We have always realised that the only way to make a decent living for our people was to make ourselves relevant to the needs of the region and the world. So, as the region needed a place to buy and sell, we became an entrepot. As multinational corporations, first from America, then Japanese and European needed a low-cost production site to maintain competitiveness, we provided the infrastructure, the tax incentives and the trained workforce to encourage them to set up in Singapore...But nothing remains constant. As these needs change, so must we, to remain relevant to the people we do business with (Mah Bow Tan, Senior Minister of State in Economic Development Board 1990b: 144).

Abstract

The objective of this paper is to analyse key elements of the development strategy of Singapore since the mid-1960s. The paper describes the economic challenge faced by Singapore in the mid-1960s, overviews contemporary world trends in foreign direct investment, and uses competitiveness constructs developed by Michael Porter (1985) to clarify key stages in the evolution of Singapore's development strategy. The paper argues that the strategy has been successful because of unremitting top priority given to it by Singapore's political leadership and because the political leaders charged a single organisation, the Economic Development Board (EDB), with absolute authority to develop and implement the strategy. The paper concludes with implications for Queensland's Smart State initiatives.
The Singaporean context

In less than 40 years, Singapore has converted itself from one of the poorer countries of the world, with per capita income of less than AUD1 000 a year and extensive unemployment and underemployment, to a city-state that matches the more successful cities in developed countries in terms of living conditions (housing, health, education, public transport, greenery, cultural and recreational facilities) and global linkages (telecommunications, air and shipping facilities, financial institutions). In 1965 comparatively few Singaporeans had more than four years of primary education whereas most Singaporeans now complete some form of post-secondary education. Per capita income is now similar to that of Australia. Unemployment is low. How was this transition achieved?

Some aspects of the social and political environment have undoubtedly assisted these dramatic developments. During the entire period covered in this paper, political life in Singapore has been dominated by one political party, the Peoples Action Party (PAP): there has been no effective opposition. Singapore is a city-state and does not face the inter-state rivalry and rural-urban divide characteristic of Australia. Moreover, the Singaporean authorities have the power to plan the development of Singapore unhindered by vested private property interests (in this respect, Singapore parallels the position of the Australian Capital Territory): for example, if Singapore's mass rail transport network needs to be extended, the best route can be chosen and the extension can be completed as quickly as engineering practicalities allow.

These realities help explain three factors that contributed to Singapore's development: (1) the ability to focus on one issue, the integration of Singapore into a rapidly developing global economy; (2) the ability to pursue a development strategy consistently over a comparatively long period, thirty-five years thus far; and (3) the ability to develop Singapore's manpower resources and infrastructure (roads, rail services, port, air services, telecommunications) in ways that facilitated implementation of its development strategy. While these realities limit the scope for replicating Singapore's strategy, an understanding of the key elements of that strategy can nevertheless have value for policy development and application in other quite different contexts.

Useful strategy constructs

In hindsight, two constructs can be used to clarify Singapore's development strategy, including its evolution over time. Both constructs were advanced by the American business academic Michael Porter in 1985 in seeking to explain how a firm could develop advantage over competitors (Porter, 1985).

Porter noted that firms were organizations that undertook many related yet different activities. He referred to the activities undertaken by a particular firm as that firm's 'value chain'. Figure 1 shows Porter's generic representation of a firm's value chain. Porter divided a firm's activities into two broad groups: those concerned with production, distribution and marketing of the products produced by the firm,
which he called the firm's *primary* activities, and those concerned with the management of the firm, the firm's *support* activities. Support activities include technology research, product research, financial management, strategic planning, and management of the firm's relations with suppliers and distributors, *inter alia*. This is the first useful construct. We shall begin to see its usefulness in the context of Singapore's development strategy in the next section, which considers different forms of foreign direct investment.

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**Figure 1: Porter's generic value chain (Porter 1985:37)**

The second construct categorises different strategies a firm could pursue to develop advantage over competitors. Porter distinguished four generic strategies (Figure 2). A firm could seek to gain advantage over competitors by being a low-cost supplier. The firm could develop skills that enabled it to gain this form of advantage either over a wide range of products (strategy 1: cost leadership) or for a single or narrow range of products (strategy 3A: cost focus). Alternatively, a firm could seek to gain advantage by differentiating its products from those of competitors (eg. by consistently producing products of higher quality than those available from competitors); it could attempt to do this for many products (strategy 2) or for a single or narrow range of products (strategy 3B).
In his 1985 publication, Porter focussed on ways a firm could implement one of these four strategies by understanding the potential contribution of different activities within the firm’s value chain to the selected strategy. Although developed for a different purpose, this framework can constructively be used to clarify the different emphases in the development strategy pursued in Singapore since the mid-1960s.

