

E-commerce at Yunnan Lucky Air

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Preserve the essence of traditional Chinese culture while learning from successful models of the world.

- Yunnan Lucky Air, statement of corporate culture

Fortune had favored Yunnan Lucky Air. Four years after its founding in 2004, Lucky Air had grown into a US\$104.3 million (RMB720 million) low-cost airline, serving domestic routes from its hub in Kunming, the capital of southwestern China's Yunnan province. Yunnan was one of China's top tourist destinations, famous for its beautiful landscape and multi-ethnic culture, and Lucky Air had successfully attracted over 1.2 million Yunnan-area travelers in 2007 alone – more than double the number of passengers from the year before. Compared to such major competitors as Air China and China Southern Airlines, Lucky Air operated at a relatively small scale, modeling its low-cost, high-efficiency strategy on Southwest Airlines in the United States. And the years of consistently rapid growth seemingly demonstrated the model's strength.

Yet Lucky Air and its parent, Hainan Airlines, were growing concerned. The Chinese airline industry was heavily regulated, limiting flexibility for new airlines. Nonetheless, new low-cost competitors were blossoming, and Lucky Air found itself among an increasingly crowded field: there were 11 low-cost Chinese airlines by 2007, and two more waiting for official approval. Anticipating a potential squeeze, Lucky Air was searching for additional competitive advantages.

One option was to focus on e-commerce. Lucky Air's IT operation was backed by Hainan Airlines, which had one of the most advanced web portals in the Chinese airline industry. True, airline

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e-commerce was still at an early stage in China, but Lucky Air was eager to position itself at the cutting edge of technology and reap the same rewards as Southwest Airlines and similar U.S. competitors. Yet Lucky Air's executives had to decide what was right for their company, customers, and market. If they chose the wrong expansion strategy or missed the mark with e-commerce, then the company's luck might run out forever.

Passenger Aviation in China

China's airline industry had benefited from the country's rapid economic growth in the previous decades and the significant increase in Chinese people's disposable income. The Civil Aviation Administration of China (CAAC) anticipated an average annual growth rate of 15% for air traffic up through the year 2020. In 2007 alone, passengers in China increased to 387 million, a 16.8% jump from a year before. Roughly 349 million passengers traveled on domestic flights, a 16.7% annual increase, and 38 million passengers traveled on international flights, a 17.5% annual increase. Moreover, an increasingly large percentage of these passengers traveled for vacations and leisure and paid the airfare themselves (see **Exhibit 1**).

There were 25 airlines operating in China by the end of 2007. The three biggest national airlines – Air China, China Eastern Airlines, and China Southern Airlines – dominated domestic air travel, accounting for a combined 83.7% market share. The airline industry was heavily regulated, but recent years had seen some relaxation of government regulations and the founding of a number of new airlines. A wave of new low-cost airlines had emerged, making domestic travel more affordable for everyone. Analysts estimated that about 780 routes were appropriate for low-cost flights, based on route popularity, trip length, and similar factors, and that by 2013 25% of passengers would be carried by low-cost airlines with a projected growth rate of 20% per annum.¹

The growth potential attracted many new entrants and intensified competition. Government regulations restricted airlines' ability to reduce ticket prices, yet the sheer abundance of low-cost airlines pressured each to lower its ticket prices as much as possible. Some airlines opted to expand beyond offering flights alone. Spring Airlines, launched in 2005 and based in Shanghai, flew to 23 destinations within China and had achieved US\$72 million in revenue and US\$4.3 million in net profit by the end of 2006. The key to Spring's growth strategy had been the decision to pursue the large Shanghai tourist trade by offering discounted tour packages. By bundling with hotels and other travel services, Spring was able to offer a fare 34% lower than average market price.

