



Strategy and organization at Singapore Airlines: Achieving sustainable advantage through dual strategy

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A B S T R A C T

Keywords:

Sustainable advantage
Strategic alignment
Dual strategy

Singapore Airlines has consistently outperformed its competitors throughout its history, in the context of an unforgiving industry environment. We examine how Singapore Airlines has achieved its outstanding performance and sustained its competitive advantage, through effectively implementing a dual strategy: differentiation through service excellence and innovation, together with simultaneous cost leadership in its peer group. We examine the organizational elements that have allowed the company to do so, illustrate its strategic alignment using a vertical alignment framework, and conclude by highlighting the significant challenges ahead.

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1. Introduction

The airline industry has been plagued by several factors such as overcapacity, commoditization of offerings, cutthroat rivalry exacerbated by the entry of low cost carriers, and intermittent periods of disastrous under-performance (Costa et al., 2002). Several macro-level socio-economic factors such as rising oil prices, the SARS crisis, frequent concerns about the eruption of bird flu, the Asian tsunami, and rising terrorism concerns have further impacted profitability adversely. In 2006, the global airlines industry suffered a net loss of \$500m, or 0.1% of revenues, accumulating net losses of \$42bn between 2001 and 2006 (International Air Transport Association, 2007). In 2007, the airline industry made a modest net profit of \$5.6bn on revenues of \$490bn, equivalent to less than 2% margin (International Air Transport Association, 2008). The outlook from 2008 onwards remains bleak. Not surprisingly, the industry is regularly rated as one of the worst performing industries in the Fortune Global 500 rankings.

In this industry environment, Singapore Airlines has consistently outperformed its competitors. It has never posted a loss on an annual basis, has achieved substantial and superior returns compared to its industry, and has received hundreds of industry awards for its service quality. We suggest that SIA has achieved this outstanding performance by implementing a dual strategy: differentiation through service excellence and innovation, together with simultaneous cost leadership in its peer group. Such a strategy was

deemed unachievable by Michael Porter (1985) who held that differentiation and cost leadership must be mutually exclusive since they require different kinds of investments across the value chain. We examine the elements of this dual strategy, outline SIA's strategic alignment using a vertical alignment framework (alignment among environment, strategy, core competencies and organization); and conclude by highlighting the significant challenges ahead for Singapore Airlines.

2. Case study

The case research on Singapore Airlines took place over seven years and examined the company's strategy and competitiveness, in particular its organizational competencies that support the delivery of service excellence in a cost-effective manner (Heracleous et al., 2009). Further, we explored how these competencies are developed and supported by SIA's operational configurations and functional strategies, such as the human resource development strategies and internal innovation processes. We collected both primary and secondary data relating to these issues.

In addition to examining database resources on SIA and the airline industry, we have conducted 18 in-depth interviews (a list of interviewees is provided in Appendix). The interview data have allowed us to gain a deeper appreciation of how SIA has configured its operations and internal processes to develop the core competency of cost-effective service excellence, achieve sustainable competitive advantage and outperform other airlines in its peer group for decades. We have transcribed and analyzed these interviews to identify practices and common themes that we outline in this paper.

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3. Singapore Airlines' strategy

Singapore Airlines is positioned as a premium carrier with high levels of innovation and excellent levels of service, and has made a strategic choice of giving priority to profitability over size. The internal organizational practices outlined in this paper, such as continuous people development and rigorous service design are key aspects of operationalizing and sustaining this positioning and strategic choice.

At the corporate level, SIA follows a strategy of related diversification. The Singapore Airlines Group has 36 direct subsidiaries and associated companies (Singapore Airlines, 2008). SIA Group subsidiaries include Singapore Airport Terminal Services (80.8%), Singapore Engineering Company (81%), and Singapore Airlines Cargo (100%) (Singapore Airlines, 2008).

Its airline subsidiaries which include 100% ownership of regional carrier Silk Air, budget carrier Tiger Airways (49%), and Virgin Atlantic (49%) cover the key customer segments within the industry. According to CEO Chew Choon Seng "we intend to play in all the segments – SIA at the high end, Silk Air on middle ground and Tiger Airways at the low end" (Outlook, 2004). The shareholders in Tiger Airways include Temasek (the Singapore government's investment arm as well as SIA's majority owner) and Irelandia Investments, the private family investment vehicle of Anthony Ryan, the founder of Ryanair, one of the world's leading budget carriers.

