Latest Activities and Future Prospects of Asian Low-cost Carriers

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Business model of low-cost carriers (LCCs)

- Keep planes in the air: aircraft utilization
- "Point-to-point" rather than "hub-andspoke": fast turnaround time at airport (about 20-30 minutes)
- Short-distance routes
- Same aircraft type (e.g. B737, A320)
- Secondary airports
- Direct sales via Internet
- "No frills" services

LCCs target

- Customers sensitive to price (vs. service quality): e.g. students, budgetconscious travelers
- "First timers": e.g. people switched from other transport modes
- Business travelers who like frequency and travel short distance

LCC model in North America and Europe

 Pioneered by Southwest Airlines in 1970s, and evolved in US since the deregulation

 In Canada, WestJet began flying in 1996 and grew at 50% per year in early 2000s

 Repeated in Europe since mid-1990s (after EU liberalization): Ryanair, etc. LCCs: 25% of air passenger market in North America (US, Canada), and over 20% in Europe

- Southwest: largest domestic carrier in US since 2004 (carried nearly 100 million passengers in 2006)
- Ryanair: largest intra-European carrier

Impact of LCCs

Southwest Effect" becomes widely known

- A rapid increase in traffic and a simultaneous fall in fares on routes where, or close to where, Southwest operates
- Europe also has a similar "Ryanair Effect"
- Southwest, Ryanair and several other LCCs had been very profitable
- LCC operations represent a new business model

LCC model: Process Innovation



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Impact of LCCs (cont.)

- LCCs have imposed significant competitive pressures on the large network carriers ("full service airlines," or FSAs), especially on the lower-end of the fare spectrum
- FSAs set up their own LCC offshoots, or modify the FSA business model to be more LCC-like

LCCs in Southeast Asia

AirAsia (Malaysia), 2001
 Leading LCC in Asia
 It follows the Southwest LCC model

 Joint-ventures (JVs): Thai AirAsia; Indonesia AirAsia

• AirAsia X

One-Two-Go: first LCC in Thailand (2003)

- Nok Air: a joint-venture LCC set by Thai International (2004)
- Tiger Airways: an LCC offshoot of Singapore Airlines (2004)
- Jetstar: established by Qantas (2004)
- Lion Air, Indonesia (2000)
- Cebu Pacific, Philippines (1996)

Major LCCs in Southeast Asia

	Country	Associated	Commen	Route	Base/Hub	In-flight	Seat	FFP	Aircraft	Others
		Carriers	-cement		Airports	Service	Assign.			
Air Asia	Malaysia; Thailand; Indonesia	Thai AirAsia; Indonesia AirAsia; Airasia X	2001 (as LCC); 2004 in Thailand and Indonesia	Domestic & International (within 4 hours)	KLIA (LCCT); Kota Kinabalu; Kuching; Johor Bahru; Bangkok (Suvarnabhumi); Jakarta	No frill (food & beverages for-purchase)	Free (Xpress boarding option)	No	Single [B737 to A320]	SMS Reservation; Web check-in; Extra baggage weight for a fee; 25- minute turnaround time
Air Asia X	Malaysia	Air Asia	2007	International long-haul (more than 4 hours)	KLIA(LCCT)	Frill-or-no frill choice before boarding; Light meals for-purchase onboard	Yes & XL seat size (No business class)	No	Single [A330]	
One-Two- Go	Thailand	Orient Airlines (Charter)	2003 [stop operation in July 2008]	Domestic	Bangkok (Don Muang)	Free snacks/drinks	Yes	No	Single [MD82]	Fixed fare system; Prepaid card; Paid in bank and 7-11
Nok Air	Thailand	Thai Airways International	2004	Domestic	Bangkok (Don Muang)	No frill (food & beverages for-purchase)	Yes & Nok Plus (frill service)	No	Mix [B737, ATR72 for local routes]	ATM reservation; 7-11 payment
Tiger Airways	Singapore	Singapore Airlines, SE AIR (in Philippines)	2004	International with 4 hours	Singapore (BT); Clark	No frill (food and beverages for-purchase, but free for more than 3- hour flights)	Yes	No	Single [A320]	International ticketing on a few routes; Tiger Add-On products (extra luggage, sports equipment check-in and seat selection)
Jetstar Asia	Singapore	Qantas	2004	International within 5 hours	Singapore, Jakarta (with Valuair Name)	No frill (food and beverages for-purchase, but free for more than 3- hour flights)	Yes	World Perks	Single [A320]	Merged with Valuair in 2005
Lion Air	Indonesia		1999	Domestic & a few international	Jakarta, Surabaya	Free snacks/drinks	Yes & Business Class	Yes, (Lion Pass- port)	Mix [MD 80, MD90, B737]	SMS Reservation; Aircraft Lease Business
Cebu Pacific	Philippines		1996	Domestic & international	Manila, Cebu, KLIA (LCCT), Singapore (BT)	Fun Flight (Quiz, etc)	Yes	No	Mix [A320, A319, ATR72]	SMS Reservation; Cargo service with some network carriers