Company History

Lucky Air was founded in 2004 with an initial capitalization of US\$2.2 million (RMB15 million). As one of China's most popular domestic tourist destinations, Yunnan province was seeing significant growth in the number of tourists. Between 2007 and 2008, the number of projected arrivals was

¹ Euromonitor International: Country Sector Briefing, "Transportation – China" (2008).

predicted to increase from 21 million to over 24 million (**Exhibit 2**). To capture this growing tourist market, Lucky Air based its routes on the tourist destinations within Yunnan province, such as Dali and Xishuanbanna. The limited route license granted by the government gave Lucky Air a near-monopoly status within Yunnan and these routes contributed to most of its profits. As it grew, however, Lucky Air gradually added flights to and from destinations outside the province. By early 2008, these extra-provincial routes represented 87 of its 150 weekly flights.

Lucky Air had five Boeing 737-700 airplanes, each with a capacity of 148 seats. In 2006, it carried roughly 500,000 passengers for 5,746 total flight hours with a load factor of 74.7%. In 2007, it carried roughly 1.2 million passengers for 17,875 total flight hours with a load factor of 81.4%. Over the same period Lucky Air more than tripled its operating revenue, from US\$31.2 million to US\$104.3 million, and achieved profitability just three years after it was founded.²

Lucky Air had positioned itself as a low-cost, high-efficiency airline and adopted most of the key components of the Southwest Airlines model. By using a single type of aircraft it reduced maintenance and operational complexity. It offered only one seat class – coach – and simple one-way pricing. There were no seat assignments or in-flight entertainment. Most of its routes were short-haul and point-to-point to increase on-time departure and arrival. It operated mostly in secondary cities to avoid congestion and reduce landing costs. However, unlike low-cost airlines in the United States and Europe that could achieve a roughly 30% cost advantage, Lucky Air's cost structure was only about 5% lower than the industry average, mostly due to government-imposed constraints.

Lucky Air's four largest cost components – fuel, landing fees, aircraft leasing, and taxes – comprised about 70% of its operating cost, yet these costs were heavily influenced by government regulations. (See **Exhibit 3**.)

Fuel China Aviation Oil was the sole fuel supplier for Chinese Airlines and the fuel price was set by the National Development and Reform Commission (NDRC). A small airline like Lucky Air had to pay for its fuel in advance until it proved itself as an established airline, adding to the firm's financial burdens. Fuel price also differed from region to region and Yunnan happened to have a higher price than the national average. Furthermore, carriers in China were not allowed to hedge oil price risk through financial instruments. Route optimization, another way to reduce the fuel expense, was also prohibited in China due to safety concerns.

Landing Fees In the United States, many secondary airports offered a lower landing fee and were attractive to low-cost carriers. In China, the relative late development of the aviation industry meant that most cities had only one airport. The landing fees for major airports were set by the government and had been rising in recent years. Even for the few cities with more than one airport, airlines were required to pay the same landing fee regardless of the location and capacity. Airports in very small

² Yunnan Lucky Air financial statements.

cities (less than 1 million inhabitants) did offer much lower landing fees, but there were usually not enough passengers in these cities to make the routes viable.

Aircraft Leasing All aircraft leasing was controlled by the aviation bureau of the NDRC. Due to safety concerns, the NDRC mandated that airline capacity expansion could not exceed 35% per year. As an airline grew, the expansion cap could fall even lower. Airlines were not allowed to lease aircraft directly from a manufacturer or a third party, who might offer better financial terms. In addition, small airlines were usually lower on the priority list to receive airplanes and sometimes had to wait more than five years. This long lead time often hindered an airline's ability to respond quickly to market dynamics.

Taxes Various government taxes laid an additional burden on an airline's operation – in Lucky Air's case, anywhere from 2% to 10%.

On top of these restrictions, Lucky Air was also subject to strict pricing regulations as well as fees imposed by travel agents and China's ticket distribution system. These limited its ability to increase revenue and achieve Southwest-level margins.

