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of SINGAPORE

Founded 1905

SINGAPORE'S GLOBAL REACH
An Executive Report

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EXECUTIVE SUMMARY

- **T**his report summarises the findings of a major research project funded by the National University of Singapore to investigate *Singapore's global reach*. In this project, we have conducted interviews with top executives from 204 Singapore-based transnational corporations (SINTNCs) and 56 of their subsidiaries in Hong Kong and China. Our objectives were (1) to investigate the nature and organisation of foreign investments by indigenous companies from Singapore; (2) to identify problems encountered by these Singapore companies and the solutions they have adopted and (3) to provide practical insights for business strategy and public policy formulation in Singapore to meet the challenges of globalisation and regionalisation.
- In terms of the *geographical distribution* of foreign direct investment (FDI) from Singapore, we found that as at the end of 1996, Malaysia, Hong Kong, China and Indonesia were the largest Asian recipients of outward FDI from Singapore. In Europe and North America, the U.K. emerged as the largest host country. Singapore is also one of the largest foreign investors in many Asian economies, including China, Indonesia, Malaysia, Myanmar and Vietnam. In this research project, over 58% of the 204 sample SINTNCs have operations in China and Malaysia. Most of them had established their overseas operations from the mid-1980s to the early 1990s. They also tended to send more expatriate staff from Singapore to manage their operations in host countries with opaque business rules and regulations (e.g. China and Indonesia).
- With reference to *sectoral distribution*, over 50% of total outward FDI from Singapore went into the financial sector in 1996, in particular Western Europe and tax havens. Much of manufacturing investment from Singapore went to China. Our survey of 204 SINTNCs, however, shows that manufacturing SINTNCs account for the largest sub-sample (37%). SINTNCs from three service industries (wholesale and retail trade, transport and communications, and finance) contribute to another 41% of total sample size and surpass the importance of the manufacturing sector. In terms of their size, large companies with an annual turnover of at least S\$50 million dominate the sample (41%). While private companies make up 66% of the sample, public listed companies and government-linked companies (GLCs) each account for 23% and 11% respectively.
- In terms of their *motives for overseas operations*, we found that market *presence* is the single most important motive in driving Singapore's global reach. Market presence is expressed in the forms of (1) the host country located in an important growth region in the industry; (2) the need to serve customers in host regions/countries and (3) to maintain regional coverage of operations. These motives vary across regions in that (1) was more common among SINTNCs in East Asia and (3) in North America. On the other hand, whilst a significant motive, *cost saving* is clearly *not* the most important motive in driving Singapore's global reach. After all, most SINTNCs in our sample are not labour-intensive manufacturers *per se*. Rather, they are high-value added manufacturers or service providers.

- To establish themselves successfully in the host countries, the sample SINTNCs relied upon two major *strategies and mechanisms*. First, many SINTNCs established their overseas subsidiaries through an *expansion of their existing operations*. These procedures are highly relevant for setting up operations in Europe and North America because of their relatively open and transparent business environments. Second, other SINTNCs used *local partners and personal relationships* to set up their overseas operations. In practice, many host countries in Asia have opaque regulations and strict foreign investment rules. Reliance on local partners and personal contacts becomes an extremely important way to minimise risks in these highly uncertain business environments.
- In relation to their *organisation* of overseas operations, more than 50% of SINTNCs established *wholly-owned subsidiaries* only in countries (e.g. Hong Kong) and regions (Europe and North America) reputed to be open and transparent in their business environments. Operations by SINTNCs in Indonesia, Thailand and China have the highest proportion of *joint ventures*, a reflection of the perception and reality of business environments in these host countries. Once established, parent SINTNCs tend *not* to exercise strict control over their foreign subsidiaries, indicating that foreign subsidiaries are relatively autonomous and independent of their headquarters in Singapore. Most subsidiaries of SINTNCs relied upon their own local marketing and sourcing capabilities. A significant portion of their technology/expertise, particularly in East and Southeast Asian subsidiaries, originated from direct transfer from the headquarters.
- A major *problem* of global reach confronting these 204 sample SINTNCs is the *lack of home government support*. Only GLCs in the sample tend to benefit more from the Singapore government's regionalisation programme. Another problem faced by some SINTNCs in their global reach is *host government regulations*, particularly in China. To resolve these problems of host government regulations, most SINTNCs in China resort to one of the following localised measures: (1) relying on local partners and connection to circumvent regulations; (2) asking local governments for help and (3) adopting local practices or conform to local regulations.
- The report also considers some major *implications* for Singapore's global reach. For the *business sector*, we consider (1) globalisation as diversification; (2) the role of learning curve effects; (3) formation of business associations abroad and (4) regional and global integration of international business activities. For *public policies in Singapore*, we consider (1) needs of SMEs; (2) educating and financing transnational entrepreneurship and (3) provision of social support.

1. INTRODUCTION

1.1 Background to Singapore's global reach

Singapore's global reach has indeed had an interesting historical background. As a major entrepôt in Southeast Asia, Singapore has relentlessly positioned itself *vis-à-vis* the global economy. Since its independence in 1965, the government has planned and implemented several national development strategies to create and sustain Singapore's competitiveness in the face of accelerated global competition. In that sense, the global economy has always been Singapore's "hinterland" and the city-state has always been a key player in the globalisation of economic activities. While the government was able to pursue a labour-intensive export-oriented manufacturing platform for industrialisation during the 1960s and the 1970s, the strategy was realised under favourable global conditions when major American and European manufacturers were looking for alternative low-cost production sites to relocate their labour-intensive operations (an early process of globalisation through which economic interdependence between regions and countries was established). The competitiveness of the Singapore economy then was heavily based upon the government's ability to contain labour costs, coupled with favourable political stability and geographical location.

By the late 1970s and early 1980s, however, Singapore was no longer competitive in attracting low-cost manufacturing assembly investment because cheaper production locations could be found throughout the world, notably in neighbouring Asian developing countries. The strategy of low labour cost pursued since independence had also backfired when systematic distortions in the labour market resulted in severe labour shortage. The lack of investment in indigenous technological capabilities also

contributed to low value-added activities by domestic enterprises in Singapore. By the late 1970s, Singapore faced a "competitiveness crunch" in the changing international division of labour.

To regain its competitiveness in the global economy, the government revised its national strategies in favour of promoting high tech and high value-added manufacturing and business services. First, the government initiated a major industrial restructuring, the so-called "Second Industrial Revolution" in 1979, through which labour wages were increased substantially to drive out labour-intensive manufacturing activities. Labour productivity and skills were upgraded to attract world-class high tech manufacturing investments. This strategy worked well during the 1980s when Singapore was an attractive location for global corporations in computer and chemical industries. It also resulted in the early relocation and regionalisation of labour-intensive operations by indigenous companies from Singapore to other Southeast Asian countries, in particular Malaysia.

Second, the government introduced in the mid-1980s, through various statutory boards, competitive packages of incentives to attract global corporations to locate their regional offices and/or regional headquarters in Singapore. The idea of promoting control and coordination functions of global corporations fits well into global city formation when Singapore aims to be a major international business hub of the region. The government now boosted Singapore's hub capabilities through world-class infrastructure, a highly skilled labour force and excellent business services.

Third, after a major recession in the mid-1980s, the government recognised the vulnerability of Singapore's economy because of its over-dependence on foreign capital and the lack of indigenous entrepreneurship. In December 1989, the Singapore-Indonesia-Malaysia Growth

Triangle idea was proposed by the then Deputy Prime Minister Goh Chok Tong in response to drastic industrial restructuring within Singapore and perceived complementarity among the three countries. The idea seems to be based on three premises about industrial location and regional integration:

- that the decentralisation of industry to the immediate region will retain greater economic linkages back to Singapore than where decentralisation is widely dispersed;
- that transnational corporations (TNCs) have well defined location preferences that can be satisfied by the growth triangle and
- that facilitating the process of decentralisation will simultaneously assist the upgrading of the activities left behind.

By the early 1990s, Singapore had been transformed into a regional coordination centre capable of significant R&D activities and management functions. Although it had secured a niche in the competitive global economy, the Singapore economy was still very much dependent on global capital and its major markets in North America and Western Europe.

To consolidate further its national competitiveness and to enable the expansion of domestic capital, the government has initiated a regionalisation programme through which Singaporean companies are encouraged to venture abroad. By building up its external economy, the government believes that Singapore not only can tap into the opportunities of the regional economy, but also can ride out of economic crisis in the domestic economy. Senior Minister Lee Kuan Yew announced in January 1993 that the government was taking new initiatives to generate a bigger pool of local

entrepreneurs and to building up the “external wing” of the Singapore economy. This national strategic thrust is known as Singapore’s “Regionalisation 2000”. SM Lee proposed that:

We can change our orientation. We can alter our social climate to become more encouraging and supportive of enterprise and innovation. We can enthuse a younger generation with the thrill and the rewards of building an external dimension to Singapore. We can and we will spread our wings into the region and then into the wider world (Economic Development Board, 1993, *Growing with Enterprise: A National Report*).

SM Lee mooted this idea because most advanced industrialised countries have globalised their national firms to tap into resources, talents and markets in the global economy. The idea is to develop Singapore into a global city with total business capabilities so that Singapore can be not only an attractive manufacturing investment location for global TNCs, but also an ideal springboard to the Asian Pacific region for these TNCs wising to venture into the region. The Prime Minister, Goh Chok Tong, also made it clear that “[g]oing regional is part of our long-term strategy to stay ahead. It is to make our national economy bigger, our companies stronger and some of them multi-national” (Reprinted in *Speeches*, May-June 1993: 15).

I have examined elsewhere different aspects of the government’s involvement in the regionalisation programme (see references in Section 4):

- the regionalisation of government-linked companies (GLCs) and companies set up by statutory boards and
- “political entrepreneurship” through which the government opens up overseas business opportunities for private companies and GLCs and negotiates the institutional framework for such

opportunities to be tapped by these Singaporean firms.

Today, the public sector and GLCs account for about 60% of Singapore's GDP (Ministry of Finance, 1993, *Interim Report of the Committee to Promote Enterprise Overseas*, p.39). These GLCs have become one of the primary instruments through which the government pursues the regionalisation drive. The government has also tried to lead the regionalisation drive by taking direct equity stake in large infrastructural development projects in the Asian region and by tapping into congenial inter-state relationships to raise the profile and image of its investment projects.

Since the recent 1997/1998 Asian economic crisis, the government has recognised the importance of participating in the *globalisation* of its national firms. This shift in the geographical focus of outward expansion of Singapore companies results from the relative lack of success in Singapore's regionalisation programme (see Section 3 below). This geographical diversification strategy has recently been confirmed by the Committee on Singapore's Competitiveness which noted that:

One key lesson from the economic crisis is the need for diversification. We need to maintain a judicious balance between the regional and global dependencies of our economy, and diversify our range of economic activities so as to cushion the impact of a slowdown in any particular region (Ministry of Trade and Industry, 1998, *Committee on Singapore's Competitiveness*, p.60).

1.2 Objectives of the study

It is clear from the above cursory reading into the background of Singapore's global

reach that there is much to be learnt about the *processes* and *interconnections* through which Singapore *participates* in the global economy. In designing this project, we have three key objectives in mind:

- to investigate the nature and organisation of foreign investments by indigenous companies from Singapore;
- to identify problems encountered by these Singapore companies and the solutions they have adopted; and
- to provide practical insights for business strategy and public policy formulation in Singapore to meet the challenges of globalisation and regionalisation.

