

การคำนึงด้านความปลอดภัยที่มีผลมาจากการขยายตัวของสายการบิน  
ต้นทุนต่ำในภูมิภาคเอเชียตะวันออกเฉียงใต้

Safety Concern after Low Cost Carriers Business Expansion: Southeast Asia

ลัลลียา แพร์พาณีวัฒน์ กนกวรรณ พีรพงศ์เดชา

สุทธามณี ธนะบุญเรือง จักรพันธ์ เพชรขำ และ พิชญา มณีรัตน์

Lanliya Phraepanichawat, Kanokwan Peerapongdecha,

Suthamane Thanaboonruang, Chakrapan Petkham, and Phichaya Maneerat

ภาควิชาการจัดการธุรกิจเชิงนวัตกรรม วิทยาลัยนานาชาติ

Department of Innovative Business Management, International College

E-mail: lanliya\_phr@cmru.ac.th, kanokwan\_pee@cmru.ac.th,

suthamane\_tha@cmru.ac.th, chakrapan\_pet@cmru.ac.th, phichaya\_man@cmru.ac.th

**บทคัดย่อ**

ในช่วง 10 ปีที่ผ่านมาอุตสาหกรรมการบินในเอเชียตะวันออกเฉียงใต้ได้เปลี่ยนแปลงไปอย่างเห็นได้ชัด เนื่องด้วยการขยายตัวของสายการบินต้นทุนต่ำหรือ LCCs กอปรกับความมั่นคงทางเศรษฐกิจที่เพิ่มขึ้นอย่างต่อเนื่องได้แสดงให้เห็นว่าภูมิภาคนี้เหมาะกับการเดินทางท่องเที่ยวแบบต้นทุนต่ำ ดังนั้นผู้ให้บริการสายการบินต้นทุนต่ำ (LCCs) จึงตัดสินใจให้บริการบางอย่างออกเพื่อลดต้นทุน และเสนอขายบัตรโดยสารในราคาที่ไม่แพง เพิ่มความสามารถในการแข่งขันและขยายส่วนแบ่งทางการตลาดโดยการกระตุ้นความต้องการของผู้โดยสารด้วยราคาและเส้นทางใหม่ ๆ ที่น่าสนใจ การแข่งขันที่ทวีความรุนแรงขึ้นนี้ได้เพิ่มความพร้อมและความสามารถในการเดินทางทางอากาศภายในภูมิภาค ดังนั้นการขยายตัวครั้งนี้จึงทำให้เกิดความกังวลเรื่องปัญหาด้านความปลอดภัย แม้ว่าการเติบโตและความสำเร็จของสายการบินต้นทุนต่ำจะแสดงให้เห็นถึงศักยภาพของธุรกิจการบินที่ขยายตัวอย่างมากในภูมิภาคนี้ แต่จำนวนอุบัติเหตุและเหตุการณ์ทางด้านความปลอดภัยที่เกิดขึ้นแสดงให้เห็น

เห็นถึงความจำเป็นในเพิ่มความดูแลด้านความปลอดภัยของการให้บริการจากสายการบิน เพื่อให้ทัดเทียมกับการขยายตัวของธุรกิจ

**คำสำคัญ:** สายการบินต้นทุนต่ำ เอเชียตะวันออกเฉียงใต้ ความปลอดภัย สายการบิน  
ข้อบังคับ

## Abstract

The airline industry in Southeast Asia has transformed in the last ten years. With the appearance of low cost carriers or LCCs, the region experienced a travel transformation and the airlines showed that the region is primed for low cost travel. Southeast Asia's airlines are swiftly growing up, since the region continues to strengthen economically. Low cost carriers (LCCs), which mean the carriers that offer passenger flights at very low prices, have to be competitive so these companies minimize their operating costs and expand their market share, stimulating passenger demand with attractive fares and new routes. The heightened competition has increased the availability and affordability of air travel within the region. This expansion has caused concern over safety issues due to a growing number of accidents and incidents in these airlines. The airline's growth and success demonstrates the tremendous potential LCCs face when emerging in the region. However, the high number of accidents and incidents in this region truly demonstrate the need for more safety concerns.

**Keyword:** Low Cost Carriers, Southeast Asia, Safety, Airlines, Regulations

## Introduction

Regional markets will continue to grow rapidly as ties within the Association of Southeast Asian Nations (ASEAN) strengthen, stimulating business and leisure travel. New, efficient airplanes with improved capabilities and lower operating costs are integral to carriers' business strategies. Southeast Asian airlines have dramatically

increased their airplane orders to meet growing demand and to open new, direct, long-range markets.

