Universitat Autònoma de Barcelona

escola d'enginyeria

"Competitive Position Analysis of Airlines: Traditional Airlines and Low Cost Carriers – Market Development, Trends and Outlooks based on the European Market."

Memoria del Trabajo Final de

Máster Universitario en Gestión Aeronáutica

realizado por

Marcel Widmann

y dirigido/supervisado por

José Manuel Pérez de la Cruz

Sabadell, 19 de Octubre de 2015

El/La abajo firmante, José Manuel Pérez de la Cruz

Profesor/a de los estudios de Máster Universitario en Gestión Aeronáutica de la UAB,

CERTIFICA:

Que el trabajo al que corresponde la presente memoria ha sido realizado bajo su dirección.

Y para que conste firma la presente.

Firmado: JOSE M. PEREZ DE LA CRUZ

Sabadell, 19 de Octubre de 2015

Table of Contents

List of Figures

1 Introduction

Within the few last years the European aviation market has developed and changed significantly. Growing globalisation has connected the markets more and more to each other, but also the growing population has led to an increased demand in flight travel.[1]

Conditions in the aviation market have changed within the last twenty years also. The aviation sector has already been global for approximately sixty years, but less regulated markets have been realised, especially within the last twenty years.[2]

At the beginning of the 1980s many European countries liberalised their airline markets. However, since 1988, the EU have relaxed the trading rules and the European airline market has moved to a position that permits airlines to be almost free from economic regulation. In the 1990s a Single European Market was created which meant that the European international air transportation was significantly deregulated. In 1997 full cabotage within the European member countries was permitted.[3]

Before the deregulation (USA 1978) and liberalisation (Europe 1997) of the aviation market, the following three types of airlines existed:

- Full-Service Carrier (FSC) or Network Carrier or Legacy Airlines (e.g. Lufthansa)
- Charter Airlines (e.g. Condor)
- Regional Airlines (e.g. FLYBE)

The exact definition of the above types of airlines will be explained in detail in chapter two.

After the deregulation and liberalisation of the aviation market, the so called "Low Cost Carrier" business model was created. With the full implementation of the liberalisation in Europe (in three steps) between 1993 and 1997, low cost carriers like Ryanair, EasyJet, and others have been founded. Until the year 1998 the number of the airlines in Europe has increased from 132 to 164.[4]

A detailed definition of the low cost carriers will also be given in chapter two.

Nowadays the low cost carriers are strong competitors of traditional airlines – particularly within the European flight routes. Traditional airlines are constantly reducing their costs in order to ensure their competitiveness, and in some cases the traditional airlines are creating their own low cost carriers, for example Lufthansa with Germanwings or Iberia/British Airways with Vueling and Iberia Express. Due to the strong competition in Europe it is a fact that traditional airlines now find it difficult to profit to these destinations. The traditional airlines now have to do a cross-subsidisation for such competitive European destinations. This means the profits the traditional airlines gain out of business and first class seats on long-haul flights "subsidise" the point-to-point flights within Europe.[5]

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[1] Source: own words M. Widmann, 24.07.2015
[2] ref. Bergmann, Fliegen – ein (Alb-)Traum?, 2015, p.426
[3] ref. Button, Wings Across Europe, 2004, p.25
[4] ref. Bergmann, Fliegen – ein (Alb-)Traum?, 2015, pp.427-429
[5] ref. Bergmann, Fliegen – ein (Alb-)Traum?, 2015, pp.430-431

In case of this fact the following question arises: To what extend does the business models of the traditional airlines compete with the “new” market participants of the low cost carriers and what further effects will this have on the whole European aviation market? Relating to this, the current competitive position and the continuous changes are of high interest, and in this Master Thesis I will do a competitive position analysis of traditional airlines and low cost carriers based on the theoretical competitive strategies.

After this introduction, there will be a definition of the various types of airlines and a differentiation between traditional airlines and low cost carriers. Subsequently, a competitor analysis between these two airline business models (traditional and low cost) will take place in chapter three. Here the aspects market shares, fleet, price and cost comparisons and safety will be investigated in greater detail.

In chapter four I will give explanations to the general competitor strategies, to reach competitive advantages based on M. E.Porter’s theory, and the so called “outpacing strategy” based on Gilbert/Strebel.

The fifth part of the work contains the real use of competitor strategies, with an in depth look at Lufthansa and Vueling. Firstly this will contain detailed information on Lufthansa, which represents the traditional airlines. I will show which strategies this airline is following in general, and also due to the low cost competition. I will use Vueling to represent the low cost carriers, and I will give an overview from its creation up until today. For both airlines an exact investigation/conclusion regarding their strategy (e.g. cost- vs. quality leadership) is included later. To back up my research, I have done so called “expert interviews” with representatives from Lufthansa and Vueling. The detailed results of the interviews you will find in chapter five also.

Air Berlin is also mentioned as a further example.

In order to gain further feedback about the current situation in the aviation sector, I have also included expert interviews with Swissport and Groundforce who are the handling companies and directly affected stakeholders.

To gain a better insight of this subject, I have also included results from my own questionnaire which actual passengers took part in. The detailed results and a summary of this questionnaire show how customers see and evaluate the traditional airlines and the low cost carriers, and include customer points of view.

In the conclusion (chapter 6) I will do an overall summary of my Master Thesis. This summary contains the trends and outlook, my own possible recommendations, and closing words regarding the future development of the European airline business – especially concerning traditional airlines and low cost carriers. The conclusion is based on the theoretical and practical competitive strategies and on the surveys and expert interviews.

2 Aviation market and airlines

The international aviation market presents itself today as an oligopoly (based on offer). The cartel of IATA (International Air Transport Association) has lost its price influencing function since the US American and European deregulation. Scheduled air transport is internationally segmented in various geographical differentiated part markets (Europe, North Atlantic, Middle East, Far East, South America, etc.).[6]

The main focus of this work will look in depth at the full-service and low cost carriers based in Europe. All these airlines are scheduled air traffic. The regional airlines (also scheduled airlines) and charter airlines (non-scheduled air traffic) are mentioned in order to ensure the completeness of all types of airlines but are not the focus of the work.

Based on the business models and network strategies, airlines can be classified in four categories:

- Full-Service Carrier (FSC) or Network Carrier (traditional airlines = scheduled air traffic)
- Charter Airline (traditional airlines/holiday airlines = non-scheduled air traffic)
- Regional Airline (traditional airlines = scheduled air traffic)
- Low Cost Carrier (= scheduled air traffic)[7]

2.1 Definition of traditional airlines

Before the liberalisation of the European aviation market the traditional airlines have been differentiated between scheduled and charter traffic. Since the creation of low cost carriers and a change in the charter airlines, this distinction is no longer enough. Low cost carriers can now be counted to include the scheduled airlines also. In the following, the different airline types will be defined, and also the originally distinction between scheduled and non-scheduled air traffic explained.[8]

2.1.1 Full-Service carrier (scheduled airlines)

Characteristic of full-service carrier/network carrier (scheduled air traffic)

Each flight between defined flight destinations, executed in regular periods for public use, with tariff duty, transportation duty and flight plan duty is generally defined as scheduled air traffic. E.g. within the “Luftverkehrsgesetz der Bundesrepublik Deutschland” the scheduled air transport is defined by the following mentioned characteristics:

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[6] ref. Aberle, Transportwirtschaft, 2009, p.61
[7] ref. Rürup and Reichart, Determinanten der Wettbewerbsfaehigkeit im internationalen Luftverkehr, March 2014, p.17
[8] ref. Diesfeld, Strategieoptionen fuer den Ausbau Strategischer Allianzen, 2004, p.443

Commercial nature: Scheduled air traffic used for the transportation of goods and people for which a charge is made.

Publicity: The scheduled air service has to be offered to the general public.

Regularity: The arrival and departure times for periodical flight connections are defined in a previous published flight plan.

Line bonding: It is mandatory to the airline to operate the air service (flight) based on a predefined route between departure, stopover and destination points.

Operating duty: Based on §21, paragraph 2 "LuftVG" the scheduled airlines have the duty to perpetuate the service for the duration of authorization.

Transportation duty: The public availability of the scheduled air service is underlined by the transportation duty.

