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CONVERGENCE OR DIVERGENCES? COMPARING EDUCATION REFORMS IN HONG KONG AND SINGAPORE

1. INTRODUCTION

Hong Kong and Singapore were British colonies for about one and a half centuries, between the nineteenth and twentieth centuries. They are also Chinese societies with a majority of Chinese population. Developed from small fishing villages and then entrepots, both cities are now competing for a leading role as an economic, financial, information and educational hub in the Asia-Pacific region. In spite of these similarities, Hong Kong, unlike Singapore, is not an independent state but has been a Special Administrative Region (SAR) of the People's Republic of China since July 1997. Following the "one country, two systems" principle, the government enjoys autonomy in public policies and governance. On the other hand, Singapore gained its independence in August 1965 after four-year self-government from 1959 to 1963 and a two-year merger with Malaysia between 1963 and 1965. Nation building is not surprisingly the most important policy imperative for the Singapore government. Moreover, unlike Hong Kong, Singapore is a multi-racial society, although there is a majority of Chinese, who account for about 80 percent of the total population on the island-state. The Singapore government put a strong emphasis on preserving social cohesion among the three racial groups, the Chinese, Malays and Indians through education. With manpower the only asset available in Hong Kong and Singapore to sustain their economic and social developments, education has been treated as a vital instrument to ensure for both cities high quality professionals, and a skilled labour force to deal with rapid changes in the world economy. More emphasis is now placed on the practical and market value of education.

This chapter examines and compares the policy context of education reforms in Hong Kong and Singapore. There are four sections. The first provides an overview of the global context for education reforms over the past two decades. The second section examines and compares the development of education reforms in the two cities. The penultimate section then assesses the impact of the education reforms

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with reference to the trends of corporatisation, marketisation and privatisation. The final section concludes the chapter.

2. GLOBAL CONTEXT OF EDUCATION REFORMS

Drucker (2001) stated that, in the "next society", knowledge will be its key resource and knowledge workers will be the most productive and influential group in its workforce. These are three characteristics of the "next society":

- Borderlessness, because knowledge travels even more effortlessly than money.
- Upward mobility, available to everyone through easily acquired formal education.
- The potential for failure as well as success. Anyone can acquire the "means of production", i.e. the knowledge required for the job, but not everyone can win. (Drucker 2001, p.4)

The knowledge society is highly competitive and with the dominance of information technology knowledge is spread near-instantly and made accessible to everyone in the world. On the one hand, not only businesses, but also schools, universities and other government agencies have to be globally competitive although simultaneously they also need to be locally focused in their activities and in their markets. Knowledge technologists instead of unskilled manual workers in manufacturing will become the dominant social and political force over the next few decades. Education, therefore, has an important role to play in the development of the knowledge-based economy around the world. In a world facing unprecedented rapid changes, knowledge becomes obsolete rapidly and knowledge workers or technologists have to go back to receive education and training from time to time. Continuing education, learning, training, which will be delivered in different modes, will become a huge growth area in the future society (Drucker, 2001, 2002).

Education policies and reforms have been affected significantly by globalisation. Globalisation represents a new and distinct shift in the relationship between the state and education (Marginson & Rhodes, 2002). The world, they argue, is in the process of becoming commodified simultaneously through the recommodification of the provision of public services and the decommodification of the welfare state. The role and functioning of the state in the context of globalisation is tending towards the competitive state, which prioritises the economic dimensions of its activities above all others. As a consequence, there is a shift in the focus of policies from maximising welfare to promoting enterprise, innovation and profitability in the private and public spheres. *Corporatisation*, *marketisation* and *privatisation* have become the most popular policy strategies for reforming public services, including education (Mok & Currie, 2002). The provision of education has become more market-like based on the principles of choice and competition, whereas the governance of education concerns what is being decentralised and to whom, in relation to the three major components, namely, finance, provision and regulation (Dale, 1999, 2000).

Globalisation, in fact, has required a paradigm shift in policy-making towards the competitive-contractual state settlement, which involves changing relationships between the state, the economy and the civil society. From an educational perspective, schools are to be freed from bureaucratic control to become more responsive to communities but subject to managerial accountability regimes under the influence of neo-liberalism. According to Robertson and Dale (2000), there are four major changes of education policies alongside a movement towards the competitive contractual state. First of all, managerialism has been encouraged to bring about changes in school organisations and to make professionals more accountable to the government and the community. Schools have been encouraged to develop a management approach to ensure effectiveness. Secondly, educational outcomes have been audited in line with the principle of accountability. Audits are increasingly being marketplace. Thirdly, the goal of economic competitiveness has been promoted by the introduction of the schooling market, which is aimed at promoting efficiency, competitiveness and responsiveness to consumer demands. The governance of education has been increasingly driven by a more individualistic, competitive and entrepreneurial approach. The final change is indicated by a shift from central planning to devolved responsibility. While schools are made more responsive to parents through marketisation on the one hand, they become more accountable to government through enhanced auditing procedures on the other.

A major tenet of globalisation theorists has been the weakening of the nation-state in the face of an ever-closer integration of economies. Weaker nation states are seen as having little or no voice. Their peoples and institutions have been marginalised. A variant of this argument is that nation states exist as legal entities, legitimate within their boundaries, to some extent obliged to perform according to international conventions and agreements. Yet others point to governments as not so much eliminated as reconstituted or restructured. The point at which globalisation and education processes intersect is at the need for national economies to become even more efficient and competitive in the new environment, which is characterised by mobility of capital, talent, jobs, knowledge and accelerating technological innovation. Traditional production processes are deemed to be inefficient, old business models irrelevant and the new is embraced with a vengeance. Yet another shift has to do with the increased importance given to customer choice; the client is king and businesses' ability to respond to increasing diversification and product niche development will make them more successful than their competitors. This privileging of the flexibility links up with preference for markets, privatisation, and corporatisation as core elements for the revamping of public sector institutions, including educational institutions.

The change of educational governance has been featured by a commitment to market-oriented provision of services and the encouragement of a consumerist ethos. Some noteworthy results indicate a cutback of public funding for public services, a reliance on the "user-pay" principle for public services, and the corporatisation and privatisation of public service institutions. Education is skewed towards economic and vocational goals from a human capital perspective to enhance economic competitiveness in the globalising world. Greater autonomy enjoyed by educational

institutions is bound by centrally determined policy and funding guidelines and the emergence of a market-based form of governance based on the assumptions of consumer choice and public accountability (Green, 1999; Henry, Lingard, Rizvi & Taylor 1999; Marginson, 1999).