**Developments in foreign direct investment (FDI) from the 1950s**

When Singapore was searching for a viable development strategy in the late 1950s, the main form of FDI was what is now referred to as *multi-domestic* FDI. A firm, generally from one of the more developed countries of the world, established operations in a foreign country, and did so by replicating the value chain it had developed at its home location in the foreign country. Because value chain replication was the common form of FDI, host governments developed policies to deal with this form of FDI. Where market size was small and acted as a disincentive for such FDI, host governments offered assistance; a common form of assistance was the imposition of trade barriers to reduce if not eliminate competition from imports.

While attitudes to FDI differed across countries, a more critical evaluation of the benefits and costs of multi-domestic FDI emerged in the 1950s and 1960s, especially in developing countries, but also in some more developed countries (e.g.
France). As a result, many countries progressively discouraged FDI (e.g. the various countries of Central and South America, India, Pakistan, Sri Lanka, Japan and South Korea).

In the late 1950s, a new form of FDI emerged. The initial source of this FDI was America. At this time, the American economy was growing strongly, trade barriers were being reduced and the American dollar was strong. American firms were facing intensified competition not only from other competing American firms but also from imports. The strong dollar meant that wage costs for all categories of labour were high in America relative to other countries. In response, management of some firms began to ask whether they could reduce per unit production costs by undertaking particular value chain activities - those that were intensive in their use of low-skill labour - in countries where labour costs were considerably lower than in America. This was the beginning of what is now referred to as the *globalisation of production*.

Garments, footwear, electrical goods and toys were amongst the first American industries to experience this competitive pressure. In these industries, most of what Porter refers to as the firm’s *operations* (that is, production-line) activities (Figure 1) were highly labour-intensive and demanded relatively unskilled labour. Some firms in these industries shifted these production-line activities offshore, initially to Puerto Rico where labour costs were much lower than in America. Progressively, these American firms became distributors of imported products, and increasingly focussed attention in their American-based operations on product design, distribution and marketing. Over time, many realised that they could sub-contract production to reliable suppliers at the foreign location, rather than become involved in FDI itself. They also realised that Puerto Rico was not as hospitable as a host nation for such activities as some East Asian countries, particularly China: Taiwan (hereafter, Taiwan), South Korea and Hong Kong.

In the 1960s, the range of American industries affected by intense competitive pressures increased. While firms in some of these industries were able to subcontract production of components that essentially required large amounts of relatively unskilled labour in their production to indigenous firms in Taiwan or Hong Kong, for example, other firms - especially those in the emerging electronics industries - were reluctant to sub-contract for a variety of reasons, including the need to protect proprietary knowledge, to reap benefits from scale production, or to guarantee just-in-time delivery, etc. For such diverse reasons, they preferred wholly owned FDI. From the late 1960s, this form of FDI grew in importance in total FDI flows (which continued to be dominated by multi-domestic FDI).

Interestingly, comparatively few countries were aware of this new form of FDI, and even fewer countries explicitly moved to attract such FDI. Taiwan had been alerted to outsourcing developments by American firms by American advisers in the late 1950s. The government developed a fully serviced free-trade zone at Kaohsiung to attract such investment in the early 1960s (the zone was opened in 1965, and two further zones were developed shortly thereafter). While the zones were successful, small-scale Taiwanese firms began to dominate Taiwan’s export performance from the late 1960s, especially after the government introduced bonded
warehouse arrangements (which permitted firms to get access to imported goods on a duty-free basis provided those imports were used totally in the production of products for export). Many small Taiwanese firms became subcontractors to American, Japanese and West European firms, and FDI played a progressively smaller role in Taiwan’s sustained rapid growth after 1970.

Partly because it feared Japanese domination of its industrial development, South Korea purposely discouraged FDI. Like Taiwan, some South Korean firms became major subcontractors to American and Japanese firms. Unlike the situation in Taiwan, a comparatively small number of large firms (called chaebols) dominated this development. Hong Kong also benefited, but mainly as a subcontractor; it received comparatively little FDI and the government did not deliberately target this new form of FDI. Singapore, and to a lesser extent Malaysia, were the only countries that quickly identified this opportunity and consciously moved to maximise their involvement in this new form of FDI.

