [**Singapore Immigration & Registration, 2001.*] foreign students in Singapore in both public and private institutions. Most of the foreign students here are in the tertiary and commercial school segments of the industry. A majority of those in the tertiary segments are on Singapore government scholarships of one kind or other. Those in the commercial school segments tend to concentrate on the lower fee paying courses.
6. Besides being a public good, education is a significant service export for Australia, the UK, and US. In the US, foreign undergraduates and graduates contributed US\$11.3 billion (S\$20 billion)* [**OECD data, 2000/1*] to the economy for tuition, fees, housing and living expenses. In Australia, education services exports accounted for A\$4 billion (S\$3.5 billion)* [**OECD data, 2000/1*].
7. Education tends to be a counter-cyclical industry as the unemployed seek to retrain and upgrade themselves. In the case of Australia, this particular sector, together with agriculture, has contributed to its resilience in both the 1997-8 and current recession. During the Asian crisis, Australia's international student numbers continued to grow, as the fall in onshore learning was offset by the rise in offshore learning. As for the current downturn, Australia is benefiting from the fallout of the events of Sept 11, 2001, as students consider the country safer than the US.
8. The experiences of the other countries indicate that education can be a significant contributor to the economy. In view of its counter-cyclical characteristics, education can help in diversifying a country's economic base.

SWOT Analysis

9. An overview of the strengths, weaknesses, opportunities and threats confronting the education industry is as follows:

Strengths	Weaknesses
<ul style="list-style-type: none">• Strong academic reputation with well-developed public education system• Safe, cosmopolitan, progressive East-meets-West society	<ul style="list-style-type: none">• Regulatory hurdles, e.g. private commercial schools can only operate as middlemen of foreign universities' programs• Lack critical mass of quality professors &

<ul style="list-style-type: none"> • Asia Pacific hub for top foreign tertiary institutions, e.g. INSEAD, Georgia Tech, University of Chicago • English is language of instruction and communication, which means a large addressable market • Cost-competitive vis-' vis Australia, UK, USA • Already a regional magnet for students seeking quality education • Located in region of top source countries for international students, e.g. India and China 	<p>teachers</p> <ul style="list-style-type: none"> • High land costs, which would translate into higher course fees for institutions that require their own campuses • Shortage of affordable accommodation • Student quotas at local universities, e.g. law, medicine • Local institutions' efforts to attract international students are fragmented and uncoordinated • Lack of quality assurance and accreditation agencies, which results in uneven quality among service providers, especially the private commercial schools • Difficulty in securing student passes for international students, especially for the private commercial schools
<p>Opportunities</p> <ul style="list-style-type: none"> • Education contributes between 0.5-5.5% of GDP in top international student host countries (Australia, UK, USA), which indicates that education can be a significant and sustainable contributor to the economy • Global market for higher education (consumption abroad only) is around US\$30 billion. Total number of foreign students enrolled in higher education was 1.6 million in 1996 with an annual average growth rate of 5% since 1970. 45% of these students are from Asia with China, Korea, Japan, Malaysia and India comprising the top five source countries • Growing demand from Asian students (especially China, Korea, Japan) for quality education at various levels' tertiary, pre-university, English language training, vocational training, etc. This is especially so amongst the fast-growth countries (such as China), where there is 	<p>Threats</p> <ul style="list-style-type: none"> • Reputation of competitors and perceived quality of overseas institutions, especially in the popular destinations such as Australia, U.S., Canada and the U.K. • Minimal regulatory hurdles in other countries (e.g. Malaysia) results in a diversity of public and private educational institutions, which increases the attractiveness as educational destinations • Availability of internship and post-graduation job opportunities for international students in other countries. In Singapore, many international students (especially those that graduate from the private commercial schools) have to return home upon course completion, which lowers the overall value of the education here

unmet demand from the burgeoning middle classes for quality education services

- Concerted marketing efforts of other host countries to attract international students and funded by the government, e.g. British Council, IDP Australia, US Department of State

10. Over the years, Singapore has built up a reputation as a hub for educational excellence. To complement the manufacturing sector, Singapore should endeavour to excel in the services industries where we have an advantage over North East Asian competitors, especially those at a similar rung of economic development such as Taiwan and South Korea.
11. In short, education is one of Singapore's core competencies and an area where we can compete in the global marketplace. As such, we could consider a more comprehensive and concerted approach towards developing the education industry.