Our analysis of globalisation should not be confined to "economic globalisation". As for education, Bottery (2000) argues that "managerial globalisation" has brought about unprecedented changes in educational institutions amidst the tide of public sector reform with the rise of New Public Management (NPM), also known as managerialism, characterised by more directive and assertive management. Private sector practices have been borrowed and adopted by public and educational institutions to realise two core values of NPM: on the one hand, managers have been turned into proactive instead of facilitatory or reactive administrators. On the other hand, managers have freedom to innovate within tightly defined quality parameters. In relation to education, the characteristics of NPM are:

- The greater emphasis upon site-based management
- Greater financial discretion at the institutional level
- An increased marketisation of activities, set within increasingly state-defined parameters
- An increased emphasis upon the role of principals as the charismatic and empowering "leaders" of their troops

An increased emphasis upon the need for senior professionals to be trained in such managerial techniques (Bottery, 2000, p.67)

The recent years have also witnessed the ascendancy of managerialism as a concept affecting the educational developments and reforms in most countries. Managerialism imports business models and tighter systems of accountability into education to make them more efficient and more akin to business enterprises and by putting more emphasis on the language of rational choice, efficient organisation and new roles of managers, who should be dynamic, efficient, productive, entrepreneurial, and "lean and mean" (Apple, 2001). Educational administration is now being supplemented by market accountability, which involves different forms of devolution drawn from the ideology of neo-liberalism; the responsibility for educational decision-making has shifted from state machinery to market forces and individuals (Whitty, Gewritz & Edwards, 2000).

It is noteworthy that in the age of globalisation, the state or government has to maintain its legitimacy to rule by creating conditions for economic and social development. An effective education system functions on the basis of a well-organised and efficient public administration, which is capable of stimulating economic growth. Both strategies of decentralising and marketising education can make educational institutions and the education sector more accountable to consumers, employers, students and parents. In financial terms, even more public spending, which is expected to be spent wisely and effectively, is needed to provide opportunities for its citizens to receive a higher level of education and, more importantly, to enhance the quality of teaching and learning processes but not on an imbalance that is skewed towards cost-effectiveness and managerial efficiency (Carnoy, 1999, 2000; Daun, 2002; Hallak, 2001).

There are thus a number of converging trends of educational developments and reforms in the context of globalisation. In relation to the change of educational governance, there is a tendency to having decentralisation of policy implementation with greater centralisation of policy control. That means there is a need for a greater surveillance of individual units at the periphery, which is often carried out in the name of quality assurance, assessment and control, in order to ensure the effectiveness of policy control at the core. Nevertheless, while there are clear global trends confronting education policies and reforms, government continues to be a powerful actor in the globe. The shift of educational paradigms and ideas is inevitably affected by such global trends as decentralisation, marketisation and privatisation, the development of education policies is still shaped and determined by factors that are essentially local or national in character (Gopinathan, 2001).

3. THE DEVELOPMENT OF EDUCATION REFORMS IN HONG KONG AND SINGAPORE

By the 1970s, the policy of universal education at primary and secondary school levels was accomplished in Hong Kong and Singapore. This policy gave rise to an expansion of both primary and secondary education levels during a period of rapid economic growth, which required a skilled workforce and educated professionals during the transition from industrial societies to service-oriented financial and business hubs.

Particularly for Singapore, education has an additional role to play. Schools are expected to socialise pupils into citizenship obligations and cultivate a national identity. While some progress has been made and there is a stronger sense of identity, especially among the younger generation, this task continues to be difficult due to several factors. One has to do with Singapore's size and vulnerability in an unstable neighbourhood, with neighbours envious of its economic success. Another has to do with the government's insistence that ethnic "fault lines" have to be acknowledged for what they are and space provided for the sustenance and celebration of ethnic distinctiveness. An insistence on meritocracy as a core principle of governance has served, at least in the short term, to sustain the substantial differences in educational and occupational achievement between the majority Chinese and minority communities. Finally, a competitive school environment places a premium on individual excellence both at individual and institutional levels.

Three trends of policy changes and education reforms for primary, secondary and university levels in Hong Kong and Singapore are identified. The first is the transition from quantitative expansion to qualitative consolidation, due to the rapid expansion of different levels of the education sector. It also witnessed concerns over quality education over the past decade. The second is the decentralisation of managerial power and responsibility to educational institutions in line with the notions of autonomy for accountability, effectiveness for quality, and flexibility for innovativeness. The third denotes a common trend of comprehensive reviews of

education systems in the name of coping with challenges of globalisation and knowledge-based economy.

3.1 The transition from quantitative expansion to qualitative consolidation

In Hong Kong, the policy of free primary and junior secondary was implemented during the 1970s. In contrast, tertiary education remained an elite system with a mere 2 percent of the relevant age cohort (between 17 and 20 ages) admitted by local universities. In 1978, the government conducted a review of the future development of senior secondary and tertiary education. It proposed a limited expansion of tertiary education (Hong Kong Government, 1978). As a result, the participation rate in local universities increased slightly to 8 percent by 1990. It was not until 1994 that the higher education enrolment rate reached 18 percent (University Grants Committee [UGC] 1996).

In the early 1980s, the government commissioned an international panel to review its education system. The most important recommendation made by the panel was the establishment of an Education Commission (EC) to provide for the government policy advice on the needs of and priorities for the education system in Hong Kong (Hong Kong Government 1982, para.II 27). Between 1984 and 1997, EC published a total of seven *Education Commission Reports* with a wide coverage of education areas, including language teaching and learning, teacher quality, private sector school improvements, curriculum development, teaching and learning conditions, special education, tertiary education, and quality education (Cheng, 2000). It is noteworthy that the seventh report, which was released in 1997, put its focus on the notion of "quality school education" with a vision to improve the quality of education chiefly by a management-based approach. That report marked a turning point from quantitative expansion towards qualitative consolidation by inculcating a quality culture in the education system, and for accomplishing the aims of education in an efficient, cost-effective and accountable manner (EC 1997).

The emphasis on quality is not confined to school education but has also had a profound significance for the university sector. Since the mid-1990s, when the target of raising the higher education participating rate was achieved, the government and its funding body, UGC, had turned its attention to issues related to quality assurance and enhancement. A series of quality review exercises on research, teaching and learning processes, and institutional management have been conducted. The performance-linked funding system in research was introduced with the implementation of the Research Assessment Exercise in 1993 as a means of improving both the quality and scope of the research undertaken by all publicly-funded universities (UGC, 2000). The immediate result is that research output is widely used for internal exercises for academics such as appointment, promotion, substantiation and extension beyond retirement. A "publish or perish" phenomenon has become a reality facing the academic profession in Hong Kong (Cheng, 2002).

