Title	Singapore Airlines 2001 (A)
Author(s)	Toh, Thian Ser; Allampalli, D. G.
Citation	Toh, T. S., & Allampalli, D. G. (2001). Singapore Airlines 2001 (A). Singapore: The Asian Business Case Centre, Nanyang Technological University.
Date	2001
URL	http://hdl.handle.net/10220/13679
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SINGAPORE AIRLINES 2001 (A)

Publication No: ABCC-2001-004A
Print copy version: 15 Apr 2004

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The case describes how Singapore Airlines (SIA) evolved from a fledging player in the 1960s into an industry leader. In the process, SIA rewrote the rules for competition and earned accolades for its excellent aviation record, young fleet of planes and a reputation for delighting customers.

Bilateral air service agreements negotiated between individual nations limited the routes of a given airlines and hence the airlines's growth. The global airlines industry responded to this challenge with a mix of acquisition, strategic alliances (for example, the STAR alliance) and related diversification strategies. But would these strategies be sustainable in the near future for SIA? What course of action should SIA undertake?

Associate Professor Toh Thian Ser and D. G. Allampalli of The Asian Business Case Centre prepared this case. The case is based on public sources. The authors would like to acknowledge the support of Singapore Airlines Ltd and the contributions of Nanyang MBA students Ong Pang Shen, Juliana Ang and Liu Dai Song. As the case is not intended to illustrate either effective or ineffective practices or policies, the information presented reflects the authors' interpretation of events and serves merely to provide opportunities for class discussion.

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INTRODUCTION

A milestone in the history of Singapore Airlines (SIA) was reached on 20 December 1999, when Dr Cheong Choong Kong and Richard Branson announced the Singapore carrier's 49 percent investment in Virgin Atlantic (Virgin) for S$1.62 billion. It was then one of the largest foreign acquisitions by a Singapore government-linked company. It was also SIA's first major acquisition, signalling a shift away from the singular pursuit of organic growth, which had been the SIA formula for success.

The announcement rocked the investment world, as a first reaction, knocking down the share prices of British Airways (BA) and Qantas, both rivals of SIA and Virgin.[1] The deal with Virgin was the first breakthrough for SIA as it sought to acquire stakes in other airlines as a new way to build its network.

Until the acquisition of its stake in Virgin and later, Air New Zealand, SIA's failure to conclude any deals denied the airline the market access it desired. In Asia, where national pride was perceived as getting in the way of SIA acquiring major stakes in the region's national carriers, it chose a cooperative route by deciding to take minority stakes in small airlines in November 2000. Announcing SIA's new growth philosophy and critical engine for expansion for the future, deputy chairman and CEO Dr Cheong Choong Kong said:

> *We are not interested in a majority stake, a majority meaning more than 50 percent. We would like the airlines that we have a stake in to retain its national character because I think that would make us more acceptable to the home market, which is important for pure commercial reasons.*[2]

On boosting SIA's growth, Dr Cheong said, "With growth rates declining out of Singapore (outbound traffic), the airline needed the world as its market."[3]

THE GLOBAL AIRLINES INDUSTRY

The International Civil Aviation Organization (ICAO) estimated that global airlines collectively achieved operating profits of US$16.5 billion in 1998 with operating margins of around 5.5 percent. The industry grew at an average of 6 percent per annum during the 1980s and 1990s, about twice the rate of growth of global GDP. If this rate of growth were to remain steady, the volume of traffic would double every 12 years, making air transportation one of the world's fast-growing economic sectors. However, growth was fraught with risk because of the large capital investment required to build fleet and network capacity.

Year	Targeted Air-lines/Partner	Outcome
1992	Qantas	British Airways (BA) outbid SIA
1992	Royal Air Cambodge	Dropped: Political unrest and SIA's management fee
1995	TATA Group	Blocked by the Indian Government
1998	Philippine Airlines	SIA declined after careful study
1998	China Airlines	Could not agree on certain terms
1999	Ansett	Withdrawal of offer by News Corp. Ltd.
1999	South African Airways	SIA, after due diligence decided against making an offer

Three major segments dominated the global airlinemarket: the USA, Europe and the Asia-Pacific region, which together, accounted for 90 percent. In 2000, the transatlantic routes connected the world's two largest domestic air travel markets, the USA with 41.35 percent share and Europe with 28.3 percent share.[4] The number of passengers grew from 16 million in 1980, to 30 million in 1990 and was projected to grow to 51 million by 2001.[5] The 1998 revenue from this market was estimated to be close to US$20 billion. In the Asia-Pacific region, passenger demand was expected to grow at an average of 7.7 percent per annum between 1993 and 2010. The region's share of world-wide scheduled passengers was projected to grow from

1 Branson's Aussie airlines is a tremor, not an earthquake. (2000, February 2). *Independent Business Weekly*, New Zealand.
2 SIA to take stake in small airlines. (2000, November 9). *The Straits Times*, Singapore, p. S13.
3 ibid.
4 ibid.
5 A soft landing. (1999, July 1). *Air Transport World*, *36*(7), 51-57.

26.4 percent in 1985, to 49.8 percent in 2010. These rates of growth were based on projected increases in disposable incomes as well as declining air fares.

