

STRATEGIC ISSUES IN THE AIRLINE INDUSTRY AND THE ROLE OF SINGAPORE INTERNATIONAL AIRLINES

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INTRODUCTION

THIS case study investigates the strategic environment of the airline industry operates. In particular, the role of Singapore International Airlines (SIA) in the global airline industry is considered. The study uses the concept of the “*Three Ring Circus*” (KCI, 2002), as an overarching framework, whereby the *Past*, the *Present* and the *PFuture* is used for studying the strategic issues in the airline industry and SIA.

The past focuses on the key strategic drivers in the airline industry over the past 10-20 years and provides a historic industry overview. *The present* serves the role of looking at the airline industry and SIA’s present strategic drivers and what is important to consider in this environment. The *Possible Futures*, or *PFutures*, looks at what potential drivers or strategic advantages may be present in future, and how SIA is responding to some of these issues.

The research in this project is mainly qualitative. It is based on interviews with key people within the airline industry, government officials, industry analysts and stakeholders. The analysis is also based on a review of the airline industry literature as well as the personal reflections of the authors in drawing together some key issues and insights that may help formulate, inform and prepare SIA’s strategy for moving forward into the unpredictable future.

This paper begins with a simple model for considering strategic and economic issues in the global airline industry. After this, we examine the *Past*, where a brief history of the airline industry is followed by sources of uncertainty and an examination of key strategic drivers. The section on the *Present* contains, among other things, a brief description of the industry structure, the rise of budget airlines, and the competitive advantages and strategy of Singapore airlines today. The *PFutures* section looks at the Possible Futures of the airline industry, and begins with an environmental analysis for Singapore Airlines, and the scenario analysis technique is used to consider possible future. The paper concludes with some key lessons and issues facing the industry and Singapore Airlines, and makes recommendations as to how Singapore Airlines may prepare and potentially mitigate some of these risks moving into future.

The Economic and Strategic Issues of Airlines in a Regulated World

Before starting to investigate the airline industry, it is worthwhile to consider the network of air traffic routes domestically and internationally. The reason for this is to evolve an understanding as to how regulation of the international airline industry may leave an obvious impact on a particular firm’s strategy. This will assist in looking into the “network effects” that are so important for airlines when considering profitability and strategy. A simple “model” of the international airline industry network might look something along the lines of what is shown in Figure 1.

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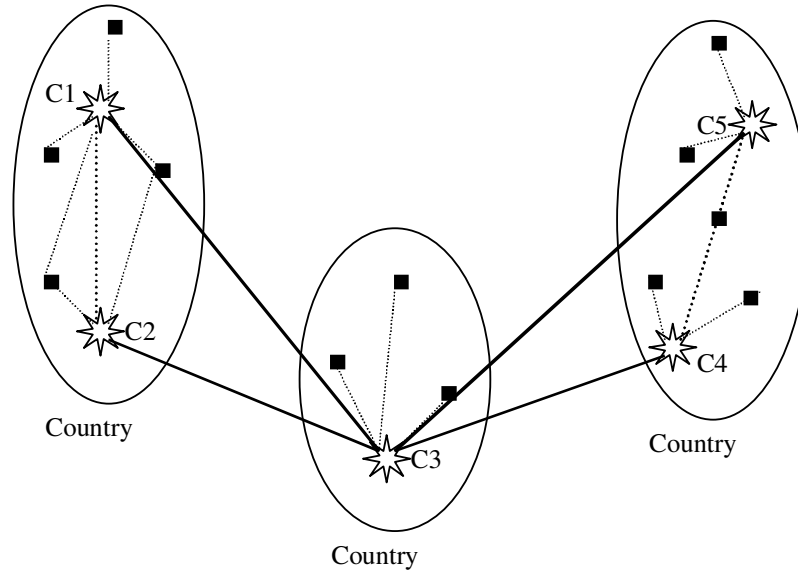


Figure 1: A Simple Model of International Airline Industry

Figure 1 shows a model of how a simple international air services network might operate. The model contains three countries (Country 1, 2 and 3) and each country has two types of cities. The major cities are denoted with stars and the medium-sized cities with squares. The flight paths domestically are indicated with dashed lines, whereas solid lines mark the international routes. The five major cities in the model are labelled C1 through to C5, for City 1 to 5. Each of the three countries has its own airline, named Country A Air, Country B Air and Country C Air.

Current technology does not allow travel between Country 1 and 3 without a stop in between. Hence, all international routes between major centres fly via the hub in Country 2 for refuelling. Country 1 and 3 are major economies whereas Country 2 is a relatively small economy.

In addition to technological constraints, presume that we have regulatory constraints that does not allow on-rights¹ or cobotage². In other words, an airline from Country A is not allowed to continue to a domestic city within a foreign country. This means that Country A Air might fly C1-C3-C5, C2-C3-C5, or perhaps C2-C3-C4. However, for efficiency purposes, it might be better for Country A Air to take a route from C1-C2-C3-C4. This would allow carrying domestic passengers between the two major domestic centres C1 and C2, to then continue internationally. However, the restrictions mean that they are not allowed to, say, continue on from C4 to C5 within Country C. However, if they could do that, this would potentially add to their revenues by being able to carry passengers between Country 3's two major centres C4 and C5. If this was possible, perhaps they would be able to reduce airfares? This example illustrates the problems regulation causes in the airline industry, and is very realistic. The regulatory constraints significantly hamper the strategic options available to airlines.

Country A Air, has the advantage, within its own country, to be able to feed traffic from their domestic network of air services, from the smaller (square) cities to the major centres for connections internationally. Country A Air operates a "hub and spoke" network. However, regardless of their efficiency they are unable to expand further into a foreign country as they are unable to offer many domestic destinations.