In Singapore, since the late 1970s, the government has put forward a number of policy changes and reform initiatives, which affected the development of education on the city-state. The first came in 1979 when the government published a report on

the Ministry of Education (MOE) with the aim of tackling the problem of resource wastage in education, including students' failure to achieve the expected standards; premature school leaving; repetition of grades; and unemployable school leavers. The government paid much more attention to the reality of low literacy as well as the ineffectiveness of the policy of bilingualism in school education (Goh, 1979). The solution to the problem of low effectiveness was the introduction of an ability-based streaming mechanism at the end of primary three with an ability-differentiated curriculum, as well as extensions to the length of schooling for students who are academically weak (Gopinathan, 2001).

By the mid-1980s, Singapore's education system had entered into a stage of qualitative improvement. The city-state weathered its first economic recession in 1986 since the nation's independence in 1965 amidst a decade long high rate of economic growth. In response, the government conducted a comprehensive review of the economic system. In the same year, a report entitled *The Singapore Economy: New Directions* was released. It suggested that in order to achieve a competitive edge in the Singapore economy, it was necessary for the nation to upgrade the educational level of the population by raising the median educational standard of the labour force to secondary level and by expanding opportunities for the population to receive post-secondary, polytechnic and university education. Such expansion was aimed at catering for the needs of future manpower development to encourage the development of more creative and flexible skills through broad-based education as well as continuous training and re-training (Ministry of Trade and Industry [MTI] 1986). While the expansion of the existing education system was a major concern of the Singapore government, it was also keen to ensure that educational institutions were capable of maintaining the quality of education.

As for university education, quality assurance is widely perceived as a means to ensure that universities are managed effectively and wisely in response to increasing pressure for accountability and efficiency. Business management concepts and practices have been imported into the university sector. The growing popularity of such notions as quality audit and control ensure that the quality of teaching and research is likely to be improved, and resources can be distributed more rationally (Gopinathan & Morriss, 1997). In practice, quality assurance and enhancement in universities is achieved by the recruitment of talented local and foreign academic staff. The quality of university education is reinforced by four main strategies, namely, a stringent tenure policy, rewards for good teaching and research performance with incentives and recognition, favourable staff-student ratio accompanied by a well-equipped teaching and research facilities, and the provision of staff training and development programmes to upgrade skills and performance (Selvaratnam, 1994).

As in Hong Kong, the two existing public universities, the National University of Singapore (NUS) and Nanyang Technological University (NTU), developed their own appraisal systems on academics in the areas of governance, management, teaching, research, and service (see, for example, NTU University Academic Audit Committee, 2000). In the meantime, MOE also established a Quality Assurance Framework for Universities (QAFU), which was designed around three main steps,

namely, institutional self-assessment, external challenge and validation, and feedback and development. QAFU has three aims: first, to ensure proper accountability for the use of public monies; second, to help the universities to become even more flexible, responsive and resourceful; and third, to enhance overall quality across the higher education system year-by-year (MOE, 2000a).

The performance of academics is assessed by objective and transparent evaluation criteria to foster a culture of excellence within the university. Staff remuneration is not based on seniority but more on academics' educational achievements and expertise. Moreover, the quality assurance frameworks adopted in the two public universities are similar to those adopted by public service institutions under a wider policy context of Public Service 21 (PS21) Movement, which was launched by the Singapore government to reform the public service sector since 1995 (PS21 Office, 2001). With the spread of the spirit of techno-preneurship and entrepreneurship in both the public and private sectors, the universities have looked into business models for assistance with their institutional management. The widespread concerns about the quality of education and world-class academic standards in university education cannot be separated from the quest for a more rational use of financial resources derived from the public purse, even though there is not a resource problem for the education sector in Singapore (Gopinathan, 2001; Lee & Gopinathan, 2001).

3.2 Moving from centralisation to decentralisation

Another characteristic of education reforms in the two cities is the movement towards decentralisation in terms of managerial power and responsibility from the government to individual educational institutions. Hong Kong is not immune from the international trend of school-based management, which emphasises school-based, bottom-up approach of making changes and leading developments for enhanced effectiveness, quality and relevance of schools and the education system at large. In 1991, the government introduced a new policy, the School Management Initiative (SMI), which was a new management framework for public sector schools to embrace critical elements for improvement and effectiveness such as decentralisation, autonomy, participation, flexibility, and accountability (Cheng 2000).

The SMI policy symbolises a departure from the traditional management practice of depending on a central bureaucracy, which might hinder the effective use of human resources and the development of appropriate school cultures to pursue quality in education. Moreover, it helped schools to shift from an external control management model to a school-based management model (Cheng & Chan, 2000). In 2000, the government published a consultation document on the school governance framework under the School-Based Management (SBM) based on an assumption that the implementation of SBM would build up the capacity of individual schools to manage their own affairs within a framework of policies, standards and accountability. The ultimate objective is to enhance the effectiveness of teaching and

learning, and to improve student outcomes (Advisory Committee on School-Based Management, 2000).

The core of the SBM policy involves the decentralisation of decision-making power from the government regarding personnel procedures, financial matters, and the design and delivery of curriculum. Nevertheless, self-managing schools are not independent but operate within a centrally determined framework of authorities and responsibilities, which is subject to external audit and to be accountable for their own performance. Meanwhile, each school is required to identify priorities, select and continuously develop staff, allocate resources, adopt appropriate curriculum and teaching practices, and measure performance in ways which meet the mixed learning needs of the students.

In recent years, on the other hand, the government has propelled the development of the Direct Subsidy Scheme (DSS) schools, which are able to enjoy a higher level of autonomy in finance, curriculum, tuition fees, and staff recruitment and deployment. These schools are subsidised by the government on a per capita basis and are in inverse proportion to the fees charged. They are also encouraged to set up their own fee remission schemes for students who cannot afford high tuition fees. Apart from deciding their tuition fees within the framework set up by the government, they can also decide their own enrolment figures. DSS is treated as an alternative to the public sector schools (Tan, 1993a). In 2000, the government relaxed the maximum amount of tuition fees charged by DSS schools so that a DSS school can charge as much as HK$68,864 for each student per year on top of the full government subsidy payment for each student per year at the amount of HK$29,513 in the academic year of 2001/02 (Education Department 2001). Due to such amendment in terms of government subvention and tuition fees, some prestigious aided English-medium schools, such as St. Paul's Co-Educational College and St. Paul's College, joined DSS in exchange for more autonomy and discretionary powers on issues regarding budgetary, personnel, curriculum, and admission matters (Tsang, 2002).

