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9B21M010

Star Alliance in 2020[[1]](#endnote-1)

Professor Benjamin Gomes-Casseres and Jacob Judd wrote this case solely to provide material for class discussion. The authors do not intend to illustrate either effective or ineffective handling of a managerial situation. The authors may have disguised certain names and other identifying information to protect confidentiality.

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Since its founding in 1997, Star Alliance had developed an expertly organized and managed network of global airlines over the course of 23 years.[[2]](#endnote-2) In 2020, however, the airline faced a new and unforeseen challenge: the COVID-19 pandemic and its aftermath. Suddenly, the world’s airline industry had to decide how to respond to a global crisis. Even before the outbreak of the COVID-19 pandemic, Star Alliance was already facing critical issues related to its organization and strategy. Its success had always depended on effective management of the network’s member airlines. That factor would prove even more critical during the pandemic, when airline travel suddenly and unexpectedly dropped to half of its original volume across the world, and was not expected to regain its status for some time. For over 20 years, Star Alliance members had contributed value to the alliance and reaped numerous benefits in return that helped them become strong competitors. Other airlines, recognizing the value and strength of an alliance, had formed their own rival airline networks. Would this strategy help airlines survive the COVID-19 crisis? Was group-based competition needed to thrive during a pandemic?

The Global Airline Industry

The COVID-19 pandemic started in early 2020 and spread across the globe. In response, severe travel restrictions were introduced in all countries. As demand for travel plummeted, passenger occupancy in planes declined, and health and safety costs mounted. All airlines sought emergency funding wherever they could, usually from their home governments. Observers recognized that the future of the industry was being reshaped, although what new form it would take was unclear. Before attempting to accurately predict the airline industry’s future, understanding its history and economic fundamentals was necessary.

During the preceding decades, the global airline industry had been transformed by new regulatory policies and company strategies. The United States deregulated pricing and domestic routes in 1978 and the European Union followed suit in 1997. Although regulatory hurdles still prevented cross-border mergers in many countries,[[3]](#endnote-3) airlines were able to pursue various new strategies. One strategy global airlines used to extend their global reach was a bilateral and multi-partner alliance, known in the industry as a “constellation.”[[4]](#endnote-4)

Star Alliance was created in May 1997 by an agreement among five international airlines: Deutsche Lufthansa AG (Lufthansa), United Airlines Inc. (United), Air Canada, Thai Airways International Public Co, and Scandinavian Airways System. The following year, four more airlines joined the alliance: Varig, Air New Zealand Limited, Ansett Australia, and All Nippon Airways Co. Ltd.. Expansion continued regularly and steadily from that point. The main goal of the founding members was to expand their global network of service and attain many of the synergies that a merger provided, while maintaining their independent identities. Two years later, two new airline alliances emerged with a plan to reap the same benefits that Star Alliance seemed to be enjoying. Oneworld was formed by founding members American Airlines Inc. (American) and British Airways, and SkyTeam was formed the next year by Delta Air Lines Inc. (Delta), Air France, and KLM Royal Dutch Airlines.[[5]](#endnote-5)

The Rise of Airline Constellations

Star Alliance was a new type of organizational structure in the airline industry but one that would soon become relatively common. This structure consisted of multiple member airlines enabling collaboration in certain activities, within limits. Antitrust rules did not allow sharing specific types of information, coordinating pricing, or sharing profits.[[6]](#endnote-6) However, each member paid a share of the costs of the organization and had specific rights in the governance of joint activities.

Historically, airline alliances had been bilateral—that is, between two companies. In 1998, for example, Air France was part of 24 different bilateral alliances with different airlines across the globe—all of them remaining distinct and separate.[[7]](#endnote-7) Star Alliance, however, grouped such relationships into one network and coordinated bilateral arrangements between member companies. Multi-partner alliances established common branding and standards for the various member airlines. In some cases, the alliance helped its members aggregate large aircraft purchases.

Initially, Star Alliance relied mainly on its two largest members—United and Lufthansa. In 1999, these two airlines together served 578 destinations in 106 countries. By 2020, Star Alliance had grown its membership to 26 airlines and served over 1,300 destinations in 195 countries (Exhibit 1). However, multi-partner alliances in the global airline industry were a common practice even before Star Alliance formed its network. In 1989, Delta had formed a network of three airlines with Swissair AG/SA and Singapore Airlines. Star Alliance then formed the first major network several years later, in 1997. Rivalry among large constellations soon flourished when American and British Airways joined Cathay Pacific Airways Ltd. and Qantas Airways Limited to launch Oneworld in 1999, and the next year Aerovías de México S.A. de C.V. (Aeroméxico), Air France, Delta, and Korean Air Co. Ltd. joined together to form SkyTeam.[[8]](#endnote-8)

Like Star Alliance, the other two constellations also expanded over the years, adding and replacing members over time (see Exhibit 2). In 2017, the three major airline alliances had built immense networks, accounting for almost 58 per cent of the industry’s total global capacity.[[9]](#endnote-9) By 2020, each group had a footing in every major region of the globe.