Imagine what it is like for Country B Air who does not have a strong domestic network. They do not have any of the advantages of Country A Air and Country C Air. The only option is to focus on the big international routes and to focus on being a hub, and to do this well. In this way, the regulatory constraint prescribes the strategy they are able to pursue! If Country B is a small country, such as Singapore is, it is easy to see just how constrained their position is.

So how can technology influence this system? Quite a lot. Say that an aircraft with longer reach is invented that enables flights directly from Country A to Country C. This would render the stop in C3 unnecessary, and unless people would like to travel to C3 in itself, it would be possible for Country A Air to start operating services directly to C4 and C5! The strategy of Country B Air is now non-workable. Hence, it cannot compete effectively on these routes as there is no feeder traffic from either Country A or C. The reason they do not have access to this is because the regulation does not allow them to fly within Country 1 or 3.

In short, international regulation hampers strategic choice and development of the world's airlines. Country B Air might be very efficient and the customer's choice, but regulation will not allow them to compete effectively outside their home country. This in turn leads to an internationally inefficient airline industry and a lack of competition means that customers, at the end of the day, pay more for airfares.

The Past: Two Decades in the Airline Industry

This section investigates what has influenced the airline industry in the past. The analysis covers sources of uncertainty, the influence of external events and identifies the key strategic drivers in the industry over this time period.

The Asia Pacific Region and Singapore Airlines: A Brief History

The Asia Pacific is an important region in terms of commercial air travel. The region has witnessed steady growth over the last couple of decades; the strong economic growth has led to rapid increase in air travel. In 1985 the region accounted for 26.2% of the total international scheduled passengers, it increased to 36.2% in 1995³ (APATF 1997).

One of the key players in the Asia-Pacific area is Singapore airlines. 'Singapore Airlines was born on 1 May 1947 when a Malayan Airways Counsel took off from Kallang Airport, Singapore. The aircraft had a seating capacity of five passengers and no cabin crew. The service was a tri-weekly one to Kuala Lumpur, Ipoh and Penang. By 1955 the airlines had a fleet of Douglas DC-3s and had expanded its operations to Jakarta, Medan, Palembang, Siagon, Bangkok, Sabah, Sarawak, Rangoon and Brunei. The airlines witnessed further growth in 1962 when Comet jets were introduced on international and major routes⁴. This represented a major discontinuous change in the industry, as flight times were cut substantially, and reach was extended significantly.

Singapore Airlines has come a long way to become Asia's most admired company. Its icon the Singapore Girl which is a smiling cabin attendant outfitted in tight batik sarong kebaya (a traditional Singaporean costume) is a well-known international service icon and has found a place since 1994 in Madame Tussaud's museum as a commercial figure which represents the popularity of the airline. The airline has demonstrated superior profitability and an enviable commitment to customer service despite the tremendous competition from European and Australian competitors and the brutally cyclical nature of the industry. It celebrated its Golden Jubilee Anniversary on 1 May 1997.

The influence of External Events and Past Strategic Drivers

The airline industry has evolved very rapidly since the world wars, and a number of factors have influenced the industry evolution over this time. The Asia-Pacific market is one of the fastest growing markets for airlines. However, there are several factors that have hampered growth. Let us now look at some of the factors that have influenced the airline industry and more specifically Singapore Airlines within the Asia-Pacific region.

Governments

The Chicago Convention on international air transport was signed in 1944 with a view to regulating the commercial rights for air services (Oum *et. al.*, 2000), so as to ensure that countries such as US would not be too well placed to dominate international air services. This has resulted in essentially a significant network of bilateral Air Service Agreements (ASAs), which were effectively developed as a result of the Convention's failure to allow multilateral exchange of air traffic rights (Macilree, 1998). As a result,

economic regulation of international air services is now governed by these complex bilateral ASAs agreements between governments. Air rights are negotiated over issues such as:

- Logistics (such as air routes, capacity, frequency, and aircraft types);
- the number of airlines that are allowed to operate under an agreement;
- regulation of any tariffs;
- rights to set up airline offices in the other country
- right to code-share;
- airline ownership provisions; and
- cabotage – the right to carry passengers within the foreign market.
- beyond rights – the right of an aircraft to carry on to destinations within a country.

The existence of these agreements has really given rise to the notion of the national airline, which is seen as a strategic asset which assists the rest of the economy. It is easy to imagine how these agreements constrain the potential strategic choices an airline has. It can, for example, not necessarily pursue a growth strategy to other markets. Furthermore, it may be restricted in launching other brands, such as a low cost no frills type airline to operate internationally. The model introduced at the start of this paper discussed some of these issues.

In several Asian countries which may have a single national airline, flag carriers are allowed to influence the bilateral negotiations process. Also traditionally the State which holds a certain percentage of stake in the national airlines will oppose any proposal to allow foreign competitors in their territory unless there is mutual benefit to the flag carrier.

Some countries such as New Zealand do encourage bilateral partners and mutual liberalisation of international arrangements. The emergence of ‘open skies agreements’, as the one between Australia and New Zealand, is an example of how the airline industry is starting to be deregulated. However, progress is slow, and this intervention has in the past been a key strategic hindrance for airlines. Large inefficiencies result, and the constraints on growth are immense. Ultimately it is the customer whose benefit is compromised as a result of higher airfares.

Technology

There are a number of technological drivers for change in the aviation industry, and some of the more recent key drivers for change include:

- electronic booking systems provided a basis for which major efficiencies could be achieved.
- growing use of highly complicated yield management systems and software allowing profit maximisation through optimising yields and network hubs and spokes through complex network economics concepts.
- more modern planes which are quieter, faster and have longer ranges, resulting in less necessary stops, a raft of new possible non-stop destinations and so forth. This has, and will continue to, result in airline route restructuring.
- technological progress within flight entertainment and communication systems, providing the possibility of Internet access, larger movie selections, games, etc. This technological change has resulted in an opportunity for airlines to provide differentiated services to their customers.
- Internet booking systems, yielding the use of travel agents unnecessary for booking your travel. This essentially cuts into or streamlines, the supply chain of the air travel product.