The Singapore government was increasingly concerned that the most prestigious schools had lost some of their individuality and special character as a result of the movement towards a highly centralised system of education under the tight control of MOE. The then First Deputy Prime Minister, Goh Chok Tong, who is now Prime Minister, spoke of the need to allow more autonomy within schools and of giving school principals the right to appoint staff, devise curriculum and choose textbooks subject to adherence to key education policies (Tan, 1997). In 1986, twelve school principals were invited to accompany the then Minister for Education, Tony Tan Keng Yam, who is now Deputy Prime Minister, to visit 25 acknowledged schools in the United Kingdom and the United States with the aim of seeing what lessons could be learnt for Singapore. An official report *Towards Excellence in Schools* was published in 1987. The most significant recommendation made by that report was the creation of independent schools, which should be managed by a Board of Governors to make decisions on matters related to the appointment of the principal, staff deployment and salaries, tuition fees, admission policies, teacher-pupil ratio, and the curriculum (MOE, 1987). It was stipulated that those schools with

prerequisites for independence would be well-established schools with capable principals, experienced teachers, strong alumni, and responsible boards of governors. Given greater autonomy and flexibility in personnel, financial and educational affairs, these independent schools were expected to serve as a role model for other schools in Singapore (Tan, 1996, 1997). There are eight independent schools, including the Raffles Institution, Raffles Girls' School, Chinese High School, and Anglo-Chinese School (Tan, 1993b). Moreover, two junior colleges, namely, Hwa Chong Junior College and Raffles Junior College were to become independent from January 2004, thus making a total of ten independent schools (MOE, 2003a). For non-independent schools, the government decided to grant them more discretionary power to raise miscellaneous school fees for purchasing teaching materials and equipment and for funding new educational programmes.

Another category of autonomous schools was proposed in 1992. The first five autonomous schools were established in 1994. There are three major criteria for being selected as an autonomous school: first, the school has a good system in place to achieve the desired outcomes of education; second, the school has achieved consistently good academic and other results; and the school is well-established and receives parental support and public recognition. There will be 25 autonomous schools by the end of the year 2004. Additional funding is being given to enable those schools to develop a wider range of curriculum and programmes (MOE, 2003b; see also Tan, 1996).

Meanwhile, there is increasing pressure on competition among schools. Competition is supposed to provide parents and students with a wider range of choices and to improve the accountability of schools. In Singapore, there has been a practice of ranking among all secondary schools and junior colleges with the results released by MOE and published yearly by local newspapers. It is believed that with more and better information available, parents and students can make better choices. Secondary schools have been ranked on three major criteria. Firstly, a composite measure of students' overall results in the annual General Certificate of Education Ordinary Level Examinations. Secondly, an evaluation of schools' value-addends by comparing students' examination performance with their examination scopes upon entry to their respective schools. Thirdly, a weighted index that measures a school's performance in the National Physical Fitness Test and the percentage of overweight students in the school. A noteworthy consequence of the ranking of schools is that principals are more eager to engage in marketing activities, including recruitment talks, the production of brochures and promotional videos, and the courting of the press to highlight school achievements (Tan, 2002).

The introduction of such competitive mechanisms into education has inevitably aroused controversies and criticisms in the Singapore community. It is highly debatable whether fostering competition can improve the quality of education and promote greater choice and diversity for parents and students. The competition among schools does not take place on a level playing field. As the quantity of independent and autonomous schools are determined by the government, ordinary schools, i.e. non-independent and non-autonomous (NINA) schools, cannot enjoy such autonomy in student enrolments and the number of teachers employed. Non-prestigious and non-academically selective schools are unable to compete effectively

with especially the independent schools, which have ample financial resources. As a consequence, the gap between independent and NINA schools is widening in terms of academic outcomes because the latter remain unable to attract high academic achievers. In addition, the competition in the form of ranking has been criticised as a means to provide the top schools with valuable data for their marketing strategies to attract parents and students. Some schools have tightened their admission criteria in order to maintain their top ranking positions. Competition and increased academic selectiveness by top schools will lead to a further stratification between the independent and autonomous schools on the top and NINA schools below (Tan, 1996, 1998).

3.3 Comprehensive reviews of education systems

The third common feature of education reforms found in Hong Kong and Singapore is the launch of comprehensive reviews over the past few years. Since the establishment of the Hong Kong SAR in 1997, the government has been carrying out a comprehensive review of the education system covering a wide range of areas like the aims of education, academic system, curriculum, admission mechanism and criteria, and student assessment and examination. The latest review of education, which began in early 1998, was conducted by EC in three phases, namely, aims of education in the twenty-first century; direction and overall framework for reforming the education system; and proposals for the reform of the education system (EC, 2000).

In September 2000, EC finalised and published its education reform proposal entitled *Learning for Life, Learning through Life*. Globalisation and the emergence of the knowledge-based society were justified as the most important rationale for introducing education reforms in Hong Kong. The aims of education should be:

> to enable every person to attain all-round development in the domains of ethics, intellect, physique, social skills and aesthetics according to his/her own attributes… Students should be enabled to enjoy learning, enhance their effectiveness in communication and develop their creativity and sense of commitment (EC 2000, pp.4-5).

In short, the ongoing education reform aims at building a lifelong learning society, to raise the overall quality of students and also to construct a diverse school system. In many ways these goals, as we shall see later, are very similar to those in Singapore.

Five education reform initiatives were proposed. First of all, primary and secondary schools with the same ideology are encouraged to link together as "through-train schools" based on their consistency in curricula, teaching and personal development of students. Second, the government also intends to develop a diversified and multi-channelled system for senior secondary and tertiary education in order to allow students to make their choices according to their aptitude and ability. A credit transfer system is proposed for higher education. Third, it is proposed that the curriculum for school education should be reformed to make it

more flexible, diversified and integrated to enable students to learn how to learn. Fourth, quantitative assessment should be minimised to make way for more analytical assessment so as to produce a more comprehensive picture of students' needs and performance in schools. The modes, contents and assessment methods of the existing examination system should be improved to give students more room for creative and independent thinking by linking the content of examinations with students' experiences in daily lives. Finally, regarding the admission system, the allocation of primary school places should be based on school enrolments and parental choices, whereas the banding system at the secondary school level should be gradually phased out to minimise the labelling effect. In addition, universities were asked to depend less on the results of public examinations but more on the overall performance of students for their admission exercises (EC, 2000).