Airline Ticket Distribution System

In China a passenger could buy an airline ticket directly from an airline, an authorized agent, or an online distributor (see **Exhibit 4**). When passengers bought tickets directly from an airline, the transaction was handled by the airline's call center, ticket counter, or website. In this case, the airline had to pay a Global Distribution System (GDS) fee to government-owned TravelSky, the only GDS in China. The China Aviation Information Company held a monopoly on the GDS market in China, although the government had agreed with the WTO to open its GDS market in 2007.

Many large airlines invested a large amount of capital to set up call centers to handle booking so that they could avoid paying travel agent commissions. When buying tickets from an authorized offline agent, passengers usually made a call to the agent, who would then deliver the ticket to the customer and collect the payment. In this case, Lucky Air and other airlines found that they had to pay a commission ranging from 2% to 15% to the ticket agent. The agent paid the GDS fee and the Billing and Settlement Plan (BSP) fee charged by the International Air Transportation Association (IATA). When an airline used its B2B system, the BSP fee was waived.

Off-line travel agents were the dominant ticket distribution system in China, much as they were in the United States up until the mid-1990s. For passengers, the ticket delivery was free and convenient. Moreover, the face time with the agent gave passengers additional reassurance in case questions or issues arose in the future. Such reassurance wasn't always available to those who bought online.

Airline E-commerce in China

At the end of 2007, China had 210 million Internet users, up 53.3% from the end of 2006, and its penetration rate was growing by 6.1 million per month. The figure was expected to top the U.S. Internet population by mid-2008 and reach 590 million by 2012. Overall Internet penetration in China was 19.1%, compared to 69.7% in the United States, and varied dramatically among regions. Compared to Beijing's 46.6% Internet penetration, the highest in China, Yunnan's was only 6.8%. Moreover, whereas 40% of all Chinese Internet users resided in Beijing, Guangzhou, and Shanghai, a mere 1% resided in western China.³

Although China's technology infrastructure had improved rapidly in recent years, the e-commerce sector remained relatively unsophisticated. Transaction security was often poor and payment systems expensive or unavailable, so only 15.8% of Internet users were online buyers and only 25% used an online banking service.⁴ Credit card penetration in China was less than 4% (31 million), compared to 90% in the United States, although it was estimated that the number of credit card holders would exceed 100 million in 2010. Credit card companies collected fees averaging 5% to 10% per transaction, further dissuading Internet shopping. Wary of fraud and errors in online payment systems, the majority of Internet users still preferred offline cash payment for online transactions.⁵ Indeed, only 22% of China's web surfers on all e-commerce sites actually purchased anything, compared to 71% in the U.S., and only 58% of those purchasers used online payment.⁶

Roughly 80% of web users were young people under 35 years old, whose purchase power was limited. Half of them often went to websites such as Taobao (the Chinese eBay) and Netease to buy such products as electronics, clothing, and cosmetics. Payment frequently passed through a third party payment company, such as PayPal and AliPay, which helped alleviate their security concerns. The online merchant's credibility was a key factor in the purchase decision-making process.⁷

The online travel market in China was relatively small, generating about RMB 2.25 billion in 2007, less than 1% of the total travel market.⁸ The two largest players were Ctrip and eLong, together dominating 75% of the market share. These online travel agencies were becoming increasingly important providers of travel services, appealing especially to young professionals for their convenience, efficiency, and related services. In recent years, online travel websites had seized considerable market share from the traditional offline travel agents and charged the same commission fees to the airlines as their offline competitors.

³ China Internet Network Information Centre; *The Economist*, "Alternative Reality" (January 31, 2008).

⁴ China Internet Network Information Centre; China Construction Bank.

⁵ China Credit Card Centre; Economist Intelligence Unit, "Country Commerce: China" (2008), 118.

⁶ China Internet Network Information Centre.

⁷ Economist Intelligence Unit.

⁸ China National Tourism Administration (2008); Data Center of China Internet (2007, 2008).

Ctrip, eLong, and their competitors offered online portals, but their internal operations depended on call centers. Due to the less established credit card payment system and different rules among banks, most of the credit card validations were done manually through the call centers. According to eLong, only 20% of customers paid online, and many of those still called afterwards to confirm their payment status. Meanwhile no automatic online purchasing system had been created to cut across multiple airlines, as this would have required a tremendous level of coordination among airlines, banks, and TravelSky.