Tariff duty: The transportation conditions and flight prices will be valid by the confirmation of the "Bundesminister fuer Verkehr".[9]

Before the beginning of the 1990s, Deutsche Lufthansa (LH) was a monopolist in regards to flights within Germany. And since the appearance of smaller airlines, it has also become part monopolist. A significant amount of these smaller airlines are flying for Lufthansa in the meanwhile, and in some cases also with LH flight numbers. Since the liberalisation of the European aviation market, the market structure has changed to an oligopoly (based on offer). Airlines from other European countries are connecting/operating international flights using German airports, and are also offering flights within Germany (cabotage traffic; clearance since April 1997).[10]

Full-service carrier / network carrier are operating a wide national and international route network (hub-and-spoke principle). The main elements of this concept are the home airports – the so called "hubs". Airports with a hub accommodate flights from other national and intercontinental airports (spokes), they are then bundled and afterwards redistributed to the intercontinental connecting flights. The focus on a central air traffic intersection (hub) enables the operation of a wide flight network. During the flight (air transportation), the scheduled airlines are offering further services (mostly free of charge) such as onboard catering, entertainment system, along with seat reservations, etc. This business model also offers cargo and freight, alongside passengers.[11]

Due to the fact that the European full-service carrier provide a range of various services, such as business/leisure, domestic/intra-Europe/Intercontinental, etc. they operate a mixed fleet of aircraft types. They are mainly gaining sales with the business market because they have their hubs in the main commercial centers and they offer frequent services also with strategic alliances (see chapter no. 2.3).[12]

Nevertheless, there has been a decrease in the selling of business class fares, especially in the shorter haul markets, due to the passenger mix carried. This long-term trend has contributed to the financial problems that traditional airlines are also having with the short-

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[9] ref. Diesfeld, Strategieoptionen fuer den Ausbau Strategischer Allianzen, 2004, pp.362-363
[10] ref. Aberle, Transportwirtschaft, 2009, p.61
[11] ref. Rürup and Reichart, Determinanten der Wettbewerbsfaehigkeit im internationalen Luftverkehr, March 2014, p.17
[12] ref. Button, Wings Across Europe, 2004, p.52

haul market, for example competition by low cost carrier within Europe. This fact, and recent events like economic crisis have forced the full-service carriers to restructure their activities and adjust their strategies. Also a common strategy among the large airlines has been the intensification of global strategic alliances. The full-service carriers have also confronted the low cost carriers (no-frills carrier) by modifying the structure of flight prices with the intra-European destinations. For example they have realised this, and now offer a greater number of cheaper seats with less service, and also in some cases they have established their own low cost carriers like Lufthansa with Germanwings.[13]

2.1.2 Charter airlines (non-scheduled airlines)

Characteristic of charter airlines (non-scheduled air traffic)

Concerning the definition of non-scheduled traffic which in the literature is often threaten synonymous with non-scheduled flight service, order traffic or charter traffic, a unique definition does not exist. For this reason the differentiation in regard to the scheduled air traffic based on the “Luftverkehrsgesetz Deutschland” and the Chicago Convention on International Civil Aviation is as a solid possibility concerning the definition. In both legal guidelines the non-scheduled traffic is defined as commercial air transportation, which cannot be assigned to the scheduled air transportation. However, based on a discussion regarding non-scheduled air transportation and its traffic streams, it can be observed that this description does not reflect the current international aviation traffic in a real way. The regularity of which main flight destinations are operated by so called charter airlines during a longer period (e.g. year), and the number of passengers transported, shows that this kind of flights are not only occasional ones. Rather it can be seen a convergence tendency to existing scheduled routes.

Fundamental characteristics of traditional charter flights are: partial or complete sales of seat capacity to institutions like tour operators, companies who are selling the transportation service either isolated or within a product package to end customers (flight passengers).

Compared to the scheduled air traffic, charter traffic has regularly less cabin comfort as well as less flexibility (less flight frequencies, less convenient flight schedules and less favourable booking and rebooking conditions). Furthermore the price level of the charter airlines is often below the tariffs of the scheduled airlines. Charter airlines are also not allowed to transport air freight on the lower deck within passenger flights. This means that they are not able to realise economies of scope. Nevertheless, charter airlines have a cost advantage against scheduled air traffic airlines, as their expenses on computer booking systems, administration, sales and marketing are relatively low due to the charter/sales of the complete flight to tour operators.

It can be said that despite the mentioned differences, there has been a convergence tendency of the service offer of scheduled airlines and charter airlines within the European aviation market. Due to the increase in the demand for more individual flights, the demand for package tours has been decreasing and charter flights are therefore also sold isolated

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[13] ref. Button, Wings Across Europe, 2004, pp.54-55

from the tour operator side. In this regard it can be mentioned that based on the increasing special and group tariffs of the scheduled airlines, and since the foundation of low cost carriers, it has been realised a convergence of the flight prices between the scheduled and charter air traffic. Furthermore, charter airlines can easily reach the status of a scheduled carrier since the liberalisation of the European aviation market. The amount of transportation classes is also not a differentiation characteristic anymore, as charter airlines are also offering further classes other than just economy, which decreases the gap with the scheduled airlines as well.

Nevertheless, the convergence fact between charter airlines and scheduled airlines does not mean that a differentiation within the aviation market is of no need anymore. It can be assumed that the airlines will focus further on different target groups by an individual strategy of their flight offers.[14]

2.1.3 Regional airlines (scheduled airlines)

Characteristic of regional airlines (scheduled air traffic)

In Europe, in addition to the low cost carriers, there also exist a number of airlines called "Regional Airlines". Often, these airlines are also offering no-frills services. The regional, geographical limited coverage means that although in case these airlines offer an excellent onboard service, that they do not operate to the number of destinations and service categories like the full-service airlines.

"The regional airlines serve a variety of functions at the local level and on many thinner routes – e.g., smaller short-haul markets and providing feed to larger carriers. They may be seen as complementary to the full-service airlines they are often linked to and for which they often provide feed."[15]

In the Manual on the Regulation of International Air Transport (ICAO) this type of airline is defined as follows:

„A regional carrier provides short-haul scheduled passenger and freight services, operating mostly turboprop and/or small jet aircraft and connecting small and medium-sized communities with major cities and hubs."[16]

"A regional air service, i.e. either an air service offered on routes serving smaller cities within a region or between regions of a State; or an air service offered on secondary routes serving smaller cities in a regional area involving the territories of more than one State."[17]

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[14] ref. Diesfeld, Strategieoptionen fuer den Ausbau Strategischer Allianzen, 2004, pp.363-366
[15] ref. Button, Wings Across Europe, 2004, p. 64
[16] ref. ICAO, Manual on the Regulation of International Air Transport, 2004, C.5.1-2
[17] ref. ICAO, Manual on the Regulation of International Air Transport, 2004, C.5.3-1

2.2 History and definition of low cost carriers (scheduled airlines)

The history:

Originating in the United States this business model began to emerge with Southwest Airlines in 1971.[18]

Southwest Airline was the first “No Frills” airline. They did not offer additional services such as free of charge food or newspapers, etc. but the flight prices were significant lower compared to the established airlines. However, this business model was really established successfully after the deregulation of the North American aviation market in October 1978. In 2004 Southwest had 417 aircrafts and were the third biggest airline in the USA. In 2013 the number of aircrafts reached 680, and the flights were operating to 96 destinations in 41 countries.

As mentioned in the introduction of this work, since the liberalisation of the European aviation market (since the middle of the 1990s) the low cost carrier emerged as a new business model. From that time, the aviation market has also changed in Europe. Traditional airlines like full-service airlines and charter airlines could hardly see competition by these “new” airlines, as the market share of the low cost carriers was relatively low at the beginning. But the low cost carriers have developed a problem for the traditional airlines, especially in Europe. The scheduled airlines and charter airlines have lost significantly market share within the last few years, but it was the charter airlines even “suffered” the most from the low cost carriers (see also chapter 3).[19]

The deregulation and liberalisation have led to more competition and to a glut in the market, and due to that reason the ticket prices have decreased dramatically, especially on flight routes which also are operated by low cost carriers (at that time mostly de-central routes out of the big hubs, between “secondary airports”). For example, ticket prices in the USA have decreased by more than 50% within the last 30 years (inflation correction considered). Established airlines like Lufthansa and Swiss had also to reduce significantly their flight prices on various flight routes. By this price competition, a lot of small but also big airlines like PanAm disappeared from the USA. The airline Eastern has been taken over from other airlines or other airlines merged with each other. Even stronger is the situation during economic crisis like between 1990-1993, 2000-2003, 2008-2010 (see e.g. the merger between United Airlines and Continental in 2010).[20]

The definition:

A low cost carrier is defined based on ICAO as follows: “An air carrier that has a relatively low-cost structure in comparison with other comparable carriers and offers low fares and rates.”[21]

