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## Long-haul low-cost air services: revealing key competitive features of airline within airline strategy

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**Keywords:** business model, low-cost operation, long-haul air service, hybridisation, competitiveness

**Abstract:** In this paper, we reveal which elements of business models typical for low-cost carriers and full-service network carriers were used by Norwegian and AirAsia X to enter markets with long-haul services. Our findings show that the long-haul low-cost operation which was realized as “airline within airline“ strategy can be sustainable if an efficient mix of elements belonging to both low-cost and traditional airline business models is implemented. According to our analysis, traditional airlines will cope with the competition of low-cost carriers on long-haul markets mainly in the segments of less price-sensitive leisure passengers and more price-sensitive business passengers in the higher fare classes. Such long-haul low-cost innovation can also generate a new demand for long-haul services supplying the market with an unbundled product for passengers in a very price-sensitive segment.

### Introduction

Liberalisation of markets with air services brought several product innovations. When new rivals entered liberalised markets, their unbundled product in line with “low costs mean low fare“ relatedness attracted more passengers to fly on short-haul distances. Continuously, mutual competition between traditional (full-service network)

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carriers on one side and low-cost ones on the other side led to the hybridisation of business models in both groups of rivals. While responsive actions of traditional carriers against low-cost ones on short-haul markets were researched several times (Graf 2005, Lin, 2012), the “airline within airline“ strategy of low-cost carriers, as a responsive strategy focused on long-haul markets, has not been sufficiently investigated so far.

In this paper, we focused on key competitive features of long-haul low-cost service through a comparative analysis of two airlines business models. We worked with two long-haul low-cost airlines which commenced as “airline within low-cost airline“, namely AirAsia X and Norwegian Long Haul AS, to reveal key competitive features of long-haul low-cost business model.

## 1. Long-haul low cost airlines: origin, evolution, and expectations

Airlines which supply markets with long-haul air services and which use the principles of low-cost operation are still rare although such concept of business was for the first time realized by Laker Airways in 1977 (Morell 2008). There were several attempts to establish vital and competitive long-haul services operated as low-cost ones. The history of established long-haul low-cost airlines demonstrate more market failures and less market successes. When creating long-haul low-cost companies, different modes of origin were used, as it is given in Table 1.

Table 1. Typology of long-haul low-cost airlines according to the origin and market failure/success

Origin	not existing on market	existing on market
start-up	Laker Airways Oasis Hong Kong Airlines Eos Airlines MAXJet Airways Silverjet L'Avion Zoom Airlines	
joint venture		Indonesia AirAsia X Thai AirAsia X
airline within (low-cost) airline		AirAsia X Norwegian Long Haul AS
enlarged product portfolio of low cost airline without a separate branding	People Express	JetStar

Source: own elaboration.

Our two-dimensional grid which confronts a market failure/success and the modes of origin shows that start-ups focusing exclusively on long-haul low-cost operation exited the market, while other forms – joint ventures and airlines within (low-cost) airlines – still exist. There is also an option to enrich the product portfolio within the existed low-cost carriers adding long-haul low-cost services and not adopting a separate brand for such long-haul service.<sup>3</sup> Notwithstanding that the mode of origin can impact on the competitiveness of long-haul low-cost airlines from different reasons, the competitive features of such operation need deeper investigation aimed at particular attributes of the business model used.

## 2. A comparative analysis of two long-haul low-cost airlines: revealing key competitive features of airline within airline strategy

### 2.1 Methodology and data

We analysed two airlines which offered long-haul low-cost services in March 2016 – Norwegian Long Haul AS and Air Asia X – focusing on the attributes of business models implemented by the airlines. Our approach combines qualitative as well as quantitative information to reveal key competitive features of long-haul low-cost operation established as “airline within airline.” These attributes enable us to identify which of the attributes of traditional full-service network carriers and low cost-carriers business models were applied in the provision of successful long-haul air services based on low-costs/low-fare principle and the airline within airline competitive strategy.

European low-cost airlines Norwegian entered the markets with air services in 1993 under the name Norwegian Air Shuttle. The company overtook the routes which were previously operated by failed Bussy Bee. In 2002, the company announced the operation based on the low-cost business model and changed its name. The long-haul low-cost operation of Norwegian was initiated by the establishment of a daughter company named Norwegian Long Haul AS. Being in the 100 % ownership of Norwegian, the company places its long-haul low-cost product under the brand mark of Norwegian. The first transatlantic flight from Oslo and Stockholm to New York and Bangkok was realised in 2013.