Deregulation, initially in the USA and later in Europe, contributed to the development of a global hyper-competitive environment, despite national obstacles such as the need for bilateral agreements, government restrictions and sometimes, national pride. Deregulation had yet to become a major force of driving change in the Asia-Pacific as many governments still favoured their flagship carriers.

In the USA, deregulation resulted in cycles of expansion and consolidation, with inefficient carriers being absorbed or eliminated. Consumers benefited from lower fares brought about by increased competition as airlines entered into one another's territories. Airlines that survived were those which developed the hub-and-spoke concept, allowing their fleets to carry passengers to hub cities such as Dallas, Chicago, Atlanta, Charlotte, Cincinnati and Pittsburgh from where passengers were regrouped to continue to their final destinations. This concept allowed for the concentration of air traffic, which was fed into the international services of the major carriers.

While the hub-and-spoke concept worked, several airlines were burdened by the debt associated with the development of these networks. Airlines which failed included Pan American (PanAm) and East West. Others like Trans World Airlines (TWA), sought protection under Chapter 11. The three biggest US airlines, American, United and Delta, took over the transatlantic and other international routes of PanAm and TWA. This led to the proclamation of an 'Open Skies' policy by the US which allowed landing rights to foreign airlines on a reciprocal basis. The big three became 'megacarriers' with a focus on long-distance flights.

A different model of airline operations emerged among the smaller airlines in the US, for example Southwest Airlines. The model focused on 'city-pair' competition, succeeding on the basis that they could achieve viability by competing on busy, single-lane routes.

Deregulation in Europe did not follow the same pattern as that in the USA. Differences in national policies on the liberalisation of the airline industry stood in the way of consolidation, and multi-tiered alliances emerged.[6] The pace increased and in 1997, the European Union (EU) lifted restrictions on cabotage,[7] which marked the completion of deregulation.

Europe had three large national airlines: BA, Lufthansa and Air France. BA focused on building its international presence and worked with the British government to obtain rights to land in 22 cities in the USA. It acquired 24.6 percent stake in US Air (1992), and 25 percent in Qantas (1993), and entered a strategic alliance with American Airlines. Later, it launched the 'One World' global airlines alliance. In the domestic market, BA absorbed a few of its smaller competitors, launched a 'no-frills' airlines to compete in popular 'city-pair' routes and developed a franchise for sale to other carriers. Lufthansa undertook a three-year cost-cutting program between 1990 to 1993, sold unprofitable operations, and diversified into cargo transport where it achieved global leadership. It entered a strategic alliance and code-sharing arrangement with United Airlines in 1994, and with it later formed the global Star Alliance.

While deregulation allowed formidable competitors to emerge in the USA and Europe, Asia lagged behind. In the Southeast Asian region, although Japan signed bilateral services agreements with United and Northwest Airlines, Japan Airlines could not benefit from the agreements as it found the routes unattractive.

For Asian carriers to construct a global services network, there were several important challenges:

- The American and European megacarriers posed a threat as they penetrated the rapidly growing Asian market through alliances.
- The need to maintain cost effectiveness relative to non-Asian carriers while dealing with rapidly rising input prices, currency volatility and other cost factors.
- The declining yield.
- Balancing the desire for liberalisation and development of hub airports with the perceived need to protect national flag carriers.[8]

6 A soft landing. (1999, July 1). *Air Transport World*, *36*(7), 51-57.
7 Findlay, C., Chia, L.S., & Singh, K. (1997). Asia Pacific Air Transport. Singapore: Institute of Southeast Asian Studies.
8 ibid.

SINGAPORE AIRLINES: A RENEGADE MADE GOOD

Singapore Airlines could trace its history to the government-owned Malaysia-Singapore Airlines (MSA), the national airlines of the Malaysian federation of states to which Singapore belonged until its separation in 1965. SIA was formed in 1972, seven years after Singapore left Malaysia. It took the bulk of MSA's international routes and became Singapore's flag carrier. It also inherited the international route network of MSA, comprising 18 destinations, which connected over 20 airports, as shown in **Exhibit 1**.

SIA's Expansion into the Region

During the 1970s, SIA expanded in both regional and international markets. A summary of the destinations, routes and services developed between 1973 to 1997 is shown in **Exhibit 2**. During this period, the Singapore government worked continuously with the governments of Australia, New Zealand, Indonesia, Malaysia, Japan, India, Taiwan, Korea and Philippines to sign new air-services agreements (ASAs). According to Dr Cheong, Singapore was liberal in signing many ASAs. The aim was to create a friendlier climate for future negotiations over air traffic rights. This enabled SIA to achieve 20 to 30 percent in the 1970s, over 10 to 20 percent in the 1980s and around 8 percent per annum in the 1990s.[9]

When it entered the industry, SIA was no different from most flag carriers of developing countries, except for its experienced team. The lack of a domestic air-travel market in the citystate of Singapore resulted in SIA turning to the international market for its survival.

To differentiate itself and forge a distinct SIA service delivery identity, the fledgling airline chose not to join the International Air Transport Association. It offered economy class passegers a choice of meals, complimentary drinks and head-phone sets, hitherto the privilege of business and first class passengers. Such perks were seen as innovative at that time and helped SIA gain a foothold in the market in the mid-1970s.[10] SIA also discounted prices to attract passengers away from major international airlines such as KLM, Qantas and BA.