[18] ref. Button, Wings Across Europe, 2004, p.57
[19] ref. Bergmann, Fliegen – ein (Alb-)Traum?, 2015, pp.428-429
[20] ref. Bergmann, Fliegen – ein (Alb-)Traum?, 2015, p.430
[21] ref. Bergmann, Fliegen – ein (Alb-)Traum?, 2015, p.428

The low cost carrier offer their service on selected flight routes at low fares due to essential savings in sales and service costs.[22]

Low cost carriers are not operating based on the so called "hub-and-spoke-principle" which is related to a high coordination and costs. They offer so called "point-to-point connections which are direct connections with short and medium distance flights. The low cost carriers often fly to de-central airports (regional airports) which enables them to have a very flexible and cost-efficient network planning for flight routes, and more cost-efficient route operating costs. Mainly due to a higher capacity utilisation of the aircrafts, a unique fleet of aircrafts, a strong cost management and the focus only on the air transportation ("no frills") they can offer lower flight fares to customers. The passengers often have to pay for a service on board (food and drink) or the luggage and the seat reservation, which decreases the costs and also at the same time opens new sources of income.[23]

2.3 Strategic alliances in the aviation market

Many airlines have formed strategic alliances with other carriers. Strategic alliances help to overcome barriers to enter into markets, e.g. in those countries and regions where financial and legal restrictions exists. Strategic alliances between airlines started as code-share agreements and nowadays they have developed into global alliances with huge networks.[24]

Collaborations in the aviation sector are founded with the aim of extending the presence of the offer (e.g. code-sharing: several cooperating airlines fly under a flight number with joint handling) and / or the cost-cutting (common maintenance, mutual global passenger and cargo handling).[25]

Strategic alliances have become an increased power in terms of networks, and have a high status (place value) in the aviation sector. Strategic alliances should ensure the worldwide coverage of the member companies through high-performance cooperation partner. Furthermore they should achieve enterprise-wide customer loyalty through mutual recognition of bonus programs, and achieve cost savings through sharing of sales and flight maintenance systems.[26]

The first international alliance in the airline sector was initiated between British Island and Air Florida in 1986 in order to operate code-share flights. One successful alliance today is Star Alliance which was founded in 1997 by Lufthansa, United Airlines, SAS, Air Canada and Thai Airways as the first truly global alliance.[27]

"The Star Alliance network is the leading global airline network, with the highest number of member airlines, daily flights, destinations and countries flown to. It was established in

[22] ref. Diesfeld, Strategieoptionen fuer den Ausbau Strategischer Allianzen, 2004, p.444
[23] ref. Rürup and Reichart, Determinanten der Wettbewerbsfaehigkeit im internationalen Luftverkehr, March 2014, pp.17-18
[24] ref. Vasigh and others, Introduction to Air Transport Economics, 2008, pp.166-167
[25] ref. Aberle, Transportwirtschaft, 2009, p.87
[26] ref. Aberle, Transportwirtschaft, 2009, p.61
[27] ref. Vasigh and others, Introduction to Air Transport Economics, 2008, pp.166-167

1997 as the first truly global airline alliance to offer customers convenient worldwide reach and a smoother travel experience."[28]

"Its acceptance by the market has been recognised by numerous awards, including the Air Transport World Market Leadership Award and Best Airline Alliance by both Business Traveller Magazine and Skytrax. The member airlines are: Adria Airways, Aegean Airlines, Air Canada, Air China, Air India, Air New Zealand, ANA, Asiana Airlines, Austrian, Avianca, Avianca in Brazil, Brussels Airlines, Copa Airlines, Croatia Airlines, EGYPTAIR, Ethiopian Airlines, EVA Air, LOT Polish Airlines, Lufthansa, Scandinavian Airlines, Shenzhen Airlines, Singapore Airlines, South African Airways, SWISS, TAP Portugal, Turkish Airlines, THAI and United. Overall, the Star Alliance network currently offers more than 18,500 daily flights to 1,330 airports in 192 countries."[29]

Some facts and figures concerning the Star Alliance are shown in the following chart:[30]

Member Airlines:	Number of employees:	Number of airports:
28	432.603	1.330
Number of aircraft:	**Sales Revenue (in US$):**	**Number of lounges:**
4.657	179,05 billion	over 1.000
Passengers per year:	**Daily departures:**	**Countries served:**
641,10 million	over 18.500	192

Figure 1: Star Alliance - facts and figures

Further big and successful strategic alliances in the aviation market besides Star Alliance are Oneworld and SkyTeam.

The main benefits of strategic alliances for the customers are: more offer, comfort and premium benefits.[31]

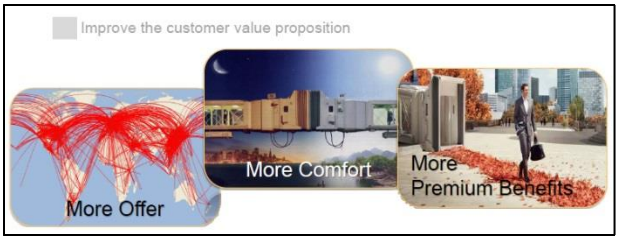

Figure 2: Benefits of a strategic alliance

[28] ref. http://www.staralliance.com/en/about/, 15.08.2015
[29] ref. http://www.staralliance.com/assets/doc/en/about/member-airlines/pdf/Star_Alliance_Chronological_History.pdf, 01.09.2015
[30] ref. http://www.staralliance.com/en/about/member_airlines/, 15.08.2015
[31] ref. Style, Alliances & Partnership Development, UAB lecture notes, April 2015, p.10

3 Traditional airlines and low cost carriers – competitor analysis

3.1 Market share development (of airline types)

Concerning the market share of low cost carriers and the so called traditional airlines (scheduled airlines and charter airlines) I have done some market research.

3.1.1 The development of the market share worldwide and in Europe

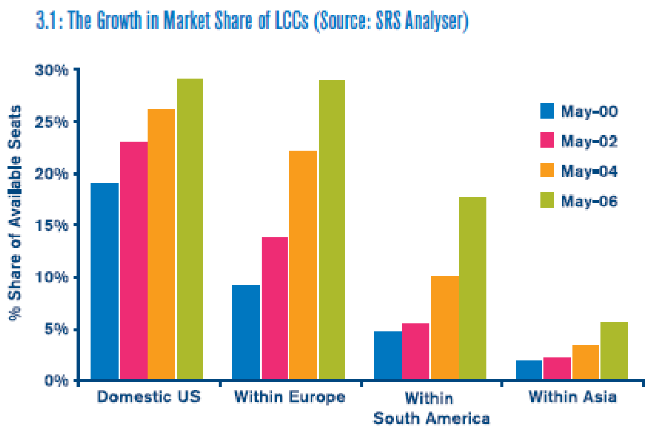

Figure 3: Low cost carriers – historical growth development 2000-2006 worldwide

The above graphic which was published by IATA in 2006 shows the historical growth rates of low cost carriers worldwide per region from 2000 until 2006. As we learn from that chart, the main focus of the overall business was and is still in the United States and in Europe.[32]

Concerning Europe, the Mercer Management Consulting Company did a market study in 2002 in which they investigated the impact of low cost carrier. Based on this study, the market share figure of low cost carriers had been forecasted to amount to approximately 25% in the year 2010 (Intra-European Market Share, PAX). In the year 2000 the traditional airlines had 75%, the biggest market share in civil aviation. The remaining market shares have been shared between the charter airlines (20%) and the low cost carriers (5%). Mercer forecasted that until the year 2010 the market share of traditional airlines will decrease by 15% to 60% and the market share of charter airlines will decrease by 5% to 15%. It was said that only the low cost carriers will have a significant growth of market share (a five-time growth) to 25% by 2010. The reason which has been given for this development has been that the low cost carrier will take over parts of the single seat sale and of the charter business. A further reason which was given was that

[32] ref. Smyth and others, Airline Cost Performance, IATA, July 2006, p.14

some market niches will result out of the fusions of traditional airlines which will be taken over by the low cost carriers.[33]

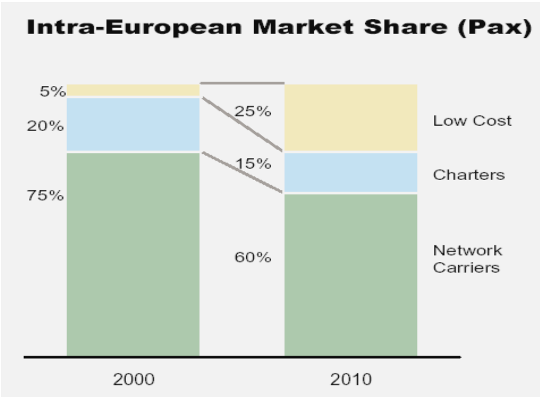

Figure 4: Growth development various airline types 2000-2010 Europe

When we see the actual figures of the market share between the various types of airlines, the former forecasts from Mercer came true or rather had been exceeded.