These factors have, and to some extent continue, to shape the airline industry as we know it today. Some of these changes have been very important, and can be seen as quantum leaps in terms of the improvement they brought along, whereas others may more accurately be classified as incremental improvements.

Labour Markets

Union relationships have traditionally been very important in the airline industry. Strikes and pay disputes, needless to say, are extremely costly. Any disruptions have large flow on effects and ripples through the network quickly. These labour relations issues have all played an important part in shaping the airline business for a long time, and pay rates are of concern for major player who have operated for some time. For example, air scheduling and other concerns may add significantly to the payroll bill of the airline. The companies need to provide hotel accommodation extra pay for having staff overseas or away from home, and pay more to compensate for working inconvenient hours. Perhaps some of these issues stem from the traditional perspectives of working in the aviation industry being seen as a 'sexy' high status job.

Unbalanced Distribution of Traffic

Geographic location has played a significant role in the airline industry and in particular for Singapore Airlines. The coming of larger, faster and further reaching aircraft, in combination with Asia's expansion, have all meant that Singapore, because of its central location, has been able to reap large benefits. Being central is a significant strategic advantage for Singapore Airlines.

Unbalanced distribution of traffic is one of the core issues that has faced the airline industry in the recent past. In 1993, a total of 1000 airports in 182 countries, 45% of air travellers embarked and disembarked at only 25 airports in seventeen countries. Fifteen airports in twelve countries accounted for fifty percent of the total amount of international cargo loaded and unloaded worldwide⁵. This illustrates the fact that there is not only competition between the airlines, but also that the airports do play a key role.

Several disputes over unfair exercise of traffic rights highlight the competition between airports and countries. In 1993 Australia had sought independent international arbitration on its agreement between United States and Japan sighting unfair commercial advantage to US carriers operating between Tokyo and Sydney. Another similar dispute has also existed between Australia and New Zealand, where Australia felt that New Zealand would benefit unequally from the liberal traffic rights agreements between the two countries⁶.

Airport Capacity

Airport capacity has major implications in formulating international aviation policies. The liberalisation policy may have ensured lifting of restrictions on frequency and capacity on point-to-point services between foreign countries. However merely having rights with no physical place to load and unload passengers is a meaningless arrangement. A majority of the airports in Asia-Pacific are congested and experiencing infrastructure problems. The need would therefore be to invest in infrastructure development, which will have a direct impact of liberalisation measures. Again, the airport, as opposed to just the airline, is of key importance.

Carrier Competitiveness

Airlines compete on the basis of yields and cost competitiveness. Airlines in certain Asian countries are viable due to yield like Japan or due to low input costs like Thailand. However in terms of efficiency Oum and Yu (1998) argue that Asian airlines rank very low as compared to European and American airlines. High yields are no longer guaranteed especially after the Asian crisis which saw a massive drop in passenger traffic from Asia. Moreover low input costs are essentially due to low labour costs, which are bound to be lost with the current pace of liberalisation.

Consumer Behaviour

The behaviour of consumers, their willingness to fly, whether they can afford to fly and so on, has obviously been a key driver of the industry. As technology has evolved, the affordability to fly has increased. The real price of air travel has, on average, reduced 2% per annum over the past 30 years (Macilree, 2001). Customer demands ability to afford to fly, attractiveness of being a flight attendant, status, novelty values, etc have also contributed to the state of today's industry.

Community and other Stakeholder Concerns

Airport noise has been of increasing concern to communities where major airports have become surrounded by newly built houses as a result of city expansions. At the same time, the city expansion has meant that air traffic has increased. These concerns tend to create pressure for further regulation of the airline industry. The available hours that planes are allowed to fly or frequency may become restricted. There are also major concerns with regional transport networks and air space congestion.

Increasing use of Strategic Alliances

Because of the regulatory issues and constraints in the international aviation industry, firms have worked around these regulatory issues by forming strategic alliances. Forming alliances will to some extent mean that the firms which join them overcome some of the regulatory concerns. One could call these alliances virtual airlines that have consolidated the industry in many fewer virtual airlines than there are actual airlines. However, this does not solve all problems. While the networked airline alliances can code-share and ensure they get feeder traffic from other firms' networks, they are still unable to compete against each other, and inefficiencies and monopoly situations will result.

There are some 100 airline-alliances in operation, although the two major ones are OneWorld, and Star Alliance the largest airline alliance. Table 1 shows the relative sizes of some of the largest alliances. By pooling together, these alliances have managed to drive some of the efficiencies that would otherwise not have been possible. For example, the more people you have on your international trunk routes, the higher will be your profit. If your fill-rate, the percentage of seats that are occupied, is high, your profit margin increases. So it is important that the feeder traffic network, usually the domestic network, is optimised to feed traffic into profitable international long-haul routes.

Table 1: The Relative Sizes of Some of the Largest Airline Alliances

	Passenger Traffic (RPK)		Passenger Numbers		Group Revenues	
	billion	world share	million	world share	\$ US billion	world share
Star Alliance	563	21.4%	276	18.9%	66.2	20.7%
One World	480	18.2%	213	14.6%	52.0	16.3%
Wings	287	10.9%	133	9.1%	28.9	9.0%
Air France/Delta	252	9.6%	147	10.0%	25.7	8.0%
Qualiflyer	91	3.5%	47	3.2%	14.1	4.04%

Source: *Airline Business, November 1999*.

A number of important benefits may accrue from forming strategic alliances. Some include:

- Economies of scale and specialisation
- Cross country specialisation
- First mover advantage and technological sophistication
- Market access
- Risk sharing
- Branding
- Seamless service networks
- Cost efficiency
- Service improvement
- Market power

- Marketing advantages and frequent flyer programs becoming more valuable – catering to the new global citizens

These factors are important and in all probability will also shape future potential alliances. However, depending on the regulatory frameworks in place and any technological achievements, alliances may well also become redundant. The factors presented above provide a useful tool for assessing, given certain conditions, why or why not alliances might form.

