Human Capital Development in Singapore: An Analysis of National Policy Perspectives

AAhad M. Osman-Gani
Nanyang Technological University, Singapore

The problem and the solution. Singapore provides an interesting case study of human capital development (HCD) as national strategy. Its human resource strategies have been continuously revised and adjusted in conjunction with other national strategic economic policies. Although some studies have been done on microlevel human resource development (HRD) practices, very little research has been done on the strategic and macrolevel policy perspectives. This article presents an analysis of macrolevel HCD strategies in Singapore from a national policy perspective and describes the elements of the HRD infrastructure.

Keywords: Singapore; national policy; human capital development

Human resources have been identified as the single most important strategic capital for Singapore. A small country with virtually no natural resources, Singapore has become one of the most developed countries in Asia primarily due to its strong emphasis on developing human resources and for continuously making significant investments in its human capital. Human resource development (HRD) has always been a core element in its strategic economic plans, as reflected in the eight strategic thrusts of its Strategic Economic Plan (Ministry of Trade and Industry, 1993; C. Tan, 1996; Wong & Ng, 1993). The outcome of these initiatives could be found in the reports of the U.S.-based organization Business Environment Risk Intelligence (BERI), which has ranked Singapore’s workers as the best in the world for relative productivity (Standards, Productivity and Innovation Board, 2003). Also, the World Competitiveness Yearbook of the International Institute for Management Development (IMD) placed Singapore’s workforce competi-
tiveness at par with that of the United States and other developed countries (Ministry of Manpower, 2003a). In the early days of its economic development, the efforts at HRD came under the rubric of manpower development, general education, technical education, and training. As it moved from investment-driven economic growth to that which is driven by innovation, together with its emphasis on the regionalization and globalization of business, the government has embarked on more sophisticated HRD strategies. The HRD strategies have been continuously revised and adjusted in conjunction with other national strategic economic policies. Singapore is thus a unique case that exemplifies the benefits of national HRD policies and strategies. Although there have been some studies done on microlevel HRD practices, very little research has been done in this respect on the strategic and macrolevel policy perspectives (Osman-Gani, 1996; Osman-Gani & Tan, 1998, 2000; Osman-Gani & Toh, 1997). This article presents an analysis of the macrolevel human capital development (HCD) strategies in Singapore from a national policy perspective and describes the elements of the HRD infrastructure. The objective is to present a descriptive account of various aspects of the human resource strategies adopted in Singapore in the course of its economic development.

Several terminologies have been used in the past that emphasized the importance of HRD based on the changing perspectives of national policy dimensions of Singapore: human resource development, manpower development, people development, training and skills development, workforce development, and human capital development. Increasingly, emphasis has been on HCD, which considers people the significant strategic capital on whom investments should be made to derive the desired returns in terms of improved performance. In this article, HCD and HRD are used interchangeably.

**National Policy and HCD Infrastructure**

In Singapore, the policy infrastructure for HCD is characterized by two distinct features: a tripartite approach, based on cooperation among employers, unions, and government; and a multidepartmental approach involving all relevant government agencies. The following sections provide more details in this regard.

**The Tripartite System**

The tripartite relationship ensures that there is agreement over strategies and necessary steps required for national HRD strategies. The policy of worker training and retraining to upgrade them with skills for the economic restructuring in the early 1980s was possible only with the acceptance and cooperation of the unions. An example is the *Manpower 21 Report,*
launched on June 4, 1998, which was produced by a partnership among the
government ministry, unions, and more than 100 participants from the pri-
ivate sector (Ministry of Manpower, 2003a).

Another important tripartite institution is the Skills Development Fund
(SDF), founded by the government and guided by a tripartite council. The
fund is both a mechanism for financing the employee training and a motiva-
tion to employers to upgrade their employees. The SDF was created because
employers in Singapore are not normally inclined to spend money on train-
ing unless there is a scheme to entice them to do so. All employers contribut e
1% of the total wages of employees who earn $1,500 or less (revised from
$1,000) a month or $2 per employee (whichever is greater) a month to the
SDF. Employers can use this fund by claiming about 90% of the training
subsidy for their employees’ skills development through the SDF. Thus,
employers are motivated to send their employees for these training pro-
grams, because that is the only avenue through which they can derive benefit
from their contributions (Ministry of Manpower, 2003a; Skills Develop-
ment Fund, 2003).