Complementing SIA's growth was Singapore's strategic location at the southern tip of the Malayan peninsula, equidistant from Calcutta to the north-west and Hong Kong to the north-east. Singapore was a gateway to Southeast Asia and a hub for tourism, manufacturing, trading and finance. As growth in the aviation industry was highly influenced by economic activity, Singapore's hub strategy benefited from the region's economic progress.

The airline's growth was spearheaded by the addition of new destinations, routes and frequencies, supported by the prudent use of a modern fleet of aircraft. SIA worked closely with the government to develop Changi Airport into a major air hub, and with the Singapore Tourist Promotion Board to promote Singapore as a travel destination. During the 1970s, core competencies like long term planning, branding (Singapore Girl) and service quality enabled SIA to achieve brisk expansion, resulting in annual average revenue growth of around 30 percent.[11]

Between 1989 and 1997, SIA expanded into China, Australia, New Zealand, Japan, India, and to many other destinations in the Southeast Asian region. These airports functioned like spokes that fed and received traffic to and through Singapore. SIA's route network in 1995 is shown in **Exhibit 3**.

SIA's strategy was to channel and capture transfer traffic in the Asian region for its transpacific routes to the Europe and USA. SIA's approach was in tandem with the Singapore government's objective of developing Changi as an air hub in Southeast Asia. The Singapore government made huge investments in airport development, and in particular, the development of Changi International Airport's on reclaimed land at the eastern tip of the island. In 1990, Changi International Airport facilities were expanded with the opening of the second terminal. At the same time, plans were laid for a third terminal for future generations of aircraft types. The airport served 26 million passengers in 1999.

In the late 1990s while SIA grew organically, several of its competitors forged alliances or mergers with other airlines. To increase SIA's capacity and to compete with other megacarriers, SIA began to explore investments in other airlines such as Qantas, China Airlines, Ansett, Thai Airways and Royal Air Cambodge.

9 Martin, S. (1990, August). Staying on a winning course. *Singapore Business*, 31.
10 Singapore Airlines - Sticking by its strengths. (1992, August). *Singapore Business*, 21-26.
11 Singh, K. (1994). Successful strategies - The story of Singapore Airlines (SIA). *Long Range Planning*, *17*(5), 17-22.

SIA's Expansion into International Markets

With the absence of domestic air routes, SIA had to focus on the regional and international markets. Its management placed great emphasis on securing lucrative routes from these markets to drive organic growth and internal accruals were used to finance aircraft purchases.

Bilateral agreements, route and frequency management

Between 1973 to 1999, SIA enhanced its operations from 22 cities in 18 countries to 110 cities in 42 countries, covering most parts of the world.[12] Where possible, SIA added new destinations, increased frequencies on existing routes, explored alternative routes, expanded air-services agreements, entered strategic alliances and code-sharing agreements with other airlines.

In the 1970s, SIA faced difficulties in expanding into the USA. San Francisco (in 1979) and Los-Angeles (in 1980) were the only destinations served by the SIA. Efforts to increase capacity based on a 1979 bilateral agreement were not successful. It was only in 1990, when a new agreement reached between the USA and Singapore governments provided SIA rights to fly to four US cities. In addition, rights to fly to Canada, Mexico and Chile from USA were also secured under this agreement.

SIA's expansion into Europe met with similar setbacks. In the early 1970s, London was the only city it served before breakthroughs were made in 1986 when the airline launched flights to Manchester. However, SIA's expansion into Europe continued to be hampered by limited access, even to the UK. In 1988-1989, flights to London remained at the same frequency of seven per week. After 1990, this grew to the approved maximum of 21 flights per week. Frequencies to Frankfurt did not change in the 12 years between 1976-1989,[13] but in 2000, these rose from four to 11 flights a week.

Realising the growth potential of air travel in Asia in the 90s, and taking into consideration the liberal stance toward bilateral agreements of the Singapore government as well as Singapore's strategic location, the UK and USA governments changed their stances. An important agreement with the UK was reached during 1989 -1990 which gave SIA additional capacity on this sector in exchange for hubbing rights for British carriers in Singapore.[14] Towards the end of 1980s, the changing political scene in Europe permitted a service to Berlin with effect from 28 September 1990. New services to Cape Town and Cairns were added in 1994 and 1995. SIA's international route network (Europe and the USA) is shown in **Exhibit 4**.

While air-services agreements provided potential destinations, SIA's development of international markets was based on its success in attracting and retaining both customers and committed management. It identified long term planning, service quality and branding as critical core capabilities for the organisation. To achieve excellence, SIA identified a host of functional skills in marketing, operations, finance and planning which complemented its core competencies and gave it a competitive edge. A schematic form of these core competencies is shown in **Exhibit 5**.