Industry Evolution and Sources of Uncertainty

Air transport can be considered to be a high growth industry as there are very few industries that have witnessed such an enviable growth rate spanning a long period of time. In 1945 air traffic has grown at an average growth rate of 12% which fell slightly to 11% during 1960. These impressive growth rates can be attributed to immature nature of the industry. As the industry gets bigger and bigger and the market matures, the growth rate tends to decline. The same principle applies to the airline industry, which grew at an average rate of 5% between 1985-95. The effects of the Gulf war were felt in early 1991 and continued in 1992 and 1993 when growth declined to 2.3%. However the industry bounced back to achieve growth rates between 7% to 9% during 1997-98. The Asian crisis after this period has slowed down growth, a forecast by the International Civil Aviation Organization reveals a growth rate of 5.5% till year 2005.

The Asia-pacific region witnessed rapid growth during the 80's and 90's up to 1997 due to strong economic growth, relaxation of travel restrictions, foreign exchange controls and so on. The Asia Pacific accounted for 26.2% of the total international passengers in 1985, which grew to 36.2% in 1995. However the sudden economic downturn in Southeast Asia in 1997 brought a sudden halt to the flow of passenger traffic. The impact was even greater in 1998 when the growth figures were replaced by decline as traffic fell by 20% leading to a subsequent reduction of 7.6% in world travel during this time. Revival measures like reduction in fares has limited effects as most economies were caught in the midst of heavy recession and thus Asia Pacific experienced the worst of both the world's as yield and load factors were simultaneously affected.

Other external factors have also influenced the airline industry. For example, market volatility such as fuel prices influence large amounts of the costs faced by airlines. There is a need for airlines to have good hedging practices. However, shocks in this area are likely to impact all players in the market equally. The main result is increasing airfares resulting in a drop in demand for air services as they are substituted by other means of transport or video conference calls. Foreign exchange rates can also cause problems for airlines if they are regionally or nationally based in particular. For truly global players, of course, they should be able to manage the international currency transactions well and ensure that the overall position for the company as a whole is relatively stable.

Figure 2 shows how a number of factors influence air service demand. GDP is a good measure to estimate the demand for air transport. In a study conducted by Boeing in 1990, North America had the highest demand for air services with each person making two trips per year. On the other hand in countries like China and India only one out of every 100 people can afford one air trip per year. This is an indication that leisure travel is price sensitive whereas business travel is price inelastic. Hanlon (1999) remarks that in the early post second world war period the ratio between business and leisure travel was approximately 80/20, whereas in recent times this ratio seems to be reversing.

The Frequent Flyer Programme (FFP), a purchase incentive plan, which rewards passengers for their loyalty to a particular airline can be termed as an innovation in the history of the airline industry. Under this scheme, passengers are eligible for points depending upon the nature of the ticket and the distance travelled. American Airlines launched the first FFP in 1981 and its immense success led other US airlines to follow suit. An estimated 30 million people in the US are members of this scheme. Today all major airlines have their own programmes. Budget airlines, off-peak fares, free hotel accommodation are other incentives used to attract leisure travellers.

Mergers and acquisitions occur on a negligible scale in airlines industry around the world as well as in the Asia-Pacific region, except the recent acquisition of Ansett Australia by Air New Zealand. However airline

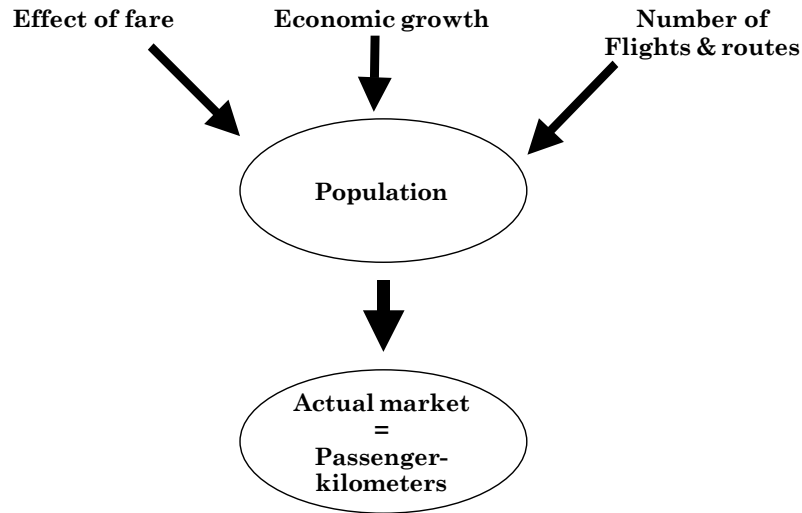


Figure 2: Components of Air Travel Demand

Source: Airbus industries.

companies do hold stake in one another. Qantas owns a certain percentage of equity in Air New Zealand so does Singapore Airlines. A major reason for these negligible acquisitions is that most airlines are the flag carriers for their respective countries and enjoy special protection from their governments. This goes to prove that governments of different countries have always resisted moves to sell-out an ailing flag carrier but instead have spent huge sums to rescue them from time to time.

On alliances the Asia-Pacific market has been quite restrictive as well despite 'The Open Skies' agreement between North America and a number of countries including Singapore, New Zealand, Taiwan, Brunei, Thailand, Philippines, Macau and South Korea.

The Present: Singapore Airlines Market Position

Industry Structure

Despite the size of the industry deregulation process has been very slow in Asian countries with many countries averse to liberalisation till recently, bilateral agreements have not kept pace with changes possible because of protectionism.