Malaysian low-cost airline AirAsia was established in 1993. Continuously, Air Asia expanded, and, nowadays, it is created of eight companies under the holding AirAsia Group.<sup>4</sup> In 2007, AirAsia Group enlarged its product portfolio by the establishment

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<sup>3</sup> Services operated by Norwegian Long Haul AS are sold using the brand Norwegian, therefore many transitional types of the mentioned long-haul low-cost airlines could be identified in Table 1, which would reflect many further particularities.

<sup>4</sup> AirAsia Behad, AirAsia Indonesia, Thai AirAsia, Philippines AirAsia, AirAsia India, Thai AirAsia X, Indonesia AirAsia X and AirAsia X. Under the brand of AirAsia X, two airlines were established – Thai AirAsia X – a joint venture of AirAsia X and two Thai businessmen. Indonesia AirAsia X is a joint venture of AirAsia X and Indonesia AirAsia.

of AirAsia X – a daughter company of “airline within airline type.” The operation of AirAsia X is aimed at long-haul low-cost air services and the first regular long-haul air service was operated in 2007 from Kuala Lumpur to Gold Coast in Australia.

We included in our analyses the following attributes of the airlines’ business models:

- the level of fleet commonality (through Herfindhal-Hirschman Index – HHI),
- the routes operated in the airlines’ network,
- the airports used for long-haul operation,
- connecting options for passengers,
- the aircraft’s cabin configuration,
- the product’s differentiation according to the travel classes offered to passengers,
- frequent flyer programme’s design,
- horizontal cooperation with other airlines.

The information about the airlines was obtained using mainly the airlines’ websites as they were presented in March 2016.

Subsequently, we confronted the findings against the airlines’ business models attributes using traditional dichotomy between full-service network carriers and low-cost ones. Thus we identified which attributes of traditional business model and which of low-cost business model were used by Norwegian Long Haul AS and AirAsia X to compete with traditional airlines in the segment of long-haul air services.

## 2.2 Results and findings

The HHI applied on the fleet’s composition (Table 2) shows high values for both airlines. The results confirm that high fleet commonality – an attribute typical for low-cost operation also undermines the market success of long-haul air services based on the low costs/low fare principle. Even if we take into account the orders of an aircraft, we can see a continuing strategy of relatively high fleet commonality, resp. uniformity. The orders of an aircraft indicate also assumed capacity expansion of the analysed airlines on long-haul markets.

Table 2. Norwegian Long Haul AS and AirAsia X Fleet Composition (and aircrafts’ orders)

	Type of Aircraft in Fleet (March 2016)	Number of Aircraft (March 2016)	HHI of the March 2016 Fleet	Number of Ordered Aircraft
Norwegian	Boeing 787-8 Dreamliner	8	0.802	0
	Boeing 787-9 Dreamliner	1		29
AirAsia X	Airbus A330-300	21	1.00	0
	Airbus A 330-900neo	0		55
	Airbus A 350-900	0		10

Source: own elaboration.

With regard to the scale of a long-haul network, in March 2016 Norwegian Long Haul AS served 11 European destinations routes from 7 European airports focusing mainly on the North America. The geographical pattern of the airlines' long-haul routes is depicted in Table 3 and 4 (the greyed out cells are the routes operated within the airlines' network). Norwegian operated its long-haul flights using primary as well as secondary airports, and even several routes were operated between secondary airports (LGW-FLL; LGW-OAK). The usage of secondary airports is a typical element of low-cost carriers' operation. The geographical pattern of AirAsia X routes shows that the network was more centralised using Kuala Lumpur airport as a hub. The company operated also direct flight connections between Australia and New Zealand and between Thailand and South Korea serving totally 9 countries and four world regions. From this point of view, the geographical pattern of AirAsia X was more diversified. AirAsia X did not use any secondary airports for its long-haul flights, while the share of primary airports in the Norwegian Lon Haul SA network was 72 %, taking into account the total number of airports in the network where both primary and secondary airports exist.