Almost all airlines in China had begun to offer online booking service on their websites. The quality of the service was generally considered less than satisfactory. Online travel sites such as Ctrip and eLong offered better online experiences and provided a large selection of airlines and hotels. Many people visited these websites to research travel information, although only 10% of them actually booked online.

Lucky Air sold about 80% of its tickets through agents, paying them a 2% commission, and the rest through its own website. Among tickets sold on its website, 95% were bought by reseller agents who turned around and resold the tickets to individual consumers. Only 1% of the total tickets were purchased directly by consumers on luckyair.net.

Luckyair.net

One of Lucky Air's strengths was its IT operations. It depended on its parent company, Hainan Airlines, for IT support and spent a mere 0.15% of its own net income on IT investment. Its website, luckyair.net, was the first in the industry to enable online credit card verification and create an online community for its passengers. Lucky Air hoped to reach more customers directly via its website, and build more brand recognition and a loyal customer base.

Luckyair.net offered a menu of services. Customers could buy and refund tickets online, paying 5% to 20% less than anywhere else. They could also validate their tickets online, a service formerly available only through TravelSky, and obtain flight information, news updates online, and detailed descriptions of travel destinations inside and outside Yunnan. The site provided a home for a Lucky Air community, allowing customers to create blogs and share experiences, although information on why they chose or enjoyed Lucky Air was lacking. Lucky Air offered bonus points for returning customers, which they could exchange for gifts. Lucky Air's flights were searchable by most search engines, such as Google and Baidu, and Ctrip and eLong featured some Lucky Air flights on their websites. Unlike most airlines and online travel agents, Lucky Air did not have a call center back-end operation. All online transactions – searching, booking, paying, and validating – were online. To Lucky Air's executive team, the website appeared to be a promising way to emulate overseas airlines' best practices and keep ahead of the Chinese competition.

Airline E-commerce in the U.S. and Europe

Lucky Air recognized that the airlines' infrastructure and consumers' habits in the West varied considerably from what it faced in China. Nonetheless, extensive market research on U.S. and European airlines revealed a range of trends and techniques that could be major opportunities. Lucky Air had thrived in part by modeling its operations on those of Southwest Airlines; now it looked again to its American and European counterparts for insights.

Customer Relationship Management (CRM)

CRM facilitated a two-way exchange between a company and its customers so that the company could better understand its customers' needs. In many ways, information gathered through CRM helped companies anticipate the needs of current and future potential customers. Key trends in e-commerce CRM included adopting Web 2.0 capabilities, exploring product reviews, and increasing conversion rate.

Web 2.0 The strong driver behind the Web 2.0 trend was companies' increasing desire to create a web "destination" for its customers rather than a boring web store. Adding Web 2.0 capability to customer-facing sites – embracing the Internet's network effects and inter-human connections – also helped improve customer experience online. It was important however to align the Web 2.0 efforts with overall company goals. For example, Southwest Airlines' website featured videos showing its 25-minute landing-to-takeoff turn, one of its key advantages over competitors. In addition, Southwest employees posted blogs on the site, building rapport between employees and customers and further emphasizing the "big happy family" image. Customers, too, could post information on their experiences. Rather than one-way posting, Southwest adopted the CRM principle of interaction by investing in the staff and support necessary to constantly monitor the site, respond to customer inquiries, and incorporate customer feedback.

Customer Product Reviews One area of interest for community-based content was product reviews. One notable example was Amazon.com, where customer product reviews not only drove sales, but also provided insight into the customers. Another was TripAdvisor.com, which featured hotels, attractions, and restaurant reviews written by travelers. Besides providing tips and facts about destinations, similar to a travel guide book, it also maintained "goLists" of its users, similar to travel itineraries, to help other travelers planning their trips. Researchers' interviews indicated that symbolic and aggregated scores – stars, plus and minus signs, rating averages, etc. – were the most popular format for the customer reviews, providing a quick overview of the level of services in the eyes of customers. Scoring for specific characteristics, such as on-time departure/arrival, luggage handling, and customer service, was considered particularly valuable by customers researching travel options online.