As part of its international strategy, in April 2000 SIA joined the Star Alliance, one of the three major airline alliances (the other two being Oneworld and Skyteam). In the meantime various divisions of the SIA Group have been investing in China and India through strategic alliances with local organizations (cargo division, airport services, engineering services and catering).

Use of information technology is an essential feature of SIA's strategy both in enhancing customer service as well as increasing efficiency. SIA's web site is one of the most advanced and user-friendly in the industry, where customers can check schedules, buy tickets, check into a flight, manage their Krisflyer (frequent flyer) account, find out about promotions, and even choose their meal for their next flight. Given that agents' commissions can be up to 7.5% of total operating costs (and reservations/ticketing a further 5.4%) (Doganis, 2006), effective use of IT can significantly reduce costs and enhance service levels. When the current CEO, Chew Choon Seng took over in mid-2003, cost cutting was on the top of his agenda with particular emphasis on cutting non-fuel costs by 20% within 3 years, and outsourcing IT functions to IBM. The sustained drive for efficiency as well as quality has enabled SIA to increase the spread between breakeven load factor and actual load factor to 6.7% by 2006.¹

With regard to business-level strategy, Singapore Airlines has managed to deliver premium service to very demanding customers (achieving differentiation); at a level of costs that approach those of a budget carrier. This achievement challenges Porter's suggestion that differentiation and cost leadership are mutually exclusive strategies. Singapore Airlines supports this dual strategy of differentiation and internal cost leadership through the core competency of cost-effective service excellence, enshrined in a unique, self-reinforcing system of organizational processes and activities.

4. SIA's organizational activity system

The five pillars of SIA's organizational activity system, described below, are rigorous service design and development, total

innovation, profit consciousness ingrained in all employees, achieving strategic synergies, and developing staff holistically.

4.1. Rigorous service design and development

Almost two and a half decades ago, services marketing professor Lyn Shostack (1984) noted that service design and development were characterised by trial and error rather than by a structured process as was the case in manufacturing. Things appear to have changed little since then for most service organizations. SIA however views product design and development as a serious, structured effort. SIA's initial commitment to exceptional levels of service and innovation begun in 1972, when, after its separation from Malaysian Airlines, it chose not to be a member of IATA, whose rules SIA considered too constraining.

SIA has a Service Development department that hones and thoroughly tests any change before it is introduced. This department undertakes research, trials, time and motion studies, mock-ups, assessing customer reaction; to ensure that a service innovation is supported by the appropriate procedures. Underpinning the continuous innovation is a corporate culture that accepts change and development as not just inevitable, but as a way of life; a cultural element that is also inculcated at the national level by Singapore's government. A trial that fails or an implemented innovation that is removed after a few months is acceptable, and damages no-one's reputation.

At SIA it is expected that any innovation may have a limited shelf life. SIA recognises that to sustain its differentiation, it must maintain continuous improvement, and be able to dispose of programs or services that no longer provide competitive differentiation or that could be offered in a different way. According to SIA's senior management, "It is getting more and more difficult to differentiate ourselves because every airline is doing the same thing ... the crucial fact is that we continue to say that we want to improve. That we have the will to do so. And that every time we reach a goal, we always say that we got to find a new mountain or hill to climb ... you must be able to give up what you love" (Yap Kim Wah).

The stakes are raised for SIA, not only by its competitors but also by its customers, who have sky-high expectations: "Customers adjust their expectations according to the brand image. When you fly on a good brand, like SIA, your expectations are already sky-high. And if SIA gives anything that is just OK, it is just not good enough." (Sim Kay Wee). Combined with its extensive customer feedback mechanisms, SIA treats its customers' high expectations as a fundamental resource for innovation ideas. Weak signals are amplified; every customer letter, be it complaint or compliment, creates a reaction within the airline. There is also a program called "SIA", for "staff ideas in action", where staff can propose any ideas they have that would improve service or cut costs. Additional sources of intelligence are the IATA, Global Airline Performance (GAP) survey, and SIA's "spy flights", where individuals travel with competitors and report detailed intelligence on competitive offerings.

Lastly, SIA recognises that its competition does not just come from within the industry. Instead of aiming to be the best airline its intention is to be the best service organization. To achieve that, SIA employs broad benchmarking not just against its main competitors, but against the best-in-class service companies.