To accomplish these three important objectives, the project relied upon corporate survey and personal interviews with indigenous Singapore companies which had overseas operations. These Singapore companies are known as *Singapore-based transnational corporations* (SINTNCs) throughout this report. They are defined as any Singapore-headquartered company having *the power to coordinate and control operations* in more than one country, even if it does not own them. These operations include wholly-owned subsidiaries, joint ventures, associate companies, strategic alliances, management contracts and so on.

As explained in Appendix A, we have conducted interviews with top executives from some 204 parent companies in Singapore and 56 subsidiaries in Hong Kong and China. At least 76% of our respondents in Singapore and all interviewees in Hong Kong and China were chairmen, CEOs, managing directors, presidents and senior vice-presidents, executive directors and general managers. These empirical data and research materials form the main basis for this report.

2. THE GLOBAL REACH OF INDIGENOUS COMPANIES FROM SINGAPORE

2.1 Historical overview of outward investment from Singapore

The Department of Statistics (1991) estimates that at the end of 1976, foreign direct investment (FDI) from Singapore was slightly above S\$1 billion. This figure had grown to S\$1.7 billion by 1981, S\$13.6 billion by 1990 and S\$55.7 billion by 1996 (Department of Statistics, 1998). Today, Singapore has become one of the major sources of FDI among the Asian Newly Industrialised Economies. It should be noted, however, that much of this outward FDI flow from Singapore originates from Singapore-based affiliates of foreign TNCs. In 1996, foreign-controlled companies accounted for 46.8% of Singapore's total direct investment abroad.

Geographically, Singapore's outward FDI has been concentrated in the Asian region

(see Figures 1 and 2). During the 1981-1996 period, more than 50% of Singapore's outward FDI went to Asian countries. In 1996, Malaysia, Hong Kong, China and Indonesia were the largest Asian recipients of outward FDI from Singapore. In Europe and North America, the U.K. emerged as the largest host country, receiving some S\$4.3 billion or 7.8% of total direct investment from Singapore. It is also ranked as the fourth largest recipient of Singapore's foreign investment. In cumulative terms, Singapore is also one of the largest foreign investors in many Asian economies:

- ranked first in Myanmar (1989-1997) and Vietnam (1991-1997)
- ranked second in Malaysia (1975-1997)
- ranked fourth in Indonesia (1967-1997)
- ranked fifth in China (1979-1997)

Of this Asian-focus of Singapore's outward FDI, Malaysia has always been the most important destination country. Although its lion share in Singapore's outward FDI has been declining over time from 60% in 1981 to 19% in 1996, Malaysia was clearly the single largest recipient country. This relative decline can be readily explained by the recent 1993 regionalisation drive by the

Figure 1. Regional Distribution of Outward Direct Investment from Singapore, 1981-1996

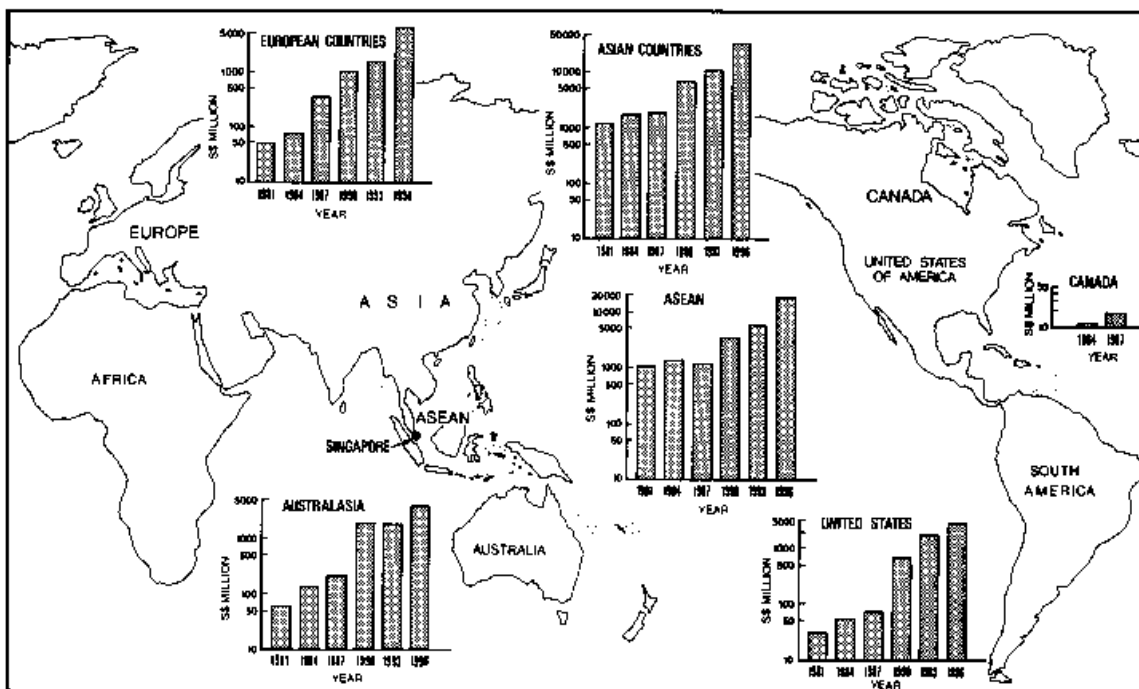
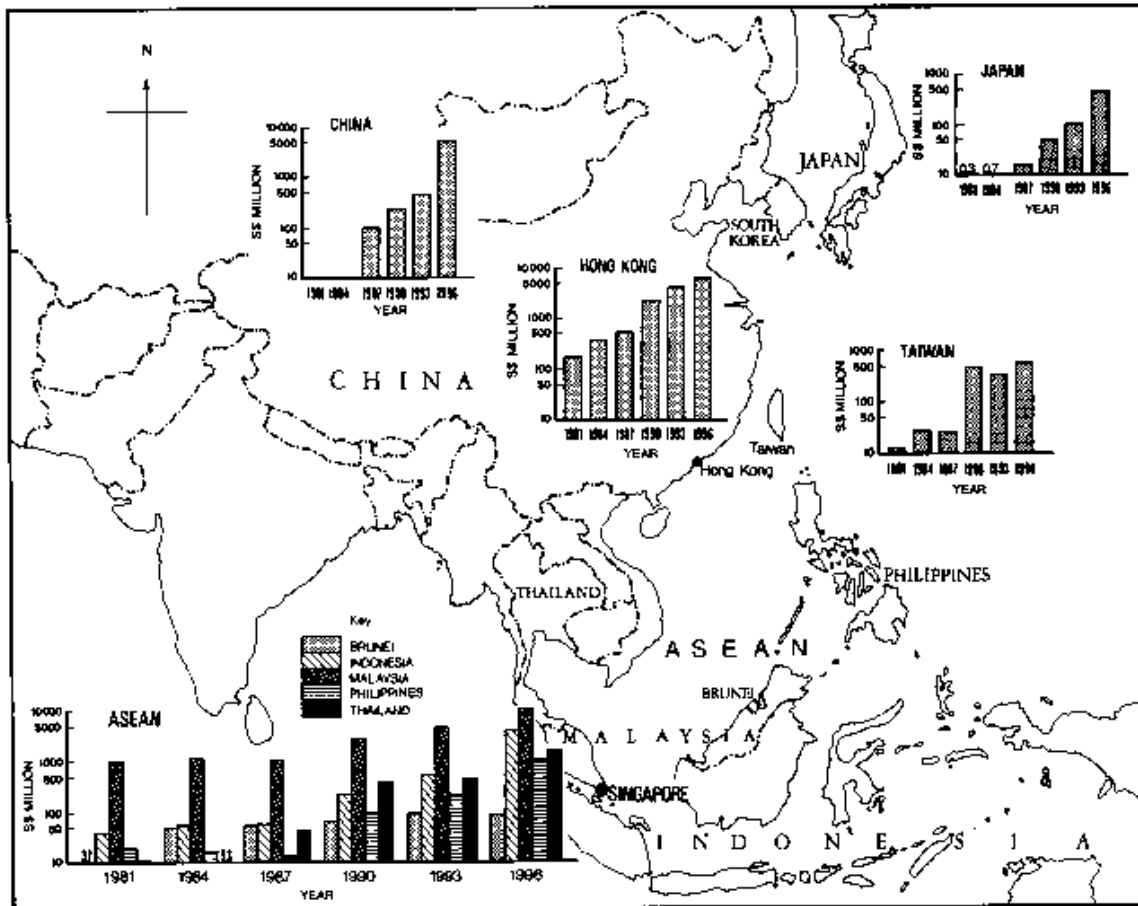


Figure 2. Asian Distribution of Outward Direct Investment from Singapore, 1981-1996



Singapore government through which more investment opportunities in China and Southeast Asia are being opened to Singapore companies. Singapore's investment in China and Indonesia has grown significantly over the 1993-1996 period. This growth is in line with the Singapore government's heavy involvement in developing large industrial estates and infrastructural projects in China and Indonesia. A large amount of Singapore's investment in China is also channelled through Hong Kong, explaining why Hong Kong's figures look rather impressive.

Our interviews have shown that the earliest GLC investment in China took place in 1984 with the incorporation of Chiwan Petroleum Supply Base Co Ltd. in Shekou, near to Hong Kong. The Chiwan base was a joint venture between China's Nanshan Development Company and a consortium of Singapore's leading state-owned enterprises

then, including Sembawang Maritime Ltd., Jurong Town Corporation, Jurong Shipyard, Intraco Ltd. and Port of Singapore Authority. During the 1993-1996 period, Singapore's FDI in China grew over five-fold from S\$444 million to S\$5.3 billion and Singapore's FDI in Indonesia rose more than six-fold from S\$517 million to S\$3.9 billion (see Figure 2). In the midst of the Asian economic crisis, however, Singapore's FDI in China dipped 42% to US\$1.5 billion for the first six months of 1998 (*The Straits Times*, 28 July 1998).

On the other hand, private capital in Singapore has a much longer history of regionalisation, particularly in Malaysia, Hong Kong and China. At least two private companies from Singapore in our sample set up manufacturing operations in China during the 1970s. Hock San Yuen Food Manufacturing invested in Qingdao as early as in 1975 to manufacture food and

beverages. Upon the inauguration of China's "open door" policy in December 1978, Sunwa Construction & Interior (Pte) Ltd. (formerly Siew Yong Garments) established a garment factory in Guangzhou in 1979 and subsequently moved it to Shenzhen in 1981. Another Chinese family firm, Eu Yan Sang Ltd., set up its first Chinese medicine shop in Hong Kong as early as in 1910.