"LCCs" ("Low fare" carriers?) in Northeast Asia

- A more recent phenomenon
- Japan: Skymark Airlines and Air Do in 1998
- Hansung Airlines (2005) and Jeju Air (2006) in South Korea
- OKay (2004) and Spring Airlines (2005) in Mainland China
- Oasis Hong Kong (2006); Viva Macau (2006)

LCCs in Northeast Asia

	Country	Associated	Commencement	In-flight	Aircraft	Fleet	Base	Destinations	FFP
		Carriers		Service		Size	Airport		
Spring Airlines	Mainland China	None	2005	No frills	A320	8	Hongqiao, Xinzheng, Meilan	Over 20	
Viva Macau	Macau	None	2006	Yes	B767	2	Macau	4 (Jakarta, Ho Chi Minh City, Sydney, Tokyo)	
Oasis Hong Kong	Hong Kong	None	2006	Yes	B747	5	Hong Kong	2 (London, Vancouver)	
Air Do	Japan	Code- share/Partnership with ANA & Skynet Asia	1998	No frills for B737; Radio & music for B767	B767 & B737		Sapporo		Yes
Skymark Airlines	Japan	None	1998	No frills	B767 & B737		Tokyo		Limited*
Skynet Asia	Japan	Code- share/Partnership with ANA & Air Do	2002	Beverages	B737		Miyazaki		Limited**
Star Flyer	Japan	ANA	2006	Sweets, Beverages	A320		Kita- Kyushu		Yes
Jeju Air	South Korea	None	June 2006		Bombardier Q400 & B737	5	Jeju	Jeju-Gimpo, Jeju-Kimhae, Gimpo-Kimhae	
Hansung Airlines	South Korea	None	August 2005		ATR 72-200	4	Cheongju	Cheongju-Jeju, Gimpo-Jeju	
Yeongnam Air	South Korea		July 2008		Fokker 100		Kimhae	Kimhae-Jeju, Kimhae-Gimpo, Kimhae-Daegu	
Jin Air	South Korea	Subsidiary of Korean Air	July 2008		B737		Gimpo	Gimpo-Jeju	

Performance of Asian LCCs

AirAsia

- More cost efficient than Singapore Airlines, Thai Airways and Malaysia Airlines – three FSAs
- Has the highest return on fixed assets among the four airlines
- Cost per ASK (available seat km) the lowest among world's LCCs

Costs per ASK (in US cents, 2002)

FSAs

- American Airlines: 11.3
- British Airways: 12.7
- JAL: 14.3
- Cathay Pacific: 9.1
- Singapore Airlines: 8.2

LCCs

- Southwest: 7.3
- Ryanair: 7.1
- AirAsia: 6.1

On average, LCCs' unit cost is 30% below that of FSAs

Spring Airlines

- Highest load factor and aircraft utilization rate in China
- Operational cost 18% lower than domestic industry average
- In 2007, highest profit per aircraft in the domestic market
- Achievements due largely to its travel agency background