Vision

12. The proposed vision is to **develop a self-sustaining education ecosystem offering a diverse and distinctive mix of quality educational services to the world, thus becoming an engine of economic growth, capability development and talent attraction for Singapore.**
13. **Education ecosystem refers to** a cluster of mutually reinforcing, complementary education institutions which vary in terms of student enrolment numbers, country of origin, cultural environment, nature of activity, academic level, academic discipline/subjects, research interests and price. This network of institutions will raise education standards, create more choice for Singapore students and enrich the overall student experience.
14. **Economic growth.** Education contributes 5.6% in the UK and 5.5% in Australia. Currently, education services contribute 1.9% to the Singapore economy. A critical mass of diverse education institutions and companies with good global branding and diverse course offerings at all levels of education can attract a larger inflow of international students. This can increase education services' GDP contribution to between 3% and 5% in 10 years' time' the increase would comprise:
 - Value add from institutional spending of new public and private schools and supporting industries; and
 - Value add from the annual spending of 100,000 full-fee paying international students and 100,000 foreign executives here for corporate training.

22,000 new jobs (estimated) would be generated from the establishment of new educational institutions and companies, of which 13,000 would be teaching-related, and 9,000 would be in the administrative, managerial and specialist areas.

15. **Capability development** entails meeting existing and projected industry needs (e.g. address demand for software engineers) as well as contributing to broader human capital enhancement (e.g. provide avenues for talent development in the fine and performing arts), and societal/community development (e.g. create life-long learning opportunities for Singaporeans). Furthermore, some IHLs and Corporate Institutes would carry out knowledge-based activities such as R&D, IP management and technology transfer.
16. **Talent attraction.** As we build more education institutions, this will contribute to a larger inward flow of foreign talent for Singapore's economy (if they eventually work in Singapore) and also build a strong network of international alumni around the world.

Strategic Thrusts

17. Four segments have been identified as having good growth potential: tertiary education, private commercial and specialty schools, corporate training and executive education, and preparatory and boarding schools. A key lever of the strategy is to attract full-fee paying international students as well as foreign executives here for corporate training, as the spending of these two groups would inject wealth into the economy and engender spin-offs arising from the provision of supporting services.
18. **Tertiary education** A vibrant university sector would not only attract and develop top talent, but also help to create jobs and wealth. The proposed strategy is to develop a tiered system of universities, which would provide a diverse array of undergraduate and postgraduate courses for local and international students. The proposed system would comprise 3 levels:
 - *World Class Universities (WCU)* - These would continue to be niche centres of excellence carrying out world-class R&D, transfer knowledge to industry, and help in branding Singapore as a premier educational hub. We envisage a collection of 10 or so WCUs providing a pool of up to 1,000 to 3,000 global top talents at steady state in Singapore.
 - *NUS, NTU and SMU* - These would form the bedrock of the university sector, i.e. by carrying out a broad range of R&D activities, meeting Singapore's core manpower needs, creating a talent pipeline of regional scholars, and providing education as a public good. These universities would continue to be state supported with the intention of grooming them to become top global brand names
 - *Additional private universities* - These would focus on teaching and applied research, and add diversity to the university landscape. The universities could be foreign or local in origin, with their own campuses (foreign universities can operate independently or in conjunction with local partners), and the liberty to establish their own international to local student ratios. Most of the international students would be paying full fees. As a start, we should ensure that the type of private universities established here are at least of similar global ranking as NUS/NTU to minimise Singapore's brand name dilution
19. Commercial and specialty schools - This is already a vibrant private-sector driven segment, with good domestic and international demand. However, the players are fairly fragmented, and quality of course offerings is uneven. The proposed strategy is to build a nexus of 40 high-quality schools, each enrolling at least 1,000 international students. Complementing these schools would be smaller niche schools offering world class courses in diverse disciplines, from culinary skills to the fine arts.
20. Corporate training and executive education - There are more than 6,000 MNCs in Singapore, of which more than half have regional responsibilities, including training. Training is a key strategic investment for these MNCs, as human capital becomes ever more important as a competitive differentiator in the global economy. The proposed strategy is to encourage more MNCs to anchor their regional training centres in Singapore and promote reputable institutions to provide high-quality short executive training courses. Both these activities would bring in significant numbers of corporate executives to Singapore, whose spending would generate value for the economy.
21. Preparatory and boarding schools - This segment comprises the public schools (in the secondary and pre-university levels) with significant numbers of overseas students, and the private international schools that educate children of executives based in the region. This segment serves as an important feeder into the local and foreign higher education institutions. The proposed strategy is to position Singapore as a regional destination of high quality preparatory and boarding education. This would entail creating a market-driven landscape whereby local and international students have the choice to attend a spectrum of public and private institutions. As there could be social implications if we allow local students to study in private schools (e.g. concerns on national education), the Education Workgroup would provide inputs