These capabilities made SIA a model of success in the airlines industry. The group's profit after tax (PAT) between 1994-1995 and 1998-1999 remained close to a billion dollars. SIA continued to be profitable despite the 1997 Asian economic crisis, achieving a PAT of S$1.039 billion in financial year 1997-1998. In June 1998, a Hong Kong-based banker noted that "compared with most of the rest of Asia, the rise in net profits (of SIA) is a marvel."[15] Other Asian carriers such as Cathay Pacific reported a 56 percent drop in profits to US$217 million and Thai Airways posted a net loss of about US$490 million for the same period.[16]

SIA received a string of awards for excellence. For example, *Asia Inc.* and Arthur D. Little selected SIA as one of 'Asia's 50 Most Competitive Companies' in 1997. In this survey, SIA was one of the top three companies in the 'Marketing' category.[17] It topped all Asian airlines when *Asian Business Magazine* selected SIA as 'Asia's Most Admired Company' in 1998, the fourth successive year SIA won this

12 *SIA's Annual Report 1998/99*, p. 13.
13 ibid, p. 53-54.
14 ibid, p. 30.
15 Jones, D. (1998, June). Unveiling Asia. *Airfinance Journal*, 26-29.
16 ibid.
17 Triphati, S., & Arensman, R. (1997, June). Aiming high. *Asia Inc*., 30-33.

award.[18] In 1999, SIA won the Airlines Transportation World's 'Passenger Service' award in a global competition.

SIA's Expansion: Partnership through Joint Ventures and Equity Investments

Despite an early start in 1992, SIA's many attempts at acquisition did not bear fruit until 1999 when it acquired a 49 percent stake in Virgin Atlantic Airways. A chronological summary of aborted attempts to acquire stakes in other airlines is given below:

- *1992 - Qantas (Australia)*
  On 13 October 1992, SIA expressed interest in acquiring a 20 to 30 percent stake in the Australian carrier, Qantas. Both BA and SIA submitted bids. However, BA's bid of A$665 million was higher than SIA's offer of A$500 million. Furthermore, according to Ralph Willis, former Australian Finance minister, "Apart from higher value, the BA deal offered more strategic benefit to Qantas."[19]

- *1992 - Royal Air Cambodge (Cambodia)*
  SIA considered taking a 40 percent stake in Royal Air Cambodge (RAC). However, political unrest came in the way of the deal's fruition. Also, a management fee of 15 percent of the operating income sought by SIA was felt to be too high. Later, Malaysian Airlines concluded a deal with RAC by taking a lower stake.

- *1995 - Tata (India)*
  A joint venture between Tata Group of India and SIA, valued at US$700 million was formed after the Indian government announced a partial liberalisation of the domestic air travel market. The venture was stalled after the Indian government announced a new interpretation of the policy on foreign investments and joint ventures in domestic airlines. There were concerns in India that the new venture would jeopardise the survival of Indian Airlines, whose planners had forecast a drop in load factor to 49-51 percent, which was below break-even level.[20] In October 2000, the Government of India announced it would examine the issue of Air India's privatisation and invited proposals from all interested parties. A Tata-SIA-led consortium submitted a bid for a 40 percent stake in Air India but did not include Indian Airlines, the domestic airline of India.[21]

- *1998 - China Airlines (CAL)*
  SIA planned to buy an initial stake of 10 percent in CAL, with a view to gradually increase it to 35 percent in order to gain management control. It was to have acquired stocks held by the China Aviation Development Fund (CADF) which held 71 percent of the equity in CAL. The deal fell through because the Taiwanese government was reluctant to sell an equity stake of 10 percent or less.

- *1998 - Philippines Airlines*
  Philippines Airlines was keen for SIA to take a stake in the financially troubled carrier which was also facing labour relations problems. SIA declined.[22]

- *1999 - Ansett (Australia)*
  SIA was negotiating to buy over News Corp's holding in Ansett, an Australian airline. However, as the seller was unable to obtain the consent of Air New Zealand, the other major shareholder of Ansett, the deal fell through.[23]

- *1999 - South African Airways (SAA)*
  The Singapore government concluded an aviation agreement in 1992 with South Africa for two flights per week to Johannesburg. The frequency was increased to four flights per week from April 1994. SIA saw an opportunity to gain access to the rest of the African continent. It attempted a joint bid with Lufthansa but, after due diligence, decided against it. Swissair won the bid with 1.4 billion Rand (S$382 million) for a 20 percent stake in SAA.

In the late 1990s, SIA maintained its strategy of organic growth while keeping an eye on opportunities for mergers and acquisitions. This led to two major investments in 1999-2000:

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18 Leung, J. (1998, May). A matter of branding. *Asian Business*, 26-28.
19 Conrad, R. (1999, December 27). It has never been first-time lucky for SIA's bids to tie up with other airlines. *The Business Times*, Singapore.
20 Mecham, M., & Singh, P. (1997, April 14). Indian cabinet blocks SIA - TATA airlines deal. *Aviation Week & Space Technology*, *146*(15), 36.
21 TATA's to partner Singapore Airlines in bid for Air-India. (2000, November 10). *Business Standard*, India.
22 Conrad, R. (1999, December 27). It has never been first-time lucky for SIA's bids to tie up with other airlines. *The Business Times*, Singapore.
23 It's over - SIA ends Ansett bid. (1999, August 16). *Aviation Week & Space Technology*, 62.

1. SIA's investment in Air New Zealand (ANZ) totalling US$211 million for a 25-percent stake.[24]

2. SIA invested US$962 million for a 49 percent stake in Virgin Atlantic, UK.[25]

The investment in ANZ enabled SIA to access the transpacific, the US, and transatlantic markets through the United Airlines-ANZ alliance, which was awaiting US regulatory approval. Investing in Virgin and ANZ made it possible for SIA to span the two main areas of the world market, the transatlantic and the Australia and New Zealand routes.