Conversion Rate Online merchants were eager to convert browsing and research into purchases and many online CRM technologies tended to increase that conversion rate. Single-site transactions

saved steps on actual purchasing and ensured quick and hassle-free transactions. CRM systems tended to collect vast amounts of information, but efficient and effective data was necessary if the companies were to measure, justify, and improve their services. Community building and marketing gave companies more insight into customer behavior, which in turn helped them better target their services to influence the customer decision-making process. Customer service chat bots improved users' experiences by giving them real-time answers. In general, although an online community and CRM-based system could be a powerful marketing tool to help a customer through a purchase decision and collect customer data for better targeting, the success largely depended on consistently analyzing the data, acting on feedback, and committing to continuous improvement.

Customer Self-Service

As products and services became increasingly commoditized and pressure on price intensified, customer service remained a crucial differentiator and a leading contributor to customer loyalty. For many leading organizations in the United States, customer service had gone from being a cost-center department to a significant component of the entire corporate strategy. Because superior customer service often drove up the cost, however, many firms were turning their attention to customer self-service as a win-win balance between companies and customers.⁹

Advances in technology enabled customers to obtain standard airline services via phone, kiosk, e-mail, or the Internet without human assistance. A Forrester Research study showed that, on average, a U.S. company incurred a US\$1 cost for each web self-service transaction, compared to \$10 for each email response and \$33 for each customer service phone call.¹⁰ Kiosk manufacturer SITA reported that almost 50% of passengers in many U.S. airports preferred checking in at a kiosk with a simple swipe of a credit card and a few keystrokes on a touch screen.¹¹ People perceived self-check-in as simple and efficient, producing higher customer satisfaction. Moreover, these kiosks freed up ticket agents to deal with passengers who had more complex issues, which usually took more time to resolve.

Customer self-service could be any services or information that customers obtained through an established portal, such as a website or SMS messenger. However, for the portal to be an effective tool for a customer and company, it was not enough to simply build the portal. In designing their portals, Southwest Airlines and others considered who the users would be, why they preferred to use the portal, and what portal functions would make it easy for them to conduct their business in the most efficient and effective way. If the best customer service were to come from the customers themselves, then a well-designed and thought-through portal was crucial.

⁹ Gartner Customer Relationship Management Summit (March 19, 2008), <http://www.mycustomer.com/cgi-bin/item.cgi?id=133610>.

¹⁰ Cited by SearchCrM.com, definition of "Web Self-service", <http://searchcrm.techtarget.com/dictionary/definition/819586/Web-self-service.html> (March 5, 2007).

¹¹ <http://www.ste.it/divisioni/documenti/cuss.pdf>.

Online Payment

U.S. airlines had recently moved to adopt a new payment method: PayPal. Since July 2007, Southwest Airlines, US Airways, and JetBlue Airways had all announced that they would accept PayPal, not just credit cards, as a payment option for purchasing flights on its website. According to JetBlue Airways, “PayPal provides just the kind of security and convenience that meets our travelers’ expectations.”¹² With 57 million active accounts in 190 markets and 17 countries around the world, PayPal was one of the most popular payment methods in e-commerce. Passengers could purchase airline tickets without sharing their credit card and bank account information. PayPal also offered numerous payment options, such as bank accounts, credit cards, and online credits accumulated from eBay auctions and other transactions, and provided central management via customers’ PayPal accounts. Moreover, users of PayPal, Alipay, and similar services were typically more dependent on the Internet than the average visitor, in part because they had gone to the trouble of creating an online payment account.

Customer Targeting

To differentiate themselves and shore up their loyalty base, U.S.- and Europe-based airlines increasingly focused their energies on specific customer segments. The more they could provide each market niche the special services it desired, the more they felt they could attract and preserve those customers in a price-sensitive market.