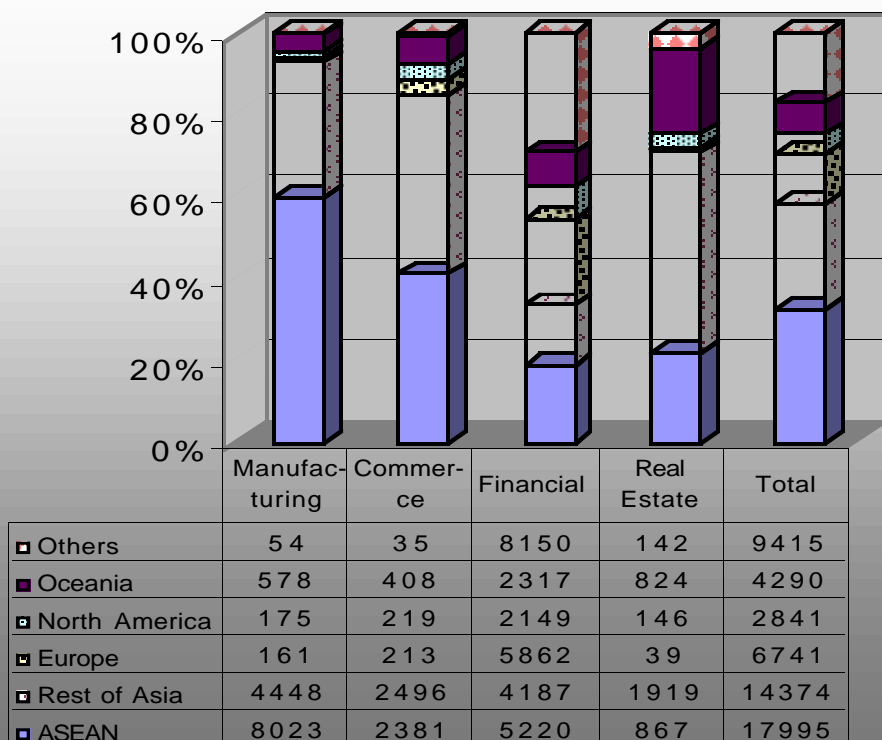
Australia and New Zealand, which emerged as an almost equally important destination as ASEAN. In the financial sector, Europe (the U.K., Netherlands and Belgium) and Others (Netherlands Antilles and Liberia) regions clearly emerged as the most important destinations.

In terms of sectoral distribution, the financial sector continues to spearhead Singapore's global reach. In 1996, some S\$27.9 billion or 50.1% of total outward investment from Singapore (S\$55.7 billion) went into this sector. Manufacturing sector accounted for another S\$13.4 billion or 24.1%. The rest went into commerce (S\$5.8 billion) and real estate (S\$3.9 billion). Figure 3 examines this sectoral distribution by host regions. Asia, in particular ASEAN and China, accounted for an overwhelming majority of manufacturing, commerce and real estate investments from Singapore in 1996. However, a significant amount of real estate investment also went to Oceania, namely

2.2 The global geographies of indigenous companies from Singapore

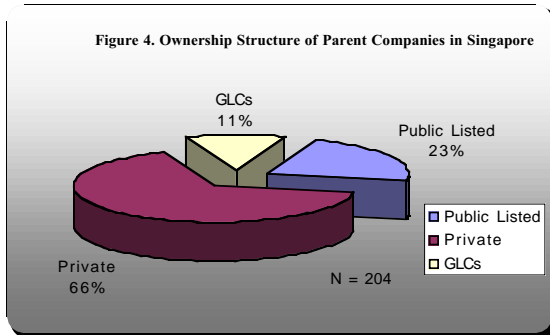
The above sections have introduced the background and overview of outward direct investment from Singapore, based upon aggregate statistics published by the Department of Statistics. In the following sections, I report the main findings of our corporate survey and personal interviews conducted with individual companies from Singapore and their overseas subsidiaries. I hope these findings offer a more detailed and nuanced perspective on Singapore's global reach through cross-border investments by Singapore-based transnational corporations (SINTNCs).

Figure 3. Sectoral Distribution of Singapore's Direct Investment Abroad by Region, 1996

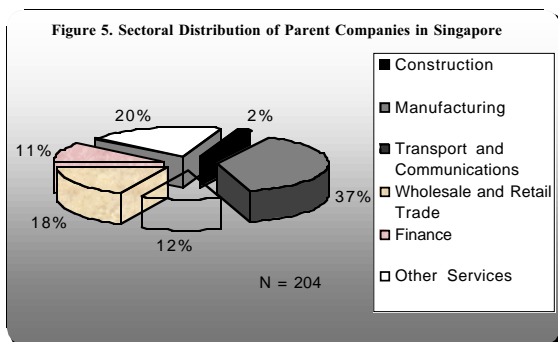


Source: Department of Statistics (1998: Table 6).

Here, I first start with the background and global geographies of 204 indigenous companies from Singapore. As shown in Figure 4 (also Appendix B), some 66% of these 204 SINTNCs are *private companies*. They can be sole proprietorship, limited companies or partnership managed by professional managers and/or family members. Another 23% of our sample belong to SINTNCs listed either on the main board or SESDAQ of the Stock Exchange of Singapore (SES). The last 11% are made up of government-linked companies (GLCs) most of which are listed in the SES. This sample of SINTNCs is fairly representative of the ownership structure of indigenous companies in Singapore.



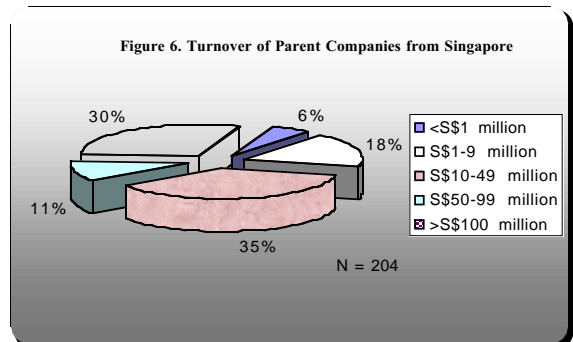
In terms of sectoral distribution, Figure 5 shows that *manufacturing* SINTNCs account for the largest sub-sample, with over 37% of all 204 companies. As the next important group of SINTNCs in my sample, Other Services include real estate, business services and other services. This is followed by SINTNCs from wholesale and retail trade, transport and communications, and finance. Together, these three service industries contribute to 41% of total sample size and surpass the importance of the manufacturing sector. Compared to the



Department of Statistics (1998) figures in Section 2.1, our sample SINTNCs tend to be biased towards those in manufacturing, commerce and real estate, and against those in finance. This sample bias is inevitable because of the *random sampling procedure* explained in Appendix A and the responses from SINTNCs. Another note is that the two sets of data are different in their measurements. Whereas the Department of Statistics' sectoral distribution refers to Singapore's direct investment abroad, the sectoral distribution of our sample SINTNCs is based on actual companies.

In addition, Figure 6 uses turnover or sales value to measure the corporate size of parent companies in Singapore. Other measurements (e.g. assets and employment size) were also used in the original survey, although they all point towards the same pattern that *large companies* dominate the sample. Some 41% of the sample 204 SINTNCs have an annual turnover of at least S\$50 million. Among these relatively large SINTNCs, 30% have an annual turnover of over S\$100 million. These major SINTNCs tend to be GLCs and public listed companies. Another 59% of the sample SINTNCs have a turnover of less than S\$50 million, indicating the relatively significant role of small and medium enterprises (SMEs) in contributing to Singapore's global reach. Today, SMEs account for about 94% of the total establishments, 48% of employment, 34% of value added and 49% of direct exports in Singapore (Department of Statistics, 1997).

Table 1 presents the geographical distribution of the 204 sample SINTNCs by



five measurements:

- earliest year of establishment
- mean year of establishment
- number of SINTNC having a presence there
- number of subsidiaries controlled by these SINTNCs
- number of expatriate staff sent by the headquarters in Singapore

after recovery from the 1985-1986 recession. As explained in Section 1.1, Singapore experienced drastic industrial restructuring during the same period which propelled many Singapore companies to relocate their manufacturing operations and to seek new markets elsewhere in the region and beyond.

The 1993 regionalisation drive clearly has an impact on Singapore investments in

TABLE 1. Global Geographies of Transnational Operations by 204 Indigenous Companies from Singapore (percentage in parentheses)

Regions/ Countries	Earliest Year of Establish- ment	Mean Year of Establish- ment	Number of SINTNC Presence	Number of Affiliates by SINTNCs	Number of Expatriate Staff from Singapore
Southeast Asia	-	-	-	582(46.0)	354(41.3)
Indonesia	1943	1987	74 (36.3)	155 (12.3)	235 (27.4)
Malaysia	1910	1985	119 (58.3)	273 (21.6)	49 (5.7)
Thailand	1940	1987	34 (16.7)	52 (4.1)	15 (1.7)
Philippines	1979	1993	37 (18.1)	42 (3.3)	13 (1.5)
Others	1910	1990	45 (22.1)	60 (4.7)	42 (4.9)
East Asia	-	-	-	484(38.3)	411(47.9)
China	1975	1992	151 (74.0)	365 (28.9)	372 (43.4)
Hong Kong	1910	1985	61 (29.9)	87 (6.9)	26 (3.0)
Others	1960	1989	26 (12.7)	32 (2.5)	13 (1.5)
Europe	1950	1990	35(17.2)	47(3.7)	19(2.2)
North America	1967	1990	33(16.2)	48(3.8)	10(1.2)
Other Regions	1958	1990	57(27.9)	103(8.1)	64(7.5)
Total	-	-	204(100)	1,264(100)	858(100)

Source: Author's survey.

With the exception of the Philippines and China, SINTNCs have been operating in most regions and countries of the global economy since its independence in 1965. Interestingly, SINTNCs have established a presence in Europe, North America and other regions outside Asia as early as the 1950s and the 1960s. Singapore's global reach is therefore *not* a recent phenomenon. Rather, what is new arguably is its intensification and acceleration. This is evident in terms of the mean year of establishment which shows that most of the 204 sample SINTNCs had established their overseas operations from the mid-1980s to the early 1990s. This was a period of rapid growth in Singapore's domestic economy

China. To date, 151 of the 204 sample TNCs have established 365 subsidiaries in China. On average, each SINTNC has more than 2 subsidiaries in China. But the mean year of establishment is only 1992, indicating that at least half of these subsidiaries of SINTNCs in China must have been established after 1992. Other than China, Malaysia also experiences a high concentration of SINTNC subsidiaries. 119 of the sample 204 SINTNCs have established 273 subsidiaries in Malaysia. On the other hand, these SINTNCs are not as active in Europe and North America. Less than 20% of them have a presence in both major regions and each of them has barely

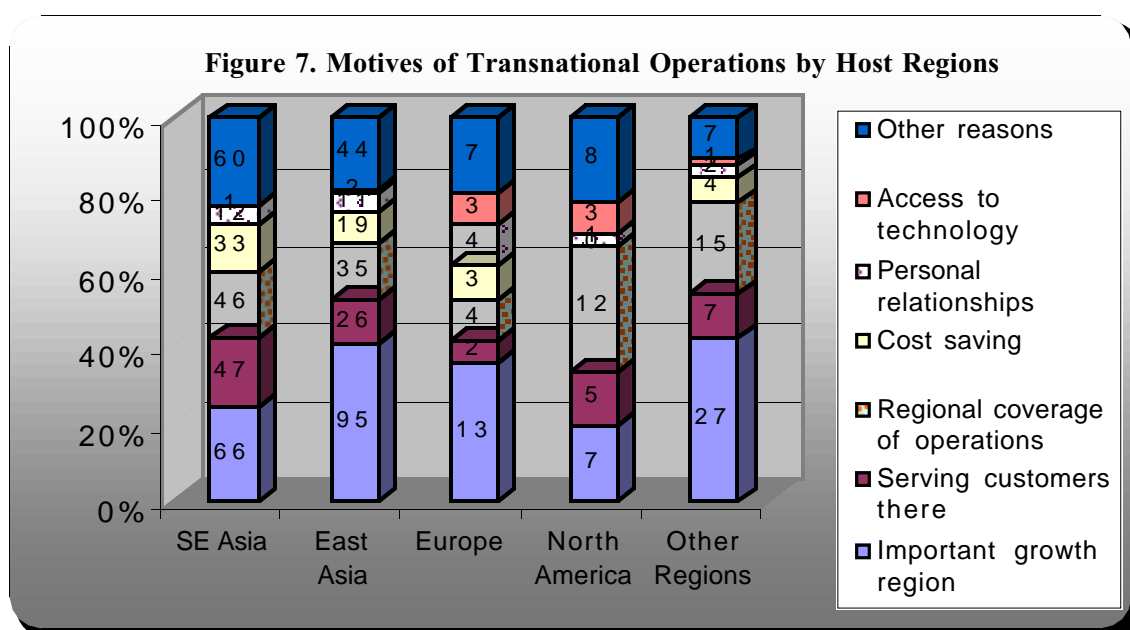
more than 1 subsidiary in these regions. Based on these findings, it is fair to say that while Singapore’s global reach has a long historical root, it is happening to only a limited range of Singapore companies. Most of the SINTNCs in the sample continue to focus on East and Southeast Asia as their centres of business operations, an observation consistent with the investment statistics reported in Section 2.1.