In 2000, the Skills Development Levy was revised to provide more f unds
for skills upgrading. The Skills Re-development Programme (SRP), which
started with the manufacturing sector, was extended to support worker train-
ing in service sectors. Also, an $5 billion Lifelong Learning Fund was
established, and a School of Lifelong Learning will be set up to provide con-
tinuous skills development. In addition, the government helped raise funds
and gave a matching grant to the NTUC’s (National Trade Union Congress)
Education and Training Fund (N-ETF). A DomestiCaRE program was also
launched, aimed at helping retrenched and unemployed Singaporeans
reskill to fill job vacancies in the domestic housekeeping industry over the
next year (Ministry of Manpower, 2003a).

The National Wages Council (NWC) plays an important role in HCD
because it is responsible for motivational aspects of performance in terms of
compensation and other elements of the wage package. As a tripartite body,
it conducts an annual audit of changes in the Singapore economy, particu-
larly in the wages sector in relation to the level of employment and unem-
ployment, international competitiveness, equity to workers and employers,
inflation rate, and productivity enhancement (Lim, 1994). The audit pro-
vides the council with information to set out wage guidelines that form the
basis of reference should employers and unions fail to agree on wage issues
(Tan, 1998). The recommendations for wage adjustments made by the NWC
have highlighted the significance of training and retraining for improving
productivity, increasing economic development, and meeting the chal-
lenges of global competition (Ministry of Manpower, 2003b; Osman-Gani
& Tan, 2000).
The Multidepartmental Approach

As for the second factor, Singapore uses a multidepartmental approach to its national policies for HCD. Prior to 1998, the Ministry of Trade and Industry and its various agencies, such as the Investment Board, ascertained information about future human resource needs (Ministry of Trade and Industry, 1998). The information is collated by the Ministry and translated by the Economic Development Board (EDB) into targets for the specific skills required by the nation, then forwarded to the Council for Professional and Technical Education (CPTE) for its deliberation. The relevant agencies then provided feedback on the timeframes within which they would be able to attain those targets. The council, formed in 1979, determined the specific numbers of different skills to be developed by the universities, polytechnics, schools, and Institutes of Technical Education (ITE). This council was superseded by the National Manpower Council (NMC), a ministerial council headed by the minister for manpower to lead in human capital planning. It identifies the nation’s human capital needs in the medium (3-5 years) to long (5-10 years) term and maps out the strategies to meet these needs.

The NMC is supported by the Employment Review Committee (ERC) as the executive arm, chaired by the permanent secretary (Manpower). The members include the permanent secretaries or deputy secretaries from relevant ministries, CEOs/directors from economic agencies and selected boards, principals or presidents from institutes of higher learning, and selected public and private training providers. This is further supported by a Manpower Planning Club (MPC) at the working level.

The national policy on HCD in Singapore is contained in the Manpower 21 Report (Ministry of Manpower, 2003a). The report outlines the human capital agenda for Singapore—to enable its people to be competent for the 21st century and the new knowledge-based economy. The report recommended the establishment of the School of Lifelong Learning to establish new infrastructures to enable workers to work within their own communities and homes (Ministry of Manpower, 2003a). It envisaged the retraining of the workforce and programs to attract intellectual capital (Ministry of Manpower, 2003a). The six key strategies with recommended actions are depicted in Figure 1.

The key government institution responsible for national human capital policy is the Ministry of Manpower (MOM). The Manpower 21 blueprint, the current strategic plan for HCD, was designed by the MOM with the vision of allowing Singapore to become a talent capital with constant upgrading of employee skills and knowledge.
A more significant step was the setting up of the Workforce Development Agency (WDA) as a statutory board under the Ministry of Manpower. The WDA was effective beginning September 1, 2003. Its mission is to enhance the employability and competitiveness of employees and jobseekers, thereby building a workforce that meets the changing needs of the Singapore economy. The WDA is chaired by the permanent secretary of the MOM, and a CEO oversees two networks: industry (with industry and HCD clusters) and learning (Ministry of Manpower, 2003a).

The short-term vision of the WDA is to make employees resilient, multiskilled, and agile. Resilient refers to the ability to remain positive and strong in difficult times; the individual can then go on to different training opportunities to upgrade his or her personal skills. The job seeker will then have a higher level of agility to adapt to the needs of different industries and thus be able to take on different jobs, increasing his or her chances of employability. These three characteristics are important factors to enhance lifetime employability.