For higher education, UGC conducted a comprehensive review of higher education. The report on *Higher Education in Hong Kong* by Stewart Sutherland, a former Principal and Vice-Chancellor of the University of Edinburgh in the United Kingdom, was released in March 2002. It made some controversial recommendations for reforming the higher education system in Hong Kong. For instance, it urged the government to identify a small number of institutions to be the focus of public and private sector financial support in order to enable them to compete with other institutions at the highest international levels. In order to maintain international competitiveness of local universities by attracting high quality academics, it was proposed to delink the salary pay scale of academic staff from that of the civil service in order to enhance the freedom and flexibility of institutional management to determine the appropriate terms and conditions of service. It recommended that the existing quality assurance system in universities be strengthened and the allocation of research funds continued to be based on research performance as revealed from the results of the Research Assessment Exercises. Furthermore, the report proposed the setting up of a credit accumulation and transfer system with a change of funding based on credit units in order to facilitate student mobility, and also to provide better articulation arrangements between community colleges and the universities (UGC, 2002).

In Singapore, since the mid-1990s, the government has put more emphasis on cultivating and fostering greater creativity and innovation among students with the launch of "Thinking Schools, Learning Nation" (TSLN) initiative in 1997 by Prime Minister Goh Chok Tong (Goh, 1997). TSLN aims to develop all students into active learners with critical thinking skills and develop a creative and critical thinking culture within schools. Major strategies include the teaching of critical and creative thinking skills, the reduction of subject syllabus content, the revision of assessment modes, and a greater emphasis on processes rather than on outcomes when appraising schools (Gopinathan, 2001; Mok, Tan & Lee, 2000).

The TSLN movement was supplemented in 1997 with the launch of the Masterplan for Information Technology in Education with a budget of S$2 billion to incorporate information technology in teaching and learning in all schools. The Masterplan specified a target of up to 30 percent for the use of information technology in curriculum for all subjects by the year 2002 (MOE, 1997). Moreover, the school curriculum was reviewed and MOE ordered a reduction of up to 30

percent of the curriculum content to leave more time for students to do project work. Assessments are also being modified in order to better assess creative and independent thinking among students. The emphasis of Singapore's education system is to move away from the mastery of content towards the acquisition of thinking and learning skills for the needs of lifelong learning (Gopinathan & Ho, 2000).

It is also noteworthy that the devolution of authority and decision-making power from the government downward to individual schools has been strengthened with the implementation of the school cluster scheme, and the School Excellence Model (SEM) in 2000. The model aims to identify and measure the schools' strengths and areas of improvement. It allows benchmarking against similar schools, stimulating improvements activities that can impact on the overall quality of the school and the quality of the education system (P.T. Ng 2003). There are nine quality criteria for school assessment within the SEM framework (MOE, 2000b, cited in P.T. Ng, 2003):

1. *Leadership*: How school leaders and the school's leadership system address values and focus on student learning and performance excellence; and how the school addresses its responsibilities towards society.
2. *Strategic Planning*: How the school sets clear stakeholder-focused strategic directions; develops action plans to support its directions, deploys the plans and monitors performance.
3. *Staff Management*: How the school develops and utilises the full potential of its staff to create an excellent school.
4. *Resources*: How the school manages its internal resources and its external partnerships effectively and efficiently in order to support its strategic planning and the operation of its processes.
5. *Student-Focused Processes*: How the school designs, implements, manages and improves key processes to provide a holistic education and works towards enhancing student well-being.
6. *Administrative and Operational Results*: What the school is achieving in relation to the efficiency and effectiveness of the school.
7. *Staff Results*: What the school is achieving in relation to the training and development, and morale of its staff.
8. *Partnership and Society Results*: What the school is achieving in relation to its partners and the community at large.
9. *Key Performance Results*: What the school is achieving in the holistic development of its students, in particular, the extent to which the school is able to achieve the Desired Outcomes of Education.

Moreover, SEM is aligned with the Master plan of Awards for schools, which comprises three levels of awards, including the Achievement Awards at the bottom level; the Best Practices Award and the Sustained Achievement Award at the middle level; and the School Excellence Award at the top level. Schools may apply for the Singapore Quality Award (SQA) like other industrial or commercial organisations under the Singapore Productivity and Standards Board (P.T. Ng, 2003). The SEM framework requires schools to look at the design, delivery and output of education,

the perspectives of processes and results, and also how the school leadership leads people and manages systems to produce the desired outcomes or results (MOE, 2000c, 2000d). In 2001, five schools were award SQA, namely, Anglo-Chinese School (Independent), Dunman Secondary School, Raffles Institution, River Valley High School, and Xinmin Secondary School. These schools were assessed on the quality of leadership, management of resources, staff welfare and planning. While Anglo-Chinese School (Independent) and Raffles Institution are independent schools, the other three are autonomous schools which have been on the value-added schools' list for the past few years (*The Straits Times* 23 July 2001).

The case of Singapore illustrates the movement from centralisation to decentralisation is concomitant with the growth of marketisation in education with an emphasis on competition and performance indicators which enables government to change its mode of regulation from direct control to "steering from a distance". The market has been used by the state to make stakeholders take up their responsibility in educational governance on the basis of autonomy in exchange for accountability. Market mechanisms apply also in the university sector when the Singapore government aims to transform the city-state into an educational hub in the Asia-Pacific region by upgrading its universities to world-class status. In order to achieve the aim of making Singapore the "Boston of the East", the government carried out a review of the university governance and funding system between 1999 and 2000. Greater autonomy in financial and personnel matters has been granted to NUS and NTU. The system of accountability is to be improved to ensure that public funds are spent wisely and effectively in line with the desired outcomes. At the same time, the universities are given more flexibility in financial management with the institutionalisation of block grants and a three-year recurrent budget planning cycle. A new system of staff remuneration and management has been put in place by de-linking the salary pay scale of academics from that of civil service. The two universities abolished automatic, time-based increments for academics, and a new performance-based pay structure was introduced in late 2000 (MOE, 2000e; *The Straits Times* 5 July 2000; *The Straits Times Weekly Edition* 15 June 2002).