In the early 1970s, most other countries in the world were oblivious to emergent trends that were signalling the gradual globalisation of production. Australia’s interest in FDI flows was focussed entirely on multi-domestic (that is, full value chain transfer) FDI. Australia welcomed multi-domestic FDI, but the government did not go out of its way to seek such FDI and, when opportunities arose, an FDI Board scrutinised proposals to ensure that potential benefits to the nation outweighed potential costs (such as those associated with a reduction in competition). The same focus and attitudes prevailed in most South American and South Asian countries.

While firms in America and other more developed countries initially moved production-line activities that were intensive users of comparatively unskilled labour to developing countries where labour costs were considerably lower (and, in the event, mainly to East Asian countries), managers of these firms were aware that their respective value chains consisted of several different activities and that the resource demands of the various activities differed. Many required skilled labour but different types of skilled labour (electrical engineering, mechanical engineering, financial skills, and so on). Over time, firms have outsourced a wider range of their value chain activities to countries where there is a cost or other advantage (research agglomeration, for example), some through subcontracting, others through FDI. At least for some firms, what started as the globalisation of specific production-line activities (the operations box in Figure 1) has now extended to exploration of globalisation opportunities for almost all of the activities that make up the firm’s value chain. Singapore has taken full advantage of this transition.

To understand the dilemmas faced by the Government of Singapore in the mid-1960s, it is instructive to review key developments in Singapore in the 1950s and 1960s.
Singapore in the mid-1960s: key political and economic challenges

In September 1963, Singapore joined with the Federation of Malaya (peninsular Malaya), Sabah and Sarawak to form Malaysia. Singapore's Prime Minister, Lee Kuan Yew, had been a strong proponent of this initiative, so much so that he was prepared to weather a major split within the PAP which led to the resignation of many members and the formation of potentially significant, socialist, opposition party, the Barisan Socialis. Lee anticipated that the formation of Malaysia would permit Singapore to become the main centre for the production of manufactured goods for sale within Malaysia.

From the time of Singapore's establishment by Raffles in 1817, Singapore had been a free-trade area and it had rapidly become the pre-eminent service centre in South East Asia. A significant share of the output of the region destined for export markets (e.g. natural rubber and tin) transited through Singapore and, similarly, a significant share of the goods imported from the rest of the world by the South East Asian region transited first through Singapore. Thus Singapore was the commercial and financial centre for the region. It was the hub through which labour, mainly from China and India, moved into South East Asia in the boom years from 1900 to 1930, and out of the region during the depression years. It had some manufacturing activities, mainly centred on the reprocessing of regional produce destined for export to West Europe, America and Japan, and on supplying processed food products into the South East Asian region, and it was an important repair and maintenance centre for the region.

In the 1950s, these various entrepot activities failed to provide the impetus to growth in Singapore that they had prior to the depression and war. Indonesia was struggling to gain control of its economic destiny from its long-time colonial master, the Dutch. Sumatra, which had been as economically important to Singapore as peninsular Malaya, was in turmoil. By 1960, the economic outlook for Indonesia was rapidly deteriorating. The trade of southern Thailand, most of which had gone to Singapore, was in decline as both tin and rubber production stagnated. Peninsular Malaysia was attempting to reduce its dependence on Singapore by developing its own ports. As a result, Singapore's growth during the 1950s was sluggish and erratic.

When Lee Kuan Yew became Prime Minister in 1959, he was well aware that Singapore urgently needed new growth avenues. Its population, mainly Chinese, was rising, very young (45 per cent under 20 years of age) and, for the main part, very poor. Stagnation during the 1950s meant that there was substantial unemployment as well as extensive underemployment. Housing conditions were poor and deteriorating, electricity supply was unreliable, water was available for only a few hours each day, garbage littered the streets, sanitation was poor, and comparatively few children completed primary education. Unions had grown in strength in the 1950s, and there were many strikes and several violent skirmishes between unionists and police. There was growing support for Mao Tse Tung and communism, especially amongst the poorer Chinese in Singapore.
Lee Kuan Yew saw the formation of Malaysia as the potential panacea. He was prepared to sacrifice Singapore's free port status to encourage foreign manufacturers to establish operations in Singapore behind trade barriers to supply the regional market. Swampland at Jurong in the southwest of Singapore was drained and a large, fully serviced industrial estate was developed, complete with factories that could be rented. The first of numerous high-rise flats was constructed adjacent to the estate to house workers. Firms that produced manufactured products that had not previously been produced in Singapore were eligible for attractive 'pioneer industry' tax concessions. The adversarial industry-based industrial relations system inherited from the British was summarily dismantled in the early 1960s and replaced by the consensual enterprise-based system prevalent in Japan. A dedicated organization was created to seek and assist foreign investors (the Economic Development Board, EDB).