The long-term objective of the WDA is to assist employed workers to stay employed by maintaining up-to-date skills and cooperating with industries and employers to strengthen HR practices so that training integrates with performance management and career paths within organizations (Ministry of Manpower, 2003a; Workforce Development Agency, 2003).
The WDA works closely with other ministries, statutory boards, and agencies to provide appropriate training and funding to Singaporeans. Training-related programs include on-the-job training guided by the OJT 21 Plan, National Skills Recognition System (NSRS), and Critical Enabling Skills Training (CREST).

Currently, the WDA is working hand in hand with the Manpower 21 plan, although it is not restricted by it. It is a new attempt by the government to start an independent body to act as the central body for coordinating all human capital issues. As such, some changes to the original infrastructure were made. The former HCD Division, comprising the SDF Secretariat, the Labor Market Development Division under the MOM, and the CREST Secretariat and the NSRS Centre under Standards, Productivity and Innovation Board (SPRING), Singapore, will come under WDA (Ministry of Manpower, 2003a).

Workforce Education and HCD

The delivery system for HCD in Singapore involves elements of the national education system and organizations in the private sector, such as professional organizations and commercial schools. In the public sector, universities and polytechnics provide postsecondary education. Vocational training is provided by the ITE. All institutions provide continuing education to their respective target segments of the adult population.

Singapore’s Education System

Singapore’s education system is integrally linked to its HRD strategies. The education system is structured on meritocracy and a series of filters that stream each cohort of students into the relevant vocations and institutions. A schematic diagram of the education system is shown in Figure 2. Formal primary education begins at 7 after 2 years of preschooling. The first hurdle takes place after 4 years of education at the age of 10. There is another selection exercise at 9 to select gifted students for an enrichment program.

There are limited places in universities because there are currently two comprehensive universities offering full-time degree courses with an additional university focusing on business and management education. The types of programs offered at the postsecondary and university levels are determined by the human resource needs of the country. The needs are determined through a coordinated process by the government and key public sector agencies (such as EDB) that are involved in the planning and policy-making process.

Prior to joining the workforce, school leavers requiring technical/industrial skills may apply for apprenticeship training provided by the ITE:
The apprenticeship system is modeled after Germany’s dual training system. The ITE currently offers about 70 such apprenticeship programs.

The Basic Education for Skills Training (BEST) program enables working adults to acquire basic proficiency in English so that they can further their education and training. The Worker Improvement Through Secondary Education (WISE) program enables working adults who have completed their primary education or the BEST program to take the General Certificate of Education (GCE) N-level examination in English. Modular Skills Training Initiative (MOST) is a national program for those who wish to acquire new skills or upgrade skills through a part-time program offered during the day, on evenings, and on weekends. The Adult Cooperative Training Scheme (ACTS) is aimed at young working adults between the ages of 20 and 40 with little or no skills. The Training Initiative for Mature Employees (TIME) program enables workers who are 40 years and older to take the National ITE Certification (NITEC). The course is conducted in six monthly modules in English, Mandarin, Malay, or Tamil depending on demand.

A new initiative known as the Reskilling for New Economy Workforce (ReNEW) was launched recently. Like all other training programs, it is an on-the-job with the employer and off-the-job at the ITE.
initiative aimed at promoting lifelong employability through continuing education and training. Currently it comprises three features: (a) Fast Track Programme, (b) Post-Nitec Programme, and (c) Top-Up Certification Scheme. The Fast Track Programme allows working adults to be certified in a shorter time through an intensive course, the Post-Nitec Programme targets ITE graduates or others with equivalent certification to update or acquire new skills through short courses in a specialized or new technological area, and the Top-Up Certification Scheme enables ITE graduates to obtain additional certification (Institute of Technical Education, 2003).

The employee unions also provide education and training to their members to upgrade their skills. The federation of employee organizations, the National Trade Union Congress (NTUC), has 72 trade unions and 5 associations affiliated, with a membership of about 265,000 workers. Among action programs identified in its NTUC21 initiative, the enhancement of employability of workers through skills certification was placed at the top. In 1996, NTUC launched the skills redevelopment program (SRP) aiming to achieve the “new skills today, better employability tomorrow” (National Trade Union Congress, 2003). It launched the NTUC education and training fund (N-ETF) in 1998 to support 42 different IT-related and office-skills courses, and more than S$48 million has been raised for the training fund.