Also the Asia-Pacific region is politically, socially as well as culturally diverse as compared to North America and Europe which has had an impact on their strategies as well. Airlines in this region have gained on both load and yield factors. The population in economies such as Japan ensures certain load at all times. Similarly labour is cheaper in several Asian economies, which leads to lower operational costs. Surprisingly however the level of efficiency is very low as compared to their European or American counterparts. Another reason could be over employment or high salaries being paid to staff as witnessed in Air India. This has led to higher fares for Asia-Pacific based airlines.

Recently Asian airlines are finding it increasingly difficult to sustain themselves due to reduced passenger traffic from within Asia and increased operating expenses coupled with heavy competition. All this has put the pressure on carriers to make themselves efficient for better prospects in markets overseas, which in turn has led them to put pressure on the government to sign 'Open Skies' agreement with several countries. The recent ones being the 'Open Skies' deal between Indonesia, Malaysia and Thailand to liberalise trade and growth. Another example is the Brunei, Indonesia, Malaysia, and Philippines- East Asia Growth Area regional pact.

The growing cooperation between airlines in the Asia-Pacific region has extended to carriers joining Global Alliances formed by airlines from Europe and America to maintain their presence in the region. Recently Japan has entered into separate marketing partnership with OneWorld leaders, American Airlines and British Airways.

The Rise of Budget Airlines

The airline industry has been significantly restructured and challenged over the past few years with the rise of budget airlines. These airlines cater to passengers who seek low cost air services, and do not offer business class seats. The airlines operate the same types of aircraft, lowering maintenance costs, earn revenue from selling food, alcohol and duty free items in flights. They further have very tight contracts with staff, focussing on eliminating strikes and salary arguments by having a complete contract based workforce. Low cost airlines have controlled this cost very well. They have reduced additional services, by flying the relatively shorter routes they are able to cut costs further, as no staff is required to be away for prolonged periods.

In fact, some airlines are offering the flight itself for free. How can they do this? They make money from selling additional services on the flight. They also arrange to fly from less busy airports, arranging with that airport to share of the revenue received from taxes and airport fees on a per passenger basis. This is the traditional business model turned on its head, with the airline capitalising on its reputation and network of airline services to make money. The commodity flight in itself is not the valuable business here! They are selling their network capacity, as this is where they actually make their money.

These airlines have driven down costs by operating very tight labour policies with good HR practices and minimal work stoppages resulting in high profit margin

September 11, 2001 – The Impact of a Major External Event

The tragic event of September the 11th of 2001 has had a major impact on the global airlines industry – mainly because of consumer confidence. Margins have been squeezed significantly and traffic volumes have decreased significantly, especially in the US.

For example, Credit Suisse First Boston (CSFB, 2002) estimate that the events on September 11 2001 caused a drop of nearly 30% in air service demand. Figure 3 shows their estimates.

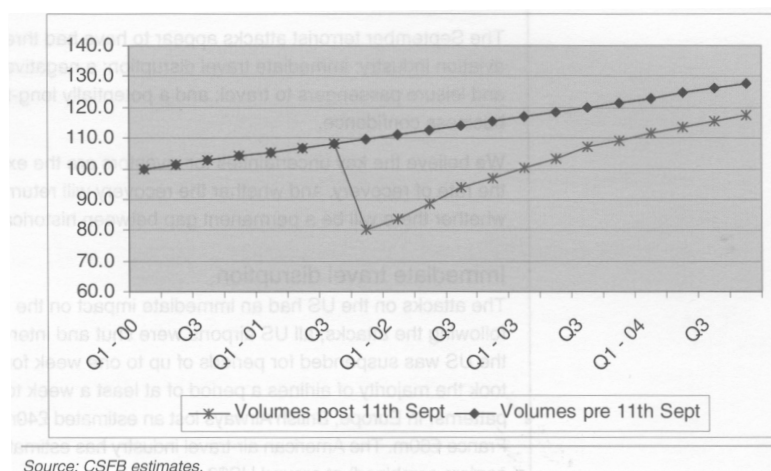


Figure 3: The Impact of the Events of September 11 in the US on the World Air Travel Demand, as Forecast by the Investment Bankers CSFB.

As Figure 3 shows, CSFB estimates a deep downturn in airline demand, and that this shock will be present for a relatively long period of time. Such extreme external events do indeed seriously impact the industry!

The Major Airline International Markets

The two major markets for airline services are the US and Europe. Airlines from EU countries are free to fly anywhere they like within the EU, however, foreign airlines are restricted by agreements made with individual countries within the EU. In the United States, the domestic market is effectively closed to foreign airlines.

Because of the close markets, the airline with large domestic market has a quite significant strategic advantage. This is because the larger the market, the greater the opportunity to optimise feeder traffic from that market to the international trunk routes.

The result of this highly regulated network of air transport services means that an airline based outside the US and EU is unable to optimise their traffic flow.

Singapore Airlines Competitive Advantage and Strategy

To understand the strategy of Singapore International Airlines (SIA), it is important to consider the country from which they operate and its characteristics.

A Favourable Location

Singapore Airlines operate out of Singapore – a small country of about 4 million inhabitants. Singapore is physically so small that there is no domestic airline service within Singapore itself. Instead, the Singapore airport operates as a hub within South East Asia. The geographic location of Singapore plays a significant role. With current technology, non-stop flights are possible from virtually anywhere in Europe, Africa and Asia, however the West Coasts of North and South America are still out of reach.

Singapore's near perfect location as a hub heavily influences SIA's strategy. SIA is a major long haul carrier, with a large percentage of their passengers in transit for other destinations.

Strategy Restricted by International Air Regulation

Because of the major issues that SIA face in relation to the regulated worldwide airline industry, growth is difficult. Without rights to fly within most countries, SIA freectify heavily on airline alliances to enable them to service feeder air traffic on their airline network of major trunk lines and attract higher volumes of traffic through their Singapore Airport hub. Furthermore, SIA finds it difficult to grow because of the restrictions they face regarding on-rights and cabotage.