to the Ministry of Education's ongoing Review of Junior College/Upper Secondary Education.

22. Supporting services - In addition to the above segments, the area of supporting services' particularly eLearning and testing and assessment' are emerging industries with strong export potential. The proposed strategy here is to grow a rich continuum of players' local and foreign, big and small' with innovative and scalable technologies that cater to both the domestic and overseas markets.

Key Recommendations

23. Developing the above segments would require a combination of broad-based and segment-specific changes and initiatives. The Workgroup's key broad-based recommendations' which would **facilitate the building of a pro-enterprise business environment** are:

- **A concerted and long-term approach in industry development** in terms of attracting international players and nurturing home-grown capabilities. This would ensure that a world-class community of schools and institutions could develop. An agency (government or otherwise) would need to own this initiative, to execute the strategy described herein and monitor the macro-economic progress of the education industry.
- **Establish a quality assurance system** for the private commercial and specialty schools. This is to help providers upgrade the quality of their offerings, introduce transparency in the marketplace and in the long run, safeguard and upkeep Singapore's reputation as a hub for quality education. One possibility is to adopt from existing standards (e.g. the Singapore Quality Award) and involve both the private and public sectors to map out the framework, key performance indicators and critical improvement processes.
- **Build up the manpower availability.** Meeting the manpower requirements to grow the education industry would be a key challenge, given Singapore's small talent pool and the many competing needs. More teachers, faculty, administrative professionals and instructional designers would be needed. This could be done by recruiting from overseas in the short term, and increasing the local training capacity in the long term, especially in the area of teacher training where prestigious foreign teacher training colleges could be encouraged to set up branch campuses in Singapore.
- **Establish an Education Promotion Agency**, along the likes of the British Council and U.S. Education Information Centre. This would be a centralised agency with overseas offices to attract international students to Singapore. The agency would have a strategic function in promoting Singapore as an education destination, as well as more operational functions such as providing advisory, counseling, matching and processing services. In addition, the agency should offer job placement services for graduates (in Singapore and back in the international students' home countries) as this would make it more attractive for international students to study here, e.g. it could leverage on the 6,000 MNCs in Singapore and encourage them to do more recruiting here for their global operations.
- **Streamline student visa requirements and processing.** To attract international students for all segments would require a more flexible, expeditious and transparent visa application and processing system. One possibility is to introduce a differentiated student visa system whereby there are different visa categories for different types of education programs (similar to the sophisticated system used by the Australian government)' this would allow better monitoring of potential immigration offences and expedite visa processing for genuine students.
- **Set aside 90 ha of land at institutional land pricing**, to accommodate new

educational institutions that require physical campuses. In addition, there should be active efforts to make available other forms of land and space for schools and related companies, e.g. clustering of commercial schools, corporate institutes and related companies by industry type; an Edumall concept where commercial schools have shared classroom and recreational facilities located in housing estates; and allowing commercial schools to take over disused MOE school compounds.