In January 2003, MOE announced a plan of restructuring the university sector in Singapore. The final report entitled *Restructuring the University Sector – More Opportunities, Better Quality* was released in May 2003. It proposed that a new and expanded public university sector should comprise two comprehensive universities, and three "niche" universities (MOE, 2003c, 2003d; See Table 1).

Table 1: Comparison between Singapore's University System in 2003 and 2010

2003	2010
NUS	NUS Multi-Campus University System
Comprehensive university	NUS Kent Ridge
NTU	*Comprehensive university*
Science and technology university	NUS Buona Vista
Singapore Management University	*Science and technology university with a*

(SMU)	*strong research orientation*
Business and management university	NUS Outram
	Boutique institution offering medical and health sciences education
	NTU
	Comprehensive university
	SMU
	Business and management university

Source: MOE (2003d), p. 60.

In the restructured university sector, NUS will be transformed into a multi-campus university system with three autonomous campuses led by their respective presidents. NUS Kent Ridge will retain its existing spread of disciplines. NUS Buona Vista will be a research-intensive university with a research inclination in the fields of engineering, info-communications technology and sciences. NUS Outram will specialise in medical and health sciences education. On the other hand, NTU will expand into a full-fledged, comprehensive university to include disciplines in the physical sciences, humanities and social sciences, and design and media. As for SMU, it is expected to continue its existing role as a quality university offering business and management education (MOE, 2003d; E.H. Ng, 2003).

Most recently, the government carried out a review of junior college and upper secondary education in 2002. In November of the same year, *Report of the Junior College/Upper Secondary Education Review Committee* was published. The review committee recommended a broader and more flexible junior college curriculum, and also a more diverse junior college and upper secondary education landscape. Apart from reforming the existing junior college curriculum to enable the cultivation of conceptual thinking and communication skills among students, more attention has been given to the way a diverse education landscape can be created. A total of five recommendations were proposed (MOE, 2002, pp. v-vii; see also Shanmugaratnam, 2003):

1. Introducing an Integrated Programme to provide a seamless upper secondary and junior college education.
2. Continuing the three-year pre-university programme provided by centralised institutes.
3. Establishing new specialised independent schools to cater to students with talents in specific fields such as arts, sports, mathematics, and science.
4. Allowing junior colleges to offer alternative curricula and qualifications to the existing "Ordinary" and "Advanced" levels.
5. Allowing a few privately run, privately-funded secondary schools and junior colleges to stimulate new ideas and innovative practices in the education sector, and cater to full-fee paying students from abroad within the national education policy framework.

Furthermore, university admission criteria were modified. As a consequence, examinations like the Scholastic Assessment Test, which is originated in the United

States, and the International Baccalaureate, are likely to become more prominent in the Singapore's education system (MOE, 1999).

4. THE IMPACTS OF EDUCATION REFORMS

The ongoing education reforms have three major impacts on the education systems in Hong Kong and Singapore. These impacts are corporatisation, which refers to the running of educational institutions as a business or corporation; marketisation means the adoption of market principles and practices to run educational institutions; and finally, privatisation, which indicates the state sector or government has encouraged the non-state or private sector to take a bigger role in the provision and finance of education although it may not be the case that the government tends to reduce its public expenditure for the education sector (Mok & Currie, 2002). There are marked differences in impact between the three; as a general rule the impact is more pronounced at the post-secondary level.

4.1 Corporatisation

Business principles and practices have been imported into the education sector. To a certain extent, educational institutions have been perceived as similar to corporate enterprises most recently. With the implementation of the policies of SBM and SEM in Hong Kong and Singapore respectively, primary and secondary schools have been made responsible for their mission statements, strategic plans, financial budgets, and quality assurance and control mechanisms which are subject to external scrutiny by the government. In fact, both governments are eager to improve the overall quality of education by means of maximising the "value for money" and improving managerial effectiveness. Such a management-oriented approach has been praised by the government hoping to make schools excellent organisations similar to the business sector. In Singapore, MOE admitted that the line between the way schools and business organisations are being run becomes blurred; school principals are now seen as chief executive officers. Quality assurance and performance assessment, which form part of business models, are now norms for schools to transform themselves into good organisations with capable leadership. School principals are now more involved in areas of leadership, management of resources, staff rewards and planning (*The Straits Times* 23 July 2001).

Likewise, universities are not immune from the influence of the managerial effectiveness notion as seen from a business-oriented perspective. In Hong Kong, while the institutional management has been embraced in the quality assurance mechanism governed by UGC, the universities have been skewed towards a more business-like model to cope with the requirements set up by externalities. Areas like the formulation of strategic plans, resource allocation, service delivery, and management information and system have been embraced in the Management Review undertaken by UGC. From a financial perspective, the universities have to play a more active role in soliciting donations, to compensate for the drop of recurrent grants from the government. Moreover, the universities have to earn extra

financial resources from their spin-off companies and market-oriented courses and programmes.

In Singapore, the universities are now expected to develop as global knowledge enterprises in order to compete with the best universities especially in North America, Europe, Australia and Asia. In order to improve the academic standards of the universities, the academic programmes and research initiatives are to be evaluated by international benchmarking. The languages of entrepreneurship and techno-preneurship prevail in the university sector as more emphasis has been placed on the cultivation of an entrepreneurial culture among academics and students in Singapore. NUS has announced recently its plan to set up five overseas colleges in the United States, China and India to provide entrepreneurship and IT-related courses for its students who will intern with companies in these countries. It is believed that the plan is to raise the international profile of the university by satisfying the international benchmarking standards and foreign alliances with world-renowned higher education institutions as well (*The Straits Times Weekly Edition* 22 September 2001).

In September 2002, following the path of the internationalisation of education, the Economic Review Committee under MTI suggested that NUS, NTU and SMU put more effort in attracting academically-strong students from overseas, in order to increase Singapore's share of the international student market. Targets have been specifically established for full-fee paying international students in the undergraduate and professional postgraduate disciplines in order to capture a bigger slice of the estimated US$2.2 trillion world education market (Economic Review Committee, 2002).

Both Hong Kong and Singapore demonstrate the phenomenon of "jumping into the sea" in the university sector, which means that the universities are keen to commodify and marketise their research outcomes and related end-products in the marketplace through their spin-off companies to support their research and development projects by earning profits. Academics have become more involved in the market for alternative sources of income, which can be understood as an influence of "academic capitalism". This idea indicates that the universities have to compete for external resources from market-related applied research funds, service contracts, industry-government-university nexus, spin-off companies or corporations, and endowment funds (Slaughter & Leslie, 1997).