Another important point to be inferred from Table 1 is that a disproportionate number of expatriate staff have been sent from Singapore to some of the host countries. In particular, Indonesia and China respectively account for 12.3% and 28.9% of all subsidiaries, but they also take up some 27.4% and 43.4% of all 858 expatriate staff sent from Singapore. On average, each subsidiary in Indonesia and China has at least one expatriate staff sent from the headquarters in Singapore. This phenomenon clearly has something to do with the nature of business environments in these two countries. Indonesia and China have some of the most opaque business rules and uncertain regulations in Asia. This problem necessitates more attention from the headquarters in Singapore through tighter control mechanisms, such as having one or more expatriate staff from Singapore to manage the local subsidiaries. On the other

hand, while the sample 204 SINTNCs have respectively 47 and 48 subsidiaries in Europe and North America, they have sent only 19 and 10 expatriate staff to manage these subsidiaries in each region. This is explained by the relatively open and transparent business environments and the availability of good quality management executives in these two regions. Geographical proximity explains why Malaysia has a large number of SINTNC subsidiaries (n=273) and, yet, only 49 expatriate staff have been sent there on a permanent basis.

2.3 Motives for overseas operations

Having explained the nature and geographies of SINTNCs, I now examine more substantive issues in our understanding of Singapore’s global reach. Figure 7 summarises the motives for transnational operations by these 204 SINTNCs. We measured their motives by host regions because we believed that SINTNCs venture into different host regions and/or countries for different motives. The next section explains how the strategies of transnational operations also vary across different regions and/or countries. It is clear from Figure 7 that *market presence* is the single most important motive in driving Singapore’s global reach. It is measured by three



interrelated motives which account for over 60% of responses for all host regions except Europe (50%).

- important growth region in the industry
- serving customers in host regions/countries
- regional coverage of operations

First, many sampled SINTNCs ventured abroad because of the belief that the host countries are located in *important growth regions* in the industry. This motive is particularly important in the case of SINTNCs in East Asia and Other Regions. Many SINTNCs invested in China on the assumption that it has the potential to become one of the fastest and biggest growing markets in the world. This explains why China has attracted the highest number of SINTNCs in our sample to invest there.

Second, some sampled SINTNCs were prompted by their *local, regional or global customers* to make a presence in the host countries in order to provide them with quality and customised products and/or services. This motive is equally important for both manufacturing and service SINTNCs. For those in manufacturing industries, having a presence in host countries significantly increases their chances of securing contracts as preferred suppliers. This is particularly so for those SINTNCs which are engaged in OEM manufacturing (Original Equipment Manufacturers) for major global corporations. For those in service industries (e.g. producer services), they have to globalise with their customers in order to serve them better. Banks from Singapore are one good example, e.g. DBS Bank and United Overseas Bank. Many of them set up branches in Asia and beyond to serve customers from Singapore. Of course, they also tap into potential clientele in the host countries and/or regions.

Third and related, SINTNCs in the sample ventured abroad to establish a *regional coverage of operations*. In other words, they

had to be there in the host countries in order to complete their networks of global operations. This is the most important motive (33%) for SINTNCs to globalise into North America. For those manufacturing SINTNCs (e.g. Broadway Industrial Group and Natsteel Ltd), venturing into North America enabled them to become a truly global player in their respective industries. Of course, access to technology is also an important motive for these high tech manufacturing SINTNCs to venture into Europe and North America. For those service SINTNCs (e.g. Singapore Press Holdings and SATS), it is imperative to have a presence in North America because of the global nature of their business.

Together, these findings show that market presence is the most important motive for SINTNCs to globalise. In my earlier study of Hong Kong-based transnational corporations, I found that market presence was similarly the most important motive for their globalisation (see Yeung, 1998 in References).

What about the role of costs that we are often led to believe in? Figure 7 shows that whilst a significant motive, cost saving is clearly *not* the most important motive in driving Singapore's global reach. After all, most SINTNCs in our sample are not labour-intensive manufacturers *per se*. Rather, they are high-value added manufacturers or service providers. Production or labour costs constitute only a relatively low proportion of their total operational costs. It is also interesting to note that some SINTNCs are motivated to invest in East and Southeast Asia on the basis of personal relations with the local partners and/or customers. In some host countries (e.g. China and Malaysia), ethnicity and social connections seem to have played a role in motivating Singapore investments there.

To verify further these claims, we asked our respondents to evaluate different sets of factors which explain their global reach in *specific regions*. The results are tabulated in

the form of mean scores in Table 2. The scale of importance of these factors ranges from Very Important [1] to Not Important At All [5]. In other words, the lower the mean score, the more important the factor is.

In terms of home country factors, two factors clearly emerge:

- entrepreneurial vision of founders and key executives
- limited domestic market

The first factor has something to do with the nature of entrepreneurial decisions in the parent companies. These entrepreneurs and/or intrapreneurs tend to have a clear vision of what they want to achieve for the company. They have clear corporate mission and strategies to accomplish these visions. In that sense, their companies are much more

proactive in globalisation processes.

The second factor is related to the lack of market growth potential in Singapore. Many SINTNCs are therefore compelled to expand overseas, a finding consistent with their market-driven motives of globalisation. This finding is also linked to the role of marketing strategies as the most important host country factor in attracting SINTNCs. Similarly, tapping into potential regional markets is rated as quite important in explaining the global reach of SINTNCs.

Lower costs of operations in host countries are only quite important for SINTNCs operating in East and Southeast Asia. Cost is much less important for those operating in Europe and North America. The same regional variation can also be observed in the assessment of local contacts as a

TABLE 2. Importance of Different Factors of Globalisation Assessed by Indigenous Companies from Singapore by Region

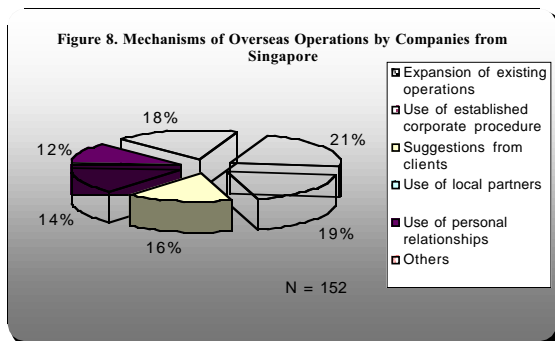
Major Factors of Globalisation (mean score ¹)	Southeast Asia	East Asia	Europe	North America	Other Regions
Home Country Factors					
1. entrepreneurial vision	1.8	1.6	1.9	1.4	1.8
2. diversification of risks	2.7	2.7	2.7	2.9	2.5
3. high (labour) costs of operations	2.8	2.9	4.1	3.9	3.2
4. technological upgrading	4.2	4.0	2.9	2.8	4.0
5. intensified competition	2.3	2.5	2.7	2.6	2.4
6. limited domestic market	2.0	2.0	2.2	2.5	2.2
7. government encouragement	3.9	3.7	3.6	3.9	4.0
Host Country Factors					
1. government incentives	3.8	3.3	4.0	4.2	3.9
2. lower (labour) costs of operations	2.7	2.8	4.3	4.3	3.3
3. marketing strategies	1.8	1.7	1.6	1.7	2.0
4. availability of skilled labour and/or technology	3.1	3.2	2.8	2.7	3.3
5. good local contacts	2.2	2.5	2.7	3.0	2.2
6. familiar operating environment	2.3	2.6	2.9	3.2	2.4
Regional and Global Factors					
1. growing global competition	2.5	2.6	2.7	2.8	2.3
2. rising tariffs and quotas	3.4	3.4	4.3	4.2	3.7
3. tapping potential regional market	1.9	1.9	2.2	2.0	1.9
4. improvement in transport and communication facilities	3.2	3.1	3.4	3.3	3.0
5. globalisation of firms	3.2	3.1	3.3	2.9	3.0

¹ The scale of importance ranges from Very Important [1] to Not Important At All [5]. Source: Author's survey data.

globalisation factor. It seems that more SINTNCs agreed that good local contacts were important in their operations in Asia than in Europe and North America.

2.4 Strategies and mechanisms of overseas operations

If market presence was so important in driving the global reach of SINTNCs in our sample, how then did they operate across borders? Figure 8 shows the various strategies and mechanisms employed by SINTNCs to establish overseas operations. Respondents from 152 of the 204 sample SINTNCs shared their experience in overseas operations. Some 21% of them established their overseas subsidiaries through an *expansion of their existing operations*. Typically, these SINTNCs had prior experience and knowledge of the host countries. This could be achieved through trading activities with customers there and frequent travel by staff to host countries to serve clients.



When the need to establish an operation in the host countries arose, these SINTNCs simply expanded their existing trading/sales relationships into a full-fledged manufacturing or services subsidiary in the host countries. In this process, some 19% of them made use of well-developed corporate procedures, e.g. feasibility studies, consultancy, evaluations by committees and so on. These procedures are highly relevant for setting up operations in Europe and North America because of their relatively open and transparent business environments. Another 18% also acted on suggestions from clients to set up their overseas operations. These

suggestions vary from know-how to know-who in host countries. They are important because many of these SINTNCs were not experienced in establishing overseas operations. For example, it is useful to know how to apply for business licenses and who to deal with in order to facilitate their globalisation processes.

Another interesting set of mechanisms is *the role of local partners* and *the use of personal relationships* in overseas operations. Together, these two related mechanisms constitute 26% of all responses. Some 93% respondents agreed that their companies had prior business connections with the host countries. About 50-60% of them also had prior political, family and social connections with host countries. Among all these different types of connections, business connections were given a mean score of 1.2, indicating that they were highly important in the overseas operations of SINTNCs. These business connections can be further divided into two types:

- personal contacts
- trading and business partners

In practice, many host countries in Asia have opaque regulations and strict foreign investment rules. Reliance on local partners and personal contacts becomes an extremely important way to minimise risks in these highly uncertain business environments. Some SINTNCs in my sample chose to operate in certain host countries primarily because their owners or top executives had strong personal contacts in these host countries. These local contacts both increased their chances of securing customers and reduced their risks of venturing into unfamiliar host countries.