4.2. Total innovation

SIA does not aim to be a lot better but just a bit better in everyone of its functions and offerings than its competitors. This not only means constant innovation but also total innovation – innovation in everything, all the time. Importantly, this also

¹ Singapore Airlines analyst presentation, http://www.singaporeair.com/saa/en_UK/content/company_info/investor/analysts.jsp, accessed 19th June 2007.

supports the notion of cost-effectiveness. Continuous incremental development comes at a lower cost than radical innovation, but delivers that necessary margin of value to the customer: “It is the totality that counts. This also means that it does not need to be too expensive. If you want to provide the best food you might decide to serve lobster on short haul flights between Singapore and Bangkok for example, however you might go bankrupt. The point is that, on that route, we just have to be better than our competitors in everything we do. Just a little bit better in everything. This allows us to make a small profit from the flight to enable us to innovate without pricing ourselves out of the market.” (Yap Kim Wah).

In addition to incremental improvements, SIA also implements frequent major initiatives aiming to sustain service excellence. Organizational initiatives include SIA’s “Outstanding Service On The Ground” program, “Transforming Customer Service” and “Soar”, for “Service above all the rest”. As a way of inspiring discontinuous service innovations, SIA strives to gain a deep understanding of trends in customer lifestyles, and debates their implications for the future of better service in the air. According to the Senior Vice President (Product and Service), “Most new changes that really secure the wow effect are those things that customers never expected ... we have our Product Innovation Department that continuously looks at trends and why people behave in a certain manner, why they do certain things. And then we do a projection of 3–5 years of what is going to happen ... for the airline, it’s not just about having a smoother flight from A to B. That will be taken for granted. It is really about what are the customers’ lifestyle needs. Can you meet these lifestyle needs?” Examples of such innovations include the Krisworld on-demand entertainment system for all classes, Internet and phone check-in for all classes, the full-size “space-bed”. SIA was the first airline to fly the A380 jet (when it was finally delivered after long delays), and has been working on developing the in-flight offerings in that aircraft. These include suites, or “a class beyond first” in SIA’s words that have helped to perpetuate its differentiated positioning. Another investment in innovation included a \$1m simulator that mimics the air pressure and humidity in the air, so that food can be tasted under these conditions, which affect taste buds. One decision was to reduce spices in its food.

SIA has made a clear strategic choice of being a leader and follower at the same time. It is a pioneer on innovations that have high impact on customer service (for example in-flight entertainment, gourmet cuisine that includes fine wines, the ability to order one’s choice of dishes in advance by internet, ‘beds’ in the air). However, it is at the same time a fast follower in areas that are less visible from the customer’s point of view, such as revenue management or CRM systems. In doing so, SIA relies on proven technology that can be implemented swiftly and cost-effectively; this reduces the implementation risk while delivering the necessary functionality.

4.3. “Profit-consciousness” ingrained in all employees

Despite SIA’s focus on service excellence and innovation, managers and staff are simultaneously aware of the need for profit and cost-effectiveness. This derives from the company culture: “It’s drilled into us from the day we start working for SIA that if we don’t make money, we’ll be closed down. Singapore doesn’t need a national airline. Second, the company has made a very important visionary statement that ‘We don’t want to be the largest company. We want to be the most profitable.’ That’s very powerful.” (Yap Kim Wah) It is due to this policy of pursuing profitability, rather than size, that SIA has the second highest market capitalization in the airline industry globally (after Southwest), even though its revenues are relatively modest compared to competitors such as the Air France–KLM Group, British Airways, or the Lufthansa Group.

Any proposed innovation is analysed carefully on the balance of expected customer benefits versus costs. A solid business case needs to be made to support all proposed innovations and new service offerings. Station managers and frontline staff know that they should balance passenger satisfaction versus cost-effectiveness in their decisions. The importance of efficiency in the company culture is reinforced by SIA’s physical spaces. In contrast to the company’s world-class fleet, there are no grand or expensive decorations and furnishings at the company’s headquarters for example. The HQ is characterised by a simple, functional design that epitomises the drive for internal efficiency.

Further, SIA has a rewards system that pays bonuses according to the profitability of the company; the same percentage for everyone – the same formula is used throughout the SIA Group. As a result there is a lot of informal peer pressure from individuals within the organisation, and staff and managers can challenge decisions and actions if they see resources being wasted. In 2006, the profit sharing bonus formula has shifted to place more weight on the performance of individual companies (subsidiaries) in the SIA Group in order to increase cost and profit consciousness in these companies and motivate them to increase their business with third parties, so that they will be less dependent on the airline (Singapore Airlines, 2006).