By early 1965, a little over a year after the formation of Malaysia, Lee Kuan Yew's expectations had been dashed. The federal government, based in Kuala Lumpur, favoured industrial development, but in peninsular Malaya (at Shah Alum near Kuala Lumpur) rather than in Singapore. While there was considerable multi-domestic type FDI in Malaysia between 1963 and 1965, attracted by tax concessions and border tariff protection, little was allocated by the federal government to Singapore. In addition, there were acrimonious disputes over the financial contribution of Singapore to the federal government, over the share of ethnic Malays in Singapore's civil service, and over the participation of the two major political parties - the multi-ethnic but Malay dominated UMNO in peninsular Malaya and the PAP in Singapore - in elections both in Singapore and in Malaysia. In August 1965, Singapore withdrew from Malaysia and became a separate republic.

In 1966, Singapore's economic problems worsened. Malaysia worked vigorously to reduce its trade and other commercial links with Singapore, and intensified its efforts to develop manufacturing industries in peninsular Malaysia. Indonesia's economy was at the point of collapse. The British government announced that it would close its defence base in Singapore; the base was an important employer of labour, and accounted for over 20 per cent of Singapore's GDP. Unemployment was high and rising, and large numbers were joining the labour-force each year, a consequence of very high fertility in the 1950s. The most pressing problem facing Singapore's leaders was to find jobs for Singaporeans.

**Evolution of a development strategy**

**Phase 1: A low-cost production centre**

Singapore's development options had narrowed. It was locked out of the regional market. With just 2 million people, its home market could not support viable development. Through the 1960s, Singapore's leaders made several trips to other East Asian countries to observe their development progress and strategies. There were many similarities between Singapore and Hong Kong. Both had been British
colonies, both were free trade ports, and entrepot activities had dominated the economies of both colonies. In 1951, China entered the Korean War. The United Nations imposed a ban on trade between China and member countries of the United Nations. In consequence, Hong Kong’s thriving entrepot activities were curtailed almost overnight. Unemployment rose, aggravated by a continuing significant flow of emigrants from the Chinese mainland. Progressively through the 1950s, Hong Kong found a new development direction. Small indigenous Chinese firms began to import fabric, fashion it into garments, and export the garments to the world market. A host of other labour-intensive, almost totally export-oriented industries emerged: watches, radios and other simple electrical or battery-operated goods, footwear, handbags, toys, wigs, plastic kitchenware, basic hardware items and so on. By the mid-1960s, Hong Kong was thriving, and manufacturing was a major new sector of its economy.

Taiwan also captured the interest of the Singaporean authorities. In the late 1950s and early 1960s, its government made numerous policy adjustments designed to reduce a strong bias against exporting. By the late 1960s, Taiwan was growing rapidly and the main basis for that growth was exports of labour-intensive manufactures dominantly to America. Several aspects of Taiwan’s experience were of lasting interest to the Singaporean visitors including the focus of the government on encouraging and promoting exports of manufactures, the positive attitude towards FDI, especially where such FDI was mainly export-oriented (and the importance attached not just to attracting FDI from developed countries but also to seeking Chinese in other parts of Asia, particularly Hong Kong, to shift their business to Taiwan), the significant and growing contribution of small indigenous Taiwanese firms to the nation’s exports, and the importance of low-skill, labour-intensive subcontracted activities, principally linked to American firms, including large American retail chains, in Taiwan’s exports.

By early 1966, the Singaporean authorities accepted that Singapore had to rapidly convert itself from a service-dominated economy to one where manufacturing was a major employer of labour and where the bulk of manufacturing output was exported to world markets (Goh 1977; Hon 1997). As in Hong Kong, Singapore’s economy at this time was dominated by small firms. While it was appreciated that many small firms in Hong Kong had switched from service to manufacturing activities when their traditional business had been eliminated almost overnight in the early 1950s, the Singaporean authorities had no confidence that small firms in Singapore would emulate that experience, and certainly no confidence that such a transition would occur within a time frame that would address Singapore’s rapidly worsening employment outlook. It was therefore decided that the best approach was to attract foreign firms to Singapore.