In some host Asian countries, foreign investors are required by the law to have local partners. Some SINTNCs therefore activate their prior business and personal contacts in these host countries to become their joint venture partners. Sometimes, these partners become “sleeping partners”

once the ventures have begun. In other cases, local partners play an imperative role in guiding the development of local subsidiaries. How then did SINTNCs organise their overseas operations and what were their modes of entry? These are the questions for the next section.

2.5 Organisation of overseas operations

Table 3 shows the different modes of foreign entry by the 204 sample SINTNCs. Because of their different business environments, we expect these modes of entry to vary across host countries and/or regions. In general, most transnational corporations prefer *wholly-owned subsidiaries* when they engage in globalisation. This is because 100% ownership guarantees full control and profit to the parent companies in home countries. One finding in Table 3 is that more than 50% of SINTNCs established wholly-owned subsidiaries only in countries (e.g. Hong Kong) and regions (Europe and North America) reputed to be open and transparent in their business environments. Operations by SINTNCs in Indonesia, Thailand and China have the lowest proportion of wholly-owned subsidiaries, an indication of the perception and reality of business environments in these host countries.

Perhaps because of these host country regulatory constraints, more than 50% of SINTNCs tend to establish *joint ventures* in China, Indonesia, Thailand and the Philippines. Fewer SINTNCs established joint ventures in Hong Kong, Taiwan, Europe, North America and Other Regions (e.g. Australia and New Zealand).

Once established, parent SINTNCs tend *not* to exercise strict control over their foreign subsidiaries. On average, the mean scores for control, integration and coordination are respectively 2.9, 2.4 and 2.4. These indicate that foreign subsidiaries are relatively autonomous and independent of their headquarters in Singapore.

Figure 9 shows the various mechanisms of control exercised by the headquarters in Singapore over their foreign subsidiaries. Among these six major control mechanisms, only two are specifically related to centralisation of corporate control:

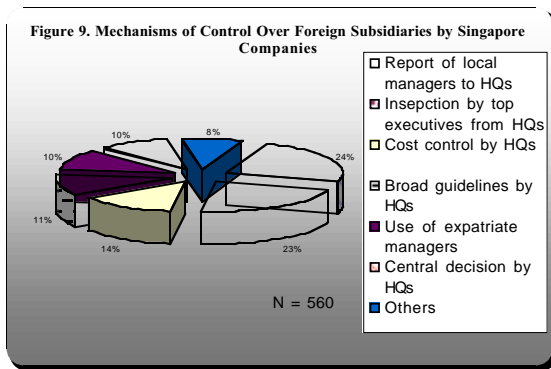
- cost control by the headquarters
- central decisions by the headquarters

The rest of the control mechanisms give *substantial autonomy to local managers* at the subsidiary level. In general, almost half

TABLE 3. Modes of Foreign Entry by 204 Indigenous Companies from Singapore by Host Country (percentage in parentheses)

Regions/ Countries	Wholly-Owned Subsidiaries	Associate Companies	Joint Ventures	Other Modes	Total
Southeast Asia	-	-	-	-	-
Indonesia	21 (30.4)	8 (11.6)	38 (55.1)	2 (2.9)	69 (100)
Malaysia	76 (49.4)	18 (11.7)	54 (35.1)	6 (3.9)	154 (100)
Thailand	10 (28.6)	7 (20.0)	18 (51.4)	-	35 (100)
Philippines	15 (41.7)	2 (5.6)	18 (50.0)	1 (2.8)	36 (100)
Others	19 (45.2)	6 (14.3)	15 (35.7)	2 (4.8)	42 (100)
East Asia					
China	66 (31.0)	14 (6.6)	125 (58.7)	8 (3.8)	213 (100)
Hong Kong	47 (62.7)	6 (8.0)	21 (28.0)	1 (1.3)	75 (100)
Others	12 (46.2)	5 (19.2)	8 (30.8)	1 (3.9)	26 (100)
Europe	21 (61.8)	2 (5.9)	10 (29.4)	1 (2.9)	34 (100)
North America	17 (56.7)	3 (10.0)	10 (33.3)	-	30 (100)
Other Regions	30 (53.6)	5 (8.9)	17 (30.4)	4 (7.2)	56 (100)

Note: There are no statistically significant differences by (1) ownership; (2) sector; or (3) turnover.
Source: Author's survey.



of the top executives from the headquarters visited their foreign subsidiaries at least once every month. This relative autonomy of foreign subsidiaries of SINTNCs may be attributed to two reasons.

- First, since many SINTNCs operate in relatively opaque business environments in Asia, local subsidiaries need substantial *autonomy* and *flexibility* to succeed in these host countries. This also implies that host country operating environments are often very different from the transparent and open business environment in Singapore. My interviews with top executives from China subsidiaries of SINTNCs certainly confirm this point.
- Second, many SINTNCs have not yet developed an organisational structure and capability to manage foreign subsidiaries. Sometimes, this is due to sheer lack of experience. In other cases, foreign subsidiaries are seen as *appendages* to the main areas of businesses in Singapore.

To understand further the organisation of overseas operations by SINTNCs, we examine their sources of marketing, supply and technology/expertise by their regions of operations.

- First, over 60% of the sample SINTNCs marketed their products and/or services through *local marketing departments* in their subsidiaries. This high ratio of local marketing shows that few SINTNCs conduct centralised marketing activities at the headquarters in Singapore. The

ratio varies from 60-67% among East and Southeast Asian subsidiaries to 72-75% among North American and European subsidiaries. This shows that SINTNCs tend to give their subsidiaries in Europe and North America more autonomy in marketing products and services for the group.

- Second, over 50% of the sample SINTNCs obtained their supplies of production inputs and/or services through *local production and supply departments* in their subsidiaries, indicating that few SINTNCs reap into the economies of scale through central purchasing at the headquarters. The ratio varies in favour of subsidiaries in North America (74%) and East Asia (66%). The latter subsidiaries clearly benefit from the availability of local supplies in China, particular in the area of raw materials.
- Third, parent SINTNCs in Singapore seem to play a much more important role in the provision of *technology and/or expertise* for their foreign subsidiaries. Well over 50% of subsidiaries in East and Southeast Asia relied upon direct transfer of product/process technology and expertise developed in parent companies in Singapore. Another 10% of these subsidiaries adapted locally product/process technology developed in parent companies.

However, some 30-45% of subsidiaries in Europe and North America developed their product/process technology locally in the host countries. This compares favourably with the fact that only 10-20% of subsidiaries in East and Southeast Asia developed their own technology/expertise locally in the host countries. This finding implies that as a key strategy of their global reach, SINTNCs could well tap into the technological and expertise base of their subsidiaries and other local firms in Europe and North America.

3. PROBLEMS ENCOUNTERED AND IMPLICATIONS FOR BUSINESS STRATEGY AND PUBLIC POLICY

The overall picture of Singapore's global reach is not always that rosy. Many SINTNCs have faced tremendous *problems* in foreign operations throughout their entire life cycles from early establishment to eventual disposal and/or collapse. In this section, I examine some of the major problems faced by Singapore companies in their foreign operations and the common solutions they have adopted to overcome these problems. I will also consider some implications for business strategies and public policies.

3.1 Problems of foreign operations and solutions by Singapore companies

Table 4 summarises the main findings about problems encountered by Singapore companies and their solutions adopted by regions of operations. We asked respondents to evaluate these 10 potential major problems they might have encountered during their global reach. We also allowed them to propose problems not included in this list. Several observations are clear.

First, all 204 sampled SINTNCs considered the *lack of home government support* as their major problem of global reach. Studies in international business have shown that strong home country government support is important for aspiring transnational corporations to overcome initial disadvantages of entering into and competing in foreign business environments.

TABLE 4. Major Problems Faced and Solutions Adopted by Indigenous Companies from Singapore by Region

Problems/Solutions	Southeast Asia	East Asia	Europe	North America	Other Regions
Problems (mean score¹)					
1. high costs of operations	3.7	3.4	3.2	3.7	3.6
2. lack of technological edge	3.9	3.8	4.1	4.5	3.9
3. problems with local partners	3.4	3.2	4.2	4.5	3.8
4. lack of market information	3.7	3.3	4.0	4.3	3.5
5. lack of special connections with host countries	3.6	3.5	3.9	4.2	3.8
6. lack of personal experience	3.4	3.1	3.3	3.8	3.1
7. labour force problems	3.4	3.2	3.7	3.8	3.4
8. government regulations	3.7	2.5	3.7	4.2	3.0
9. lack of sufficient financial assets	3.7	3.5	3.8	4.0	3.9
10. lack of home government support	1.6	1.8	1.3	2.0	1.9
Solutions (cases)					
1. reliance on local partners/connections	47 (20%)	107 (43%)	4 (19%)	2 (12%)	9 (17%)
2. sending trusted executives from Singapore to manage	9 (4%)	11 (4%)	-	1 (6%)	3 (6%)
3. asking local governments for help	8 (3%)	35 (14%)	1 (5%)	-	4 (7%)
4. closing down the operations/downsizing	29 (12%)	27 (11%)	1 (5%)	2 (12%)	3 (6%)
5. personal involvement of top executives/entrepreneurs	34 (14%)	16 (6%)	1 (5%)	2 (12%)	6 (11%)
6. established procedures	38 (16%)	14 (6%)	4 (19%)	4 (24%)	6 (11%)
7. encourage higher worker productivity/training of local staff	11 (5%)	9 (4%)	3 (14%)	1 (6%)	3 (6%)
8. adopt local practices/conform to local culture	41 (17%)	16 (6%)	3 (14%)	2 (12%)	11 (20%)
9. dismiss local staff/ change local partners	17 (7%)	14 (6%)	2 (10%)	2 (12%)	8 (15%)
10. others	3 (1%)	3 (1%)	2 (10%)	1 (6%)	-
Total cases (multiple answers allowed)	237 (100%)	252 (100%)	21 (100%)	17 (100%)	54 (100%)

¹ The scale of importance ranges from Very Important [1] to Not Important At All [5]. Source: Author's survey data.

To a certain extent, the success of Japanese and Korean companies in Europe and North America can be attributed to the strong institutional and corporate support they have received from their respective home country governments.

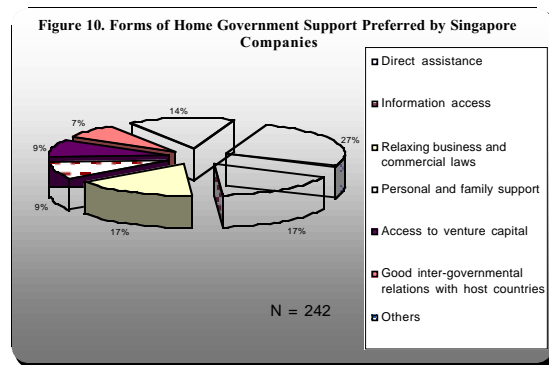
In Singapore's case, the finding is surprising because of the recent official launch of Singapore's regionalisation programme in 1993 and the numerous schemes associated with this programme in helping Singapore companies to go region and, in some cases, global. Further probe into the nature of this major problem, however, offers some clues. When asked whether their companies have benefited from the Singapore government's recent regionalisation programme, some 73.7% of respondents replied "No". The rest of the 51 SINTNCs, which claimed to have benefited from the regionalisation programme, are spread among public listed companies (n=12), private companies (n=20) and GLCs (n=19).