Within the last few years the low cost carriers have developed to a strong competition for European traditional airlines, and between 2001 and 2012 the low cost carriers have increased their market share from 5% to 37% (data based on the whole number of passenger traffic within Europe).

Low cost carrier – market share related to seat capacity between 2001 and 2012 (worldwide and Europe):

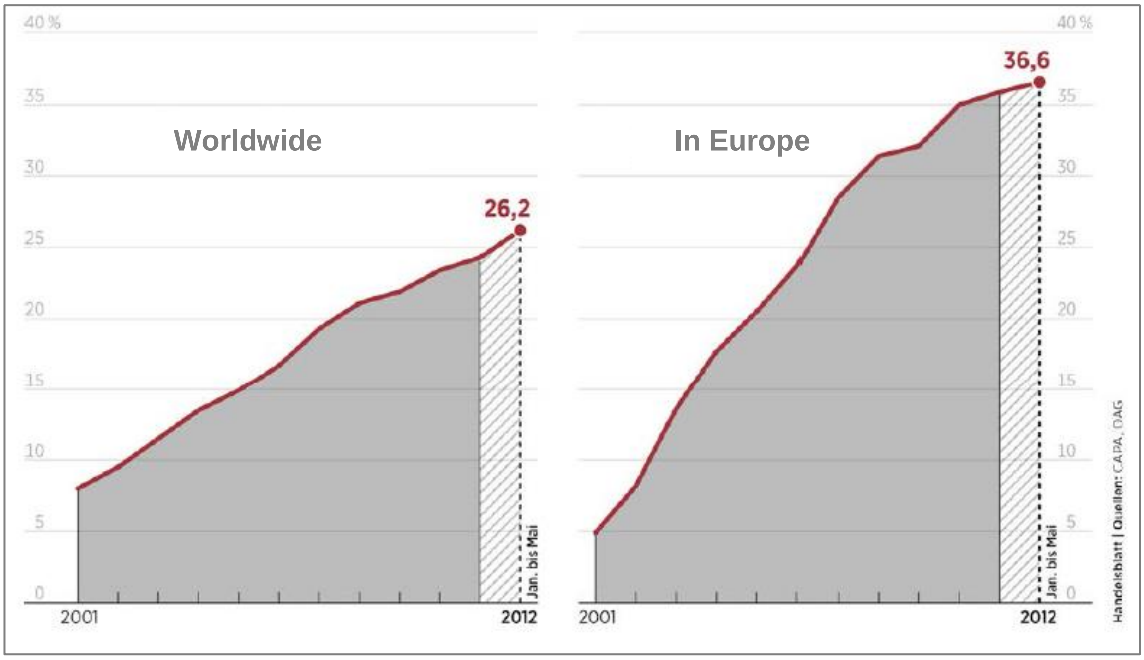

Figure 5: LCC – market share related to seat capacity 2001-2012 (worldwide and Europe)

[33] ref. Mercer Management Consulting, 2002, Impact of Low Cost Carriers, p.21

The annual growth rate of the low cost carriers has decreased within the last few years. Due to a study of the European Low Fare Airline Association (ELFAA) the forecast of the share of low cost carriers within Europe will reach between 45 and 53 percent by the year 2020.

This increased market share of low cost carriers is mainly based on price advantages, e.g. no usage of cost intensive hub-and-spoke-systems and the usage of an unique type of aircraft fleet (more reasons see under chapter 3.4 cost and price calculation).

The low cost airlines also profit from the fact that the price sensitiveness of flight passengers has increased. The customer requirements differ normally related to the flight time, but in the short and medium distance traffic it can be seen a growing cost awareness. This is also true for private and business travel. Also business travellers are willing to accept longer travel times and less service and comfort if the price for the ticket is lower. On long distance flights this trend has not been seen so strong yet.[34]

In the following sub chapter I will give some information about the development of the aviation market (traditional airlines vs. low cost carrier) using Germany and Spain as examples. I chose these two countries mainly because of the following reasons: The low cost market share in Spain is significantly high compared to other European countries. According to Eurostat statistics in 2014, Spain is the first tourist destination preferred by the European tourists.[35] I chose Germany as this country has the second highest number of flight passenger flying to Spain (based on the Ministero de Industria, Energía y Turismo). Another reason to give information about these countries is that my expert interviews (chapter number five) were done with Lufthansa and Vueling. This airlines are two very important representatives of both countries in the aviation sector.

3.1.2 The development of the market share in Germany and Spain

The development of the market in Germany

The author Mr. Eckard Bergmann recently published his new book “Fliegen - ein (Alb-) Traum?” (“Flying – a nightmare or dream?”) which contains current figures concerning market share and passenger development. The following chart shows the market share of scheduled airlines, charter airlines and low cost carriers between 2002 and 2013 in Germany.

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[34] ref. Rürup and Reichart, Determinanten der Wettbewerbsfaehigkeit im internationalen Luftverkehr, March 2014, pp.45-46

[35] ref. http://tambiensomosasi.es/%C2%ADespana-destino-turistico-europeos/, 04.10.2015

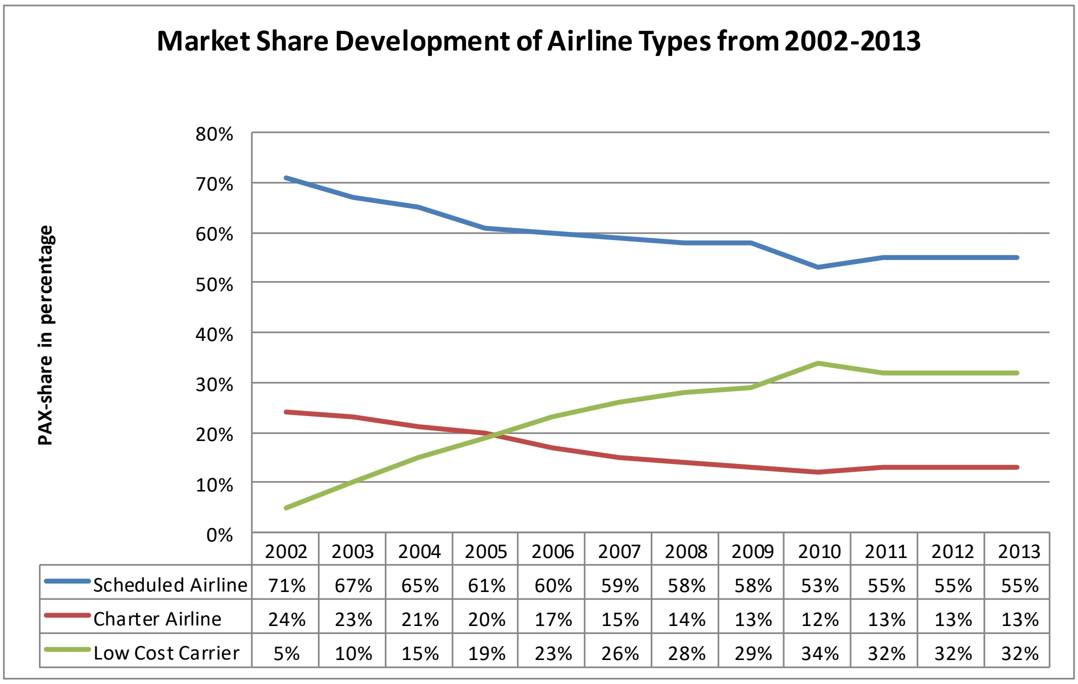

Figure 6: Market share development of airline types 2002-2013 (Germany)

As we can learn from the data and the graph that since 2011 the market shares have remained the same. The author Mr. Bergmann mentions that the reason for the "stagnation" is based on the migration of the business models as the market has consolidated and the growth continues to be parallel.