Since Singapore had comparatively cheap, unskilled labour, the authorities considered the most appropriate firms to attract were those that employed such labour. From their experience, the authorities knew that these firms dominated the exports of Hong Kong and Taiwan. As a result, determined efforts were made to attract firms in Hong Kong and Taiwan to set up subsidiaries in Singapore or to transfer their entire operations to Singapore. At the same time, though with less
confidence, efforts were made to encourage FDI from other countries in the world, including America, Europe, Japan and Australia.

To implement this strategy, the EDB was re-organised. Far greater emphasis was given to its nascent overseas investment-seeking operations. Its offices in Hong Kong, New York and London were strengthened, and new offices were opened in West Europe, Japan and Australia. The task of staff at these overseas offices was to approach firms and alert them to the advantages of Singapore as location for FDI. The task of staff in the EDB's Singapore office was to act as a one-stop centre where all problems faced by potential foreign investors were resolved promptly. Income tax concessions were re-jigged in 1968 to reward growth in earnings from exports. Since production for the Malaysian market was no longer an option, the government indicated that it would not offer tariff protection to new foreign investors and that it would progressively reduce tariff protection that had been provided to some foreign investors in the early 1960s.

In these early days, the Singapore authorities were prepared to accept any FDI proposals. They were unsure as to whether there would be much interest. In their promotional literature, stress was placed on the advantage of plentiful, cheap labour and of Singapore's globally oriented doing-business environment, a valued legacy of the prominent role Singapore played as an entrepot centre for South East Asia (Goh 1977, 1995; Ron 1997). In terms of Porter's generic strategies (Figure 2), the Singaporean authorities effectively viewed Singapore as a low-cost production centre (Strategy 1).

In the event, Singapore gained investment from Hong Kong and Taiwan, in garments, footwear, food and consumer electrical products. It also gained FDI from some large, successful multinational firms, mainly from America (National Semiconductor, Texas Instruments and Fairchild) and West Europe (Rollei from West Germany). By 1972, jobs associated with the flow of FDI into Singapore had significantly reduced the unemployment problem. The investment from Hong Kong and Taiwan was multi-domestic FDI; firms from these countries transferred their full value chain to Singapore. In contrast, most of the investment undertaken by the multinational firms consisted of the transfer of particular labour-intensive production line activities to Singapore. These firms did not seek to replicate their full value chain in Singapore; rather they sought to gain advantage from what they saw as Singapore's comparative strength in a global context, cheap labour.

**Phase 2: The switch to a focussed low-cost production centre**

The EDB monitored FDI approvals closely. The government and the EDB were anxious that FDI made a contribution to Singapore's development beyond the provision of jobs. At this time, their interest centred on the training of Singaporean labour and advice on how Singapore could make its 'doing-business' environment more attractive to foreign investors. In respect of these goals, the EDB quickly noted a major difference between what the firms from Hong Kong and Taiwan could offer and what the multinational firms could offer. They also noted that the firms from Hong Kong and Taiwan were sensitive to small labour cost differences.
across countries (several relocating to Malaysia or Thailand after a few years in Singapore), that many were not comfortable with the close monitoring of their operations required by the EDB, and that, in financial terms, many were borderline operations and some failed.

Consequently, from the early 1970s, the EDB began to focus on attracting one group of firms to Singapore, globally successful multinational firms, on addressing the requirements of these firms, and on encouraging these firms to train Singaporean labour and to upgrade the skills of local firms so that some could become component suppliers to specific multinational firms (Goh, 1995). In terms of Figure 2, Singapore shifted from a general low-cost strategy, where it sought FDI of any type and from any country, to a focussed strategy, but one where the advantage of being in Singapore still rested on low costs, especially of labour and progressively of other infrastructure costs (port and air freight services, telecommunications). In almost all instances, these multinational firms sent specific labour-intensive production-line activities to Singapore. They did not undertake multi-domestic FDI. Rather they sent particular components to Singapore for further processing in fully-owned subsidiaries that they had set up in Singapore, and the processed components were then air-freighted or shipped back to the parent firm for reincorporation in the production process.