The disappearance of AirAsia Flight QZ8501, which vanished over Indonesian waters during the end of last year with 162 people on board could be a test for the low-cost regional Southeast Asian airline industry (Resnikoff, 2014). This paper will demonstrate that low-cost carriers in Southeast Asia are jeopardizing safety

In the past decades, air travel was not an option for local travelers. Due to the economy and their low income, they could only afford to travel by train, bus, or even by foot. But since 2001, the new era of air transportation has begun: the emergence of AirAsia, the first low cost carrier of the region, with its vision to enable everyone to fly, in keeping with its slogan “Now Everyone Can Fly.” Where exactly is Southeast Asia located? The answer to these questions will be explained as follows:

*“Southeast Asia is a sub-region of Asia, can roughly be described as geographically situated east of the Indian subcontinent, south of China and north of Australia, between the Indian Ocean (in west) and the Pacific Ocean (in east)” (“Map of Southeast Asia,” n.d.).*

*“Consisting of 11 countries reaching from eastern India to China, Southeast Asia is generally divided into “mainland” and “island” zones. The mainland, comprising Myanmar (Burma), Thailand, Laos, Cambodia, and Vietnam, is an extension of the Asian continent, while Island Southeast Asia includes Malaysia, Singapore, Indonesia, the Philippines, Brunei, and the new nation of East Timor, formerly part of Indonesia” (Brown, 2013).*

### **Definition of low-cost carrier**

*“ICAO: The International Civil Aviation Organization has developed a definition of a low-cost carrier as an air carrier that has a relatively low-cost structure in comparison with other comparable carriers, and offers low fares and rates. Such an airline may be independent, the division or subsidiary of a major network*

airline, or, in some instances, the ex-charter arm of an airline group. LCCs are also called low-cost airlines, or no-frills, discount, low-fares, budget, or value-based airlines or carriers.

ICAO definition of LCCs focuses on costs and fares, and its criteria are similar to those adopted by the U.S. Department of Transportation (DOT). In its 1996 report entitled *Low Cost Airline Service Revolution*, DOT selected LCCs based on the following criteria:

a) *Unit operating costs: Operating costs per available seat-mile for passenger service were estimated by using total operating expenses, less transport related expenses, and by using a revenue offset approach to estimate non-passenger expenses (with the assumption that non-passenger expenses equal non-passenger revenues, and reduced total operating expenses accordingly); and*

b) *Pricing practices: Each new entrant airline's average prices on a market-by-market basis were examined to determine whether or not the airline consistently maintained low fares relative to prices charged by other airlines before it entered a city-pair market*" ("Definition and identification," 2009).

In addition, CAPA: The Center for Asia Pacific Aviation website defines low-cost carriers' classic characteristic model must include: 1) *High seating density*; 2) *High aircraft utilization*; 3) *Single aircraft type*; 4) *Low fares, including very low promotional fares*; 5) *Single class configuration*; 6) *Point-to-point services*; 7) *No (free) frills*; 8) *Predominantly short-to medium-haul route structure*; 9) *Frequent use of second-tier airports*; and 10) *Rapid turnaround time at airports* ("Low cost carriers," n.d.).

From all above sources, we can define an LCC as an airline that operates on substantially lower costs than the traditional airlines and has fewer comforts and conveniences than larger airlines. Since the definition of low-cost carriers has been explained, the next discussion will focus on how LCCs have started operations in Southeast Asia.



## The beginning of LCCs in Southeast Asia

Southeast Asia has witnessed explosive growth in the low-cost airline market since 2001 (Calder, 2014). With cheap fares, easy online bookings and direct connections to second airports, which were previously forgotten, low-cost carriers, are totally changing the air travel business and broadening service to the masses who never dreamed about flying before. Malaysia's AirAsia, the first LCC of the region, which emerged in 2001, made a huge impact on traditional airlines, and had an enormous positive response. Many Asians who previously travelled by train or by bus, and who would never have considered air travel due to the high cost, are now able to conveniently and frequently travel by air, because the cost of air travel has been brought down very near to the cost of bus-fare or rail-fare, making air travel a new trend.