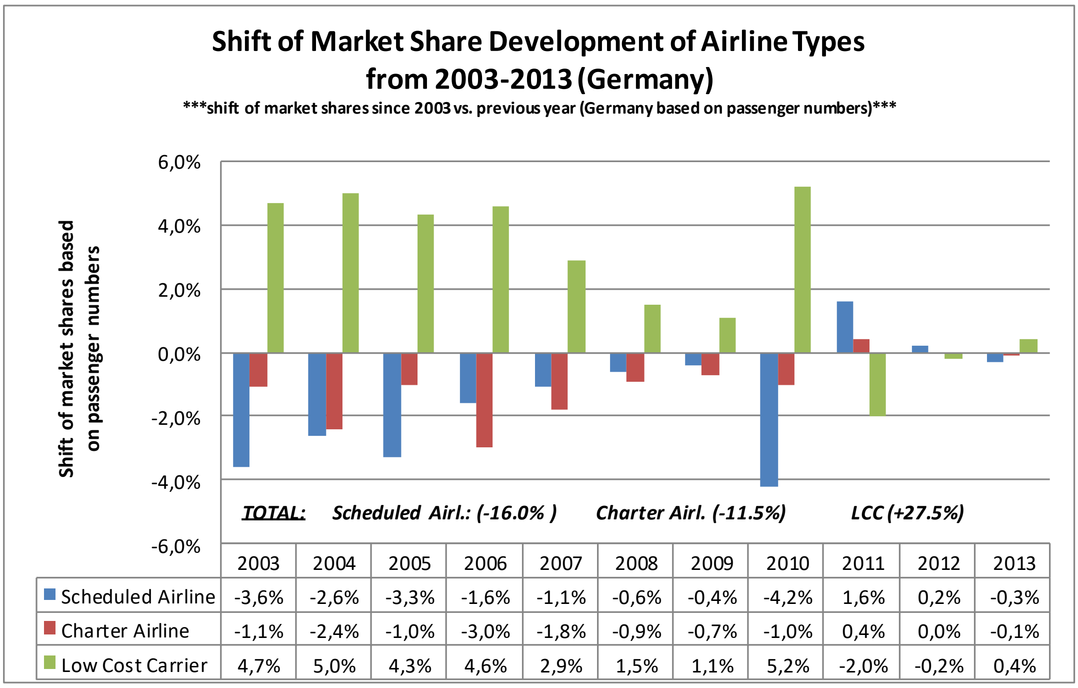

Figure 7: Shift of market share development of airline types 2003-2013 (Germany)

The low cost carriers in Germany increased their market share within the last ten years (until 2013) by +27.5%. In the same time period the market share of charter airlines decreased by -11.5%, and of scheduled airlines (line airlines) by -16%. These figures are based on the assumption that there have not been essential shifts between charter airlines and scheduled airlines. The chance to gain more market share for low cost carriers is especially higher during economic crisis as companies are willing to save more travel costs within difficult economically times. They therefore also book flights with low cost carriers instead of traditional airlines when it comes to business travel. This is also one reason why traditional airlines are also creating or buying their own low cost carriers in order to compensate the shifts of market share and sales within their own enterprises. Examples are e.g. Lufthansa with Germanwings, IAG (British Airways/Iberia) with Vueling and Air France/KLM with TRANSAVIA.

Based on Bergmann's data, at the beginning of this millennium the market share of the low cost carrier amounted to approximately 5 % (in Germany and in Europe). Today the low cost carriers have an overall market share within the European aviation market of around 30% (in Germany approximately 32%).

At the beginning the low cost carriers took mostly shares from the scheduled airlines – but since 2005 we see that also the charter airlines have lost a substantial part of their market share as the low cost carrier also offered flights to vacation destination, e.g. to the Mediterranean, the Canary Islands or to other "warm-water-destinations" within Europe or closed to Europe. Especially "short-term tourists" are using these offers. The result is that the route length of the low cost carriers has increased from ca. 1.5 hours (2005) to ca. 1.9 hours (2014) by 46%.[36]

Remark: Due to the migration of the business models within the last years it is more and more difficult to clearly define a low cost carrier (expect the real low cost carrier like e.g Ryanair and Easyjet). The migration of the business models also leads to differences (problems) concerning the assignation of the respective data in statistics. Mr. Bergmann also confirmed this fact to me in a personal e-mail dated 07. September 2015. He further mentioned in his e-mail that "today everybody is flying against everybody", especially since Ryanair announced in 2014 to increase flights to primary airports and that they intend to increase the share of business passenger e.g. by implementing of various booking status.[37]

According to an article of the German magazine "Handelsblatt" Ryanair intends to increase their business in Germany significantly. The management of Ryanair informed that the airline will increase its market share in Germany from currently 5% to approximately 15-20% within the next three or four years. In October 2015 the airline will open a new base in Berlin from which they will operate next summer 18 new destinations.[38]

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[36] ref. Bergmann, Fliegen – ein (Alb-)Traum?, 2015, pp.437-439
[37] ref. own words M. Widmann and confirmation Mr. Bergmann (e-mail, 07.09.2015)
[38] ref. http://www.handelsblatt.com/unternehmen/handel-konsumgueter/billigflieger-ryanair-greift-lufthansa-und-air-berlin-an-/12389238.html, 13.10.2015

The development of the market in Spain

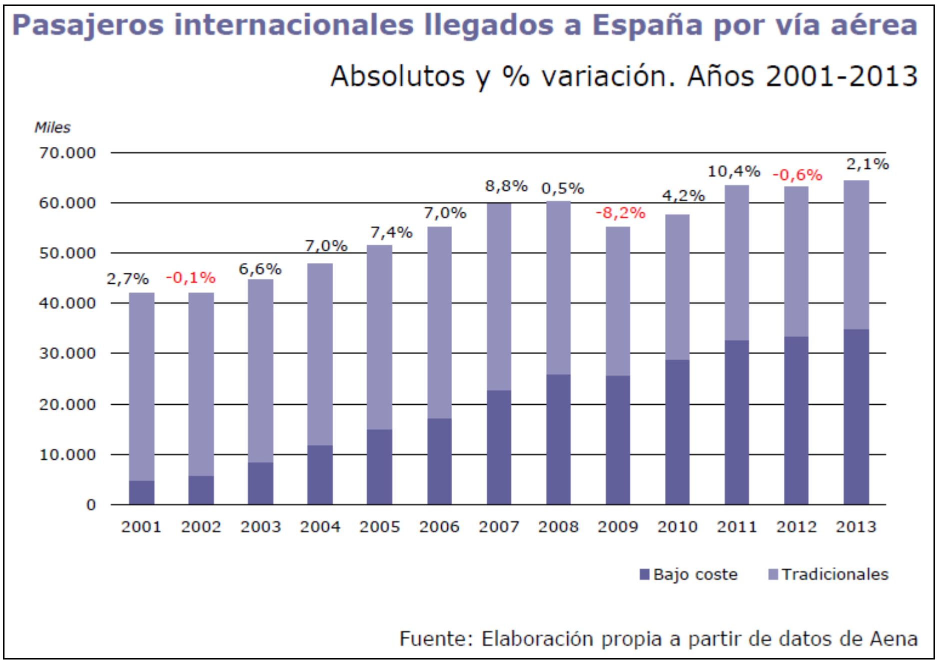

Figure 8: Number of int. passenger arrivals Spain via air transportation (2001-2013)

The above graphic shows the development of the number of international flight passengers which have flown into Spain between 2001 and 2013. The graphic also distinguishes between traditional airlines and low cost carrier. As we can see the share of flight passengers travelling by low cost carrier increased sharply. Today the low cost carrier passengers amount to 54.2% of the whole air passengers in Spain.

The next two charts visualise the exact development of the number of passengers respectively, only regarding the low cost carrier and traditional airlines in Spain within the same time period (2001 to 2013).

Figure 9: Number of int. passenger arrivals Spain via low cost carriers (2001-2013)

As we can see from the above chart, the number of fight passengers with low cost carriers increased constantly between 2001 and 2013. Even during the financial crisis (2007 until 2009) the figures first continued to grow. There has been a slight decrease which can be seen also as stagnation in the business year 2009. After that time the growth continued. A further comment is that the crisis had affected the overall aviation business. However, the low cost carrier gained profit out of that time because some business passengers also changed now from traditional airlines to low cost carriers in the short-haul market.