Benefits of Star Alliance

Traditional airline profitability boiled down to only a few key drivers of revenue and cost. The main revenue drivers were passenger capacity, load factor, and yield. Pricing of flights could vary, often in response to the degree of competition in the route. The percentage of seats that were occupied on a flight, known as load factor, was an important indicator of profitability. Mileage programs were used to promote customer loyalty, develop future business, and increase liquidity. Credit card partners involved in these programs bought miles for their customers in advance of when they would be used. On the other side of revenue, the main drivers of cost were labour (i.e., flight personnel), fuel, and advertising.

Star Alliance members sought to gain from the network in many ways. The alliance provided members access to destinations outside of their home base. Coordinating arrival and departure times allowed the group to operate an efficient network with high load and tight connections, which was known as codeshare synchronization. The constellations also promised better customer service by allowing the airlines to share lounges, mileage programs, and various costs in other areas. Members could also take advantage of common standards, combined training programs, and the alliance’s brand identity, while maintaining their own independent status.

Network Optimization

Star Alliance offered its member airlines an extended hub-and-spoke system, which was considered a key competitive advantage. The hub-and-spoke system first became popular in domestic air travel in the United States after deregulation of the route structure. In this system, the main airports in the country served as hubs, through which passengers were channelled to and from various spoke airports that connected the hub to the ultimate destinations.[[10]](#endnote-10) For example, Star Alliance made it possible for United passengers to travel to Munich, Hamburg, Frankfurt, and other German cities through the Dusseldorf hub. Similarly, because Lufthansa did not fly to Denver, New Orleans, Honolulu, or Seattle in the United States from Frankfurt, Germany, its passengers could fly to Chicago and United would then take them to their ultimate US destinations. For a given route (e.g., New York, United States to Frankfurt, Germany), one partner would bring passengers to a hub airport from spoke locations and take them to destinations beyond a partner’s hub airport on the other side of the route. This service, which was referred to as using a bridge, was enabled by the network structure of such alliances (see Exhibit 3).

In 2016, Star Alliance introduced an additional co-operative relationship called “connecting partners” in an effort to augment its global network. Partner carriers would be able to connect to the Star Alliance network without becoming full alliance members. However, passengers would be offered connections only to the flights of connecting partners according to certain status-based privileges. Juneyao Airlines was announced as the first connecting partner in October 2016.[[11]](#endnote-11)

With the hub-and-spoke system becoming widespread, most major airports became dominated by a single large carrier. Limited availability of landing slots, gates, and takeoff times made it difficult for other carriers to serve new locations. This advantage, combined with other benefits, resulted in increased revenues for Star Alliance members. By 2019, combined Star Alliance member revenues reached over US$200 billion[[12]](#endnote-12) (see Exhibit 4).[[13]](#endnote-13) The organization also had the largest membership list, the most seats, the highest revenues, and the fastest growth, although other constellations were not far behind (see Exhibit 5).

Joint Purchases

Another objective of airline alliances was to combine purchases and increase each member’s buyer power, as the chief executive officer (CEO) of United noted: “About one-third of United’s costs involve people. But the other two-thirds represent enormous opportunities for working together, for buying, purchasing, and co-operating among the group.”[[14]](#endnote-14) Potential economies of scale were available to members through joint purchasing in several areas. The annual combined amount of Star Alliance member purchases of goods and services was approximately $15 billion. This amount included expenses for office equipment, fuel, catering, and maintenance, but excluded aircraft purchases.[[15]](#endnote-15)

In 1998, United claimed to have saved $20 million due to a total $1.5 billion in combined purchased services. In 2014, all Star Alliance carriers serving London’s Heathrow Airport migrated into the new Terminal 2, which allowed them to share many common ground costs. Similar initiatives of alliance members sharing locations and resources also led to savings and improved passenger service in various other international hubs.[[16]](#endnote-16)

Passenger Benefits

The formation of Star Alliance provided customers with an integrated worldwide airline network with global recognition. By 2020, Star Alliance had maintained the largest network, covering 195 countries (98 per cent of the world) and serving over 1,300 airports. In 2017, Star Alliance’s CEO Jeffrey Goh was asked if the constellation had reached its full size or if it had plans to continue to expand, to which Goh replied, “We will never say no, but we are pretty comprehensive in our network today.”[[17]](#endnote-17) Focusing on customer relations, the alliance aimed to enhance global travel, making it more convenient and simple for its customers, while meeting their needs in ways that individual airlines could not.