4.2 Marketisation

The development of education reforms in Hong Kong and Singapore has also been affected by market forces. In order to grasp enough support from stakeholders, mainly parents and students, marketing activities have become a norm for schools. On top of their internal quality assurance mechanisms, schools are now more eager to be compared according to their students' academic and non-academic performance. While there is no ranking system for schools in Hong Kong, Singapore has introduced such practices of ranking among secondary schools and junior

colleges since 1995. It is believed that inter-school competition can result in a wider range of choices and also improve accountability of schools.

Criticisms against the ranking system are concerned with the stratification and polarisation of schools between elite and non-elite schools. Due to a different historical background and resource entitlement, the competition among schools does not take place on a level playing field, as the gap between top elite and non-prestigious, non-selective schools has been widened in terms of student enrolment, autonomy and flexibility in financial and personnel matters, and also academic and non-academic achievements (Tan, 1998).

For universities, the effective functioning of higher education markets depends a great deal on the provision of consumer information about the institutions in terms of education quality and performance available for the public. The provision of information concerning the quality and performance of the universities may require the government, or an intermediary body, to gather and disseminate relevant information to the general public. Alternatively, the information about the performance and quality of the universities can be gathered and compared through the ranking exercises conducted by external agencies. This is a "name and shame" syndrome in relation to the practice of ranking in league tables. The universities are therefore motivated to respond to external pressures for achieving better performance and to enhance the sense of public accountability.

Universities increasingly are exposed to market forces. More managerial powers and responsibilities have been delegated from the government to faculty and departmental levels of the universities. Performance-based funding is now necessary for strengthening the capacity of government and public service institutions, like the universities, to enhance their performance and thus survive in the highly competitive capitalist economy. In response, the universities are strengthening their capacity to develop the corporate form of governance and management in order to compete more effectively in the new environment of higher education. This seems to coincide with the rise of managerialism and bureaucratisation of the academic profession in the universities.

Quality assurance, planning and budgeting systems, and accounting procedures are now of central importance to the organisational development of the successful management of universities as public service institutions. Financial, academic and management audits are now major mechanisms for accountability to make the universities corporately responsible for their own performance and outcomes. The concept of competition has been extended to the policy of performance-based funding for research in line with accountability (Lee, 2002a; Lee & Gopinathan, 2001; Lee & Tan, 2002; Mok & Lee, 2003).

4.3 Privatisation

The latest development of education reforms has left some room for the emergence of private schools and university education both in Hong Kong and Singapore. Although both education systems have not yet envisaged serious problems with financial cutbacks of the huge public spending promised by the two

governments, there has recently been a comment that the non-state or private sector is encouraged to run education in order to give rise to the diversification of educational expenditure.

In Hong Kong, although Chief Executive Tung Chee Hwa has made a promise to inject HK$100 billion into the education sector as a long-term social investment for the socio-economic development in Hong Kong, it is not only the government but also service-users who have to share the cost of running a universal education system in the coming ten years (Lee, 2002b). The government intends to solve the problem induced by over-reliance on the government as the sole source of income to run education. While aided primary and secondary schools have been encouraged to join DSS to make these schools shoulder partial responsibilities of financial management by collecting tuition fees and absorbing social donations for their endowment funds, the universities are urged to depend less on the government, which imposed a continuous financial retrenchment from the triennium 1998-2001 to at least the triennium 2005-2007 that there would be an estimated 25 percent cutback of the total university budget.

Social donations, university-business-industry partnerships, and lucrative courses and programmes become major alternative income sources for covering their operational costs. In response to the need of exploring non-governmental sources of income for the university sector, the former Financial Secretary, Antony Leung, announced a plan to set up a HK$1 billion matching fund for eight UGC-funded higher education institutions to encourage fundraising activities in the university sector (Leung, 2003, p.10). Meanwhile, EC's education reform proposal also supported the development of private university education on the basis that a well-established quality assurance system is in place to assure academic standards. The government subsequently indicated that it was willing to consider the viability of privatising some publicly-funded universities with an aim to alleviate the financial burden on higher education, which is currently shouldered by the government. It was believed that the University of Hong Kong and the Chinese University of Hong Kong, which were set up in 1911 and 1963 respectively, were the most suitable higher education institutions to be privatised because of their relatively strong alumni networks and social connections with the corporate sectors. It was estimated that the government would have to spend about HK$360 bullion to privatise all eight publicly-funded universities. Upon privatisation, universities would enjoy a higher degree of flexibility and freedom in management and resource allocation in exchange for lesser reliance on government grants (*Mingpao Daily* 31 October 2001).

In Singapore, there has also been some discussion of private education. In his 2001 Teachers' Day Rally Speech, Prime Minister Goh Chok Tong spoke of allowing the setting up of some private schools to promote diversified and innovative teaching methods in the school education sector. Theoretically, private schools can be totally independent of MOE but they have to conform to the national education policies like teaching core subjects and National Education (Goh, 2001). Afterwards, there were at least two proposals for setting up private schools submitted to MOE. One is for a private "through-train" school from kindergarten to

junior college levels, and the other is for an Asian International University to be financed by an endowment fund (*The Straits Times Weekly Edition* 22 September 2001).

Some renowned schools were also hoping for more autonomy and independence from the government by going private. In December 2001, the Chinese High School submitted a proposal to MOE to ask for private status in order to have complete freedom to devise its own curriculum and hire university lecturers and business professionals as teachers. In addition, the school was also seeking to offer a straight six-year secondary school programme so that its students would not sit for the Ordinary Level Examination (*The Straits Times*, 8 December, 2001). Finally, instead of becoming a private school, the Chinese High School maintains its independent school status but has linked up with the Hwa Chong Junior College, which was to become an independent school in 2004, to offer a six-year secondary school programme with the introduction of an Integrated Programme (MOE, 2002, p.24).

Unlike Hong Kong, there has been a sort of private university in Singapore since August 2000, SMU. The university has a close relationship with the Wharton School of Business of the University of Pennsylvania in the United States. The collaboration aims to build up a world-class university for nurturing creative entrepreneurs and business leaders. The university also differs from the two public universities in a sense that it is run as a "private" university with responsibility for developing and establishing the curriculum and its own recruitment and promotion procedures, although it is still funded by the government through its endowment funds (SMU, 2001). There is still a division of labour among the three existing universities in Singapore. While NUS performs its role as a comprehensive and NTU a specialist institution in engineering and business disciplines, SMU concentrates its efforts to serve the business and service sectors of the local economy in the nation.