Figure 10: Number of int. passenger arrivals Spain via traditional airlines (2001-2013)

Concerning the development of the number of passengers of traditional airlines, it can be pointed out that from 2001 until 2005 the figures decreased slightly. A significant change can be seen since the financial world crisis which started in 2007, with the bankruptcy of the Lehman Brothers bank. The effect of the crisis was very strong between 2008 and 2009. In these years the traditional airlines lost a high number of passengers, but after the end of the financial crisis the number of passengers increased slightly again but never reached the levels previously seen.[39]

[39] ref. Ministero de Industria, Energía y Turismo, Turismo, tráfico aéreo y compañías aéreas de bajo coste, 2013, pp.15-17

3.2 The actual low cost carrier market in Europe

"The Low Cost Carrier Monitor, jointly issued by ADV (German Airports Association) and DLR (German Aerospace Center), informs on significant features of the low cost carrier traffic and current developments in this market segment two times a year. Topics covered include e.g. the number and relative importance of low cost carriers, their supply including air fares, and passenger demand of low cost services."[40]

Concerning the latest "Low Cost Carrier Monitor (1/2015)" the total number of the operating low cost carriers decreased slightly, as some companies are in the status of liquidation or have been taken over from other airlines. Iceland Express has been taken over by WOW and also Flybaboo does not fly anymore as an own brand, as Darwin Airline has taken over. Furthermore, Volare has been integrated into Alitalia. These are only some recent examples.[41]

The airlines operating in the low cost sector define their offer very differently, and therefore only a few demarcation criteria like low prices, general availability and direct sales via internet can be defined for this segment.

As already mentioned above (chapter 3.1.2) in some cases it exists a so called latitude, when it comes to the assignment if an airline is counted as low cost or traditional. In some airlines a migration of the business models is ongoing which makes a clear assignment to the low cost segment more difficult. Air Berlin for example, is a typical example. The former charter airline entered long time ago with the "Cityshuttle" business into the low cost segment, but due to several takeovers (e.g. LTU, DBA, Gexx), and also due to the cooperation with Etihad and the participation in the strategic alliance "Oneworld", a clear assignment of low cost flight routes has become more difficult. Therefore in the statistics of the DLR, only the previous low cost flight routes, as well those which correspond to them are taken into account. Flights to classical tourist destinations are not included in the DLR statistics.[42]

The following table shows the low cost airlines which are operating in Europe. These airlines can be fully or mainly assigned to the low cost segment. The airlines listed under Pos. 1 to Pos. 21 are flying into and out of Germany. The other remaining airlines (Pos. 22 to Pos. 28) are flying to and from other European countries (not including Germany). In the meanwhile also non-European companies are entering into the European market, e.g. Flydubai.[43]

[40] ref. http://www.dlr.de/fw/en/desktopdefault.aspx/tabid-2961/9753_read-19682/, 08.09.2015
[41] ref. DLR, Low Cost Monitor, 1/2015, p.7
[42] ref. DLR, Low Cost Monitor, 1/2015, p.2
[43] ref. DLR, Low Cost Monitor, 1/2015, pp.2+7

Pos.	Name of Airline	IATA Code	Website	Logo
1	Aer Lingus	EI	www.aerlingus.com	
2	Air Arabia Maroc	3O	www.airarabia.com	
3	Air Baltic	BT	www.airbaltic.com	
4	Air Berlin	AB	www.airberlin.com	
5	Blue Air	0B	www.blueairweb.com	
6	Corendon	XC	www.corendon.com	
7	Easyjet	U2	www.easyjet.com	
8	flybe	BE	www.flybe.com	
9	Germanwings	4U	www.germanwings.com	
10	HOP!	A5	www.hop.fr	
11	Iberia Express	I2	www.iberiaexpress.com	
12	Intersky	3L	www.intersky.biz	
13	Jet 2	LS	www.jet2.com	
14	Niki	HG	www.flyniki.com	
15	Norwegian	DY	www.norwegian.no	
16	Ryanair	FR	www.ryanair.com	
17	Transavia	HV	www.transavia.com	
18	Vueling	VY	www.vueling.com	
19	Wizz	W6	www.wizzair.com	
20	Wizz Ukraine	WU	www.wizzair.com	
21	WOW	WW	www.wowair.com	
22	Air Italy	I9	www.airitaly.it	
23	Blue Panorama	BV	www.blu-express.com	
24	Corendon Dutch	CND	www.corendon.com	
25	Meridiana	IG	www.meridiana.com	
26	Transavia (Franc	TO	www.transavia.com	
27	Volare	VA	www.volareweb.com	
28	Volotea	V7	www.volotea.com	

Figure 11: Overview low cost carriers Europe

Ryanair remain still the biggest low cost airline in Europe and had more than 8.300 departures in January 2015. Easyjet is the second biggest low cost carrier in Europe (5.900 departures in January 2015). Flybe and Norwegian follow in third and fourth biggest, while Germanwings remains number five regarding to departure figures in January within Europe. The strategies of the airlines are different, for example, Ryanair flies on average only five flights per week per route, while Germanwings has nine, and flybe 12 fights per route per week. Regarding this ranking Air Berlin is number six followed by Vueling and Wizz which both registered a strong growth of more than 20%. The airline HOP! (newly founded by Air France) has ranked number nine. The following table shows the detailed data of the top ten low cost carriers in Europe in January 2015.[44]

[44] ref. DLR, Low Cost Monitor, 1/2015, pp.7+14

Pos.	Name of Airline	Take-Offs	Seats	Flight Routes
		01/2015		
1	Ryanair	8.373	1.582.494	1.581
2	Easyjet	5.958	970.776	955
3	Flybe	3.287	231.503	272
4	Norwegian	2.794	515.763	452
5	Germanwings	2.709	343.648	306
6	Air Berlin (LCC)	2.409	356.178	208
7	Vueling	2.070	369.000	291
8	Wizz	1.859	334.620	550
9	HOP!	1.441	91.782	112
10	Aer Lingus	1.348	183.054	134

Figure 12: LCC - overview take-offs, seats and flight routes Europe per airline (01/2015)

The consolidation in the low cost carrier sector is still ongoing. Clickair has been integrated in Vueling while Windjet announced insolvency in August 2012. Smaller airlines have disappeared from the market, and others like Wizz are growing. In total the European low cost carrier segment has registered an increase of 5%.

Since the year 2006 there has been a constant growth in the number of flight routes in the winter months (only in 2013 was there a decrease). The growth in 2015 amounts to a plus of 3.2 % vs. the same time period of the previous year and reached the number of 5.000 flights (routes) which is a record in a winter/spring period. Germany grew 11.2%, and had an even higher growth rate regarding flight routes. Concerning the flights offered, the increase in Europe amounts to 5% while in Germany the rate was 17.3%. The growth in Germany is due to the restructuring of Lufthansa and Germanwings.

Great Britain still remains the biggest country concerning low cost operations (departures as well as arrivals), and registered 7.700 (+9.7%) take offs per week in January this year. Germany, Italy, Spain and France follow with slightly more than 3.000 flights (see following chart no. 13).[45]

Pos.	Country	Take-Offs	Seats	Flight Routes
		01/2015		
1	Great Britain	7.745	1.034.926	872
2	Germany	4.783	682.005	518
3	Italy	3.883	672.692	609
4	Spain	3.790	683.192	663
5	France	3.332	417.277	441
6	Ireland	1.443	224.172	144
7	Norway	1.335	246.470	170
8	Poland	859	133.900	125
9	Netherlands	851	148.151	205
10	Sweden	841	132.449	147

Figure 13: LCC - overview take-offs, seats and flight routes in Europe per country (01/2015)

Out of the 5.000 flight routes, more than 4.500 (90%) are operated by only one low cost carrier. Only 484 routes are operated by two and 20 flight routes by more than two low

[45] ref. DLR, Low Cost Monitor 1/2015, pp.7-8, 14

cost carriers. That means the competition on same flight routes within Europe is still relatively low.

Barcelona and Dublin are the biggest airports in Europe related to take-offs per week of low cost carriers. This fact is based due to the increased offer of Vueling and Ryanair in Barcelona, and due to flybe and Ryanair in Dublin. It can be mentioned that also several German airports register an increase of low cost flights which is due to the restructuring of Lufthansa and Germanwings, as domestic and European flights are now operated by Germanwings instead by Lufthansa (even flights from and to Frankfurt and Munich).

Within Europe the low cost carrier market amounted to 28% of all flights during the winter season 2015, while more than 70% of flights were operated by the traditional line and charter operators. The remaining part of the market was operated by regional airlines which are cooperating in the most cases with a bigger airline.

Another trend to be considered is long-haul flights operated by low cost carriers. Due to cost issues, Air Asia recently cancelled all flights from Asia to Great Britain and Germany. However, Norwegian had tried to enter into this market with modern aircraft (B787). Since March 2015 Norwegian increased the offers of flights to Thailand and North America (outbound from Stockholm, Copenhagen and London-Gatwick).[46]

3.3 Medium-term outlook (up to 2020) – overall European aviation market

Concerning the further development of the overall European aviation market for the next few years based on statistics of Eurocontrol, the following statements can be given:

According to the statistics of Eurocontrol it can be mentioned that the traffic growth in Europe stabilises at ca. 2.6% increase per year after 2015. The growth rate of 2.4%-2.6% per year in the period 2015-2017 will decrease in 2018 to 2.3% due to the lack of capacity (airport capacity constraints). However, the inauguration of the new airport in Istanbul in 2019 will have a positive influence on the growth figures. Due to this new airport, the growth rates will increase to 2.8% within the years 2019-2020.