Corporate Travelers In July 2007, a new business travel site, SkyCorp Direct, was launched to provide an inexpensive, online management tool to simplify corporate travel arrangement and save time and ultimately cost. U.S.-based SkyCorp Direct was designed to provide a one-stop shop for corporate travel needs, including flights, hotels, and car rental. It only took a few minutes to set up a corporate account and provide a company with the ability to easily track employees’ travel expenses. SkyCorp Direct sought to attract small and medium-sized businesses that couldn’t afford designated travel coordinators, offering them the same level of customized corporate travel planning, support, and reporting that large corporations relied on to manage employee travel. To meet corporate travel needs, SkyCorp Direct also provided easy download of itineraries to PDA devices, as well as weather, map, and public transportation information. Its launch was sponsored by an alliance of three U.S.-based airlines: Continental, Delta, and Northwest. SkyCorp Direct charged no booking fee for flights on these three airlines and US\$5 for flights on others.¹³

Students U.S. college students were more likely to take leisure trips requiring flights than the rest of the population.¹⁴ Students tended to be seasonal, group-oriented, price-sensitive, and Internet-savvy travelers. Airlines that targeted students sought to lock them in as loyal customers in the years before

¹² JetBlue press release, “JetBlue Airways Travelers Take Flight with PayPal” (April 3, 2008), <http://www.reuters.com/article/pressRelease/idUS139207+03-Apr-2008+BW20080403>.

¹³ SkyCorp Direct ceased operations in the spring of 2008.

¹⁴ Jupiter Research, “Travel Niche Marketing” (July 13, 2005).

they graduated, got jobs, and amassed disposable income. These airlines, particularly the low-cost ones, worked to develop product mixes, promotional channels, and special deals that would appeal to students and inspire repeat purchases.

Loyalty Program Members In a Jupiter Research survey, 20% of U.S. air travelers who bought tickets online described themselves as being influenced by loyalty programs. Customers in this segment tended to travel frequently and be highly engaged online. Price was the most important factor influencing their purchase decisions, yet airline bonus loyalty points also motivated them to purchase from airlines' websites. In the same survey, 78% cited loyalty programs as influencing factors compared to 73% citing best price. Airlines that employed loyalty programs assiduously sometimes allowed users to redeem bonus points with their parent companies, partner airlines, and other travel services.¹⁵

Betting on Growth

Yunnan Lucky Air's executive team knew that their strategy would have to respond to developments in both China's travel industry and government policies. China planned to invest US\$20.2 billion (RMB 140 billion) in upgrading the capacity of existing airports and opening 50 new ones, bringing the total to 190 by the year 2010.¹⁶ These changes could give low-cost airlines excellent opportunities in the next few years. Yet the high growth potential and easing regulatory climate would also attract new entrants and increase competition.

The team recognized that Lucky Air could not depend solely on a low cost strategy as its competitive advantage. Not only was the bulk of its operating cost heavily constrained and regulated, but profits would be low and price-cutting competitors fierce. Lucky Air could follow Spring Airlines' example and bundle itself in higher-margin tour packages, but that would mean depending on a network of partnerships and setting itself up as a full-service travel website.

If airline e-commerce was really taking off in China, then Lucky Air could seize the advantage by establishing itself as the online travel leader. Low Internet penetration and inadequate online payment methods had seriously hindered the development of the online travel business, yet the situation could change dramatically as the Internet penetrated further and deeper into China. The examples of Southwest Airlines and other low-cost airlines abroad suggested that e-commerce could build loyalty, increase conversion, and reduce cost – provided that an airline were willing to invest significantly in technology and staff. The options were wide-ranging and the money tight: Lucky Air had to place its bets correctly if it wanted a good payoff in the future.

¹⁵ Jupiter Research, "Understanding the Influence of Loyalty Rewards on Online Air Buyers" (2007).