During this period, the EDB strengthened its presence in America, opening offices in Boston and San Francisco, increased the number of its offices in West Europe and Japan, and wound back or closed its offices in Hong Kong and Australia. Through the first half of the 1970s, the focus of the EDB was on getting to know multinational firms in their home territory, highlighting the advantage of locating labour-intensive production-line activities in Singapore, and convincing them to locate in Singapore. The sales effort was very targeted and very successful, and a large number of multinational firms established subsidiaries in Singapore in the 1970s.

Since the multinational firms were sending components to Singapore for further processing, the need to improve the efficiency of Singapore's port and airport became a major consideration. In the early 1980s, a new state-of-the-art airport was opened at Changi and the Port of Singapore became one of the largest and most efficient container ports in the world. Meanwhile, the government reoriented the education system, placing top priority on vocational education (with an emphasis on electrical, electronic, mechanical and precision engineering), using English as the learning medium. It also implemented fiscal, monetary and labour policies designed to ensure a 'no surprise' business environment.

Singapore's labour market tightened through the 1970s. By the mid-1970s, it was clear that real wages would rise in the near future. The labour force was becoming more skilled, and the education system was now able to guarantee a rapidly growing supply of vocationally trained labour. Starting around 1972-73, the EDB began to talk to multinational firms about relocating progressively higher-skill production-line activities to Singapore and, after 1975, this objective became a primary focus of the EDB.
Phase 3: From focussed low-cost to focussed differentiation strategy

In the late 1970s and through the first half of the 1980s, wage increases in Singapore were large each year and outpaced growth in labour productivity. Singapore’s foreign clients found that the profitability of their operations in Singapore was being eroded. For the first time in over a decade, growth in the flow of FDI to Singapore slowed in 1984 and the economy suffered a sharp slowdown in late 1985. Economic growth was slightly negative in 1986, after a twelve-year period when growth in real terms had averaged close to 10 per cent a year. The government immediately set up a review committee, and its report, called the New Directions Report (Ministry of Trade and Industry 1986), set the parameters for Singapore’s subsequent development.

The committee recognised the paramount importance of FDI to Singapore and recommended that the government slash the costs of doing business in Singapore, which it did. It noted that Singapore had focussed on encouraging multinational firms to do production-line activities in Singapore, at first unskilled labour-intensive activities, then more skill-intensive activities and, by 1985, increasingly sophisticated, clean room activities. The report indicated that multinational firms were now outsourcing what Porter referred to as support activities (Figure 1), and it recommended that Singapore should position itself to attract these and other knowledge-intensive service activities. Towards this end, it recommended that the incentives developed to attract manufacturing activities be extended to service sector activities. The government agreed. Amongst East Asian countries, Singapore was the first to acknowledge the potential importance of service sector activities to its future development and the first to encourage multinational firms to outsource some of their service (or in Porter's terminology, support) activities to Singapore.

At a follow-up strategy conference in 1990, designed 'to update and inform our corporate clients on the economic repositioning of Singapore' (and entitled World Class Partnership), Lee Kuan Yew pointed out that the resources for sustained per capita income growth (the various activities of multinational firms, technology, information, professional people) were now globally mobile and could be tapped with appropriate policies. Referring to Singapore and Ireland in particular, he added 'those countries that have plugged themselves into this system have prospered' (EDB 1990b: 194; see also Encarnation and Wells 1986; McKendrick, Doner and Haggard 2000). The EDB in its 1990 Annual Report developed this theme further:

> In a world where resources are increasingly mobile, the state of a countries [sic] infrastructure becomes a crucial factor in determining where global firms locate high knowledge activities. Traffic congestion, pollution, overused and under maintained facilities count against you (EDB 1990a:26).

Senior Minister of State, Dr Lee Boon Yang, developed this point further:

> A few months ago, I met a senior banker from Hong Kong. He complained that the Singapore government must have too much money
because so much is spent to keep the city clean, green and in full bloom. Not that he minded, but as a banker, he was pained to see resources 'wasted'. Is it waste? All top-class hotels take care to manicure their gardens and flowerbeds because the total ambience is part of the total product being sold. It is exactly the same for Singapore as a city. Access to fine food, to art and music, to golf courses, to clean beaches, can be as important as the efficiency of our port, airport and telecommunications system. We have to keep improving and upgrading because the international competition is relentless. The whole world needs no more than, say, 40 or 50 major switching nodes and we have to work very hard to maintain our rating (EDB 1990b: 167).