Singapore Airlines versus Singapore the Country: A Joint Strategy

The Singaporean Government has a significant interest in the airline. The Government has appointees on the board of SIA. This is perhaps one of the reasons why SIA is able to fructify some of its strategy. For example, favourable tax treatment allows SIA to utilise favourable accelerated depreciation methods. This effectively comprises a subsidy by the Singaporean Government in that they are happy to forego tax revenue. This is perhaps one of the reasons they can afford to operate such a modern fleet of aircraft, and why they are able to offer the latest technology in their in flight entertainment systems. However, there is also a benefit in operating new equipment. SIA does not have the same high maintenance and repair bills as other airlines, as their equipment is much newer.

Singapore is as a country positioning itself as a major transport centre, with the airport acting as a large hub internationally, as does the port. They are also realising that, by being a hub, they can attract a lot of businesses and business into their economy. Singapore is indeed capitalising in their geographic location in the Asia region.

The large Government interest in SIA allows it to have a strategy that is more effectively co-ordinated and realised. Indeed, Singapore-the-country and SIA's strategies are acting in concert. There is a co-ordinated effort to maintain the Singapore airport to a high standard. Singapore's airport offers a lot of high quality activities for transit passengers. They offer great shopping, a golf course, closeness to the city, city tours if you have enough time at your disposal, and a clean and inviting city to stay in for a few days if you have even more time. In other words, the strategy of SIA is closely inter-linked with the other high quality activities

passengers are able to undertake between their flights. As previously discussed, the airport may be just as important as the airline when it comes to the strategy of SIA.

Emphasises on Quality

The other aspect of SIA's strategy in the past has been the emphasis on service and quality. SIA has a very new aircraft fleet, state-of-the-art in flight entertainment systems and excellence in customer service. As a result of this differentiation, SIA is not positioning itself as a low cost airline, but rather as an airline of choice for people who want quality. By differentiating themselves, they can charge a premium for their services.

Business class passengers are one of the key profit for every airline and SIA is no exception. With its exceptional service and high standards, this is their natural target audience. Full service includes power points for laptops and even Internet connections while in flight.

Partnership in a Strong Alliance

SIA benefits immensely from being part of the Star alliance network of airlines. Arguably, SIA has more to gain from the alliance than any other partner, as this is the only way they can achieve feeder traffic. SIA effectively uses the alliance partners to feed traffic into its international high quality network. Without this alliance participation, SIA would find success more difficult.

SIA's strategic tie-up with airlines in Europe and North America is likely to favour customers. The tie-up with Lufthansa in 1998 has allowed SIA landing rights and access to Frankfurt and other destinations in Germany and Europe. SIA passengers will have the option to fly beyond Frankfurt on either of these airlines. Similarly Lufthansa will have access to Singapore and other destinations in Asia.

An increasing number of such tie-ups will increase consumer expectations providing a wide choice. For example, Malaysian Airways flying from Auckland to New Delhi via Kuala Lumpur offers free hotel accommodation for a day in Kuala Lumpur. Consumers will switch to airlines that offer better value for money through superior service.

The PFuture: Possible Futures for Singapore Airlines

The PFuture stands for the Possible Futures that an organisation, or indeed the world, may face. This concept, introduced by KCI (2002), recognises that the future is uncertain and should, therefore, best be represented as an outcome space, or a number of possible outcomes.

One important and useful tool for analysing the environment of future in which organisations may operate within in future is a scenario analysis. Scenarios are not predictions about future. They represent a way to think outside the square, and to prepare an organisation for potential future radical changes (Grant, 2000). Scenarios are also not desired end states, nor do they, or should they, represent particular points of views, personal preferences, or organisational politics. Such biases and value judgements must be ruthlessly excluded from the analysis (Henshall, 2001). Scenario analysis instead provides a tool to prepare an organisation for the inevitably uncertain and unpredictable future, by having practised responses to various future scenarios, and by investigating 'what if' type questions. Many methodologies exist for developing scenarios, the most common being the matrix approach, whereby the two most important and uncertain influences on the organisation is used as axes in a four quadrant matrix (Erasmus, 2001). We use this methodology here, although others prefer different approaches (Kleiner, 1999).

The environment surrounding SIA was scanned using STEEP analysis, out of which some key possible strategic drivers for the airline industry are developed. These drivers comprise the axes in the scenario matrix, from which we elicit some key lessons for SIA's strategy and several recommendations for action to mitigate some risks or to prepare for the future.

Scanning the Environment: Analysis of Possible Future Strategic Drivers

STEER analysis is useful, as it focuses attention on Social, Technological, Economic, Environmental and Political influences on the organisation. A number of these factors may influence significantly not only SIA

but also the industry as a whole. Included below are descriptions of some of these factors that formed part of our STEEP analysis.

Social

Customer demands, ability to afford to fly, attractiveness of being a flight attendant, status, novelty values, and so forth all impact the way an airline is perceived. Furthermore, events such as the terrorist attacks of September 2001 significantly impact the industry. Those events clearly show how vulnerable the worldwide industry is to customer attitude changes.

Technological

Technology is certainly one major source of future uncertainty for the industry. Imagine, for example, what a long range aircraft could do for SIA? This would on the one hand mean that they could reach the Americas in one non-stop flight. On the other hand, there could potentially be many routes from the EU where there would be in no need to stop in Singapore, the SIA main hub. What would the impact be? It would likely be very profitable to not stop in Singapore but to, perhaps, carry on straight between London and Sydney!

“Shopping mall planes”, such as the Airbus A380 currently under development. This could assist SIA in providing excellent services on their long haul flights! What premium would you be able to charge from allowing passengers have a restaurant, shops and gyms for their use while in flight?

Smaller fast planes: This could potentially create a market for operating many point to point flights which would cut travelling times significantly for passengers. This is the converse way to handle traffic to the hub and spoke networks.

Supersonic near-spacecraft planes, which could cover distances at mind-boggling speed. Sydney to London may take just three hours. Invention of aircraft using alternative sources of energy like solar power could also change the face of aviation industry.