The following chart shows the “Average Annual Growth of Flights per State, 2020 vs. 2013”. As we can see the growth across Europe is different. “While the growth (in percentage terms) is much weaker in the more mature markets of Western Europe, it is still the busiest States (France, Germany followed by Italy, Spain and UK) which will see the greatest number of extra flights per day.” The highest growth rates and also the highest number of extra flights per day will be seen in Turkey. In Turkey the average annual growth rate over the seven years amounts to 7.2% and the number of additional flights per day in 2020 will be 1.945.[47]

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[46] ref. DLR, Low Cost Monitor 1/2015, p.8
[47] ref. Eurocontrol, Flight Movements and Service Units 2014-2020, September 2014, p.28

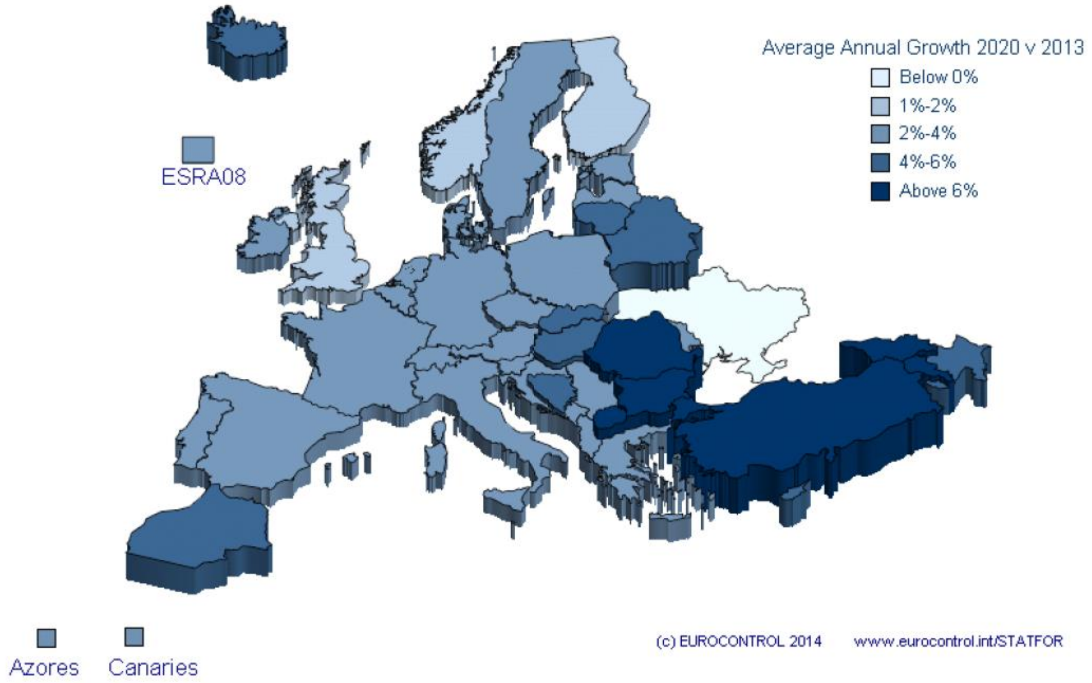

Figure 14: Average annual growth of flights per state, 2020 vs. 2013

3.4 Cost and price calculation / comparison of prices

3.4.1 Cost calculation – differences between low cost carriers and traditional airlines

Several studies show that the cost structure of low cost carriers is more than 50% less than the cost structure of a traditional airline. The following table shows how the low cost carrier reach this price calculation and which cost advantages they can achieve in detail per available seat kilometre (ASK) or seat kilometre offered (SKO).

		Cost reduction	Cost
Traditional Carrier			100%
Low Cost Carrier			
	higher seat density	-15	85
	higher aircraft productivity	-5	80
	lower Crew costs	-3	77
	less ground staffs	-4	73
	lower airport and landing fees	-6	67
	unique type of aircraft fleet	-2	65
	lower station costs/outsourced handling	-10	55
	no bord service for free	-6	49
	no commission	-3	46
	lower sales and reservation costs	-3	43
	lower administration costs	-2	41
Low Cost airlines compared to traditional carriers			**41%**

Figure 15: Cost calculation - differences between low cost carriers and traditional airlines

The above listed data show the cost advantages of a „Core-Low-Cost-Carrier“ like Ryanair. Not all low cost carriers are able to achieve these cost advantages. E.g. EasyJet, Air Berlin or Germanwings are also low cost carriers, and as the table below show they are not able to produce at this price level. The following graphic also shows the costs per available seat kilometre (ASK) from Air Berlin, Ryanair and EasyJet, it also contains data from Lufthansa (which represent the traditional airlines).

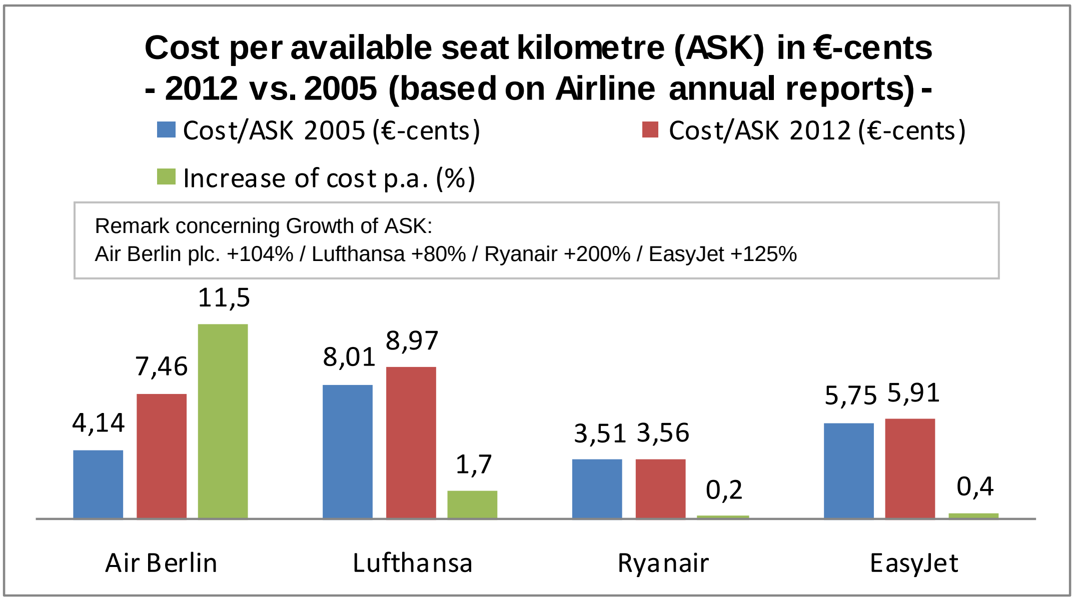

Figure 16: Cost per available seat kilometre (ASK) - 2012 vs. 2005

Between 2005 and 2012 Air Berlin registered a significant increase of the cost per available seat kilometre (ASK) as the airline developed from a low cost carrier to a full-service-airline (how they define them by themselves today). However, they operated also as a low cost carrier, charter airline and a full-service-airline. Other airlines like Vueling and EasyJet offer additional services and do not fly just to so called secondary airports with lower handling and landing fees like Girona or Frankfurt Hahn. It can be said that low cost carrier in Europe can operate to 50% of the costs of a traditional airline which means that the average costs/ASK of a low cost airline amounts approx. 3.5 to 6.0 Euro-cents while the average costs/ASK of a traditional carrier amounts 8.0 to 11.0 EUR-cents.

Due to higher aircraft capacity utilisation (between 5% and 10%) and additional sales, for example, out of onboard service, hotel bookings etc. (Ryanair 2013/2014: 24.8%), the low cost carriers are increasing their sales. Furthermore the passengers often have to pay an extra fee in case they want to check-in luggage.

It has to be mentioned that the share of the fuel costs (regarding the total costs) is higher for low cost carriers than that of traditional airlines. This means that fuel price increases have a bigger impact for low cost carriers.[48] From my point of view this might be a reason

[48] ref. Bergmann, Fliegen – ein (Alb-)Traum?, 2015, pp.432-434 / charts own schema based on Bergmann

why low cost carriers are still not operating on long-haul flights (without some exceptions, for example Norwegian).