- **Increase the supply of student housing.** For instance, JTC could consider making available the SHiFT (Scheme for Housing of Foreign Talent) apartments to international students, while HDB could consider relaxing the rules on subletting of flats. At the same time, the proposed EPA (Education Promotion Agency) could provide information about the various housing options in Singapore, advise on what to look out for when sourcing for housing, and provide links and referrals to housing providers. For instance, HDB dwellers who wish to sublet their flats can register with the HDB Branch Offices, and the database could then feed into the EPA's information clearinghouse.
- **Ensure the availability of financing** for both local and international students, e.g. through building a secondary market in student loans.
- **Export branded Singapore schools, institutions, curriculum materials, and testing and assessment services.** This could be done through public-private sector partnerships. In particular, there is a need to develop country-specific strategies for key target markets such as China.

24. In addition, the Workgroup has the following segment-specific recommendations:

- **Promote the university sector**, to enable private universities offering undergraduate and postgraduate programmes to be formed. This would help in building a vibrant community of universities, which in turn would anchor the education ecosystem. In the light of the effects the university sector has on national manpower planning, one possible approach is a gradual process whereby a number of private universities could be allowed to operate as an 'Experiment' The aim is to create a **3-tier tertiary sector** comprising the niche World Class Universities to develop cutting edge competencies; the bedrock public universities that carry out broad R&D activities and provide for manpower training; and the private universities that focus on teaching and applied research, as well as attract full-fee paying international students.
- **Nurture a core group of 40 or so good quality private commercial and specialty schools**, each enrolling at least 1,000 international students. Surrounding this core of reputable schools would be other smaller niche schools that offer diverse courses, from hotel management to ballet. The key to building this segment lies in removing the developmental hurdles and market inefficiencies, putting in place a quality assurance framework, and promoting collaboration between the different players. This would then allow the players to flourish and respond to the market's needs, and thus grow the segment organically. A benefit of this diverse segment would be to create a wealth of Continuing Education and Training (CET) opportunities for Singaporeans.
- **For corporate training, MNCs should be encouraged to establish regional training centres in Singapore** as part of their Asia Pacific or South East Asian regional headquarters activities, while reputable institutions should be encouraged to provide high quality short-term executive training programmes. Both these activities would bring in **significant numbers of corporate executives** to Singapore.
- **For preparatory and boarding schools, Singapore could be positioned as a destination for high quality education.** Growing this segment is contingent upon to

what extent can existing regulations can reviewed and relaxed to accommodate a more market-driven environment. The Workgroup has submitted its comments and suggestions to the MOE's Review of Junior College/Upper Secondary Education.

- As **eLearning and educational testing & assessment are emerging areas, there opportunity to grow a rich continuum of players, both local and foreign, big and small**. In particular, there is a need to promote and commercial innovative technologies and business models that are readily scalable for a regional or even global market.

Conclusion

25. Education is an area in which Singapore can take a commanding regional position. As it is, other countries such as Australia and Malaysia are investing resources to build up their education industry to cater to domestic and overseas demand, which leaves Singapore only a limited time window to galvanise resources and concertedlly capitalise on our strengths, develop the industry, and stay ahead of the competition.
26. As the public sector's focus is and would remain on manpower training and capability development, the strategic intent of attracting full-fee paying international students to grow the education industry would fall onto the private sector's shoulders. As such, it is imperative to address the developmental hurdles faced by private schools so as to facilitate their growth, particularly the Promising Local Enterprises (PLEs).
27. The proposed changes are meant to create a pro-enterprise greenhouse, such that existing and new schools are able to anchor and grow their Singapore-based operations as well as expand into the region. The proposed changes need to be implemented quickly. Otherwise, the industry could face hollowing out in terms of international students heading to other countries, or even in terms of our private schools bringing their foreign university partners with them into the emerging markets rather than anchoring their operations in Singapore.