In effect, the authorities were indicating that the type of multinational business activities that Singapore was now targeting meant that its main competitors were not Penang, Bangkok, Shanghai or Guangzhou, but Boston, San Francisco, Dublin and other cities in developed countries.

In 1991, the government published a further report entitled Singapore's Strategic Economic Plan (Ministry of Trade and Industry, 1991). The report indicated that other countries in Asia and elsewhere in the world offer multinational firms competitive low-cost business environments. It emphasised that the task facing Singapore was to move the nation away from competitiveness based on low costs (strategies 1 and 2a in Figure 2) to competitiveness based on national competencies and capabilities (strategy 3b). Senior Minister of State, Mah Bow Tan, encapsulated the new strategy emphasis when he said:

Our principle in managing Singapore's competitive position is simple: any increase in costs can be sustained only if we develop Singapore's capabilities to a level that justifies the higher costs and enable industries to be internationally competitive...To sustain an upward movement in our costs, we must first raise the level of Singapore's capabilities so that Singapore's value to customers is correspondingly increased (EDB 1990b: 146, italics added).

In the 1990s, attention has focussed on further developing its infrastructure (for example, integrating the state-of-the-art port and airport), extending and deepening computer and English language literacy, giving higher priority to university and post-graduate education while enhancing vocational education, and making Singapore a congenial place within which to live and do business. In effect, the authorities are progressively shaping Singapore in ways that encourage its multinational clients to view Singapore as if it were a leading city physically located within the multinational client's home country, be it America, West Europe or Japan. The recently signed (November 2002) free trade agreement with America is a logical step in this direction.

A 1998 report of a committee set up to reassess Singapore's competitiveness in the wake of the Asian financial crisis (Ministry of Trade and Industry, 1998) indicated that Singapore ought to aim to become an advanced and globally
competitive knowledge economy within the next decade, where the basis for competitiveness would be the physical capability to access knowledge and the intellectual capital to absorb, process and apply knowledge. The report added that, to develop into a knowledge economy, Singapore should be an open cosmopolitan society, attractive to global talent and connected with other global nodes. It stated that Singapore should aim to master a few high growth, high value-added, knowledge intensive niches in manufacturing and in services that suit Singapore's capabilities and cost structure. Towards this end, the committee indicated that the goal of government policy would be to develop world-class capabilities and competencies in relevant niche areas including health care, education (with an emphasis now on post graduate education) and media, all with a focus on the Asian region, and information technology.

The committee emphasised the importance of FDI to Singapore's future but suggested that in addition to encouraging multinational firms to do high knowledge activities in Singapore, effort should now be directed to encouraging successful service sector firms in America, West Europe and Japan to replicate their whole value chain in Singapore: the aim should be to develop a business environment that attracts and anchors the world's top service companies in targeted sectors to tap opportunities in Asia.

**Emerging issues for Singapore**

Singapore weathered the 1997-98 Asian financial crises reasonably well, largely because of the significant role of multinationals in its economy, which meant that its fortunes were related as much to global developments as to regional developments. However Singapore is now more aware of the importance of developments in the South East Asian region as a whole to its future. In recent years, China has attracted a growing share of FDI flows into East Asia and there are indications that the competitive position of several South East Asian countries vis-a-vis China has deteriorated. Growing appreciation of terrorist networks in neighbouring countries is likely to aggravate this development, with potential adverse effects for both FDI flows to the region and the economic performance of the region. Because service activities must play a more important role in Singapore's economy in the years ahead, the performance of the neighbouring region assumes increasing importance for Singapore. Added to this, Singapore's economic performance was adversely affected in 2001/02 by the sluggish performance of the world electronics industry.

At the strategy level, Singapore has been exhibiting some confusion in recent years. It is anxious to promote research activities in Singapore. It is aware that many small firms in Taiwan are innovative and are developing branded products in the business-to-business international trade area, a significant achievement. Singapore has a large number of small locally owned firms, but these firms do comparatively little research. While strategy considerations dictate that Singapore ought to focus on attracting research activities of multinationals, the Singapore authorities want to make the nation's small firms more entrepreneurial and
innovative. However, the main institutions in Singapore are used to dealing with large, multinational firms, and the supportive networking amongst small firms that characterises the business environment in Taiwan, extending to venture capital arrangements, is not present in Singapore.