Booking systems: Development of the internet has already had its impact on several aspects of the airline industry. However its impact on the booking system still remains to be seen. Present day analysts feel that major airlines do not prefer online booking services because of stiff competition where booking agents play a key role in promoting a particular airline.

Environmental

There may be concerns about the environmental integrity of a sustainable operating airline industry. However, this dimension may not perhaps be as important an influence as some of the other dimensions in this case. Of course, consumer demands may change and social behaviour may change as a result of issues raised in this category. However, it appears that some of the main risks may not show up in this category.

Economic – Market Volatility, External Factors and Shocks

Fuel prices have and continue to remain one of the most uncertain factors. The Gulf war saw a massive increase in fuel prices leading to a subsequent increase in airfares. Similarly recession in economies around the world has a direct bearing on the airline industry as was evident during the Asian crisis. The unfortunate incidents of September 2001 have implications on aircraft safety and security. Economic conditions, more generally, have a tremendous impact on demand and are very important.

Political Factors/Governments

Governments are discussing the possibility of a multilateral agreement covering air cargo services that might include a less restrictive approach to foreign ownership, and some are advocating liberalised approaches to foreign ownership. An enormous amount of progress has been made in this area over the last five years, but there is a long way to go. There may be some possibilities that the September 11 terrorist attack may form a greater will to deregulate the industry, especially as the large market players have significant leverage and opportunities in a deregulated environment.

STEEP Analysis: A Summary

A summary of some factors in the steep analysis that may significantly influence SIA is provided in the table 2.

Table 2: Summary of STEEP Analysis

Dimension	Factor	Impact	Uncertainty
Social	• Reduction in leisure travel	Med	Med
	• Preference to alternate sources of transport	Med	High
	• Fear of flying	Med/High	Med
Technological	• Invention of aircrafts plying on alternate sources of energy	Med/Low	High
	• Invention of high speed supersonic aircrafts	High	Med/low
Environmental	• Stringent environmental laws by major countries in Asia	Med	High
	• Closure of major airports due to noise pollution	High	Low
Economic	• Recession in major economies in Asia-Pacific	High/Med	High
	• Rise in fuel prices	Med	High
	• Devaluation of the Singapore dollar	Low	High
Political	• Fall of the European Union	Low/Med	High
	• Repeat of Sept 11 incidents in US	Med/High	Med
	• Increase in tourist inflow in to NZ	Med	High
	• Deregulation in the airline sector internationally	High	High

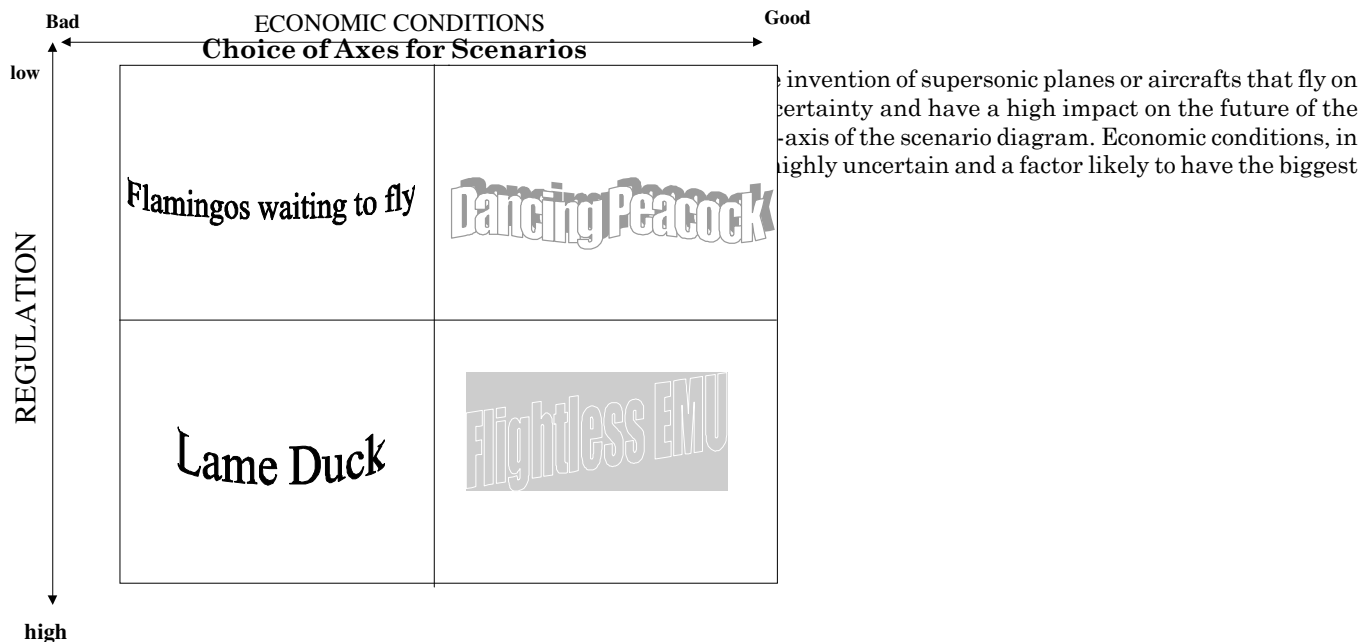


Figure 1: Schematic Presentation of Four Possible Future Scenarios

Some Possible Future Scenarios

Four scenarios have been developed from the two most uncertain and important dimensions identified from the STEEP analysis – the economic conditions and the government regulation dimensions.