Table 3. Geographical pattern of Norwegian Long Haul AS routes in March 2016

North America	Europe								
	IATA codes (location)	ARN (Stockholm)	CDG (Paris)	CPH (Copenhagen)	FDF (Le Lamentin)	LGW (London Gatwick)	OSL (Oslo)	PTP (Poine-a-Pitre)	Total
1	2	3	4	5	6	7	8	9	10
BWI (Baltimore)									2
BOS (Boston)									5
FLL (Florida-Miami)									5
MCO (Florida-Orlando)									3
LAS (Las Vegas)									3
LAX (Los Angeles)									5

1	2	3	4	5	6	7	8	9	10
	JFK (New York)								7
	OA (Oakland)								3
	STX (St. Croix)								1
	SJU (Puerto Rico)								4
Asia	BKK (Bankok)								3
Total		6	3	9	3	8	9	3	41

Source: own elaboration.

Table 4. Geographical pattern of AirAsia X routes in March 2016

	IATA code (location)	Asia			Total
		New Zealand AKL (Auckland)	Malaysia KUL (Kuala Lumpur)	Thailand DMK (Bangkok)	
Australia	OOL (Gold Coast)				2
	MEL (Melbourne)				1
	PER (Perth)				1
	SYD (Sydney)				1
China	PEK (Beijing)				1
	CTU (Changdu)				1
	HGH (Hangzhou)				1
	PVG (Shanghai)				1
	XIY (Xian)				1
India	DEL (Delhi)				1
Japan	KIX (Osaka)				1
	CTS (Sapporo)				1
	HND (Tokyo)				1
South Korea	PUS (Busan)				1
	ICN (Seoul)				1
Nepal	KTM (Kathmandu)				1
Saudi Arabia	JED (Jeddah)				1
Taiwan	TPE (Taipei)				1
Total		1	17	1	19

Source: Own elaboration.

Being established as airlines within airlines, both companies enable the usage of connecting options for passengers based on the group's network. Norwegian Long Haul AS offers options to continue to travel using many options within Europe resulting from its own low-cost short-haul operation. Connecting flights in the U.S. territory or Thailand are not served by Norwegian. AirAsia Group's companies cover by connecting flights a majority of long-haul flights of Air Asia X. The connecting options offered within the group's network is a common element of both analysed long-haul low-cost carriers. It supports the utilisation of aircraft capacities on long-haul markets and, consequently and simultaneously promotes a better cost efficiency of long-haul flights by feeding passengers from short-haul routes and vice versa.

With regard to the design of a long-haul product, both airlines use product differentiation based on the aircraft cabin classes as it is given in Table 5.

Table 5. Aircraft cabin configuration of Norwegian Long Haul AS and AirAsia X

Norwegian Long Haul AS					
Aircraft	Economy cabin	Premium cabin		Total	Share of the best class seats in aircraft capacity
Boeing 787-8 Dreamliner	259	32		291	11%
Boeing 787-9 Dreamliner	309	35		344	10%
AirAsia X					
	Classic seats	Hot seats	Premium flatbed seats	377	3%
Airbus A330-300	338	27	12		

Source: own elaboration (March 2016).

Our investigation shows that uniform quality of air services and uniform restrictions on a product – a typical feature for the short-haul low-cost operation of aircraft – is not conformed with the long-haul low-cost concept as operated by Norwegian Long Haul AS and AirAsia X. For both airlines, the better classes (higher fare cabin classes) represent about 10%. The economy cabin of Norwegian Long Haul AS is then divided into three and premium cabin into two classes counting totally five classes. This differentiation is made according to the ancillary on-board services or airport processing services, rules for baggage limits, and carry-on baggage, or flexibility of reservation. Similarly, AirAsia X divides classic seats into two classes according to the ancillary on-board services (meal, better seats), rules for carry-on baggage and baggage limits, and flexibility of reservation. By contrast with Norwegian, AirAsia X does not apply fast track rule when processing higher-fare passengers at airports. Norwegian Long Haul AS allows refunding in the case