¹⁶ Euromonitor International: Country Sector Briefing, "Travel and Tourism – China" (2008).

Study Questions

1. What are Yunnan Lucky Air's best options?
2. What factors should its executive team consider?
3. What lessons should they draw from Lucky Air's experience and that of low-cost airlines elsewhere?

Exhibit 1 Air Travel Patterns in China, 2004-2006: Proportions

Category	Item	Year 2004 (%)	Year 2005 (%)	Year 2006 (%)
Travel Purpose	Business	56.8	49.6	49.2
	Leisure	32.5	38.4	40.3
	Family visit	10.7	12.0	10.5
Expense Payment	Paid-by-others	60.8	48.6	45.0
	Self-paid	39.2	51.4	55.0
Travel Frequency (per year)	1-3 times	36.4	40.6	42.3
	4-6 times	23.2	24.1	27.0
	7-9 times	13.4	12.9	11.3
	10-15 times	9.8	8.9	8.5
	More than 15 times	17.2	13.5	10.9
Seat Class	First	3.5	3.9	3.3
	business	13.1	12.0	9.9
	economy	83.4	84.1	86.8

Source: eMarketer, "Asia-Pacific online travel."

Exhibit 2 Passengers into Yunnan Province, 2007

Arrivals	Growth Rate	Breakdown of Arrivals (millions)				
		Chinese nationals	Foreigners	Hong Kong	Macao	Taiwan
21.02	22.6%	18.80	1.45	0.34	0.09	0.34

Source: Yunnan Tourist Board.

Exhibit 3 **Yunnan Lucky Air Detailed Costs, 2007**

Item	Cost in 2007 (in RMB millions)	Percentage
Fuel	257.7	36.5%
Landing fees	92.2	13.0%
Civil aviation foundation tax	17.9	2.5%
Aircraft leasing	123.3	17.5%
Salaries	59.2	8.4%
Website and support	1.1	0.2%
Marketing	1.6	0.2%
TravelSky GDS fees	13.6	1.9%
Agent fees	14.2	2.0%
In-flight food	10.8	1.5%
Maintenance	35.0	5.0%
SG&A	80.1	11.3%
Total	706.7	100.0%

Source: Yunnan Lucky Air financial statement (2007). RMB6.9 = US\$1.