SIA builds team spirit within its 6600 crew members through its “team concept”, where small teams of 13 crew members are formed and then fly together as far as possible for at least two years. This leads to the development of social bonds within the team that reinforce the culture of cost-effective service excellence and the peer pressure to deliver SIA’s promise to customers. Based on both cabin crew feedback and efficiency issues, this team concept has recently been under consideration for further refinement. The aims include the improvement of rostering efficiency, enhancement of the cabin crew evaluation system, and providing cabin crew the opportunity to meet other colleagues who are not on their team.

Supported by this mindset and organizational practices, the productivity of SIA employees is one of the highest in the global airlines industry (second only to Korean Airlines), at 1028 thousand available tonne–Kms per employee (Doganis, 2006). For comparison, the figure for budget airlines such as easyJet is 494 thousand, Jetblue is 522 thousand, and Southwest is 410 thousand. Calculated per \$1000 of labor cost, SIA is at 20,768 available tonne–Kms as compared to easyJet at 14,629, Jetblue at 12,799 and Southwest at 9348.

4.4. Achieving strategic synergies through related diversification and infrastructure

SIA utilizes related diversification to reap cost synergies and at the same time control quality and enable transfer of learning. Subsidiaries serve not only as the development ground for well-rounded management skills, and a corporate rather than a divisional outlook through job rotation, but also as sources of learning. Related operations (such as catering, aircraft maintenance, and airport management) have healthier profit margins than the airline business itself because the industry structure is more favorable in those sectors.

SIA’s Singapore Airport Terminal Services subsidiary for example provides several ground services at Changi Airport, which is regularly voted to be among the best airports in the world. This excellent airport management and infrastructure entices passengers who are traveling on to Australia, New Zealand or other countries in the region, to pass through Changi and to choose SIA as their carrier. Changi Airport is also one of the most cost-efficient major airports; for example landing charges for a 747 are \$2000, as opposed to \$3500 in Hong Kong and \$7500 at Narita (Doebele, 2005).

SIA’s subsidiaries operate under the same management philosophy and culture that emphasizes cost-effective service excellence.

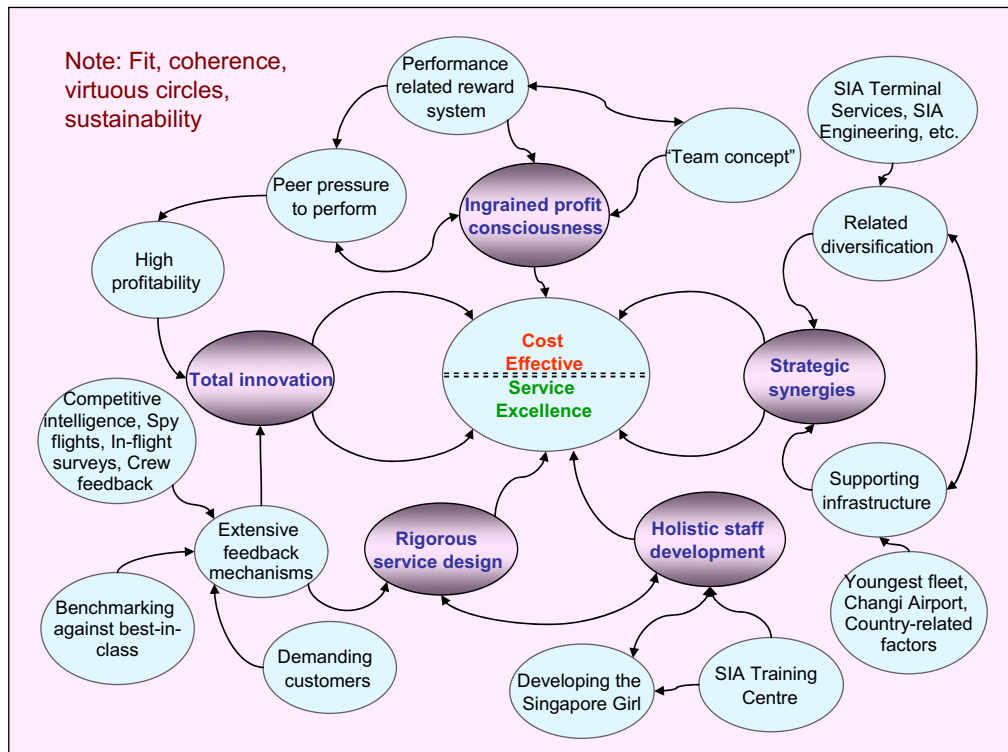


Fig. 1. Singapore Airlines' organizational activity system supporting cost-effective service excellence. Source: adapted from Heracleous et al. (2009).