The huge growth of LCC business over the last five years in the region has made air travel much more affordable. It has also opened up a range of destinations that used to take days of intense travelling to visit. In the age of the so-called flash packer, "who is limited by time and other demands", LCCs can help them make the most of their adventures. With LCCs seemingly popping up every other day in this region, it is hard to know which one to choose. So with that in mind, this paper will discuss only five major LCCs in the region, which are listed as follows:

- 1) *AirAsia (including AirAsiaX)*
- 2) *Lion Air*
- 3) *Nok Air (including with NokScoot)*
- 4) *Tigerair*
- 5) *VietJet Air*

## Aviation International Regulations Agencies in Southeast Asia

The Southeast Asia civil aviation sector has grown rapidly over the past decade, but the aviation regulatory framework has not kept pace with this growth. Effective regulations are necessary for the region to effectively manage expansion of

passengers, cargo, and revenue, and to ensure safe and secure skies. Leading international regulatory agencies need to get involved to develop the markets for the best practices in establishing a clear legislative aviation framework, a set of policy priorities, transparent governance systems, as well as effective funding strategies.

The rapid growth of Southeast Asia's airline industry is showing the pressing need for reformation to the region's fragmented safety structure, with a lack of streamlined standards on air navigation and staff training. ASEAN has no regional agencies that oversee aviation safety or coordinate air traffic control, unlike in the more developed European market.

Accidents and incidents notwithstanding, we are going to see the largest growth of air traffic in this region over the next twenty years. But do we have the infrastructure or the rules and regulations to meet it? For now, the answer seems to be no.

While Singapore and other countries are seen as having a robust aviation infrastructure, fast-growing markets such as Myanmar and Vietnam are only just starting to develop theirs. The stakes are particularly high for Indonesia, which is set to emerge as one of the world's top aviation markets by 2020. Despite improvements, the air safety record of Southeast Asia's most populous nation remains patchy. There is a lot of work that needs to be done to address, and identify deficiencies and to strengthen regulatory oversight.

The crash of the TransAsia plane GE235 on February 5, 2015 in Taiwan was the second major incident involving the airline in seven months, and came just six weeks after Indonesia AirAsia jet QZ8501 crashed into the Java Sea, killing all 162 people on board. Also Malaysia Airlines was involved in two tragic incidents in 2014 that claimed more than 500 lives. This string of disasters has shone a worrying spotlight on the failures of regulatory bodies to keep pace with the demand for air travel.

Just three days after the crash of TransAsia, on February 8, 2015, AirAsiaX flight D7172, bounded back to Kuala Lumpur, where it took off, due to an auto-thrust malfunction. However, principal standards and recommended practices concerning aviation in the region are roughly controlled by ICAO (International Civil Aviation Organization). ICAO's main office in Southeast Asia is located in Bangkok, Thailand. While ICAO oversees civil aviation concerns, International Air Transport Association (IATA) on the other hand, is taking care of airlines' any other concerns. Southeast Asia IATA is located in Singapore.

Although there are no any regional agencies for the region to oversee aviation safety, some nations have designated specific organizations to monitor aviation safety concerns, including incidents and accidents investigation. For example, Aircraft Accident Investigation Committee (AAIC) in Thailand, which was established in November 2004 as a subordinate to the Flight Standard Bureau, Department of Civil Aviation, and Ministry of Transport.

### **Open Skies Agreements**

The ASEAN Multilateral Agreement on Air Services and the ASEAN Multilateral Agreement on the Full Liberalization of Air Freight Services, which were simultaneously approved on May 20, 2009 in Manila, Philippines, are multilateral air transport agreements among the ten-member states of ASEAN. These two agreements, which took effect on January 1, 2010, call for a calibrated and gradual implementation in each contracting state, to allow countries with less developed airline industries to keep up with more developed ones. It is part of the broader ASEAN Air Transport Integration and Liberalization Plan (“ASEAN Multilateral Agreement,” n.d.). The Open Skies agreement is an international policy that calls for the liberalization of the rules and regulations of the international aviation industry, especially commercial aviation, in order to create a free market environment for the airline industry.

For the Open Skies agreement to become effective, a bilateral (and sometimes multilateral) Air Transport Agreement must be agreed upon between two or more nations.

### Fleets, Safety Record and Pilot Training Program

Southeast Asia has become one of the world's most challenging markets over the past year due to intense competition and overcapacity. Of the 17 carriers in the region that report earnings, only four posted operating profits in 1H2014, compared to 12 in 1H2013. Most of them have suffered from overcapacity since 2H2013, with problems peaking in 1H2014 as new aircraft continued to be added at a rapid pace. Market conditions have started to improve in 2H2014, since some carriers have responded in recent months by adjusting capacity and slowing down the fleet expansion.