If we examine the relative proportion of different types of SINTNCs by ownership and their propensity to benefit from the regionalisation programme, we find an astonishing 19 GLCs out of 23 GLCs in our sample (82.6%). The ratio for public listed and private SINTNCs are respectively 26.1% and 14.8%. In other words, a very high proportion of GLCs in our sample agreed that they have benefited from the Singapore government's regionalisation programme. In view of these findings, it is not surprising that most of the 204 sample SINTNCs found the lack of home government support as their major problem of global reach.

What exactly are the main benefits of the Singapore government's recent regionalisation programme? Among those 51 SINTNCs which claimed to have benefited, some 30 (36.1%) received direct government assistance in the form of tax incentives and loans. Another 19 (22.9%) rode on good inter-governmental relations with host countries to establish their

presence abroad. Other major benefits cited by these SINTNCs include information access and connections (n=14 or 16.9%) and reputation from partnership with government agencies (n=9 or 10.8%).

Figure 10 presents the "wish list" of those 146 SINTNCs which did not benefit from Singapore's regionalisation programme. Clearly, these preferred forms of home government support coincide well with those already received by existing beneficiaries.



- First, direct government assistance in the forms of *low cost credits and loans* received the most vote by these 146 SINTNCs (n=63). Many SINTNCs indeed preferred credits and loans over tax incentives because, they claimed, tax incentives would only help if their foreign subsidiaries actually made profits. Their main problem in global reach, however, was the lack of strong financial backing from domestic banks and financial institutions in Singapore. To them, the Singapore government could help through the provision of low cost credits and loans.
- Second, another 42 SINTNCs preferred better *access to information and connections* in order for them to establish their foreign subsidiaries successfully. This problem was particularly acute in the case of SMEs from Singapore because they generally lacked information and connections abroad. The government could help by paying more attention to their needs for information and connections.

- Third, *relaxing business and commercial laws* in Singapore could help the global reach of SINTNCs (n=40). Many private sector SINTNCs in the sample felt that business and commercial laws in Singapore tend to favour bigger companies, i.e. GLCs and foreign firms. Due to these laws, financial institutions and capital markets in Singapore also tend to favour big companies in their lending policies. This phenomenon disadvantages the global reach of SMEs from Singapore.
- Last but not least, other preferred government support includes personal and family support (e.g. National Service responsibilities and children education), access to venture capital, good inter-governmental relations with host countries, more attention to local SMEs, investment guarantee pacts, partnership with private companies and so on.
- adopting local practices or conform to local regulations (6%)

Sometimes, top executives from the headquarters in Singapore would also be personally involved in resolving problems in East Asian subsidiaries (6%).

In other regions of SINTNC operations, *established corporate procedures* were often used to resolve problems, indicating the extent of professional management systems. This reliance on established procedures tends to be more common among foreign subsidiaries in Europe and North America, again a reflection of the higher level of business trust and corporate governance in these host regions.

3.2 Implications for business strategy

The findings of this major research into the global reach of SINTNCs have significant implications for business strategies and public policies. Let me first consider some major implications of this study for the *business sector*:

- *globalisation as diversification*: It is clear from Section 2.2. of this report that SINTNCs have largely been regionalised, rather than globalised, in their geographical coverage of operations. In light of the recent 1998/1999 Asian economic crisis, it becomes imperative for Singapore companies to globalise into major regions of Europe and North America for at least two reasons. First, this globalisation exercise can help to reduce a company exposure to business risks and downturn of a particular region, a point already well recognised in the recent report by the *Committee on Singapore's Competitiveness*.

Second and more importantly, globalisation is perhaps the only effective means to tap into advanced knowledge base and markets of these regions. As Europe and North America

Returning to Table 4, the second main problem faced by some SINTNCs in their global reach is the role of *host government regulations*. This problem is particularly thorny in the case of SINTNCs operating in East Asia (mean score = 2.5). China, for example, has been well known for its difficult operating environments. From interviews conducted with subsidiaries of SINTNCs in China, it appears that government regulations in China pose a serious threat to these SINTNCs which are used to the relatively open and transparent home country regulatory regime. For these SINTNCs in China, the main problem rests with the *uncertainty* and *subjective interpretations* of government regulations, particularly at the local government level.

To resolve these problems of host government regulations, most SINTNCs in East Asia resort to one of the following *localised measures*:

- relying on local partners and connection to circumvent regulations (43%)
- asking local governments for help (14%)

are moving in the direction of regional integration, having a direct presence in the form of manufacturing or service or both seems to be the key strategy to secure the future of these markets for Singapore companies. These regions also host some of the most advanced hubs of technology (e.g. Silicon Valley) and expertise (e.g. financial district of the City of London) that Singapore companies will find it hard to emulate at home.

- *the role of learning curve effects*: The quest for globalisation brings us to the second point about the preconditions for Singapore companies to go global. It is easier to say we want to globalise than to do it! It makes no sense to jump onto the globalisation bandwagon if a Singapore company is not ready for it. The implication for business strategy here is that a Singapore company should globalise only gradually through completing successive waves of learning curves. It pays to explore major markets outside Asia, perhaps together with trade and investment missions organised by the Singapore government and business associations. It also helps if Singapore companies can explore more and develop new business connections with host countries in Europe and North America. Section 2.4 in this report has shown that most SINTNCs had prior business connections before establishing themselves in the host countries. An incremental approach to globalisation is more suitable for SMEs from Singapore.
- *formation of business associations abroad*: To globalise successfully, companies from the U.S., Japan and the U.K. (three top global direct investors today) often organise their foreign operations through the formation of business associations and industry institutions abroad. These organisations help companies to overcome initial barriers to market entry and to appreciate better the competitive and regulatory dynamics of the host countries. Being a relatively small economy, we cannot expect Singapore companies to form similar kinds of business associations in all major markets abroad. But this economies of scale argument should not detract us from thinking about industry- or trade-specific organisations in selected host countries. For example, a Singapore chamber of commerce has been established in Hong Kong. It has been serving the commercial interests of Singapore companies in Hong Kong very well.
- *regional and global integration of international business activities*: Many of today's global corporations are successful because they are able to achieve significant economies of multinationality through global integration of their diverse operations across borders. Global integration helps them to achieve cross-market subsidisation, to perform information intelligence functions and to enhance their sourcing capabilities. As evident in Section 2.5 of this report, most SINTNCs still considered their foreign operations as appendages to their (successful) domestic operations. Most of their foreign operations were not well integrated into their main businesses. This kind of "headquarters hierarchy syndrome" is increasingly challenged by global competition where competitive fields, to borrow from Harvard's Michael Porter, are no longer restricted to national territories. To compete successfully today, many global corporations integrate their geographically dispersed activities into *networks* and *alliances*. The underlying assumption is that it is much more difficult to out-compete a network than a loosely organised group of companies.

3.3 Implications for public policy

If competition is increasingly operating at the regional and global scale and Singapore

companies must globalise to survive, what then are the implications of this study for *public policies in Singapore*? Some of these considerations have already been discussed in Section 3.1.

- *needs of SMEs*: Saturation of domestic markets in Singapore is a key driving force behind Singapore's global reach. This is especially the case for SMEs from Singapore. In their global reach, however, these SMEs require significant assistance from the Singapore government to establish themselves successfully. Their need results primarily from their relative lack of resources and capital to operate across borders. The government can play a role here by establishing *institutional support* to facilitate the global reach of Singapore's SMEs. This support can take the form of "*business incubators*". For example, Arcasia Land, a privatised spin-off from Jurong Town Corporation, has developed Gateway@SV in San Jose, California, capital of the Silicon Valley, to provide business space and services to aspiring high-tech companies from Singapore. Similar "business incubators" can be set up in major technological centres of the world to support the global reach of technopreneurs from Singapore. In the commercial sector, the Singapore government can assist the establishment of chambers of commerce in selected strategic host countries to enhance the global networking capabilities of Singapore companies.
- *educating and financing transnational entrepreneurship*: Since the mid-1990s, there has been a series of government-led drive to develop entrepreneurship and, lately, technopreneurship in Singapore. While these are clearly laudable projects, it remains to be seen how things as intangible as entrepreneurship and technopreneurship can be intentionally groomed. Insofar as foreign operations are concerned,

Section 3.1 has demonstrated that many private companies in Singapore found business and commercial environments in Singapore rather restrictive. Some of their foreign operations are *de facto* outcome of this "crowding out" effect where they felt helpless in a domestic economy dominated by GLCs and foreign transnational corporations.

As shown in this study, this inevitable orientation towards the global market among private companies from Singapore can be turned into an opportunity for Singapore to prosper through developing a significant external economy. While many of these private companies are owned and managed by entrepreneurs, their transnational entrepreneurship cannot be taken for granted. Doing business in foreign lands is always more risky and uncertain than in the domestic economy. This need to cultivate and nurture transnational entrepreneurship has two implications. First, we need to educate better our students the importance of appreciating the *geographical complexity* of our world in which venturing abroad is both exciting and risky. These aspects of transnational entrepreneurship need to be ingrained in the mindset of our students through a syllabus sensitive to the differences of the geographical world we live in.

Second, transnational entrepreneurs from Singapore cannot venture abroad without favourable *financial and capital support*. It is even more difficult for them to raise capital in the host countries. The government can help by relaxing financial regulations and providing direct financial assistance to these aspiring transnational entrepreneurs who, if successful, will contribute significantly to Singapore's global reach.

- *provision of social support*: Through various personal interviews with Singaporean executives in Hong Kong

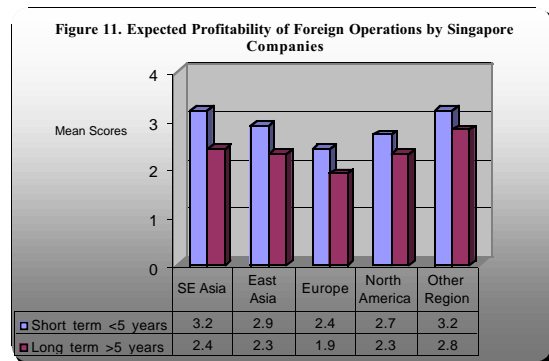
and China, I found that their main worry was not business *per se*, but rather their children’s education and future in Singapore. This is termed a “*re-entry problem*” because many of these Singaporeans abroad felt that upon returning home, their children might not fit into Singapore’s education system and, for that matter, Singapore in general. In view of the recent Singapore 21’s visions to keep Singaporeans global in their orientation and local in their loyalty, it becomes imperative for the government to continue its provisions of support for family and education of Singaporeans abroad. The government’s effort to establish Singapore clubs and schools in Hong Kong and China, for example, should be highly commended. In tune with the government’s drive towards Singapore’s global reach, it is perhaps time to think more about such initiatives at social and family support of Singaporeans *outside* Asia. Japan, for example, has been quite successful in ensuring Japanese education for its citizens abroad in Europe and North America. This process also helps Japanese abroad to internalise the Japanese culture.

3.3 Conclusion: back to the future

This research project has examined the nature and organisation of 204 sample transnational corporations from Singapore (SINTNCs) and their global reach. While Singapore’s global reach still has a long way to go, it is reassuring to observe a growing awareness among SINTNCs of the importance to compete in the global economy through direct presence in host countries. The global reach of Hong Leong Group’s CDL Hotels International, for example, has not only done proud to Singapore as a major global hotel owner and

operator, but also enabled the Group to emerge relatively unscathed by the recent Asian economic crisis. The moral of the story here is that globalisation is a double-edged sword - you need it to win global competition; too much of it also hurts your corporate bottom lines through unnecessary duplications and inefficiencies. There is thus a strong need to organise and plan better a company’s global reach.