Even though they are part of the group, they are quoted separately and are subject to market discipline with very clear profit and loss expectations. In SIA the conventional wisdom of outsourcing (outsource “peripheral” activities and focus on what you do best) does not readily apply. External suppliers might find it difficult to offer the value offered by SIA's own subsidiaries. SIA's related diversification leads to strategic synergy benefits in terms of reliability of key inputs, high quality, transfer of learning, and at the same time cost-effectiveness.

A common metric of airline costs is cents per available seat kilometer,² where flag carriers tend to have costs of US 9–14 cents, and budget carriers US 4.5–7.5 cents (Binggeli and Pompeo, 2002). Singapore Airline's costs per ASK were \$ 5.2 cents in 2006–2007, up from 4.5 cents in 2005–2006, 4.2 cents in 2004–2005 and 3.9 cents in 2003–2004. By comparison, easyJet had costs of 6.9 cents per ASK in 2003–2004, Ryanair 4.8, British Airways 12.5, and Lufthansa 14.6.

4.5. Developing staff holistically³

Senior managers at SIA believe that “training in SIA is almost next to Godliness”. Everyone, no matter how senior, has a training and development plan with clear goals. The famous “Singapore Girl” undergoes training for 15 weeks, longer than any other airline and almost twice as long as the industry average of 2 months. This training includes not only functional skills such as food and beverage serving and safety training, but also soft skills of personal interaction, personal poise, grooming and deportment, and emotional skills of dealing with the consequences of serving very demanding passengers. SIA's training of the Singapore Girl is

likened to a “finishing school”: “The girls are transformed from coming in, and by the time they come out, they look totally different. Their department, the way they carry themselves.... There's a great transformation there” (Sim Kay Wee).

In addition to such training, SIA also encourages and supports activities that might, on the surface, be seen as having nothing to do with service in the air. Crew have created groups such as the “Performing Arts Circle”, staging full-length plays and musicals, the “Wine Appreciation Group” and the “Gourmet Circle”. These activities help to develop camaraderie and team spirit. During their initial training and subsequent career, crew employees also spend time at welfare homes, to get a close-up engagement with the less fortunate, who have to depend on others for their survival. This is aimed to help them develop empathy for others and put themselves in the shoes of the passengers. The contents of the training change to reflect customer expectations. “While our Singapore Girl is our icon, and we're very proud of her and her achievements, we continue to improve her skills; we continue to improve her ability to understand appreciation of wines and cheeses for example, or our Asian heritage ... the enhancement must be continuous” (Yap Kim Wah).

Cabin crew can select refresher courses, and on average attend 3–4 days' of such courses a year. Popular courses include “trans-accational analysis” (a counseling-type course), leadership courses, and European languages. The company is moving from a system of directing which courses cabin crew should attend, to one of “self-directed learning”, where staff take responsibility for their own development.

Even before development starts, there is substantial effort to ensure that the company hires the right staff. For example, entry qualifications for cabin crew applicants are both academic (at least polytechnic diploma, meaning that they have spent 13 years in school), as well as physical attributes. The recruitment process is extensive, involving 3 rounds of interviews, a “uniform test”, a “water confidence” test, psychometric tests, and a tea-party. Over 16,000 applications are received every year, and the company hires

² Available seats multiplied by distance flown.

³ In addition to the citations, this section draws on in-depth interviews with Choo Poh Leong, Senior Manager Crew Services, and Toh Giam Ming, Senior Manager Crew Performance.