Airline Group	Current Fleet	Orders
AirAsia	160	319
Lion**	150	521
Cebu Pacific	40	41
Citilink	29	48
Jetstar*	25	0
Tigerair	24	37
AirAsia X Group	23	97
Nok	19	20
VietJet	16	63
Scoot	6	20
Golden Myanmar	3	0
<b>TOTAL</b>	<b>504</b>	<b>1166</b>

Figure 1 Southeast Asia current fleets and orders by LCC group: as of end of September 2014, from CAPA fleet database

The table above shows that most of the aircraft orders came from the two fastest growing airlines of the region, AirAsia run by entrepreneur Tony Fernandes, and Lion Air co-founded by Indonesian businessman turned politician Rusdi Kirana.



AirAsia and AirAsiaX combined have more than 400 aircraft of A320s and A330s on order, while Lion Air has more than 500 aircraft on order, as of September 2014.

VietJet, which started operations in Vietnam in late 2011, has emerged as a new LCC, with ambitious plans to establish affiliates in other Southeast Asian countries, starting with Thailand. VietJet received 63 new A320s on November 26, 2014 (“VietJet Air celebrate,” 2014) and became the third largest LCC of the region. VietJet had two incident records; on June 19, 2014, an Airbus A320–200, flying from Hanoi to Dalat with nearly 200 passengers, landed at the wrong airport, Nha Trang’s Cam Ranh, about 130 km. (80 miles) away from its intended destination. No announcements had been made by the crew that the aircraft was being diverted (Hradecky, 2014). The incident occurred “because of the flight coordinators and crew members of VietJet Air, who did not correctly follow flight procedures”, said the Civil Aviation Authority of Vietnam (CAAV) in an online statement. Then CAAV suspended the crew of the plane.

On September 1, 2014, VietJet Airbus A320–200 from Hanoi to Ho Chi Minh City, with 185 people on board, was flying out of Hanoi when the crew stopped the aircraft’s climb at 10,000 feet, reporting a hydraulic failure that was preventing gear retraction. The aircraft entered a hold at that altitude for about 50 minutes to work the related procedural checklists and burn off fuel before returning to Hanoi for a safe landing (Hradecky, 2014).

Tigerair, formerly Tiger Airways, launched its first Singapore service in 2004, arrived in Australia in 2007, and rapidly expanded until July 2011 when Australian Aviation Authorities grounded Tiger Airways following repeated safety breaches. The airline risked losing its operators’ license. In 2013, the airline attempted to distance itself from its poor reputation by rebranding its name from Tiger Airways to Tigerair. However, to date, Tigerair has not an accident (“Tiger Airways,” n.d.).

Whereas, any other LCCs aim to have only one type of aircraft to control maintenance costs, and most of the orders go to Airbus. However, Nok Air thinks

differently. Nok Air currently operates a mixed fleet of Boeing 737 and ATR 72–200 aircraft. Meanwhile the order of 5 more Bombardier Q400 and 15 Boeing 737–800s were planned to delivered by 2015 (“Singapore: Nok Air,” 2014).

The low–cost carriers in the region are expanding too fast, thus the airline industry will have to carefully plan out how to handle their growth efficiently and safely. More skilled manpower will be necessary to facilitate this attempt. The government will need to play a big role, to make sure that plenty of training programs are put into place to improve airline safety, as well as the allure of careers within the aviation industry.

AirAsia and Lion Air are thinking in the same ways. AirAsia has established AirAsia Training Academy, which cost USD 66 million, as a joint venture with CAE (Canadian Aviation Electronics Ltd.), a global leader in flight training solutions. Fernandes said that it was aimed to train pilots, cabin crew, maintenance workers, and ground personnel for airlines in ASEAN region. The center will train about 12,000 pilots a year, with the number of trainees expected to grow exponentially. The academy started operations in July 2011, with six CAE–built full–flight simulators, currently located at Sepang, Selangor, Malaysia. These include four full–flight simulators for the A320 aircraft, one each for the A330/A340, and the Boeing 737 Classic (“The sky’s the limit,” 2011).

Lion Air established their Lion Training Center Facility in 2013 at Lion Tower Jakarta for classic pilot training. MD–80 series simulator training is conducted at Halim Perdana Kusuma Airport, Jakarta, and for Boeing B737NG is conducted at Bandara Mas (Lion Air Village) at Soekarno–Hatta Airport, Jakarta. The LTC is responsible for training company personnel (crews, technicians, and management) to support the operation of the current fleet. For training on aircraft not yet represented in the training capabilities, the LTC sends crews to other training centers. LTC co–operates with other institutions to develop the ICAO curriculum to enable it to cope with rapid changes in aviation technology, and assists Lion Air to achieve its prime aim of

ensuring that the company attain optimal aircraft availability in the safest and most economical way (“Lion Air training center,” n.d.).

Moreover, Lion Group signed a deal with Airbus in March 2014 to develop facilities to provide training in accordance with Airbus and European Aviation Safety Agency (EASA) standards. The training center would have 21 simulators (Silaen, 2014).