The concept of "private" is vague because the government still offers SMU financial grants and physical infrastructure such as land and campus buildings. The government regulates tuition fees so that they are identical to the two public universities in order to maintain the competitiveness of the "private" university in terms of student enrolments. Instead of viewing it as a genuine "private" university, it is perhaps more appropriate to label it as a "privately-run publicly-funded" institution. The founding of SMU as a "private" university had aroused discussions and debates on the possibility of privatising the two public universities, NUS and NTU. Nevertheless, the government denied that there had been any plan to privatise both public universities. SMU is expected to provide the government with an opportunity to try out a different governance framework and allow the three universities to compare their governance experiences and share best practices (Teo, 2000).

Moreover, although the Singapore government rejected the setting up of a fourth university by proposing the university restructuring plan in 2003, the Economic Development Board under MTI suddenly announced that a new university would be established by an established institution overseas to offer a comprehensive curriculum from liberal arts to engineering. Such a move is likely to allow both

international and Singapore students more choices in university education. It aims to triple the number of foreign students in the nation up to 150,000 within ten years. The new university would definitely be funded privately. It reveals a further step for the Singapore higher education system to move towards the direction of "privatisation" and also to achieve more intense competition between public and private universities (*The Straits Times* 17 August 2003).

The education systems in Hong Kong and Singapore have thus been clearly affected by trends of corporation, marketisation and privatisation. However, their responses to these forces of change are not identical due to divergences in the socio-political contexts. Perhaps both governments are prepared to take a more radical stand in economic rather than in socio-political restructuring. The corporatisation of government entities, the liberalisation of government-owned companies, and the introduction of much greater internal competition for resources in a number of public policy areas, are now common features that can be found in both city-states, as indeed they are in many developed economies. While Singapore is as fond of the spirit of entrepreneurship as Hong Kong, the question is whether entrepreneurship can really thrive in Singapore's current paternalistic socio-political climate.

5. CONCLUSION

Some common patterns and trends of educational development and reforms can be synthesised among the East Asian economies. Cheng and Townsend (2000) have made a list summarising convergences facing those economies. The most important converging trends include the re-establishing of new aims and a national vision for education; the expansion and restructuring of education; the pursuit of effective schools and quality education in line with the notions of quality assurance and accountability; the use of market forces to encourage competition and thus promote excellence; the privatisation and diversification of education; and the shift towards decentralisation of managerial power of education institutions with the importation of business management principles and practices such as strategic planning and management (Cheng & Townsend, 2000, p.319). These trends seem to be unfavourable for Hong Kong and Singapore as both of them are eager to learn from foreign experiences of education policy changes and reforms particularly in developed Anglophone countries like Australia, the United Kingdom, and increasingly the United States.

Although the trend of educational developments and reforms converge under strong global influences, schools are still embedded in their local socio-political contexts. If society is to be subjected to carefully measured change, then it follows that schools as dependent institutions cannot leap ahead. Schools take their cues as much from socio-political as from economic trends. Educational changes and reforms need support from teachers, parents, and the wider community. However, the fact is that it is very difficult to change the entrenched mindsets. Resources are important for carrying out education reforms too. Even when schools are well resourced, teachers have multiple responsibilities which leave them with too little

time to learn collegially how to teach differently, to build and share appropriate instructional resources and to engage in activities that would develop and sustain a culture of innovation.

Overseas commentators are envious about the level of resources available to schools and educational institutions in Hong Kong and Singapore. This is only one part of the equation. There are undoubtedly some schools that are good examples of effective change. However, system-wide change has yet to happen. While the Hong Kong government hopes to strengthen its legitimacy in carrying out education reforms without much concern over the cultivation of the spirit of entrepreneurship, the Singapore government can enjoy greater legitimacy in a much stable policy context but this could result in continuing government control and thus may hinder the accomplishment of innovation, experimentation and creativity in the school and university sectors.

Education reforms are ultimately about "people", who are the most important element for driving social and economic development in the twenty-first century. The danger of dehumanising education as a public service to citizens would be accelerated with an overemphasis on a management approach to reform in the education system. Although the trends of corporatisation, marketisation and privatisation are irresistible, policy makers need to be alert to the many dangers of making education a commodity, as a means to an end, especially economic goals, which change from time to time. Nevertheless, quality is now being interpreted as efficiency of resource allocation more than the quality of teaching and learning processes. Reforms are attempting to achieve good governance with a greater attention to market discipline and private sector management. Over-dependence on market forces and mechanisms to reform education would eventually undermine its role and function to enlighten citizens and to promote democratic and humanistic values in society.

As for university education, perhaps it would be prudent for educators, academics and policymakers to heed the text of the *World Declaration on Higher Education for the Twenty-first Century: Vision and Action* (UNESCO, 1998a, 1998b). Recognising the need to strengthen higher education management and financing systems, which is illustrated in the reform experiences in Hong Kong and Singapore described above, the *World Declaration* stated that:

> "The management and financing of higher education require the *development of appropriate planning and policy-analysis capacities* and strategies, based on partnerships established between higher education institutions and the state and national planning and co-ordination bodies, so as to secure appropriately streamlined management and the cost-effective use of resources. Higher education institutions should adopt *forward-looking management practices* that respond to the needs of their environments. Managers in higher education must be responsive, competent and able to evaluate regularly, by internal and external mechanisms, the effectiveness of procedures and administrative rules… The ultimate goal of management should be to enhance the institutional mission by ensuring high-quality teaching, training and research, and services to the community. This objectives requires *governance that combines social vision, including understanding of global issues, with efficient managerial skills*…" (UNESCO 1998a, p.10; emphasis original)

Although more emphasis has been placed on aspects of governance, management and financing in the university sectors of most countries, the *World Declaration* affirmed that the core missions and visions of higher education should be preserved to educate responsible citizens for active participation in society, to advance, create and disseminate knowledge through research, and to provide an open space for higher learning and for learning through life. What higher education institutions and universities need to do, in brief, is

> "[t]o enhance their *prospective* function, through the ongoing analysis of emergent social, economic, cultural and political trends, acting as a beacon, able to foresee, anticipate and provide early warning, thereby playing a preventive role. For this, they should enjoy full *academic freedom* and preserve their *autonomy*, while being fully responsible and *accountable* towards society." (UNESCO 1998b, p.1; emphasis original).

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