Whenever possible, the member airlines tried to use gates in the same terminal, with neighbouring gates allowing for convenient transfers and passenger connections. When delays occurred, the connections were protected, monitored, and proactively re-accommodated on a proactive basis. Most passengers were offered “through check-in” service that led them through their final destination. The simplicity and consistency of quality in member services helped customers feel that they were travelling with the same standard of service throughout the entire trip.[[18]](#endnote-18)

Loyalty Programs

Based on extensive marketing research, Star Alliance made various changes to meet the expectations and needs of its frequent international flyers. Customers could earn mileage points whenever they travelled on any Star Alliance member airline. The points would accumulate and could be credited toward different frequent flyer programs of Star Alliance carriers. This allowed customers to use every point earned to reach elite status within the various programs sooner, as well as to redeem their reward miles throughout the alliance network.[[19]](#endnote-19)

Star Alliance also added two status tiers—silver and gold—in the loyalty programs of member carriers to recognize and reward loyal customers across the entire alliance. Gold status allowed customers access to the highest level of service at airports around the world and priority treatment, from check-in to baggage claim. Elite customers enjoyed a seamless travel experience and tangible benefits. Upon presentation of their card or status, customers were directed to the lounges of Star Alliance carriers, which provided fine cuisine, beverages, access to global news, Internet access, and other business amenities. Gold status customers also had clearance to more efficiently pass through airport security in more than 130 airports around the world.[[20]](#endnote-20)

Star Alliance travellers enjoyed various other benefits, including Internet tools for smart phones and tablets, and the latest technology services. All airlines sold tickets and tracked reservations, but Star Alliance’s website featured online tools that allowed customers to plan their travels at all times. The site was integrated with the booking systems of member airlines and was linked to a main computer reservation system. Corporate clients were a key profitability factor for all major airlines and especially those with long-haul routes. Star Alliance offered various incentives specifically for corporate clients, including discounts across the network of its member carriers. It was also the first alliance to feature global conventions and events services that allowed delegates from all over the world to enjoy discounts across the entire Star Alliance network.[[21]](#endnote-21)

Other Forms of Airline Co-operation

Star Alliance, Oneworld, and SkyTeam provided a range of benefits to both their member airlines and passengers. However, the various other forms of co-operation among airlines were also effective. For example, interline and codeshare arrangements allowed airlines to sell seats on connecting airlines and sometimes share a flight’s code information. All members of an alliance agreed to interline agreements, which served passengers travelling with two or more airlines on the same itinerary.[[22]](#endnote-22) Even airlines across different alliances often shared interline agreements. Code sharing allowed two partner airlines to list one specific flight as their own and carry two different reservation codes. Like interline agreements, code sharing had been a common practice in the industry before alliances became popular. For example, Star Alliance member Air Canada was maintaining 25 codeshare agreements in 2013, including one with Etihad Airways, a non-aligned Middle Eastern airline.[[23]](#endnote-23)

Star Alliance, and similar networks, occupied the space between codeshare agreements and more substantial forms of business co-operation, such as joint ventures and mergers. Alliance members shared flight code, airport lounges, loyalty programs, and an umbrella brand. However, revenue and pricing sharing was forbidden, unless specific members formed their own bilateral joint venture agreement. Alliances were therefore able to avoid many of the antitrust issues associated with typical joint ventures and similar strict forms of business co-operation.

A special type of joint venture for specific routes granted airlines antitrust immunity. The partner airlines essentially acted as one on these specific routes, coordinating their pricing and schedules and even sharing their revenues. By 2012, these special joint ventures were one of the most common forms of co-operation in the airline industry, accounting for 87 per cent of traffic carried across the North Atlantic. Most of them were agreements between large carriers, who were also part of a major global alliance.[[24]](#endnote-24) In 2018, 60 per cent of American’s international capacity was included in some form of joint venture agreement. In the same year, joint venture partnerships included 58 per cent of Delta’s and 46 per cent of United’s international capacity.[[25]](#endnote-25)

In 2018, Delta anticipated that it would earn $500–600 million in incremental revenues by 2020, resulting from its joint venture partnerships. Much of that revenue was expected to be passed along to customers, but despite the benefits that airlines claimed they were passing on to passengers, governments were reluctant to extend antitrust immunity through these joint venture partnerships, except for routes that had no significant impact on competition. Regardless, in 2015 the United States Department of Justice conversely found that joint venture partnerships often increased, rather than lowered, ticket prices.[[26]](#endnote-26)

The most involved form of business co-operation, short of a complete merger, was an equity investment agreement. Delta took this approach during the 2000s when it acquired stakes in China Eastern Airlines Corporation Limited, Air France-KLM S.A., Korean Air Co. Ltd., Virgin Atlantic, and LATAM Airlines. Delta invested a 49 per cent stake in Virgin Atlantic, which proved to be its most successful outcome in this type of strategy. Virgin Atlantic provided Delta greater access to several transatlantic routes, while Delta opened access to several popular US destinations previously unavailable to Virgin Atlantic. This type of strategy, however, could be risky for the investor, who was also exposed to severe potential losses. In early 2020, for example, Delta invested $1.9 billion for a 20 per cent stake in LATAM; a few months later, this investment was worth less than one-tenth of that amount, at approximately $150 million, after the airline filed for Chapter 11 bankruptcy on May 26, 2020.[[27]](#endnote-27)

Managing Star Alliance

The combined management of Star Alliance was a challenge, with a large number of global airlines that included United and Lufthansa, two of the largest and most powerful airlines in the world. United’s chairman, Gerard Greenwald, noted that Star Alliance was “bound together only by four pages of governance, with no formal ownership ties.”[[28]](#endnote-28) In fact, no formal structure was created to manage the alliance at the time of its creation.