VietJet Training Center was established in August 2012, and had 85 professional teachers in 2015, handling nearly 5000 trainees with over 400 courses. Moreover, on January 25, 2015, it unveiled a new facility in the CT Plaza Building, in Ho Chi Minh City, with extensive new space, and equipped with modern facilities that meet international standards, satisfying the demands of teaching, learning, and an increasing number of students.

## **Conclusion**

Demand for air travel in Southeast Asia has risen dramatically over the past decade. The passenger numbers within the region are increasing, since air travel options have opened more opportunities for people living in the archipelago nations between Pacific Ocean and Indian Ocean, which has led to a rise in the number of low cost airlines.

Low cost airlines are expanding too aggressively into new markets by partnering with other carriers. The growth is too quick, leading to problems with safety and efficiency, while some countries still have very poor safety records, such as Indonesia, which had serious accidents in the past decade, and made the EU Commission place the entire country’s airlines on their Blacklist for a considerable period of time.

Nevertheless, the region is struggling to provide enough qualified personnel and modern airport technology to ensure safety. There is a pilot shortage, as well as an engineering shortage, and also a mechanic shortage. Training is another of the many

issues that airlines in the region need to improve upon. Training requires a lot of certification, which are issued by the regulators that oversee the entire LCCs industry.

All of these factors need more cooperation between LCCs to improve airline safety immediately as the industry grows rapidly, since the loss of lives that would otherwise occur would cost more than anything.

## References

- ASEAN Multilateral Agreement on the full liberalization of air freight services Manila, 20 May 2009. (n.d.). Retrieved from <http://www.asean.org/communities/asean-economic-community/item/asean-multilateral-agreement-on-the-full-liberalisation-of-air-freight-services-manila-20-may-2009>
- Brown, J. (2013, January 6). Southeast Asia: Region on the rise. *Inbound Logistics*. Retrieved from <http://www.inboundlogistics.com/cms/article/southeast-asia-region-on-the-rise/>
- Calder, S. (2014, December 28). AirAsia flight QZ8501 missing: Q&A – what is known about the flight and what possible causes will be investigated?. *The Independent*. Retrieved from <http://www.independent.co.uk/news/world/asia/airasia-flight-qz8501-missing-qa--whats-the-background-of-airasia-9946676.html>
- Definition and identification of low-cost carriers. (2009). Retrieved from [http://www.icao.int/Meetings/STA10/Documents/Sta10\\_Wp009\\_en.pdf](http://www.icao.int/Meetings/STA10/Documents/Sta10_Wp009_en.pdf)
- Hradecky, S. (2014, June 20). Incident: VietJet A320 at Nha Trang on Jun 19<sup>th</sup> 2014, landed at wrong airport. *The Aviation Herald*. Retrieved from <http://avherald.com/h?article=47623856>

- Hradecky, S. (2014, September 2). Incident: VietJet A320 at Hanoi on Sep 1<sup>st</sup> 2014, hydraulic failure. *The Aviation Herald*. Retrieved from <http://avherald.com/h?article=479b9a36>
- Lion Air training center. (n.d.). Retrieved from <http://ltc.lionair.co.id/mod/resource/view.php?id=473>
- Low cost carriers (LCCs). (n.d.). Retrieved from <http://centreforaviation.com/profiles/hot-issues/low-cost-carriers>
- Map of Southeast Asia Region. (n.d.). Retrieved from [http://www.nationsonline.org/oneworld/map\\_of\\_southeast\\_asia.htm](http://www.nationsonline.org/oneworld/map_of_southeast_asia.htm)
- Resnikoff, N. (2014, December 28). AirAsia jet incident could be test for SE Asia's thriving budget carriers. *Al Jazeera America*. Retrieved from <http://america.aljazeera.com/articles/2014/12/28/latest-plane-disappearancehitboominglowcostairlineindustry.html>
- Silaen, L. (2014, March 17). Indonesia's Lion Group to develop Airbus flight-training center. *The Wall Street Journal*. Retrieved from <http://www.wsj.com/articles/SB10001424052702304747404579444922339337290>
- Singapore: Nok Air to order 15 737s. (2014, February 12). Retrieved from FlightGlobal Website <http://www.flightglobal.com/news/articles/singapore-nok-air-to-order-15-737s-395841/>
- The sky's the limit for AirAsia. (2011, June 22). Retrieved from <http://webintravel.com/skys-limit-airasia/>
- Tiger Airways. (n.d.). Retrieved from <http://www.destinationtravel.info/reviews/tigerairways.html>