of cancelled reservation, while Air AsiaX does not refund. In the aggregate, both airlines use differentiated product restrictions, which is an element of traditional full-service network carriers (Belobaba 2009). In this context, we see the approach of Norwegian as more impacted by the practices of traditional airlines due to finer differentiation based on more reservation classes and more tools used in the separation of passenger segments. On the other hand, both airlines offer also an unbundled long-haul product on the aircraft's board (without ancillary services covered by air ticket and with strict purchase restrictions). Such concept of a product is typical for a short-haul low-cost operation. The focus on more segments of passengers applied by Norwegian Long Haul AS and AirAsia X is similar to the strategy taken by American Airlines in the middle of 1980s. Back then, American Airlines coped with low-cost competitors on short-haul markets, and therefore the company implemented revenue management based on the product differentiation and price discrimination. American Airlines actively and efficiently addressed low-cost/low-fare segment through the discounted products accessorised by strict purchase restrictions. If American Airlines went actively to low-cost/low-fare segments while keeping the traditional high-fare segments, AirAsiaX and Norwegian Long Haul AS completed the typical low-cost product by more bundled and less restricted products to address customers in the higher-fare segments which were historically captured by full service network carriers on long-haul markets.

With regard to the design of frequent flyer programmes, both airlines used frequent flyer programme applied on the flights offered within the network of the whole group. In general, this enables to use frequent flyer programmes to keep the customers in the network of the whole airlines group and feeds the group's flights. This again does not coincide with the theoretical assumption required for short-haul low-cost operation which conducts its business without frequent flyer programmes. On contrary to the frequent flyer programme of Norwegian, the frequent flyer programme of AirAsia Group enables to accumulate the credits at different non-aviation partners, which is typical for more mature frequent flyer programmes (Tomová – Haluška 2015) of full service network carriers.

As for horizontal cooperation based on interlining, code sharing, etc., what is the attribute of the business model of full service network carriers was not confirmed for the analysed long-haul low-cost airlines.

To identify the competitive features of a successful long-haul low-cost operation, we compared the business models applied by both airlines. Then, we listed the common attributes observed for both airlines, distinguishing between the attributes of traditional and low-cost business models.

Table 6. Key competitive features of long-haul low-cost business model

low-cost business model	traditional business model
<ul style="list-style-type: none"> <li>– unified fleet or fleet with high levels of commonality,</li> <li>– unbundled product for low-fare passengers with high product’s restrictions,</li> <li>– previous experience with low-cost operation (airline within airline concept).</li> </ul>	<ul style="list-style-type: none"> <li>– several travel classes (product’s quality differentiation according to the aircraft cabin’s design),</li> <li>– several reservation classes (differentiated purchase restrictions and differentiated scope of services included in the price of air ticket),</li> <li>– frequent flyer programmes within the group’s network,</li> <li>– connecting flights within the group’s network,</li> <li>– predominant usage of primary airports.</li> </ul>

Source: own elaboration.

The findings confirms that mixed, hybrid business models were adopted by AirAsia and Norwegian in the establishment of long-haul low-cost operation in the form of “airline within airline”.

## Conclusions

According to our findings, features of both a low-cost business model and a traditional one were used by Norwegian and AirAsia when entering the market with long-haul services. This decision can be interpreted as a competitive reaction similar to the decision of many traditional airlines when they established “low-cost airline within traditional airline” to compete with low-cost rivals. Low-cost carriers Norwegian and AirAsia compete with traditional full service network airlines on the markets with long-haul air services through their companies created as “long-haul airline within low cost airline”.

The analysed long-haul low-cost companies adopted mixed, i.e., hybridized business models which combine several features of low-cost as well as traditional full service network operation. They supply markets with long-haul services offering simultaneously both unbundled and more or less bundled products on the board of aircraft per flight. This is in line with the assumption of Daft and Albers (2012) which stated that “regular low-cost, long-haul operations are possible if the traditional full-service carrier product is effectively unbundled”. Moreover, with regard to the product’s quality differentiation, the airlines also use differentiated purchase restrictions, ancillary revenues concept for lower-fare classes of passengers, and differentiated frequent flyer programmes according to the classes of passengers. Thus our analysis confirms the ideas of Wensveen and Leick (2009) as well as of Whyte and Lohmann (2015) that the single class design of aircraft cabin which is typical for low-cost operation is not transferable to long-haul low-cost operation, and multiple classes approach is more suitable in the establishment