This situation changed the following year, however, when a new focused management team was charged with implementing a five-year business plan to be approved by Star Alliance’s member airlines. From then on, strategic decisions would be directed by a core group of executives chosen by the alliance’s member airlines. The new management board reported to the chief executive board, which dealt with issues of strategic importance. Star Alliance also formed several committees that were comprised of experts from member carriers and from the alliance itself. In 2019, Star Alliance became a corporation under German law (i.e., a GmbH), with a limited staff and offices in Frankfurt Airport, in Germany (see Exhibit 6).

Quality Control

Providing customers with a consistent quality of service, regardless of which airline they travelled with, was a key success factor for Star Alliance. The five founding members therefore set rigorous standards that were expected to be met by any new member. While members did not maintain a completely homogeneous product, Star did have a set of standards with regard to the quality of basic amenities and services that were met by all incoming member airlines.[[29]](#endnote-29)

A new member typically had previous partnerships with each of the other member carriers individually. This precaution ensured that code sharing could be implemented right away. No other requirements for partnerships outside of the alliance were needed. However, when airlines joined Star Alliance they often abandoned their previous partnerships or integrated them into the constellation.[[30]](#endnote-30)

Brand Management[[31]](#endnote-31)

In founding Star Alliance, the members created a brand name that would become known internationally but would not become a substitute for their existing brands. Members did not lose the individual airlines’ differentiation by brands, identities, customs, and service styles. The main advantage of the alliance network was its ability to give passengers access to a single global network that was as seamless as possible, along with the established status and recognition of the member airlines. Star Alliance managers used an umbrella brand that allowed each airline to keep the original logo, complemented by the Star Alliance logo, on the plane’s forward fuselage and on ticket jackets, promotional items, and signs.

By 2020, the three major alliance umbrella brands—Star Alliance, Oneworld, and SkyTeam—served as a signal for the level of service and the breadth of network that customers could expect. However, the individual performance of each member airline still mattered. If a customer had a poor experience on a flight, both the reputation of that airline and the reputation of the alliance could be harmed.

Over the early years of Star’s existence, the absence of core values, service styles, and products within the alliance did not pose an issue for member performance. Passengers seemed unconcerned about differences in travel experience with separate airlines, perhaps because all members were well respected airlines in their own right. Since 2017, the alliance had developed a digital transformation strategy aimed at delivering a distinct and seamless travel experience.

Alliance Organizational Costs[[32]](#endnote-32)

Star Alliance’s costs were mainly related to information technology and human resources. Making member reservations and inventory systems compatible with each another was the main challenge. After nearly two decades of efforts and investments in new technology and training, Star Alliance had built and was maintaining an advanced technology infrastructure to support the operations of its carriers and the seamless transition of passengers between member carriers.

Star Alliance continued to spend resources and effort to help members deliver consistent services across the alliance. Similarly, Oneworld developed an intensive training program for its members. At the heart of that program was a set of core messages agreed to by the partners, including “recognizing people as individuals and respect for individuals, while celebrating the different cultures and atmospheres between the airlines.”[[33]](#endnote-33)

Future of Airline Constellations

Industry Consolidation

Despite a complex web of regulations, the global airline industry had steadily moved toward long-term consolidation, as airline constellations continued to expand by adding members to their networks. With additional airlines joining existing alliances, the overlap in route structures of member airlines kept increasing. This factor was a key consideration for incumbent members in their assessment of new applicants for membership.

Entry and exit from an airline constellation depended on the terms of the membership. For example, at Star Alliance, an airline that wanted to enter the network had to show that it could meet the alliance’s standards. Existing members voted on accepting a new member, with voting shares based on the size of each airline.

By 2020, Star Alliance had become a mature alliance organization that had developed a stable membership base, a standard set of rules, and efficient processes. The three major alliances had reached a comparable level of market share in the industry. Airline mergers and co-operation had also reached a saturation point. Further consolidation of airline organizations would likely face strong opposition due to antitrust regulations.

Potential Changes in the Hub-and-Spoke Model

Since its inception, the main focus of Star Alliance had been to optimize the hub-and-spoke network of the airline industry, which it saw as a key benefit. However, beginning in 2015, point-to-point flights seemed to be increasingly popular, especially ultra long-haul flights (LHF).[[34]](#endnote-34)

With the outbreak of the COVID-19 pandemic, the advantages of LHFs became increasingly evident for two reasons. First, unlike with the hub-and-spoke system, point-to-point networks allowed airlines the choice of flying only the most economically viable routes, without health and safety concerns from layovers. Second, by the late 2010s, new planes were being developed for non-stop ultra LHFs.