With the closure of these deals, SIA's Dr Cheong raised the issue of a key problem in the industry: too much money and not enough ways to generate higher returns to shareholders.

As SIA's growth rate slowed and its capital requirements shrank, Dr Cheong saw the need to go on an acquisition path. He said:

> *Unless we do something, our rates of return on shareholders' funds will continue to decline. The only way is to go outside and buy into other businesses.*[26]

Analysts predicted that Thai Airways could be SIA's next target as the Thai government cleared its privatisation bill in October 2000.

SIA chose its partners and only targeted airlines which met its investment criteria. Commenting on its investment in Virgin, Dr Cheong said:

> *Virgin meets many of our criteria. It's the second-largest carrier in Great Britain and is a well-run airline with terrific profit potential, a terrific brand and a terrific name. And the beauty of it is that its route network is perfectly complementary to ours, which makes the synergistic part even more compelling.*

Adding his support, SIA's executive vice-president (commercial) Michael Tan said:

> *Where we end, they start and where they end, we start. So it's a tremendous opportunity.*

Noting the similarity between SIA and Virgin, he added:

> *A strong customer orientation; they are always looking for something else to offer the customer. The style, the execution may be different. But that does not mean one style is better and it's not our objective to change them. They are successful the way they are.*[27]

In order to realise full benefits from the substantial investments that SIA made, it formed a new department 'Commercial Partnerships - Associate Airlines' to explore revenue, service, cost and realisation of other synergistic benefits, and to facilitate collaboration in areas like sales policy, fares, e-commerce, code-share services, network optimisation, frequent flyer programs and revenue management.

SIA'S STRATEGIC ALLIANCES

To circumvent regulatory constraints in the late 1980s, SIA entered into equity-based strategic alliances with Delta and Swissair and had a joint marketing agreement with Air Canada. (See **Exhibit 6**.) However, SIA terminated this alliance in November 1998.

The failure of this alliance could have been due to the slow progress made by the partners. Announcing the departure, Dr Cheong said:

> *I am sorry that despite efforts by all three airlines stretching over almost eight years, the 'Global Excellence Alliance' has not been more productive for SIA.*[28]

24 SIA secures acquisition of 25 pct of Air N. Zealand. (2000, April 25). *Xinhua News Agency*.
25 Virgin stake may boost Singapore Airlines' earnings. (1999, December 22). *Times of India.*
26 Flint, P. (2000, May 1). SIA's Global Tilt. *Air Transportation World*, *37*(5), 50-53.
27 ibid.
28 Alliance fever - The partners in arms. (1998, January 23). *Travel Asia*.
29 Findlay, C., Chia, L.S., & Singh, K. (1997). *Asia Pacific Air Transport*. Singapore: Institute of Southeast Asian Studies.

Additionally, Delta and other US carriers sought more fifth-freedom rights.[29] Delta's objective of picking passengers in Hong Kong and flying them to another city in Asia was blocked by other Asian carriers who argued that their access to the US was unfairly restricted.[30]

In 1999, after the dissolution of the tripartite alliance, SIA linked up with Lufthansa, a member of Star Alliance.[31] It was felt that an alliance with a major European carrier could be more profitable because its traffic growth to Europe (5.6 percent per annum between financial years 1995-1999) was higher than that to the US. SIA had delayed its planned entry into Star Alliance from 1998 to April 2000 in the hope that alliance members would grant more concessions, as some needed the carrier to strengthen their presence in Asia. Such an arrangement would enable SIA to mount more long-distance non-stop flights, where yields were the highest.[32] SIA's growing fleet size and continued investments in long-haul jets were evidence of this strategy.

Some observers regarded strategic alliances as transitory and surrogate measures to overcome the hindrances of industry regulations. According to Leo van Wijk, managing director of KLM:

> *Alliances are a reasoned response to an antiquated regulatory system. They permit indirect access to restricted markets.*[33]

A study by Goldman Sachs found that in 1997, 121 new alliances were formed but 102 were dissolved.[34] With 43 percent of the world traffic not aligned with any global alliance, potential for 'churning' and 'hostile take-over' was seen as very high.[35]

SIA's Non-Passenger Operations: Cargo and Airlines-Related Businesses

Air Cargo Business

Cargo revenues in 1995-1996, 1996-1997 and 1997-1998 were S$1.25 billion, S$1.32 billion and S$1.52 billion respectively, and the share of the overall group's business grew to 22 percent by 1999-1998. In March 1999, SIA signed a memorandum of understanding (MOU) with Lufthansa and SAS for closer co-operation and continued growth of the air cargo business.

Airlines Related Businesses

In 1999, the SIA Group comprised more than 49 companies, of which 25 were subsidiaries and 24 were associated companies. However, three subsidiaries, Singapore Airport Terminal Services (SATS) established in 1972, SIA Engineering Company (SIAEC) established in 1982, and Auspice established in 1990, accounted for almost 25 percent of the revenues. Since 1991, SIA's business development department pursued overseas business opportunities, forming joint ventures in China, Hong Kong, India, Japan, Macau, Maldives, Philippines, Taiwan and Vietnam. While SATS-enabled geographical reach for overseas ventures, SIAEC boosted its technological capability through 11 joint ventures, some with original equipment manufacturers like Pratt and Whitney, Rolls–Royce and Hamilton Standard. These were located in five countries: Singapore, China, Hong Kong, Taiwan and Ireland.[36]

Further impetus was provided by the prospect of globalisation of the aircraft maintenance sector. According to the International Transport Workers Federation (ITF), the aircraft maintenance industry (AMI) was estimated to be worth US$25 billion in 1999.[37] While airlines like BA were outsourcing aircraft maintenance activities, SIA, along with Lufthansa, Air France and Swissair, were investing in AMI ventures.