of a long-haul low-cost operation. On the other hand, this shows unambiguous focus of both airlines on more than one segment of passengers, including business passengers. As Whyte and Lohmann (2015) argued, using a hypothetical analysis of a “Kangaroo route”, that “low cost operation (...) can achieve a cost advantage compared to full-service airlines, but this advantage is not as great as the difference between low-cost carriers that operate in short-haul markets compared to full service airlines, “therefore revenue side management resulting from the multi-class principle was adopted by the airlines. Both airlines offer premium (economy) seats and premium (economy) classes, and this finding shows that there is a rationale for implementing a premium economy class in the long-haul markets operated also by low-cost carriers, not only by full service network carriers as Hugon-Duprat and O’Connell (2015) found. The importance of sufficient service quality (including frills) for passengers which use long-haul low-cost flights and which belong to higher-fare segments was also confirmed by Jiang (2013).

Our analysis also revealed that on contrary to the long-haul operation of full service network carriers which was increasingly “alliance driven” (Whyte, Lohmann 2015), long-haul low-cost operations of the analysed airlines were more “grouping of airlines driven.” Such cooperation under the airlines grouping is important for several reasons. Connecting flights options for passengers ensured within the group, higher load factors for long-haul flights, and higher load factors on a short-haul flight within the airline group are the most significant. This suggests that economies of scope and scale may be exploited using the strategy of long-haul airline within low-cost airline. This presupposition argues against Graf’s (2005) statement that the low-cost and network business models within the same airline grouping are incompatible, although this research mapped only competitive responses of full service network carriers against their low-cost rivals.

Moreover, on the cost-side of long-haul low-cost operation, fleet’s composition based on commonality typical for low-cost business model seems to be relevant for a successful long-haul low-cost operation. With regard to a network design, the airlines differ in that AirAsia X uses a centralised network composed of primary airports, while Norwegian Long Haul uses also secondary airports in a more decentralised network for a long-haul operation. Also, previous experiences with low-cost operation, which can deliver to long-haul low-cost airlines several intangible resources of competitive advantage (Pearson et al. 2015), may play a significant role. This “low-cost experience argument” was mentioned by Francis et al. (2007) who anticipated that low-cost carriers with built-up experience and skills could utilise such knowledge also on long-haul routes.

Summarising, we see the long-haul operation established as “airline within the low-cost airline“ as sustainable. According to our findings, the market success of such operation is influenced by an efficient mix of both low-cost and traditional business models. In our opinion, in the future, the traditional airlines will be more exposed to the competition of low-cost rivals on long-haul markets, mainly in the segments of more price-sensitive business passengers and less price-sensitive leisure passengers. Moreover, the lowest economy class in the offer of long-haul low-cost airlines based on the concept

of unbundled product will probably attract more very price-sensitive passengers to fly on long-haul distances.

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**DŁUGODYSTANSOWE TANIE PRZEWOZY LOTNICZE:  
IDENTYFIKACJA KLUCZOWYCH CZYNNIKÓW KONKURENCYJNOŚCI  
STRATEGII „AIRLINE WITHIN AIRLINE“**

**Słowa kluczowe:** model biznesowy, przewozy niskokosztowe, lotnicze przewozy długodystansowe, hybrydyzacja, konkurencyjność

**Streszczenie:** W artykule zaprezentowano, które elementy modeli biznesowych typowych dla tanich przewoźników lotniczych i przewoźników tradycyjnych były wykorzystywane przez linie Norwegian i AirAsia X w segmencie przewozów długodystansowych. Zaprezentowane badania dowodzą, że oferowanie niskokosztowych długodystansowych połączeń lotniczych, w ramach strategii „airline within airline“, może być skuteczne, jeżeli wdroży się efektywną kombinację elementów z obu modeli biznesowych. Według przeprowadzonych analiz, tradycyjne linie lotnicze sprostają konkurencji tanich przewoźników na rynkach długodystansowych głównie w segmentach mniej wrażliwych cenowo przewozów turystycznych i bardziej wrażliwych cenowo przewozów biznesowych w wyższych klasach taryfowych. Takie innowacyjne niskokosztowe długodystansowe połączenia lotnicze mogą również wygenerować nowy popyt na przewozy długodystansowe, w szczególności w segmencie pasażerów bardzo wrażliwych cenowo.

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