However, despite these advantages, LHFs still had two major limitations. First, due to the long-distance nature of their routes, the profitability for airlines was even more vulnerable to extreme fuel price fluctuations. Second, fatigue posed a serious health threat to passengers, flight crews, and pilots on these routes.[[35]](#endnote-35)

The Pandemic

The greatest challenge for the airline industry, however, was the COVID-19 pandemic. The crisis was expected to reach a total loss of $84.3 billion for the industry in 2020, with passenger demand falling to 54 per cent globally (see Exhibit 7). During the early months of the pandemic, from January to July 2020, over 7.5 million flights were cancelled. In April 2020, 64 per cent of all planes around the world were grounded.[[36]](#endnote-36) The drop in demand and required social distancing in seat assignment led to a decline in passenger load for those flights that were not cancelled. In addition, new safety and health compliance costs promised to have a serious impact on the cost structure of all airlines.

Before the COVID-19 outbreak, the airline industry was projected to continue on its course of consistent growth. In most emerging markets and developed countries, trips per capita were expected to increase steadily from 2019 to 2038. Popular regional routes were also expected to see strong passenger growth. The highest rate of growth was expected between the Middle East and the United States, with a projected passenger traffic increase of 5.5 per cent annually from 2019 to 2038.[[37]](#endnote-37)

In response to the new COVID-19 travel restrictions, airlines designated new routes between certain countries that were labelled “corridors.” Many national governments also expanded investments in their country’s airlines, or provided other forms of support such as unemployment benefits. There was great uncertainty about how the pandemic would evolve and how businesses worldwide would respond. Travel projections from organizations such as the International Air Transport Association changed often with new information related to the COVID-19 virus. In June 2020, passenger levels were forecasted to not recover to pre-pandemic levels until 2025, and the global fleet in service might not recover until 2022.[[38]](#endnote-38) The crisis affected all global airlines and had a major impact on the world’s two main aircraft manufacturers, Boeing Company and Airbus SE. Major airlines were expected to significantly reduce their purchase of new aircraft during the 2020–2025 period by as much as 6,000 fewer products than had been projected—an annual reduction in purchases of 66 per cent.[[39]](#endnote-39)

Individual Airline Responses

The first major response by the world’s airlines was to lobby for increased government support and funding. By August 2020, governments around the world had provided over $125 billion in financing for domestic airlines, with an additional $30 billion expected in the coming months. The US government, in particular, had provided $58 billion through the *Coronavirus Aid, Relief, and Economic Security Act* in March 2020, with an additional $25 billion expected before the end of the year. Of this aid, $25 billion was given in the form of loans for general expenses and an additional $25 billion was provided in the form of grants to cover payroll expenses. These loans were extended with rather severe conditions placed on executive pay and dividends.[[40]](#endnote-40)

This aid was not extensive enough to prevent massive airline layoffs after the support period was over, as passenger demand continued to falter throughout 2020. The three largest airlines in the United States—each one a founding member of Star Alliance, Oneworld, or SkyTeam—announced record layoffs as the government’s financial support ran out. In the summer of 2020, American Airlines Inc. released over 19,000 employees, representing almost 20 per cent of the company’s workforce, and Delta planned to lay off almost 2,000 pilots. United announced that it expected to lay off up to 36,000 employees by October 2020.[[41]](#endnote-41)

The airline industry was clearly retrenching, which presented a major challenge for alliance members: could they reduce capacity in a co-operative manner? Another consideration was the uneven governmental support for global airlines during the pandemic, with different governments having different levels of interest in their national airlines. Some national airlines were expected to survive the crisis, others would probably reduce the reach of their network, and most airlines would undoubtedly be indebted to their respective government. How would these trends affect the management and membership of global constellations such as Star Alliance?

Star Alliance’s Response

Alliances played a key role in the industry’s response to the pandemic. For example, Star Alliance created a travel information hub that provided health precautions and general information about COVID-19 to all passengers. The alliance also created a set of health and safety procedures for its member airlines to follow that included regulations for passenger use of face masks, cleaning and disinfecting requirements, and operating steps to follow if a passenger developed COVID-19 symptoms.[[42]](#endnote-42) These actions were intended to increase the level of comfort of passengers. However, the normal rate of air travel was not expected to recover for several years after the eventual end of the pandemic.

Before the outbreak of the pandemic, Star Alliance had been facing various questions about its future.[[43]](#endnote-43) For example, the constellation had to determine whether it should continue to grow by introducing new services to extend offerings to its loyal passengers, or maybe allow individual airlines to operate more freely as separate entities under the umbrella brand. Within its network, the alliance had to determine if joint venture partnerships should continue to grow or if the benefits were no longer relevant.