Table 1
Elements of differentiation and cost leadership strategies at SIA.

| Differentiation | Cost leadership |
|--|--|
| Positioning of service excellence & superior quality, brand equity (marketing strategy) | Young fleet (fuel efficiency, lower maintenance costs, effective fuel hedging, paying cash for planes) |
| Developing the Singapore Girl (HR development policies) | Labour costs compared to major competitors (16.6% vs. 30%); continuous drive for productivity, cost reduction programmes |
| In-flight experience (young fleet, entertainment system, gourmet cuisine – operations strategy) | Related diversification through efficient subsidiaries that contribute to bottom line |
| Cultural values and practice of constant innovation and learning | Cultural values: cost consciousness, obsession with reducing wastage |
| Changi airport one of the world's best (related infrastructure) | Innovations not only increase differentiation but also efficiency |
| Premium pricing in Singapore and in business / first class, and higher load factor as differentiation indicators | Changi airport one of the most efficient (related infrastructure) |

around 500–600 new cabin crew, to cover attrition rates of around 10%. This includes both voluntary and directed attrition. After the Singapore Girls start flying, they are carefully monitored for the first 6 months, through a monthly report by the in-flight supervisor. At the end of the probationary period, 75% get confirmed, around 20% get an extension of probation, and 5% leave.

The five pillars of cost-effective service excellence are interconnected into an organizational activity system characterized by self-reinforcing virtuous circles and high levels of fit. It is this level of fit and mutual reinforcement among the elements that supports the sustainability of competitive advantage at SIA. It is relatively easy to copy individual elements of the system, but incredibly difficult to duplicate the whole system, which has evolved historically and is held together not only by formal processes but also by intangible elements such as organization culture. Fig. 1 illustrates organizational activity system of SIA, where the pillars support the core competencies of cost-effective service excellence.

5. A dual strategy of differentiation and cost leadership

Strategies of differentiation and cost leadership have usually necessitated different and incompatible investments and organizational models. A strategy of differentiation for example implies high quality offerings, and significant investments in innovation, staff development and branding, leading to higher costs than average. SIA achieves a differentiation strategy, but intriguingly, without a cost penalty. In fact, as noted above, SIA has significantly higher efficiency than its peer group, the key feature of a successful cost leadership strategy. Table 1 above outlines many of the elements discussed above in relation to the dual strategy of integrating elements of differentiation and cost leadership (Table 1).

Strategic alignment can be represented as consisting of four key elements. First, environmental conditions (macro- and micro-elements relating to the industry), secondly the strategy of the company that should be appropriate for the environmental conditions, thirdly the core competencies that should effectively support the strategy, and finally the organizational level (including elements such as processes, culture, and functional strategies) that should deliver the necessary core competencies.

The elements of SIA relating to the pillars are principally located at the level of organization. This is the basic and key level of strategic alignment, which delivers the core competencies of the organization. SIA's core competence is the ability to achieve a differentiated offering with exceptional levels of efficiency, which we labelled "cost-effective service excellence". This capability

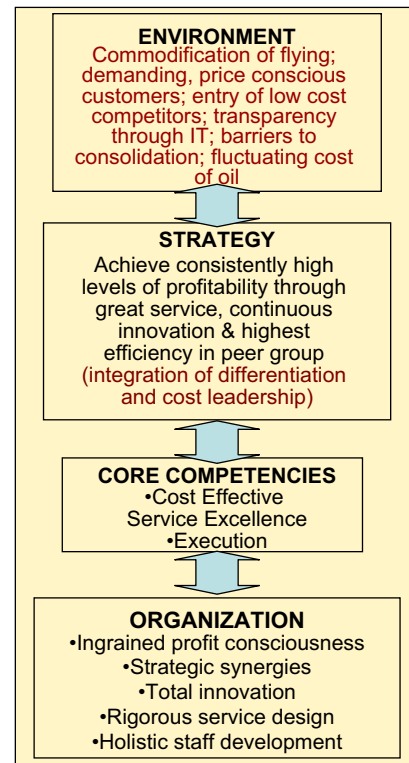


Fig. 2. A representation of strategic alignment at Singapore Airlines.

supports SIA's dual strategy, which in turn is aligned with macro- and micro-level market conditions (Fig. 2).

6. Turbulence on the horizon?

Competitive conditions in the airline industry are becoming more challenging. Apart from wildly fluctuating fuel prices and security concerns, another wildcard for many airlines is the risk of long range aircraft by-passing their hubs. The Boeing 777-200LR launched in 2005, for example, is capable of flying 17,500 km, almost half way around the world. These planes can allow airlines to by-pass hubs like Singapore on flights from Europe to Australia for example. SIA has been seeking rights to fly from Australia to Europe, and from Australia to the US as a way of mitigating this risk.