Is there a future for Singapore’s global reach? We asked our respondents to evaluate the short-term and long-term future of the profitability of their foreign operations by regions. As shown in Figure 11, the long-term profitability of their operations in all regions will improve, with European subsidiaries emerging as the most profitable. The future therefore remains bright for these SINTNCs which have taken their initiatives to step out of Singapore into the wider global economy.



In conclusion, it appears that Singapore’s global reach through direct foreign investments has just taken off. It may well be that this global reach will accelerate in the next millennium to enable Singapore to become not just a global city, but a city-state with significant economic influence in many parts of the world. To realise this global dream for Singapore, we need relentless joint efforts by Singapore companies and government agencies to put Singapore Unlimited on the global map.

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APPENDIX A. METHODOLOGY OF SURVEY AND PERSONAL INTERVIEWS

Empirical data in this paper are derived from a very detailed firm-level database on the globalisation of 203 Singapore-based transnational corporations (SINTNCs). This database is constructed through a large-scale research project conducted between November 1997 and January 1999. At the initial stage of this project, we compiled basic corporate information of some 1,246 Singapore-based TNCs into the database. This total survey population is close to the population database updated by the Department of Statistics. In its 1997 report on Singapore's foreign direct investment activities, the Department of Statistics reported that 5,159 foreign affiliates of Singapore companies were set up abroad in 1995 (increased to 5,892 in 1996). Some 3,546 of these foreign affiliates were controlled by Singapore-based companies. Table 1 in this report shows that my sampled SINTNCs control 1,264 foreign affiliates, approximately 35.6% of the total number reported by the Department of Statistics.

The information about these 1,246 SINTNCs was gathered from various business directories and company reports between November 1997 and January 1998. 340 SINTNCs had only correspondence information in China. As such, they could not be used for our survey in Singapore. Moreover, the database included 84 foreign TNCs in Singapore which were subsequently discarded in accordance with the requirements of the research project. Together, only 822 companies in our database fulfilled the preliminary requirements of being Singapore-incorporated TNCs. At the end of the survey in Singapore in January 1999, another 34 companies were disqualified because either they had been closed down (n=11) or had no foreign subsidiaries and investments (n=23). This means an *effective* population of 788 Singapore TNCs for our corporate survey in Singapore through which we have successfully interviewed 204 parent companies (see Appendix B), representing a 25.9% response rate. This relative low response rate is attributed to the ongoing 1997/1998 Asian economic crisis which made top executives concentrate on their businesses and therefore reduced their willingness to participate in our research project.

In terms of our survey method, we constructed a 20-page semi-structured questionnaire to solicit information on parent TNCs in Singapore and their overseas operations, their motives for and mechanisms of overseas operations and finally how they organise their foreign subsidiaries and affiliates. To execute our survey, we adopted a personal interview method in international business research. The main advantage of this survey method is that it allows the researchers to probe deeper the processes and mechanisms of international business operations and provides much flexibility both in the conduct of data collection and subsequent analysis. In this regard, we conducted face-to-face interviews with all but 9 Singapore TNCs. Each interview took about one to one and a half hours. Although the questionnaire served as the main focus in each interview, we often attempted to go beyond the questionnaire and requested the interviewees to explain in greater depth certain issues. All except 69 interviews were taped and subsequently transcribed. To date, our project has yielded a database with detailed information on the global reach of these 204 Singapore TNCs and an archive of qualitative information on some 134 of them.

The second stage of the research involved personal interviews by the Principal Investigator with top executives from subsidiaries and affiliates of Singapore TNCs in Hong Kong and

China during May-June 1998. In contrast to the corporate survey in Singapore, I did not use any questionnaire during all interviews. Instead, these interviews were completely unstructured and virtually all taped. Their duration ranged from one hour to several hours. I managed to interview the top executives of 29 Singaporean firms in Hong Kong SAR and 13 in Guangdong province and 14 in Jiangsu province, China. Of these 56 personal interviews, 50 were taped and transcribed to provide qualitative information for this report.

APPENDIX B. LIST OF 204 SINGAPOREAN COMPANIES INTERVIEWED IN SINGAPORE

ACE Dynamic Ltd	Eastern Publishing Pte Ltd
ACEZ Engineering	Econ Piling
AEA International	Eu Yan Sang (S) Pte Ltd
Aik Guan Construction	Europa Interiors (S) Pte Ltd
Airtropolis Express (S) Pte Ltd	Excelpoint Systems Pte Ltd
Alliance Enterprises (S) Pte Ltd	Falmac Limited
Aluminium Craft (88) Pte Ltd	Federal Paint Marketing Pte Ltd
American Industries (Pte) Ltd	Footraco Group
American Marine (S) Pte Ltd	FT Resources (Asia) Pte Ltd
ANA Mechatronics	Future Enterprises Pte Ltd
APT Enterprise Pte Ltd	GATX Terminals (Pte) Ltd
Arcasia Land Pte Ltd	GK Goh Holdings
Artsgate Trading Pte Ltd	Godrej (S) Pte Ltd
Asi Matrix Ltd	GPE Industries Ltd
Asia General Holdings	Great Eastern Life
Asia Pacific Forest Products (Suzhou) Pte Ltd	GRP Limited
Asia Paint Int'l Co Pte Ltd	H Qiang Investments
Asia-Pacific Bulk Terminal (Holdings) Pte Ltd	Heshe Holdings
Avi-tech Electronics (S) Pte Ltd	Hiap Huat Paints Company
AWT World Transport	Hiap Moh Corporation Ltd
Balestier Hospital	High Mean Pte Ltd
Beaver Sports Pte Ltd	Hock Bee Frozen Food Enterprise Pte Ltd
Beca Carter Hollings & Ferner (SEA) Pte Ltd	Hock San Yuen Food Manufacturing
Best Safety-Glass Mfg (S) Pte Ltd	Hotel Royal
Bian Kong Construction Co.	Hua Yang Investment
Billion Gain Enterprise Pte Ltd	Hwa Tat Lee Mfg Pte Ltd
Broadway Industrial Group	IFS Logistics (S) Pte Ltd
BSC Information Systems Pte Ltd	Innovation Group
C & B Aquarium Pte Ltd	Integra Shipping Pte Ltd
Caldecott Productions International Pte Ltd	International Associated Corporation Pte Ltd
CEH Group	International Factors (S) Pte Ltd
Cellini Design Center Pte Ltd	International Hardware Electrical & Construction Co (Pte) Ltd
CEMS Pte Ltd	International Scientific (Pte) Ltd
Chai Ming Optical Pte Ltd	Intrimex Pte Ltd
Chan Ho Engineering	IPC Information & Communication
Changi International Airport Services Pte Ltd	ISS International School
Chemical Industries Pte Ltd	Jak Hong Shipping Pte Ltd
Chop Hup Chong Food Industries	Java Enterprises Pte Ltd
Chu Cheong Co Pte Ltd	Jia Hua Investment Pte Ltd
CISCO	Jingdezhen SI Ceramics Co Ltd
City Satay	JTC International
CityCab Pte Ltd	Jurong Engineering Limited
Comfort Marine Pte Ltd	Jurong Shipyard Limited
Cycle & Carriage	Kenwood Real Estate Pte Ltd
Cyclect Holdings Pte Ltd	Keppel Bank
Dapha Electronics	Keppel FELS
DBS Bank	Keppel T & T
DBS Land Ltd	Kheng Guan Pte Ltd
DelGro Corporation Limited	Kian Ho Bearings (S) Pte Ltd
DelGro Engineering	Kim Seng Heng Engineering Construction (Pte) Ltd
Dowell Coating Pte Ltd	Kim Seng Holdings Pte Ltd
Dragon City Restaurant Group	Kuok Oils & Grains Pte Ltd
Dragon Link Investments Pte Ltd	Lian Huat Group
DVS Systems	Liang Huat Aluminium
East Asia Trading Co	Lion Asiapac Pte Ltd
Eastbourne Chemical Industry Pte Ltd	Mas Millenium (Singapore) Pte Ltd

Appendices

Mast Management Consultants Pte Ltd
Matex Specialty Chemicals
Meiban Plastic Ltd
Metalite Singapore Pte Ltd
NatSteel Engineering
NatSteel Ltd
Network Foods International Ltd
Nippecraft Ltd
Nylect Engineering Pte Ltd
Oakwell Engineering Limited
Ong & Company
Osprey Maritime
Overseas Union Enterprise
Owl International Pte Ltd
Pan-United Corp Pte Ltd
Penta-Ventura Resources
Peoplenet Associates Pte Ltd
Petite Cherie Boutique Pte Ltd
Pidemco Land
Pillar Construction Pte Ltd
Pivot Group Pte Ltd
Pokka Corp (S) Pte Ltd
Prima Limited
Progress Instruments Pte Ltd
Protek Chemicals & Engineering Pte Ltd
PSA Corporation Ltd
Rheem (Far East) Pte Ltd
Rotary Engineering
ROTOL S'pore Ltd
S'pore Cable Car
S'pore Network Services Pte Ltd
S'pore Reinsurance Corporation
Samta Shipmanagement Pte Ltd
SATS
Scotts Holdings Ltd
Seamaster Paint
Seng Hua Hng Foodstuff (S) Pte Ltd
Shen Sing International Pte Ltd
Siakson Coach Tours
Silk Air
SIMRO Trading Pte Ltd
Sin Heng Chan (S) Pte Ltd
Sin Kang Lian Hardware Co.
Sincere Watch Limited
Sineximco Pte Ltd
Singapore Airlines Ltd
Singapore Ann Kway Holdings Ltd
Singapore Press Holdings
Singapore Technologies Industrial Corp
Singapore Technologies Pte Ltd
Singapore Telecoms
Singapore Valve & Fitting Pte Ltd
Singatronics Ltd
Singco Pte Ltd
Sino Electronics Import & Export Pte Ltd
Smitech (Asia) Pte Ltd
Smith Precision Machining Pte Ltd
SNP Corp Ltd
ST Aerospace
Standard Tech
Stream Peak International Pte Ltd
Sunwa Construction & Interior (Pte) Ltd
Superbowl Holdings
Tan Chiang Brothers
Tat Hui Foods Pte Ltd
Technic Asia-Pacific Pte Ltd
Tek Min Trading Co.
The Comfort Group
Town Art Media Pte Ltd
Translink Pte Ltd
Tropical Produce Co. (Pte) Ltd
UIC Ltd
Unicorn King Industries Pte Ltd
Unilife Data Systems Pte Ltd
Union Alloy (Pte) Ltd
UNIPAC Equipment Pte Ltd
UOL Ltd
Utopia-Aire Pte Ltd
Wah Chang Int'l Corp
Wah Heng Glass Holdings Pte Ltd
Waterbank Properties Pte Ltd
Weeson Manufacturer
Westan International
Windmill International Pte Ltd
World Publications Group
Yang Ah Kang & Sons Pte Ltd
Yeo Eng Koon (S) Pte Ltd
YLF Marketing Pte Ltd
Yoku Systems Pte Ltd
Yong Garments Manufacturing Co. Pte Ltd
Yunnan Kitchen
Zheng Hua Holdings Pte Ltd

APPENDIX C. LIST OF RELATED RESEARCH PROJECTS

RESEARCH PROJECT ANNOUNCEMENT I

SINGAPORE'S GLOBAL REACH: TRANSNATIONAL OPERATIONS, LANDSCAPE TRANSFORMATIONS AND IDENTITY (RE)NEGOTIATIONS

(funded by an NUS Academic Research Grant)

Background

In Singapore, a global city-state, globalisation processes play a key role in shaping the future of our economic security and cultural integrity. This includes bringing “the world” to Singapore in terms of an internationalised economy and cosmopolitan society, but it also involves the outward expansion of Singapore and Singaporeans, taking advantage of economic opportunities and the experience of cultural difference around the world.