However, all questions about structure and strategy had been set aside as the world faced its worst health crisis in over a century. The main question for Star Alliance now became one of survival. What could the alliance do to help its members weather the COVID-19 crisis? It clearly did not have the funds to provide support, like governments could. But it could help rebuild the trust of customers and promote safe travel arrangements. Beyond that level of assistance, what would Star Alliance’s role be at the end of the pandemic?

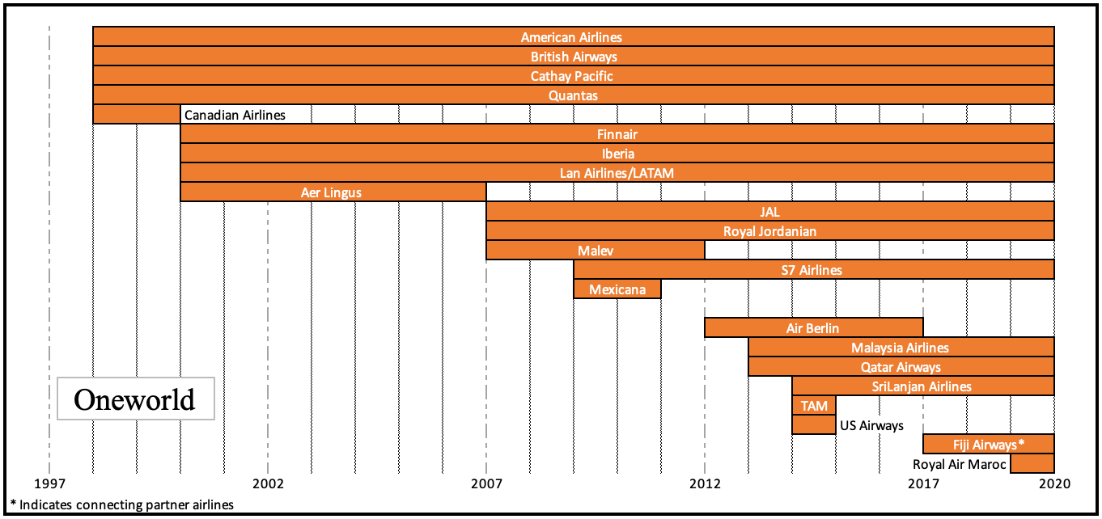
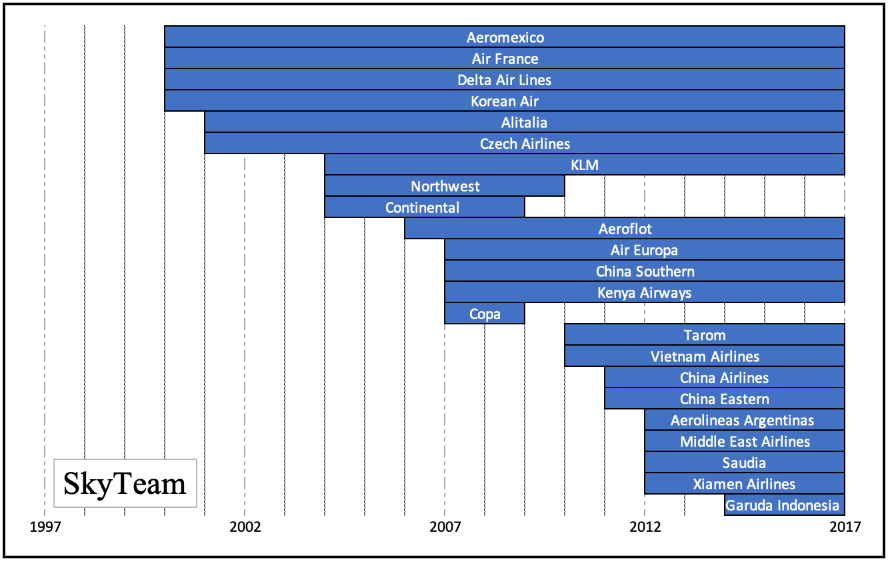
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Exhibit 1: Operations of Star Alliance Member Airlines, 2018