In the private sector, there are more than 50 organizations offering education and training programs through distance learning leading to degrees conferred by overseas universities (Department of Statistics, 2000). The prominent organizations offering such development opportunities are the Singapore Institute of Management (SIM), Management Development Institute of Singapore, and Informatics (focusing on information technology). The SIM has a range of degree courses that range from bachelor to doctoral programs (distance learning), and it provides certificate and diploma programs as well. Two other professional organizations dealing with training and human resources are the Singapore Training and Development Association (STADA) and the Singapore Human Resource Institute (SHRI). These organizations provide important avenues for the career development of HR professionals, and for others who are unable to obtain university education through the formal system.

Besides the SDF, another incentive that motivates corporate training on the part of employers is the People Developer Standard managed by SPRING (Standards, Productivity and Innovation Board). The standard gives recognition to companies that invest in their people and who have established effective means for continued development. It was launched in 1997 after 2 years of field-testing with 55 organizations known for their enlightened human resource practices. Organizations that are certified to have attained the standard have part of their training cost supported by the SDF. To qualify, companies must be committed to the development of all
Conclusions

Singapore provides an interesting case study of HCD as a national strategy. The human resource strategy is integrated with the economic and national strategies for the nation, contributing to Singapore’s economic development. Although it may not be possible to show a cause-and-effect relationship between the HRD strategies adopted in Singapore and their contribution to Singapore’s economic growth, HRD strategies have played a critical role. Apart from its location as a port, Singapore lacked two key attributes for international business success—capital and land. When it became independent in 1965, it was considered by many experts to be an economy that was doomed to failure. It had 225 square miles on the main island and some 53 smaller islands around it. This area has increased over the years through land reclamation but is still minuscule when compared to that of its neighbors. In 1965, it had a tiny population, most of whom were not highly skilled or highly educated. Yet, Singapore has overcome its deficiencies in a short time (Kao, 1995). One of the unique features of Singapore’s national HRD strategies is its investment in human capital. Singapore had the highest per capita national expenditure on education in Asia for 1991-1995 (World Development Report, 1997), which continues through today. Its well-trained human resources is a major contributor to Singapore’s success, because Singapore is presently not a haven for low-technology investments requiring cheap labor. The top three industrial sectors in terms of GDP contribution are financial and business services, manufacturing, and commerce and external trade (including tourism). The first two industrial sectors barely existed at the time of Singapore’s independence, because the British colonial rulers developed an infrastructure only to meet their needs in using Singapore as a port to the hinterland in the Malay Peninsula. British direct commitment to Singapore ended with the withdrawal of British forces based in Singapore in 1971. Singapore is now an important financial center in Asia. A number of multinational corporations have also established their manufacturing operations in Singapore. Some have established operational, administrative, and research and development headquarters in Singapore. These activities are predicated on Singapore possessing the required human resources.
This article has provided a brief account of Singapore’s HCD. There are lessons that other economies can emulate. An important caveat must be noted, however. There is a unique combination of factors leading to Singapore’s success—a committed government, a network of agencies, and a commitment to tripartitism. These factors may have arisen by design or may have evolved through the human actors; one can only make ex post facto observations. There are a number of other factors that work in Singapore’s favor. First, it has had the same party in government for 30 years, with the possibility of continuously developing a human resource strategy. Second, Singapore is small geographically, making it easier to establish institutions and to reach various levels of the population with the measures introduced under its HRD strategy. Third, Singapore has been led by farsighted individuals who realized early that HRD is critical to its economic development.

The Singapore case does, however, indicate that governments seeking to pursue national HRD/HCD strategies need to have these strategies integrated with other national objectives. Furthermore, the planning, implementation, and evaluation of the strategies need to be multidirectional in approach. The tendency to leave the area to a specific government agency while placing it in the hands of specialists leaves out the possibility of implementation throughout the various levels in the economy. The single-agency approach also often leads to the omission of other considerations that other departments may be able to provide. The uniqueness of Singapore in terms of its location, size, and resource availability makes it different from other countries of the region. In other areas, however, there may be some similarities (e.g., sociocultural, tradition, and Asian work ethic). Although it may be difficult for other countries to emulate Singapore’s success, there might be some objective elements of national HCD strategies that could be adapted to their conditions. I hope that this study provides some useful insights to this end.

References


Ahad Osman-Gani, professor of HRD and international management, Nanyang Business School, NTU, Singapore, has more than 25 years of teaching, research, and consulting experience in several countries. Published extensively in reputed international journals, he is an associate editor of HRDI, IJTD, and SMR. He is also a member of the editorial boards of five other international journals published from the United States and United Kingdom. He is chairperson of the Asia Chapter of the Academy of HRD.