Flamingos Waiting to Fly

In this scenario, where the airline markets are deregulated, but the economic conditions are a little tough, Singapore Airlines are ready, waiting for better economic conditions, for the tide to turn and for the season to shift. Just like Flamingos, the migratory birds that fly across the world once the mating season is over, once the conditions are right. Once the economy picks up, it is likely that SIA will be able to start competing vigorously to become one of the major players in the airline industry. Internationally, the markets are fully deregulated, and this is very good from SIA's point of view. But the economic conditions represent an annoyance – the demand is simply not there to grow. On the other hand, SIA's strong balance sheet means they survive the harsh economic conditions a bit better than its competitors. Who knows, at the shores of Singapore, where SIA is waiting for their long successful journey to the overseas markets, they wait, and perhaps even mate with one or two of the airlines that are doomed to fail under the problematic conditions. Perhaps they will even get some cheap firms in real trouble that will enable them to grow a little fatter for the long journey ahead?

The Dancing Peacock

Singapore Airlines is in full dance when the world airline markets are fully deregulated and the economic conditions are good, and SIA is really showing very strong colours indeed. SIA has been able to compete effectively to be one of the major players in the now highly consolidated airline industry. Only a handful of the world's airlines are left. Why bother forming alliances when you can just buy the company and have the stage dancing colourfully all by yourself? This is a major breakthrough for SIA, who is able to pursue a strategy of growth, and able to really show off themselves at their colourful bests. SIA is indeed showing off its feathers to their rivals, performing a beautiful and colourful dance on the airline industry world-stage. Times are really so good that SIA will need to be careful not to bulldoze people, or indeed countries, so as to again impose regulations that would really hurt. SIA will have to make sure they don't swing those feathers so violently that they fall off!

Lame Duck

Oh dear, the duck is really in trouble. Not only has SIA failed to get those badly needed regulatory changes through that are so necessary for them to move beyond the Singaporean pond which is kind, nice, but small. The duck is also lame, and it cannot move to another pond even nearby, as SIA faced dire economic conditions. There is no room to move internationally, because no other fellow foreign citizen ducks will share their ponds. Each airline is restricted to its own country through regulations – each duck to their own pond thank you very much. To top it off, there is not much energy left to do anything about it anyway, the economic conditions are so tough that there is not much room to think about expansions or increased profits. Each to their own, trying to simply stay afloat. Perhaps the Government will come along to bail us out? The duck is lame, sitting firmly in its own pond, unable to move.

Flightless EMU

EMUs are pretty big, fat and happy. But they surely cannot fly. They're simply not made for it – the wings are way too small and their whole structure is not made for flying a lot. As for Singapore Airlines, they too are sitting happily reaping the profits from heated customer demand. But the regulatory structure is not particularly conducive to easy flying. Like the EMU, a few structural changes such as bigger wings and less fat on the body, would do a world of difference in its ability to fly, SIA could do with some structural changes. For example, deregulation into at least a few markets and some industry consolidation, losing some of the fat in the industry, would do SIA a world of good. SIA is focussing its profits on lobbying for significant deregulation in this scenario. Let's try making some of those structural changes that hamper the ability to reach out and fly out into the big wide world.

The future of Singapore Airlines' Strategy

The SIA strategy is very clear and focussed. Their culture is also very aligned with success. However, this is at times a problem, as foreign Governments see SIA as a threat, which may at times hinder progress for SIA in expanding.

SIA needs to establish other hubs to be able to grow successfully. However, Government regulation forbids this at the current time, leaving SIA to focus on establishing alliances in the airline industries overseas. The recent agreement with Lufthansa as per which SIA has access to Frankfurt and visa versa is a right step in this direction.

There are a number of important considerations for today's airlines. Some of the most important considerations in maximising profits include the way in which the airlines utilise the following tools:

- Yield management: How the pricing of tickets and structuring of routes is used to maximise profits. Business class passengers are normally the major profit generators for airlines, and the economy class seats are essentially sold on the premise to recover the costs of flying the aircraft.
- Strategic partners: Alliances are increasing in terms of size, scope and scale. Besides equity swaps, code-sharing, selling seats on each other's flights alliances of the future will have to pool marketing efforts, frequent flyer programs, mutual access to airport capacity and so on
- Network optimisation: Networks with major countries in Asia will mean more business and higher revenues. China is fast becoming a major economic super power in the Asia Pacific region, and its annual passenger traffic stood at 57.55 million in 1998 and is expected to grow at an annual rate of 5.6% per year. Forming networks with major airlines like Air China, China Eastern Airlines and China Southern Airlines, China's three major airlines should be a priority. Building networks will strengthen SIA's fight for deregulation.
- Mergers and amalgamations: Mergers and amalgamations will be a key strategy for survival in future. Buying up other airlines is an option that the board should look into.

SIA should pursue these factors vigorously into the future. Because of the current environment of regulations, the forming of alliances is key. In the future, perhaps deregulation will allow SIA to play out some of the strategies prepared for as part of the scenario analysis. However, in the short term, the focus should be in their superior service, creating alliances and expanding their networks.

Conclusion

The airline industry is undergoing profound changes. Shrinking profits, rising fuel costs, government regulations and increasing competition will make survival difficult. One can expect a total shakeout of some key players. For example, the rise of the budget airlines has made life very difficult for some players.

The present very profound regulatory constraints call for some changes to a traditional growth strategy which some players may be able to pursue. This is because a traditional growth strategy is difficult to achieve in the airline industry. Instead, airlines with a future outlook will be expected to concentrate on key issues like formation of strategic alliances, network maximisation, creating more hubs or entry points and so on.

At the customer level, expectations for quality service are bound to increase and marketing efforts and service quality will need to go hand and hand for better results. SIA is in a strong position in this regard.

Notes

- 1 Beyond rights refer to the right of an aircraft to carry on to destinations within a country after having come from overseas.
- 2 Cabotage refers to the right to carry passengers within the foreign market where beyond rights have been negotiated.
- 3 Asia-Pacific Air Transport Forecast: 1980-2010. Geneva: IATA, 1997.
- 4 <http://www1.moe.edu.sg>.
- 5 Shaping Air Transport in Asia Pacific, p.144.
- 6 *The Air Letter*, Nov 8, 1994.

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