| **Airline** | **Year of Alliance Entry** | **Number of Destinations** | **Number of Passengers (in 000)** | **RPK  (in 000)** | **ASK  (in 000)** | **Total Revenue  (in US$000)** | **Operating Income  (in US$000)** | **Net Income (in US$000)** | **Operating Income/ Revenue** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Deutsche Lufthansa AG | 1997 | 225 | 145 | 284,561 | 349,489 | $42,182 | $3,337 | $2,545 | 8% |
| United Airlines Inc. | 1997 | 190 | 162 | 370,319 | 442,892 | 41,303 | 3,292 | 2,129 | 8% |
| Air China Limited | 2007 | 201 | 102 | 161,759 | 201,903 | 20,604 | 2,161 | 1,503 | 10% |
| All Nippon Airways Co. Ltd. | 1999 | 75 | 42 | 91,481 | 124,451 | 16,343 | 1,446 | — | 9% |
| Air Canada | 1997 | 220 | 52 | 148,607 | 178,383 | 13,892 | 903 | 128 | 7% |
| Turkish Airlines | 2008 | 294 | 75 | 149,169 | 182,031 | 13,074 | 1,506 | 831 | 12% |
| Singapore Airlines | 2000 | 67 | 21 | 102,572 | 123,486 | 9,676 | 312 | 468 | 3% |
| Asiana Airlines Inc. | 2003 | 104 | — | 46,837 | 55,598 | 6,231 | 162 | (10) | 3% |
| Thai Airways International | 1997 | 63 | — | 68,164 | 87,290 | 6,180 | (281) | (358) | –5% |
| Scandinavian Airlines | 1997 | 180 | 29 | 39,821 | 52,626 | 5,181 | 292 | 184 | 6% |
| Avianca S.A. | 2012 | 80 | 31 | 43,729 | 52,624 | 4,981 | 232 | 1 | 5% |
| EVA Airways Corporation | 2013 | 64 | 12 | 48,368 | 59,835 | 4,498 | — | — | — |
| Air New Zealand Limited | 1999 | 50 | 17 | 37,638 | 45,222 | 3,895 | 383 | 277 | 10% |
| TAP Air Portugal | 2005 | 96 | 16 | 38,000 | 47,000 | 3,768 | (52) | (139) | –1% |
| Air India | 2014 | 102 | 21 | 48,625 | 61,074 | 3,566 | (257) | (829) | –7% |
| Ethiopian Airlines | 2009 | 116 | 11 | 42,624 | 57,842 | 3,318 | 226 | 233 | 7% |
| Copa Airlines | 2012 | 80 | 14 | 34,639 | 41,538 | 2,678 | 145 | 88 | 5% |
| South African Airways | 2006 | 57 | 6.9 | 19,000 | 26,000 | 2,200 | — | — | — |

Note: RPK = revenue passenger kilometres; ASK = available seat kilometres.

Source: “Free Download: Airline Business 2018–2019 Digital Special Edition,” FlightGlobal, accessed December 14, 2020, www.flightglobal.com/strategy/free-download-airline-business-2018-2019-digital-special-edition/130692.article.

Chart depicting Star Alliance members
Exhibit 2: Members of Major Airline Alliances

Note: For all airlines in these three charts, the brand name (rather than full company name) is used.

Source: Prepared by the case authors with information from Graham Dunn, “ANALYSIS: The 20-Year History of Global Airline Alliances,” FlightGlobal*,* May 15, 2017, accessed December 14, 2020, www.flightglobal.com/analysis/analysis-the-20-year-history-of-global-airline-alliances/123979.article.

Exhibit 3: Sample of Connections Made for Flights between Frankfurt, Germany and New York, United States

| **Airline for Cross-Atlantic Leg—Frankfurt to  New York** | **Connecting Flights by Leg Type** | **Number of Passengers (in 000s)** | **Number of Flights** | **Number of Unique Final Destination Airports** | **Number of Connecting Airlines** |
| --- | --- | --- | --- | --- | --- |
| Delta Air Lines Inc. | | | | | |
|  | Behind | 1,598 | 159 | 1 | 4 |
|  | Beyond | 24,517 | 353 | 192 | 17 |
|  | Bridge | 913 | 251 | 65 | 9 |
| Deutsche Lufthansa AG | | | | | |
|  | Behind | 169,820 | 839 | 1 | 6 |
|  | Beyond | 1,3260 | 264 | 136 | 25 |
|  | Bridge | 3,941 | 1,407 | 182 | 32 |
| Singapore Airlines | | | | | |
|  | Behind | 35,201 | 322 | 1 | 2 |
|  | Beyond | 4,715 | 170 | 91 | 12 |
|  | Bridge | 5,298 | 849 | 113 | 22 |

Note: Behind = domestic flight into a hub (e.g., Warsaw to Frankfurt on the way to New York); Beyond = domestic flight out of a hub (e.g., New York to Cincinnati, after originating in Frankfurt); Bridge = flight that starts behind a hub and continues beyond the connecting hub (e.g., Warsaw to Frankfurt, to New York, and then to Cincinnati).

Source: Prepared by case authors with information from the Sabre Market Intelligence database of SABRE GLBL Inc., searching with the Origin and Destinations function for final data on routing shown on tickets for flights from Jan 1, 2019 to Dec 31, 2019 between JFK and CDG, GRA, and LHR. Tables shows tickets sold by Delta Air Lines Inc., Deutsche Lufthansa AG and Singapore Airlines, accessed on July 14, 2020.