Having nurtured many subsidiaries, SIA chose to list the two oldest and most profitable, SATS and SIAEC, on the Singapore Stock Exchange in April 2000. Their combined turnover exceeded S$1.4 billion and their combined earnings in 1998-1999 were about S$200 million. SIA divested 13 of its shares to its staff and to the public, retaining 87 percent of each company's

30 Selwyn, M. (1991, August). Delta Airlines: Three-cornered deal works well. *Asian Business*, 12.
31 Singapore Airlines. *Outlook* (1998, December), p. 8.
32 Theong, T. O. (1993). Staying ahead of the competition. *Perspectives, SIA Singapore*, 9.
33 Feldman, J. M. (1995, January 1). Right ends, wrong means. *Air Transport World*, *32*(1), 59-60.
34 Flint, P. (1999, April 1). Alliance paradox. *Air Transport World*, 33.
35 Flying in circles. (1999, July 17). *The Economist*.
36 ibid.
37 International Transport Workers Federation, UK. (1999). *Newsletter, No. 3/99*, p. 1.

paid-up capital. Responding to the listing of the two subsidiaries, Dr Cheong said he hoped SATS and SIAEC would "develop their own distinctive cultures and personalities."[38] The listings would also enable the subsidiaries to tap new market opportunities in the region and enter techno-commercial deals more freely.

SIA'S FUTURE

On SIA's future, Dr Cheong said:

> *Ours is a global business, and although Asia is very important to us, we must have our eye on the world-wide market and on the longer term... We cannot afford to ignore trends; we must continue to enter into alliances with suitable partners, to create a truly global network.*[39]

38 Low, I. (2000, February 9). April listing likely for two units SIA. *The Straits Times*, Singapore.
39 Asian crisis offers opportunities for SQ. (1998, September 25). *Business World*, Philippines, p. 32.

EXHIBIT 1

SINGAPORE AIRLINES - ROUTE NETWORK INHERITED IN 1972

Region	Routes
Europe	London Frankfurt Zurich Rome Athens
Middle East	Bahrain
South Asia	Bombay Colombo
Southeast Asia	Bangkok Bali Bandar Seri Begawan Jakarta Kuala Lumpur Manila Saigon
North Asia and Japan	Hong Kong Taipei Tokyo Osaka
Australia	Sydney Perth Melbourne

Source: Adapted from Davies R.E.G. (1999). *Airlines of Asia since 1920.* London: Putnam

EXHIBIT 2

A BIRD'S EYE VIEW OF SIA'S REGIONAL EXPANSION

Year	Operation	Destination / Route	Main Features
1973	New service	Medan	Introduced three flights per week.
1975	New service	Seoul	Introduced three flights per week using Boeing 747 via Bangkok, Hong Kong and Taipei.
1976	New service	Auckland	Added new service to New Zealand via Sydney.
1978	New agreement and frequency increase	Bali and Auckland	Flights to Bali commenced in Jan 1979. For Auckland, one non-stop flight was added to the May 1976 schedule.
1980	Service resumption and increase in capacity	Penang and Auckland	Introduced Boeing 727, new aircraft to Penang. For Auckland, DC-10 was replaced by Boeing 747, a new aircraft.
1981	New services	Kuala Lumpur Jakarta Bangkok Brunei	Introduced Airbus A300 services to these destinations.
1983	New agreement and new service	Kuantan	Agreement signed with MAS and launched three flights per week.
1984	New destinations	Brisbane Adelaide Male (Maldives) Kaohsiung (Taiwan)	Launched one to two flight services per week to these destinations.
1986	New agreement, services and destinations	Denpasar (Bali) New Delhi Calcutta Christchurch	Agreement signed with Garuda Indonesia and launched new services to Denpasar and Bali. New services were launched to New Delhi, Calcutta and Christchurch.
1987	New destinations	Katmandu Port Moresby Istanbul	Launched two flights per week to Katmandu, and one flight per week to Port Moresby and Istanbul.
1988	New destinations	Darwin Fukuoka Puau Langkawi	Launched two flights per week to Darwin and Fukuoka, and introduced a weekly Boeing 757 flight to Pulau Langkawi.
1988–89	Frequency increases and new agreements	Japan Australia New Zealand	Number of cities and flights in Japan, Australia and New Zealand were increased to 2 and 18, 6 and 14, and 2 and 4 respectively. Further, for Japan, new agreement was signed to increase from 18 to 22 flights per week and include a new destination, Nagoya.
1989–90	Frequency increase	Japan Hong Kong Australia New Zealand Philippines	Agreements were signed to increase weekly flight frequency from 22 to 28 for Japan and from 28 to 53 for Hong Kong. For Australia, the frequency was increased to 18 flights per week. For New Zealand and Philippines, three additional flights per week were added.