Aims

- to understand and explain interconnections between Singapore and other globalising places.
- to focus on the nature of: *economic* interconnections, particularly Singapore's foreign direct investment in Southeast Asia, East Asia, Europe and Australia and *socio-cultural* interconnections, including the temporary and permanent migration of Singaporeans abroad.

Duration of Research

The principal work of the project is conducted through five closely connected research themes pursued by its core team of investigators. The research spans three continents and is being conducted over three years (July 1997 to July 2000).

Core Research Team Members/Themes

1. **Dr Henry Yeung** (Co-Principal Investigator; Department of Geography, NUS) is examining the role of the Singaporean government in the success of local firms investing in China (especially Beijing and Suzhou).
 2. **Dr Kris Olds** (Co-Principal Investigator; Department of Geography, NUS) and **Dr Anne Haila** (Collaborator; Nordic Institute of Asian Studies, Copenhagen) are investigating the nature of Singaporean involvement in residential property markets in two global cities - London and Sydney.
 3. **Professor Peter Dicken** (Collaborator; Professor of Geography at Manchester University, and Visiting Professor at Department of Geography, NUS, June-December 1997) is investigating the development of trade and investment relationships between Singaporean firms and the European Union.
 4. **Dr Philip Kelly** (Collaborator; Southeast Asian Studies Programme, NUS) is exploring issues involved in investment flows from Singapore into the Southeast Asian region. His research focuses on the formation and regulation of local labour markets in Malaysia, Indonesia and the Philippines.
 5. **Dr Lily Kong** (Collaborator; Department of Geography, NUS) is focusing on the ways Singaporeans adapt to the new social and cultural circumstances of globalisation and regionalisation. In particular, she is examining the experiences of Singaporeans living and working in China/Hong Kong and Australia.
- The research team is collaborating with **Associate Professor Linda Low** (Department of Business Policy, NUS), an expert on Singapore's economy.

Relevance

- to contribute to public policy and decision making, especially in connection with the Singapore government's globalisation/regionalisation programme; and
- to contribute to an understanding of globalisation and regionalisation trends on a scale sufficient to make NUS a world recognised centre of expertise.

Outputs

- a high profile workshop and public forum on globalisation (3-5 December 1997), leading to an edited book titled *Globalisation and the Asia Pacific: Contested Territories* published by Routledge, London in April 1999.
- a number of professional articles for publication in internationally refereed journals and a co-authored book bringing together the team's research findings in a coherent format to be published by an international publishing house.

Further Enquiry: **Dr. Henry Yeung** (874 6810; geoywc@nus.edu.sg) or **Dr. Kris Olds** (874 6811; geoko@nus.edu.sg)

RESEARCH PROJECT ANNOUNCEMENT II

GENDER, HOUSEHOLDS AND IDENTITY IN BRITISH AND SINGAPOREAN MIGRATION TO CHINA

The Transnational Communities Programme

This project is one of some 20 projects commissioned under the UK's Economic and Social Research Council's Transnational Communities Programme (website: www.transcomm.ox.ac.uk)

Principal Investigators

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Dr Brenda Yeoh

Department of Geography, National University of Singapore, 10 Kent Ridge Crescent, Singapore 119260.

Email: geoyasa@nus.edu.sg

Duration of Research

September 1998 – June 2001

Aims and objectives

The international migration of professional workers has increased in scope over the past twenty years as skilled workers are needed when companies' activities cross national borders. While this trend has been recognised from an economic perspective, very little has been researched from a social angle. In particular, there has been scant attention paid to the gender composition of this population movement, and the impacts of such migration on households, particularly on women's work patterns and the organisation of domestic work. This project will focus on these issues, using the case studies of British and Singaporean migration to China. This comparison is of great interest because it allows the effect of cultural differences (both business culture and social norms regarding gender and the family) to be considered.

Methodology/study design

The main source of information will be 150 in-depth interviews in the UK, Singapore and China. Four groups of interviewees have been identified; migrant professional workers; accompanying spouses; spouses remaining 'at home' while partner deployed overseas; professional and managerial workers in the UK and Singapore who do not migrate, although foreign postings are possible in their companies. Interviews will also be conducted with appropriate individuals such as government officials and personnel managers.

Academic and Policy Implications

The overseas deployment of professional personnel is of key importance to the success of individual companies and, by extension, their home country. This project will provide important material for policy formulation both in the UK and in Singapore. Firstly, it will provide a summary of the nature of professional migration, including extent, destination and the characteristics of the migrants. Secondly, it will highlight the decision-making process and the problems experienced by both migrating and non-migrating households. This may help companies in developing strategies to assist migrants and so contribute to successful redeployment.

Outputs

Apart from several internationally refereed journal articles published or in preparation, the authors have also put together a volume entitled *Gender & Migration* for Edward Elgar's International Library of Studies on Migration to be published in 1999.

RESEARCH PROJECT ANNOUNCEMENT III

TRANSNATIONAL LABOUR MIGRATION AND THE FAMILY IN SOUTHEAST ASIA

(A project funded by an NUS Academic Research Grant)

Principal Investigator

Dr Shirlena Huang, Department of Geography, National University of Singapore

Collaborators

- **Dr Joaquin Gonzalez III**, Department of Political Science, National University of Singapore
- **Dr Lai Ah Eng**, Institute of Southeast Asian Studies, 30 Heng Mui Keng Terrace, Singapore 119614
- **Dr Paulin Straughan**, Department of Sociology, National University of Singapore
- **Dr Brenda Yeoh**, Department of Geography, National University of Singapore

Duration of Research

February 1998 – February 2001

Background

In this age of globalisation where borders are increasingly permeable, core social institutions such as the family are constantly being reshaped by larger economic, social and political forces, emanating not just from within but beyond national boundaries. It is thus important that the dynamics which shape the family are not viewed in isolation but constantly re-evaluated in the light of broader, transnational structures that shape experience and meaning.

Southeast Asia is a region strongly oriented to and influenced by many international and regional processes. As an important player in the region, Singapore is a major recipient of large flows of foreign investment and migrant labour while, at the same time, the changing demands of the labour market have necessitated that Singaporeans not only move up the skills ladder, work harder at home, but also extend business ties abroad. One very important outcome of these changes has been the increased participation of women in the labour force which has meant that Singapore households are increasingly less subsidised by the unpaid labour of wives and mothers but responsibilities have devolved onto other members of the family, society, and migrant domestic helpers who are primarily from the Philippines.

Main Objectives

- To investigate the *empirical* and *conceptual* implications of how specific roles in the family, such as fatherhood/motherhood/ childhood, are being redefined and renegotiated in different family structures in both labour sending and receiving countries to enable cross-cultural comparisons
- To analyse state policies of labour sending and receiving countries from the perspective of their direct and indirect impacts on the family.

Academic and Policy Implications

This study will contribute significantly to filling the gaps in our understanding of the on the impact of labour restructuring on the institution of the family in Singapore and in the Philippines in the context of rapid social and economic changes since the mid-1980s.

Outputs

Apart from internationally refereed journal articles, the researchers will organise a workshop to disseminate findings and discuss policy implications with relevant government bodies.

For more information, contact: Dr Shirlena Huang, Department of Geography, National University of Singapore, Kent Ridge Crescent, Singapore 119260, Email: geoslenna@nus.edu.sg

RESEARCH PROJECT ANNOUNCEMENT IV

HIGH-TECH HUBS AND KNOWLEDGE FLOWS: INFORMATION TECHNOLOGY SECTOR LINKAGES BETWEEN SOUTHEAST ASIA AND THE USA

(A project funded by an NUS Academic Research Grant)

Background

Although the processes of globalisation and regionalisation now seemingly affect the social and economic development of all regions and countries, how these processes are actually manifested through transnational networks and interconnections is still poorly understood. The Information Technology (IT) sector is a particularly globalised industry, and is one of the fastest growing sectors in Southeast Asia.

Aims

- to elucidate the interconnections between two Pacific Rim regions, Southeast Asia and North America, through identifying flows of capital, people and knowledge in the IT sector
- to explore the nature of US foreign investment in the IT sectors of Southeast Asia, and in particular, Singapore and Malaysia
- to identify flows of knowledge, people and funds in the opposite direction, in particular looking at Southeast Asian investments in, and migration to, Silicon Valley
- to undertake questionnaire surveys and in-depth personal interviews with over 80 key informants in the IT sector in Singapore, Malaysia and the USA

Relevance

- the project will contribute to public policy and private decision making in the region with respect to IT sector developments.
- it will provide a critical commentary on plans to create innovative science hubs in Singapore and Malaysia.
- it will also contribute to NUS' drive to become a world-recognised centre of expertise in globalisation and regionalisation.

Researchers

Dr. Neil Coe (Principal Investigator, Department of Geography, NUS) is undertaking research interviews with USA-based IT companies that have undertaken investments in Singapore. He is also conducting research in Silicon Valley to explore flows of knowledge, funds and people *from* Southeast Asia.

Contact details - Tel: 65-874-3858, Fax: 65-777-3091, e-mail geoneilc@nus.edu.sg

Dr. Tim Bunnell (Department of Geography, NUS) is undertaking research interviews to explore the nature of US investment in Malaysia's Multimedia Super Corridor, and is concerned with the role of IT in national socio-economic and cultural development.

Contact details - Tel: 65-775-1043, Fax 65-777-3091, e-mail geotgb@nus.edu.sg

Associate Professor Wong Poh-Kam (Centre for Management of Innovation and Technopreneurship, Faculty of Business Administration, NUS) has tremendous experience, both practical and academic, of high-technology industry. **Contact details - e-mail fbawpk@nus.edu.sg**

For further details on this project, please consult our website:

<http://courses.nus.edu.sg/course/geoneilc/research.html>

About the Author

Henry Wai-chung Yeung, Ph.D., is Assistant Professor at the Department of Geography, National University of Singapore. He is a recipient of NUS Outstanding University Researcher Award 1998 and Institute of British Geographers Economic Geography Research Group Best Published Paper Award 1998. His research interests cover broadly theories and the geography of transnational corporations, Asian firms and their overseas operations and Chinese business networks in the Asia-Pacific region. Dr. Yeung has published widely on transnational corporations from developing countries, in particular Hong Kong, Singapore and other Asian Newly Industrialised Economies. He is the author of *Transnational Corporations and Business Networks: Hong Kong Firms in the ASEAN Region* (Routledge, London, 1998), editor of *The Globalisation of Business Firms from Emerging Markets*, Two Volumes (Edward Elgar, Cheltenham, 1999) and co-editor of *Globalisation and the Asia Pacific: Contested Territories*, (Routledge, London, 1999) and *The Globalisation of Chinese Business Firms* (Macmillan, London, 1999). His research papers have been published or are forthcoming in over 30 internationally-refereed journals. His views on Asian business have been sought by *The Financial Times*, *The Straits Times*, *Nihon Keizai Shimbun* and CNBC.

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