Spring Airlines' Cost and Performance (in million RMB)

	Spring Airlines	Domestic industry average		
Airport charge as % of total cost	10-20%	15-20%		
Landing/taking off fee	12%			
Fuel cost as % of total cost	40%	25-30%		
Security investment (2006)	60			
Annual savings	50	-		
Annual fuel savings	30	_		
Load factor	95%	70%		
Airfare vs. FSAs	36% lower	_		
No. of flights operated (2007)	14 206			
No. of passengers (2007)	2 350 000			
Revenue (2007)	1 230	-		
Profit (2007)	70			
Profit (2005+2006)	67			

- However, many Asian LCCs have not been very successful so far
- Japan: Air Do and Skynet Asia operated at a loss while Skymark made a profit only in 2004 (Murakami, 2008)
- South Korea: Hansung Airlines and Jeju Air operated at a loss (Lee, 2008); Hansung exited in Oct 2008
- China: very small LCC sector; Bankruptcy of East-star airline
 - \rightarrow "Low fare" carriers, rather than LCCs

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Prospects of Asian LCCs

- Depend on:
 - 1) Further domestic regulatory reforms
 - 2) Regional regulatory environment and liberalization
 - 3) Secondary airports and low-cost terminals
 - 4) Continued economic growth

1) Further domestic regulatory reforms

- In Southeast Asia, entry of LCCs was facilitated by <u>domestic deregulations</u>
- A major motivation is to boost tourism and business travel after the Asian financial crisis
- E.g. in Thailand: domestic deregulation started in early 2000s
 - Thai AirAsia, Nok Air, and One-Two-Go started domestic operation as LCCs
 - Immediate reduction in airfares
 - ... and dramatic increase in market share by LCCs

China

- Chinese civil aviation has grown at 17% annually
- The market is dominated by "Big Three": Air China, China Southern, China Eastern
- Significant regulatory barriers for LCC start-ups
 - Aircraft purchase and fleet buildup
 - Pilot recruitment
 - Fuel purchase
 - Airport charges
 - Route entry
 - Pricing
- Problem: competitors (state airlines) are also the regulator
 → distort the level-playing-field

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China (cont.)

A return to:

state ownership?
e.g. United Eagle Airline acquired Si-Chuan Airlines
consolidation?
e.g. pending merger of China Eastern + Shanghai Airlines
regulation?

South Korea: Reducing entry barrier – License

Scheduled service "large license"
 Capital: 20 5 million US\$
 Aircraft: 5 1 (double engine & more than 20 seats)

 International routes
 ■ Require 2 years & 20,000 flights in domestic operation → change to 1 year &

10,000 flights

LCC Boom in South Korea (June 2009 data)? • Market share on the Gimpo-Jeju route Korean Air: 41% Asiana Airlines: 30% LCCs: 29% - JIN Air (13%); Jeju Air (9%); Eastar Jet (7%) Market share in the domestic market Korean Air: 48% Asiana Airlines: 27% LCCs: 25% - JIN Air (8%); Jeju Air (7%); Air Busan (7%); Eastar Jet (3%) 24 24

2) Regional regulatory environment and liberalization

- One disadvantage of Asian LCCs is the smaller geographic areas of economies
- LCCs confront the regulatory constraints applying in international (regional) markets:

Asia has a much more restrictive international regulatory regime than North America or Europe

 A liberal aviation market will be critical for the survival and success of Asian LCCs

E.g., Impact of regional open-skies on airline networks:

- Restrictive intra-Asia aviation regime results in suboptimal networks for LCCs
- LCCs in Asia could enter a new regional market only through JV arrangements or alliances
- Regional liberalization: Opening up numerous secondary city-pair markets, and forming more efficient networks

Recent policy developments:

- Unlimited flights between capital cities in ASEAN
- ASEAN will fully liberalize air transport services by 2015
- Creation of "ASEAN+3" (China, Japan, South Korea) as a formula for regional integration
- South Korea's "open skies" agreement with China's Shandong and Hainan provinces in June 2006, and an MOU with "open skies" extended to all regions of China by 2010
- Japan-South Korea "open skies" agreement in Aug 2007

One-way Fare Comparison Before and After LCC Entry, Singapore-Kuala Lumpur (in S\$)

Airline	Fare before entry	Fare after entry*	
AirAsia	-	18.93**	<u>www.airasia.com</u>
Malaysian Airlines	220.00	26.00	www.malaysiaairlines.com
Tiger Airways	_	42.00**	www.tigerairways.com
Singapore Airlines	220.00	156.00	www.singaporeair.com

Notes: * Average fare of 3Q08, before tax and fees (around S\$80)

** AirAsia and Tiger Airways even offer limited free seats (before tax and fees)

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3) Secondary airports and low-cost terminals

- An important source of cost savings for LCCs is from the use of uncongested secondary airports
- As compared to North America and Europe, Asia has much less secondary airports in metro areas that are available for LCCs
- Asian LCCs rely mainly on primary airports for their base operation
- Primary airports may invest in "low cost terminals"

Example: In Japan

 Scarcity of secondary airports in metro areas: E.g., on both Tokyo-Fukuoka and Tokyo-Sapporo routes, LCCs pay the same amount of landing and slot-rental fees as FSAs, and engage in head-to-head competition with FSAs

 2) One consequence of using major airports is that slots are limited, resulting in LCCs' insufficient departure frequency:
 E.g., on Tokyo-Sapporo route, Air-Do has limited departure frequency (< 10%)

Low-cost terminals in Asia

- Major ones:
 - Low-Cost Carrier Terminal (LCCT) in KL opened in March 2006;
 - Budget Terminal (BT) in Singapore
- Low-cost can attract LCCs and produce a strong, positive impact on traffic volume for its airport
- On the other hand, airport charges are usually heavily discounted and airport revenue may go down
- In terms of runway capacity: Low-cost terminals may improve runway efficiency before the primary airport reaches its capacity for airport movements
- ... however, low-cost terminals may not be a net contributor to the airport's financial performance when the airport reaches its capacity
- Since low-cost terminals have operated for only one or two years in Asia, their impact on LCCs is difficult to assess

LCC Terminals in Southeast Asia

	Airport	Size (square meter)	Accessibility to/from Main Terminal	Capacity	Passenger Throughput	Discounted Airport Charges	Carriers Served
Low-cost Carriers Terminal (LCCT)	Kuala Lumpur International Airport (KLIA)	35,290	30 minutes by bus (Charge)	10.0 million passengers; (Expansion to 15.0 million passengers in March	4.7 million (2006); 7.4 million (2007)	Parking; Office rent; Counter; Passenger service	AirAsia; Cebu Pacific; Tiger Airways
Budget Terminal (BT)	Singapore Changi International Airport (SCIA)	25,000	5 minutes by bus (Free shuttle)	2009) 2.7 million passengers; (Expansion to 7.0 million passengers in 2009)	1.4 million (2006); 2.0 million (2007)	Office rent; Counter; Passenger service	Tiger Airways; Cebu Pacific
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Operational and Financial Statistics of AirAsia (Malaysia)