Exhibit 4: Financial Performance of Airlines by Alliance Affiliation, 2008–2018

| **Results Aggregated by Membership in Alliance Groupings** | **2008** | **2018** | **Change over the period 2008-2018** | **Change for 2008-2018**  **including only members present for the full period** | **2018 Market Share** |
| --- | --- | --- | --- | --- | --- |
| **Revenue** | | | | | |
| Star | $154,346 | $203,570 | 32% | 20% | 27% |
| Oneworld | 100,930 | 140,491 | 39% | 21% | 18% |
| SkyTeam | 99,886 | 134,431 | 35% | -6% | 18% |
| Non-Aligned | 185,072 | 288,578 | 56% | - | 38% |
| **Operating Result** | | | | | |
| Star | (4,244) | 13,807 | - | - | 29% |
| Oneworld | (2,105) | 10,139 | - | - | 16% |
| SkyTeam | (9,244) | 9,245 | - | - | 19% |
| Non-Aligned | 287 | 14,671 | 5012% | - | 31% |
| **Net Result** | | | | | |
| Star | (9,360) | 7,051 | - | - | 30% |
| Oneworld | (3,263) | 4,186 | - | - | 18% |
| SkyTeam | (12,752) | 4,577 | - | - | 20% |
| Non-Aligned | (7,101) | 7,611 | - | - | 32% |
| **Return on Sales** | | | | | |
| Star | -2.7% | 4.4% | - | - | - |
| Oneworld | -0.2% | 6.3% | - | - | - |
| SkyTeam | -1.8% | 3.6% | - | - | - |
| Non-Aligned | -1.0% | 3.5% | 3402% | - | - |

Source: “Free Download: Airline Business 2018–2019 Digital Special Edition,” FlightGlobal, accessed December 14, 2020, www.flightglobal.com/strategy/free-download-airline-business-2018-2019-digital-special-edition/130692.article.

Exhibit 5: Traffic Performance of Airlines by Alliance Affiliation, 2008–2018

| **Results Aggregated by Membership in Alliance Groupings** | **2008** | **2018** | **Change over the Period 2008–2018** | **Change for 2008–2018**  **Including Only Members Present for the Full Period** | **2018 Market Share** |
| --- | --- | --- | --- | --- | --- |
| **RPK** | | | | | |
| Star | 974,991 | 1,792,884 | 84% | 58% | 25% |
| Oneworld | 704,956 | 1,184,244 | 68% | 32% | 17% |
| SkyTeam | 928,210 | 1,470,212 | 58% | 22% | 21% |
| Non-Aligned | 1,483,701 | 2,707,064 | 82% | - | 38% |
| **ASK** | | | | | |
| Star | 1,267,902 | 2,215,516 | 75% | 49% | 26% |
| Oneworld | 913,177 | 1,484,113 | 63% | 24% | 17% |
| SkyTeam | 1,180,172 | 1,677,225 | 42% | 14% | 19% |
| Non-Aligned | 1,932,450 | 3,232,377 | 67% | — | 38% |
| **Load Factor** | | | | | |
| Star | 74.7% | 79.7% | 7% | 7% | — |
| Oneworld | 76.7% | 80.2% | 5% | 8% | — |
| SkyTeam | 75.9% | 80.5% | 6% | 8% | — |
| Non-Aligned | 76.6% | 83.9% | 10% | — | — |
| **Passengers (in 000)** | | | | | |
| Star | 442 | 798 | 81% | 49% | 23% |
| Oneworld | 287 | 449 | 56% | 42% | 13% |
| SkyTeam | 439 | 588 | 34% | 15% | 17% |
| Non-Aligned | 849 | 1,575 | 86% | — | 46% |

Note: RPK = revenue passenger kilometres; ASK = available seat kilometres

Source: “Free Download: Airline Business 2018–2019 Digital Special Edition,” FlightGlobal, accessed December 14, 2020, www.flightglobal.com/strategy/free-download-airline-business-2018-2019-digital-special-edition/130692.article.

Exhibit 6: Star Alliance Membership and Structure, 2019

Membership

* New members are accepted into the alliance by a vote of the chief executive board.
* In addition to an entry fee based on size, new members are required to complete the integration process by fulfilling membership standards.
* A member may withdraw voluntarily from the alliance, but membership may be terminated in certain events such as bankruptcy or loss of operating licence. An exit fee may apply.
* Each member must comply with the standards of membership and is subject to annual audits for compliance.

Structure

* The two governing boards are the chief executive board and the alliance management board.
* The boards are supported by various committees and expert groups.
* The alliance is managed by a management team.

Source: From author’s personal conversation with Star Alliance staff. Reproduced with company permission.

Exhibit 7: Global Air Travel Passengers Forecast

Source: Prepared by the case authors with information from IATA [International Air Transport Association], *Air Passenger Market Analysis: Domestic Air Travel Continues to Drive the Recovery in June,* June 2020, accessed December 14, 2020, www.iata.org/en/iata-repository/publications/economic-reports/air-passenger-monthly-analysis---june-20202.

Endnotes

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