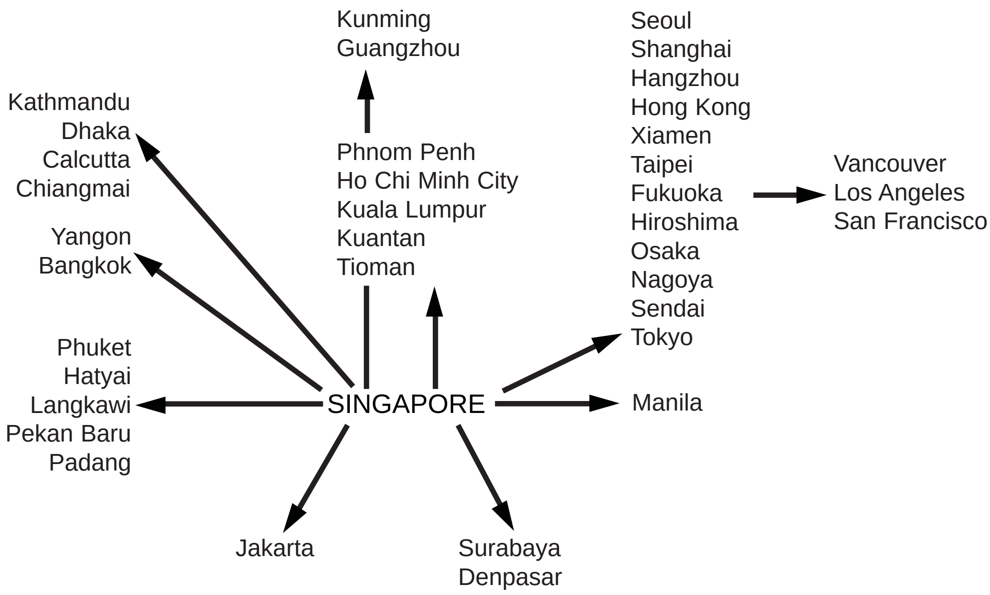
EXHIBIT 2 (CONTINUED)
A BIRD'S EYE VIEW OF SIA'S REGIONAL EXPANSION

Year	Operation	Destination / Route	Main Features
1990–91	New services, frequency and capacity increase	Japan Malaysia Indonesia Kuching Sarawak Kota Kinabalu Sabah	For Japan, weekly frequency increased from 28 to 33. Sendai became fifth Japanese gateway. For Malaysia, new agreements signed to operate services to Kuching and Kota Kinabalu. For Indonesia, capacity to Jakarta, Medan and Denpasar was increased. Two flights per week were launched to Kuching. Sarawak, Kota Kinabalu and Sabah.
1991–92	New services, agreements, destinations, frequency increase and resumption of service	Surabaya Australia Madras Mumbai New Zealand Vietnam	For Surabaya, three weekly flights were added, and for Australia frequency was increased to 21 flights per week. For Bombay and Madras, the frequencies were increased to five and four flights per week respectively. For New Zealand, a third service to Christchurch was added. For Vietnam, service to Ho Chi Minh city was resumed with four weekly flights. Frequency to Hanoi was increased to two direct flights per week.
1992–93	New agreements, destinations, frequency and capacity increase	Australia China Philippines Japan	For Australia, frequency was increased to 54 flights per week, with a possible increase to 80 by 1995. For China, agreement was made to increase the weekly frequency from 8 to 14 by 1993 with provision for 6 more by 1994. For Philippines, frequency was increased to 12 weekly Airbus 310 flights, and agreement reached to increase to 19 by 1994. For Japan, Boeing 747, a new aircraft was introduced, and a sixth destination with three weekly flights was added.
1994–95	Frequency increase	Philippines Vietnam Taiwan	For Philippines, Vietnam and Taiwan, weekly frequency was increased to 10 A310, 11 A310 and 34 B747 flights.
1995–96	New destinations, agreements and capacity increase	Cairns Macau China Japan Myanmar	For Australia, triangular route via Darwin was introduced. For Macau, two weekly flights were introduced. For China, Japan and Myanmar, weekly capacity was increased to 4 A310, 45.5 B747 and 12 B737 flights, respectively. Capacity on many cities in the Asia Pacific region, such as Adelaide, Melbourne, Sydney, Cairns, Seoul, Taipei, Beijing, Nagoya, Manila, Kuala Lumpur, Ho Chi Minh City and Male was also increased.
1996–97	Frequency increase	Many cities	One weekly flight was added to Athens, Guangzhou, Surabaya, Ho Chi Minh City, Delhi and Dhaka
1999	Termination	Darwin Sendai (Japan) Hangzhou (China)	Services were terminated due to the Asian economic crisis.