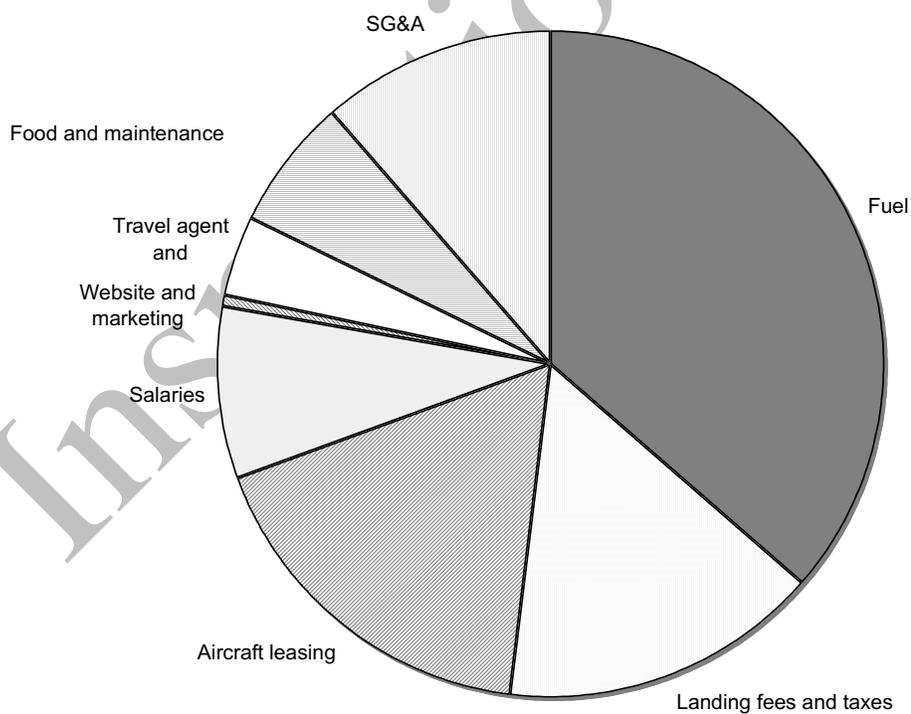
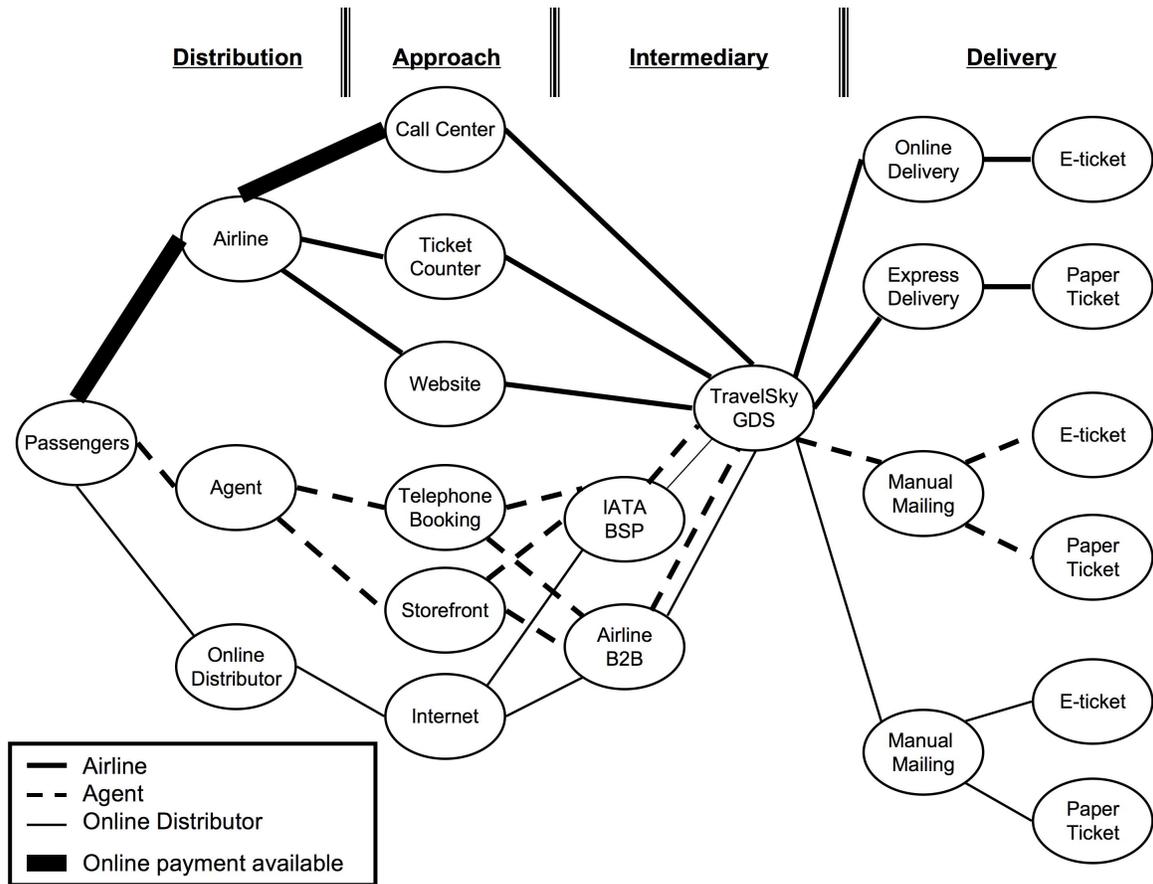


Exhibit 4 Airline Ticket Distribution in China



Source: Casewriter analysis.