**Implications for Queensland's 'Smart State' initiatives**

Singapore's development strategy emerged at a time when Singapore's options were severely circumscribed and when there was a paramount need to address one critical problem: high and rising unemployment. As noted, Singapore's circumstances are quite unique in a global context: it is a small urban State with a democratically elected parliament, but one political party, the PAP, has totally dominated the political scene since 1959. In addition, it has succeeded in transforming itself from a very poor country in the 1950s where wage rates and educational levels were low (with however a good globally-oriented infrastructure, extending from ports to financial institutions, and a populous used to involvement in regional and global mercantile business) to a situation today where wages are quite high and the doing business environment is comparable to that of some of the best more globally oriented cities in advanced countries. For these and other reasons, the totality of Singapore's experience from 1965 to 2000 is not directly relevant - in the sense of being replicated - to any other country in the world. Yet there are several valuable pointers in Singapore's experience, and the fact that Ireland has benefited considerably by pursuing some of the elements central to Singapore's strategy (for example, the targeting of high knowledge activities outsourced by American multinational firms) ought encourage closer consideration of Singapore's recent development experience (see for example Edwards, 1992).

At least five general points are relevant. First, Singapore's experience suggests that, if a Smart State initiative is to gain traction, commitment to that initiative ought be the government's top priority.

Secondly, a Smart State initiative needs to be the top priority of any potential alternative State government; that is, there is a need for bipartisan agreement on main elements of a Smart State initiative. Singapore's success can be attributed in large measure to its ability to pursue a consistent development strategy over a long period of time. As circumstances changed (for example, wages rose and educational levels improved), the emphasis in the strategy changed but the basic goals remained (the emphasis on working FDI, the emphasis on continuous micro-economic reform across all of Singapore's globally oriented infrastructure, the emphasis on getting progressively better and better-paying jobs for Singaporeans, *inter alia*). A Smart State initiative ought be thought of in the context of an on-going program for decades, rather than for four or eight years.

Thirdly, Singapore's experience points to the need for a semi-independent public organization to champion the cause. In Singapore this task was given to the Economic Development Board (Low et al 1993; Schein 1996), and the government made it abundantly clear to other departments that, in respect of matters relating to FDI and
Singapore's development strategy, the EDB had absolute authority; to get foreign investors settled into Singapore quickly, the EDB could expect and would obtain the full and immediate cooperation of other departments affected by the investment (supply of factory space, power, water, etc). The EDB has always been led by energetic, creative, respected Singaporeans, some drawn from within the elite public service, some from the private sector. The EDB has consistently been well staffed with relevantly qualified people.

Fourthly, Singapore's development strategy has guided almost every aspect of public sector involvement in the economy of Singapore. As noted, micro-economic reform designed to improve efficiency is an accepted, priority, on-going feature for all of the key instrumentalities in Singapore (port, airport, etc). Singapore has placed a top priority on ensuring that traffic flows smoothly across all roads in Singapore around the clock each day. Traffic jams and the congestion common to most major urban centres in Asia are not characteristic of Singapore.

Fifthly, Singapore's achievements vindicate Senior Minister, Lee Kuan Yew's point that the resources for sustained per capita income growth are now globally mobile and can be tapped by development and implementation of appropriate policies. A Smart State can augment its own resource base by appropriately tapping global resource flows of professional people and of specific activities that multinational and other large foreign firms may find advantageous to outsource to Queensland, and by encouraging smaller foreign firms in relevant areas to consider doing their business in Queensland.

One final point ought be stressed. Singapore's EDB has had some thirty years of experience in dealing with multinational firms. In the early 1990s, it indicated that it would act as a business architect for multinational firms attracted to South East Asia, advising them as to where they ought to locate different activities (for example, activities that required comparatively unskilled, low-cost labour to Indonesia, Thailand or Vietnam, activities that required more skilled labour to Johore in Malaysia, and so on). The EDB said:

We must be able to offer to our multinational clients more than a well-developed efficient business location. We must offer a total business solution that addresses key corporate concerns and needs of multinational firms. The EDB recognises that we must develop a thorough understanding of our corporate clients business requirements. We will adopt a developmental perspective towards all of our corporate clients (EDB 1990a:6).

In further developing the Smart State initiative, a case could be made for cooperating closely with the EDB, the one institution in the world that has enormous practical experience in dealing with multinational firms. The prospective signing of a free trade agreement between Australia and Singapore could well facilitate such a link.
References