Source: Annual Reports

EXHIBIT 3

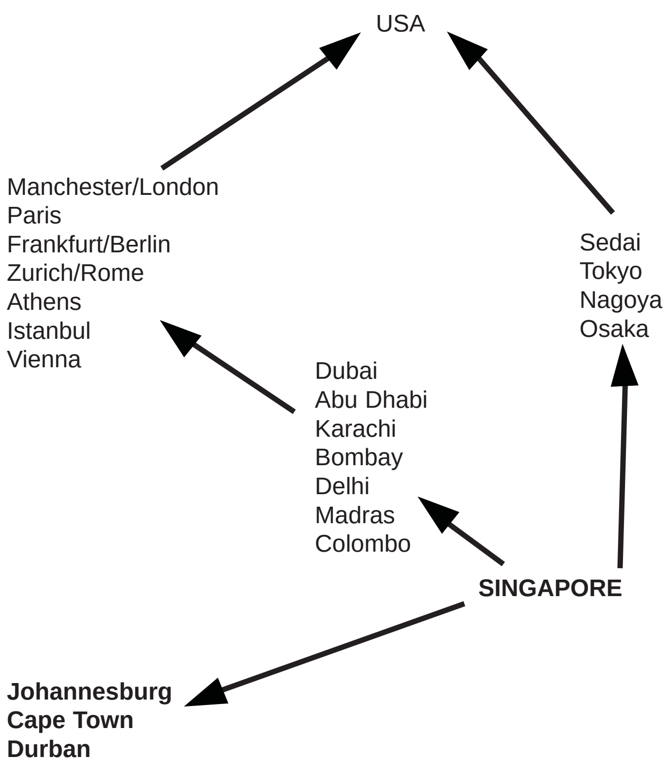
SIA'S REGIONAL ROUTES IN 1995



Source: Adapted from Davies R.E.G. (1999). *Airlines of Asia since 1920*. London: Putnam

EXHIBIT 4

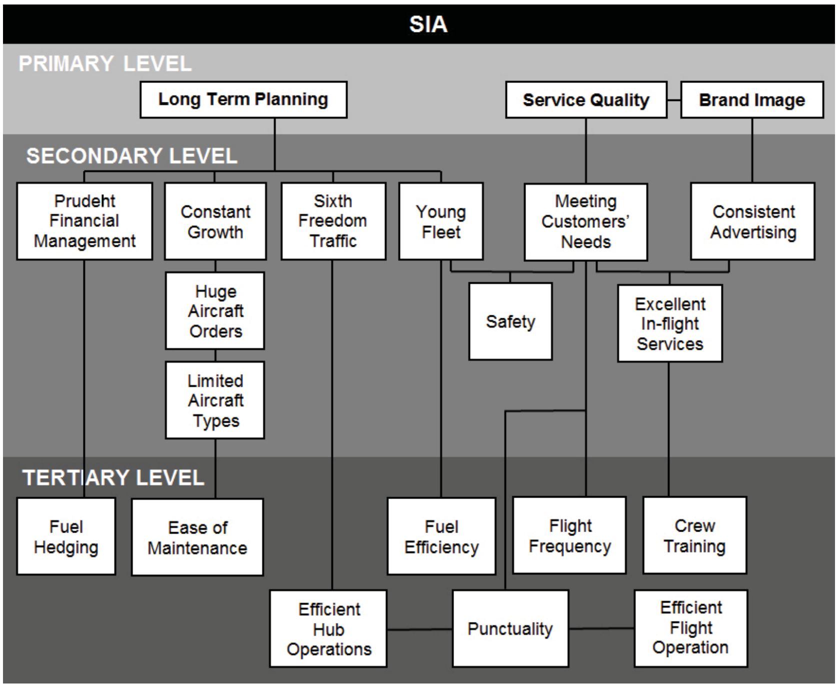
SIA'S LONG-HAUL ROUTES IN 1995



Source: Adapted from Davies R.E.G. (1999). *Airlines of Asia since 1920*. London: Putnam

EXHIBIT 5

SIA'S THREE LEVELS OF CORE COMPETENCIES



Source: Adapted from Ong, P.S., Ang, J, & Liu, D.S. (2000 February 3), *Business Policy Case Study on Singapore Airlines*, Nanyang Business School.

EXHIBIT 6

SUMMARY OF SIA'S STRATEGIC ALLIANCES

Year	Alliances	Main features and status
1989–90	SIA–Delta–Swissair SIA–Air Canada	• SIA's customers could access global travel, airport and check-in facilities and coordinate schedules. • SIA–Delta cross holding equity was worth US$181.4 million. • SIA was able to mount direct flights to Zurich. • Joint marketing arrangement to develop passenger and cargo traffic.
1990–91	SIA–Delta–Swissair SIA–Air Canada	• SIA joined Delta's frequent flyer programme and mounted Singapore–LA–Dallas/Fort Worth flights. • Air Canada terminated the Alliance agreement.
1991–92	SIA–Delta-Swissair	• Alliance partners decided to develop a global travel system. • Alliance partners established computer links to city ticket offices all over the world enabling passengers to collect tickets from these offices.
1992–93	SIA–Delta-Swissair	• Introduced seamless global travel for alliance passengers.
1994–95	SIA–Delta-Swissair	• Signed code–share or block space agreement with Delta.
1995–96	SIA–Delta-Swissair	• AFormed a global sourcing consortium – DDS World Sourcing AG. • Introduced a round-the-world fare and sold in 35 countries.
1997–98	SIA–ANZ–Ansett Australia and Ansett International SIA–Lufthansa SIA–Delta–Swissair	• New alliance formation was approved by the regulatory authorities of New Zealand. • SIA and ANZ started code sharing from October 1997. • Entered strategic alliance with Lufthansa in November 1997. • SIA and Lufthansa agreed to use their hubs in Singapore and Frankfurt. • SIA–Delta–Swissair alliance was dissolved.
1999–2000	STAR Alliance	• SIA joined STAR alliance in April 2000.

Source: Compiled from SIA's annual reports.