Competitors are hot on SIA's heels, trying to close the gap in both service excellence and efficiency. This is not always easy to do; Malaysian Airlines' service quality is high for example, but its efficiency is nowhere near SIA's (available tonne-kms per employee is 355 thousand, around just one third of SIA's) (Doganis, 2006). Other competitors have embarked on aggressive growth while also competing on service quality. For example, Emirates has placed successive orders for 45 A380 aircraft (at a cost of about \$19b),⁴ and prices tickets at levels generally lower than its main competitors.

With regard to internal conditions at SIA, the need to reduce employee numbers and introduce a variable component to wage packages based on company profitability after the 2003 SARS crisis has been stressful for its industrial relations climate. Singapore's Minister Mentor Lee Kuan Yew intervened to resolve these issues, given the importance of Singapore Airlines and the aviation sector

⁴ http://www.emirates.com/a380/news_emiratesLargestOperator.asp, accessed on 20th June 2007.

to Singapore's economic prosperity. Further, delays in delivery of the A380 during 2006–2007 have increased SIA's launch costs and delayed the realization of its capacity plans. Lastly, higher-paying jobs elsewhere regularly tempt SIA employees that are sought after in other service organizations, many of whom decide to take up new challenges.

In 2006 the Singapore media have expressed concerns regarding service issues at SIA (*The New Paper*, 2006). Skytrax World Airline Awards have ranked SIA 7th in their "Airline of the Year" rankings in 2006, down from 4th in 2005, prompting some to wonder about the effectiveness of sustaining the balance between efficiency and quality at SIA. In both the 2007 and 2008 Skytrax rankings, SIA has regained the top position as airline of the year.

Meanwhile, critics and competitors complain that much of SIA's success is due to environmental factors and the role of government rather than its own capabilities. Analysts note that one benefit of Temasek's 54.5% stake is lower perceived debt risk by lenders and therefore lower cost of borrowing (even though SIA does not need to borrow significantly). The industrial relations climate in Singapore is deemed to be less adversarial than elsewhere, enabling SIA to implement policies that would have caused significantly more friction in many other airlines. Critics also suggest that SIA's acquisitions have not fared that well. In 1999 SIA bought 49% of Virgin Atlantic, and wrote off 95% of the investment soon after 9/11. In 2000 it acquired a 25% stake in Air New Zealand, which was seriously impacted by the collapse of its debt-laden Australian arm, Ansett Airlines; this investment was also written off.

Many on the other hand disagree with the suggestion that SIA's success is due to the state. Indeed, high levels of state aid to airlines that have supported many of SIA's competitors (Doganis, 2006) have never been awarded in Singapore, where deregulation and encouragement of competition has been the norm. According to SIA's Chairman "We are unlike many of our competitors: we have never had government protection, or underwriting of our business in difficult times. We operate on a commercial basis and our people know that our customers have a choice of airlines". (*Singapore Airlines*, 2006).

SIA continues its dual focus on the customer experience though service excellence and innovation, as well as continuously striving for efficiency. According to CEO Chew Choon Seng, "the day we stop having visions or objectives to work to, then that is the day we atrophy. I can assure you we have no intention of doing that". (Doebele, 2005).

Appendix

List of interviewees

In this paper we draw from interviews conducted with the SIA executives between 2001 and 2006. We note the designation of the individual at the time of the interview, and any changes in designation are indicated in parentheses; Gladys Chia Ai Leng, Assistant Manager, Training; Choo Poh Leong, Senior Manager Crew Services; Timothy Chua, Project Manager New Service Development (now Senior Manager In-flight Services (Projects)); Goh Ban Eng, Senior Manager Cabin Crew Training (now Senior Manager Human Resource Development); Lam Seet Mui, Senior Manager for Human Resource Development (now Senior Manager Cabin Crew Training); Leong Choo Poh, Senior Manager Cabin Crew Performance (now Senior Manager Crew Services); Lim Suu Kuan, Commercial Training Manager; Lim Suet Kwee, Senior Rank Trainer, SIA Training School; Patrick Seow Thiam Chai, In-flight Supervisor, Cabin Crew Division; Toh Giam Ming, Senior Manager Crew Performance (now General Manager, Taiwan); Sim Kay Wee, former Senior Vice President Cabin Crew; Betty Wong, Senior Manager Cabin Crew Service Development (now Acting Vice President In-flight Services); Yap Kim Wah, Senior Vice President Product and Service; and Yeoh Teng Kwong, Senior Manager, Product Innovation (currently with another company).

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