	Average Load Factor	Passen (thousa	gers and)	R (1	PK nillion)	ASK (milli	ion)	Re (U	venue/I S cents)	RPK	Cost (US	/ASK cents)	Aircr	aft	
Apr-Jun 2005	76%	1 203		1	447	1 903	1 903		3.63		2.40		19		
Apr-Jun 2006	83%	1 623		1	979	2 388	2 388		2 388 3.35			2.32		26	
Change	7% point		35%		37%		25%			-8%		-3%		37%	
Jul-Sep 2005	70%	1 193		1	358	1 953	3	3.6	51		2.41		21		
Jul-Sep 2006	79%	1 945		2	152	2 713	3	3.0	8		2.20		30		
Change	9% point		63%		59%		39%		-	15%		-9%		43%	
Oct-Dec 2005	76%	1 344		1	532	2 009)	3.2	27		2.69		23		
Oct-Dec 2006	82%	2 273		3	060	2 505	5	3.6	52		2.66		32		
Change	6% point		69%		64%		52%		-	11%		-1%		39%	
Jan-Mar 2006	80%	1 560		1	833	2 296	5	3.0)2		2.74		24		
Jan-Mar 2007	77%	2 160		2	461	3 215	5	3.5	2		2.91	/	33		
Change	-3% point		39%		34%		40%		-	17%		6%		38%	

4) Continued economic growth

- While the development of Asian LCCs lags behind that of their counterparts in North America and Europe, overall air transportation has been growing faster for the last two decades, owing largely to the faster economic growth
- Continued economic growth will be critical for the growth of LCCs in the region

Major Cities in the World (million passengers)

City	Airport	1991	1997	1997 Ann. growth (1991-97)		2008
Beijing	Beijing & Tianjin	6.5	17.7	18%	25.1	60.6
Shanghai	Hongqiao & Pudong	4.9	13.3	18%	20.7	51.1
Guangzhou	Guangzhou	7.4	12.5	9%	13.8	33.4
Shenzhen	Shenzhen	0.02	4.4	138%	7.8	21.4
Hong Kong	HKIA	19.2	28.3	7%	32.0	47.1
Токуо	Narita & Haneda	62.7	75.0	3%	84.1	100.3
Seoul	Gimpo & Incheon	18.5	36.8	12%	36.5	44.2
Chicago	O'Hare & Midway	59.9	70.4	3%	83.0	88.2
Atlanta	Hartsfield	37.9	68.2	10%	75.9	90.0
London	Heathrow, Gatwick & Stansted	59.3	85.1	6%	105.6	123.4
Paris	Orly & Charles De Gaulle	45.3	60.4	5%	71.0	87.1

China's domestic market

- 1st half of 2009: 20% growth
- In August 2009, growth rates: Air China: 42% China Eastern: 52% China Eastern: 34%

Conclusion

- In Asia, there are LCCs (or Low-fare carriers) in, among others, Japan, South Korea, China, Malaysia, Thailand, the Philippines, Indonesia and Singapore
- AirAsia and Spring Airlines among the success stories, and there has been dramatic recent LCC expansion in South Korea
- Asian LCCs face smaller geographic areas of domestic markets, and various domestic and international regulatory barriers make their entry and growth difficult
- Lack of secondary airports, while effect of lowcost terminals have yet been fully seen

In Japan and South Korea: Insufficient departure frequency is caused also by strong surface competition

E.g., though lands are separated by sea, Shinkansen express and highway-bus are strong competitors with airlines, in almost all domestic city-pair markets. **Note: Tokyo is almost at the centre of the country**

When surface competition is absent (due to sea), aviation markets are usually too small with few business travelers

In South Korea: High speed train (KTX) began service in 2004, and improvement in highway infrastructure

Here, a liberal Northeast Asia (NEA) market will definitely help

1) The 4th runway at Haneda – even better, a secondary airport in Tokyo – will definitely help

2) But, a liberal NEA market will open up numerous secondary city-pair markets in China, South Korea and Japan. These are the markets where FSAs tend not to operate, but LCCs can thrive with their business model (regional jets, one fare-class, no-frills, etc.)

3) LCCs are to stay and provide a welcome stimulus in domestic & regional markets while also helping more and more people with access to air transport

Thank you

Major cost components

	30%	30%: Aircraft Fuel
	20%	20%: Operations & Maintenance
	12%	12%: Wages
	28%	28%: Overhead Expenses
	10%	10%: Other
Sour	rce: Kim (2007)	40