3.4.2 Potential cost savings for airlines

The following extract of the bullet-points which have been published in a presentation within the IATA 2nd Airline Cost Conference (ACC) in 2014 summarise the main points of cost savings, and also show up further cost saving potentials for an (low cost) airline.

“How to make the lowest cost airline seat?”

Aircraft Costs
➔ One aircraft type, one size, one class, simple galleys
➔ More seats reduces unit costs
➔ Aircraft flights/hours can be increased (e.g. 25 min Turns)

Crew Costs (LCC single aisle)
➔ Schedule all aircraft to allow for 2 crews per day (morning and afternoon)
➔ Eliminate night stops (costly not only for crew)
➔ Single type (and size) of aircraft at each base helps to minimise crew costs. Day-to-day operations are therefore easier.

Sales & Marketing
➔ Widen the cheapest channel and restrict the most expensive one
➔ Internet has four major advantages: Cheapest distribution channel, direct contact with customer, airline gets cash faster, enables additional selling, e.g. insurance, car hire etc.

Ground Operations – an undervalued key to low cost carrier success
➔ Schedule drives many costs at the airport
➔ 25 minute turnarounds enable ground crew to handle more turns per shift
➔ Pilots should do the load & trim sheet – keeps ground operations simpler
➔ Outbound Bags must be at gate/stand when aircraft arrives
➔ Closing Check-in at 30-45 minutes before departure is critical for efficiency and punctuality
➔ Web check-in & kiosks reduce queues, headcount and costs

On Board Products – now additional revenue
➔ Customers don’t chose airlines because of on-board product (short-haul)
➔ Price, schedule and reliability tend to be the top three deciding factors for all short-haul customers
➔ Non-allocated seating is efficient for the airlines but customers don’t like it. Additional charge for advance selection of seats is possible.
➔ WIFI is becoming more and more important for flight passengers.

Airports

- ➔ It is estimated that 25% of Ryanair's cost advantage is due to the usage of low cost airports – very few airlines leverage their power/influence out of their airports
- ➔ LCC's fast-turn, high passenger loads are also attractive for improving airport efficiency which might be a factor in reduced fees (LGW example)
- ➔ Efficient ground operations and short approach and taxi times are attractive and need to be negotiated (e.g. CGK T1a vs Terminal 2)
- ➔ Distance from the city is an issue and not to be discounted

Fuel

- ➔ Good training and feedback helps pilots to plan and achieve lower fuel costs
- ➔ Differing prices in different airports may make it attractive to burn more fuel (tankering)
- ➔ Are the aircraft as light as can be? Ovens, manuals, spares, water quantity, etc.
- ➔ APU (Auxiliary Power Unit) usage and single engine taxi-in procedures in place?

Overheads

- ➔ Management can be very complex and layered (Take out a layer (or two) – DON'T ADD ANY!)
- ➔ Keep objectives simple – K.I.S.S. – Keep It Short & Simple
- ➔ Use simple, fast, approximate and effective measurement systems

Remark: The above mentioned bullet-points are an extract of the whole presentation. Also some further issues, for example, maintenance costs, weight related charges and information systems have been discussed as cost saving potentials within the presentation.[49]

3.4.3 Flight price comparison between low cost carriers

The flight prices of low cost carriers differ when it comes to the destinations and more so on how advanced the booking is made. The flight prices are often not the end price the customer gets, as in many cases additional charges (e.g. additional fees for luggage, seat reservation, taxes) are not included.

A study of the "Deutsches Zentrum fuer Luft- und Raumfahrt (DLR)" investigated prices of low cost carriers based on more than 60 flight routes and the following four time periods of booking in advance: one day, one week, one month and three months. As it is mentioned in the study, this selection of flight routes is representative (approximately 10% of all low cost carrier flight routes which have been operated in autumn 2012). The results have been as follows:

[49] ref. McCarthy, Low Cost Carriers Success Factors, IATA ACC, August 2014, pp.9-21

Airline	Average Flight Price (Basic Tariff, only Flight Price)	Average Gross Flight Price (incl. Taxes/Additional Charges)
	for selected days	
Ryanair (FR)	38,97 €	53,90 €
EasyJet (U2)	65,93 €	76,93 €
Germanwings (4U)	86,62 €	110,10 €
Air Berlin (AB)	51,90 €	114,77 €
Intersky (3L)	105,00 €	169,00 €
Wizz (W6)	58,74 €	66,74 €

Figure 17: Flight prices of selected low cost carriers (average)

As you can see (following chart no. 18) prices differ enormously depending on the booking time and when the flight takes place. Making a booking in a short period of time in advance of the flight, the price can be much more compared to booking the flight one or three months in advance. The gross flight prices differ between ca. 100 € and 200 € if booking a flight one day in advance, and between ca. 21 € and 56 € if booking around three months in advance. This data is related to the main low cost carriers in Germany.[50]

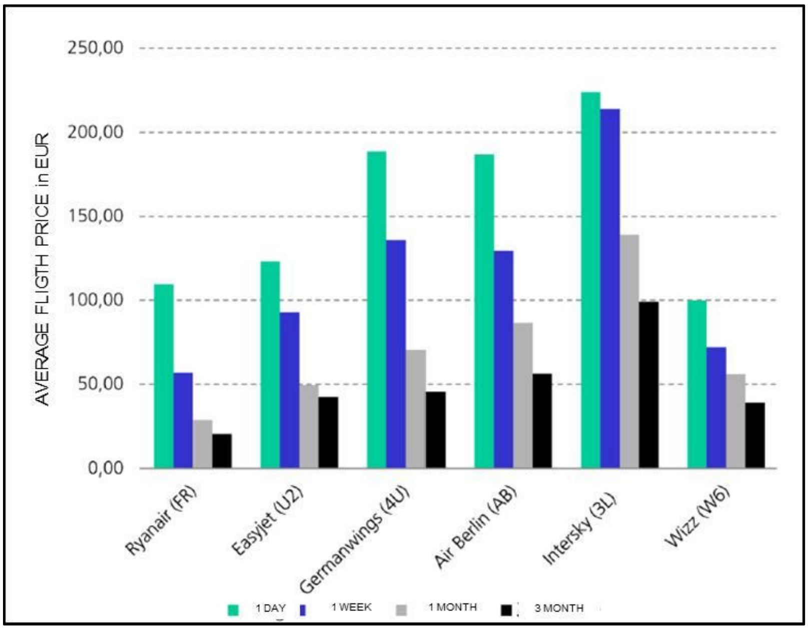

Figure 18: Flight prices selected low cost carriers based on booking time in advance (DLR 2012)

Based on investigations of a newer study from the DLR from 2014, the cheapest flight price can be booked approximately one month in advance (see graphic no. 19).

[50] ref. Berster, Low Cost Carrier in Deutschland, Europa und weltweit, DLR, December 2012, pp.62-64 / chart own schema based on Berster

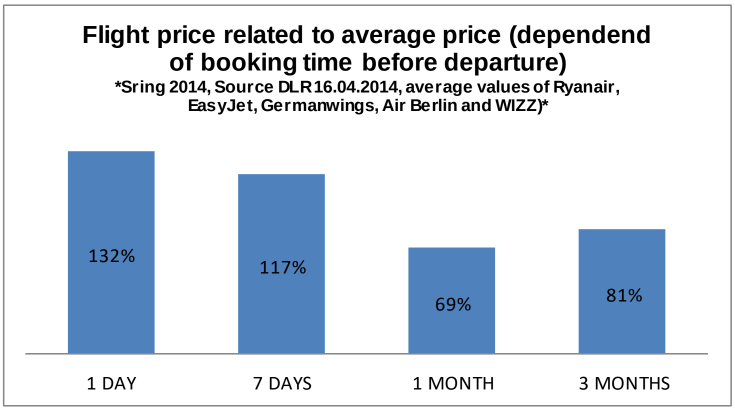

Figure 19: Flight prices selected low cost carriers based on booking time in advance (DLR 2014)

The challenge for the pricing department is to increase the flight price closer to the flight taking place in order that the average profit per ticket is sufficient to recover the costs of the flight. Price management is done automatically, and when a defined capacity is reached, the prices will climb higher. Manual changes of flight prices are also possible, for example in cases where there are special events like a concert or major sporting events.

The next graphic (chart no. 20) gives an overview about the flight price and costs per flight hour based on the respective booking times in advance of the flight. The data is related to Air Berlin, EasyJet and Ryanair on short and medium-haul flights within Europe. Furthermore the graphic includes an average value (database study of the DLR from the year 2012).

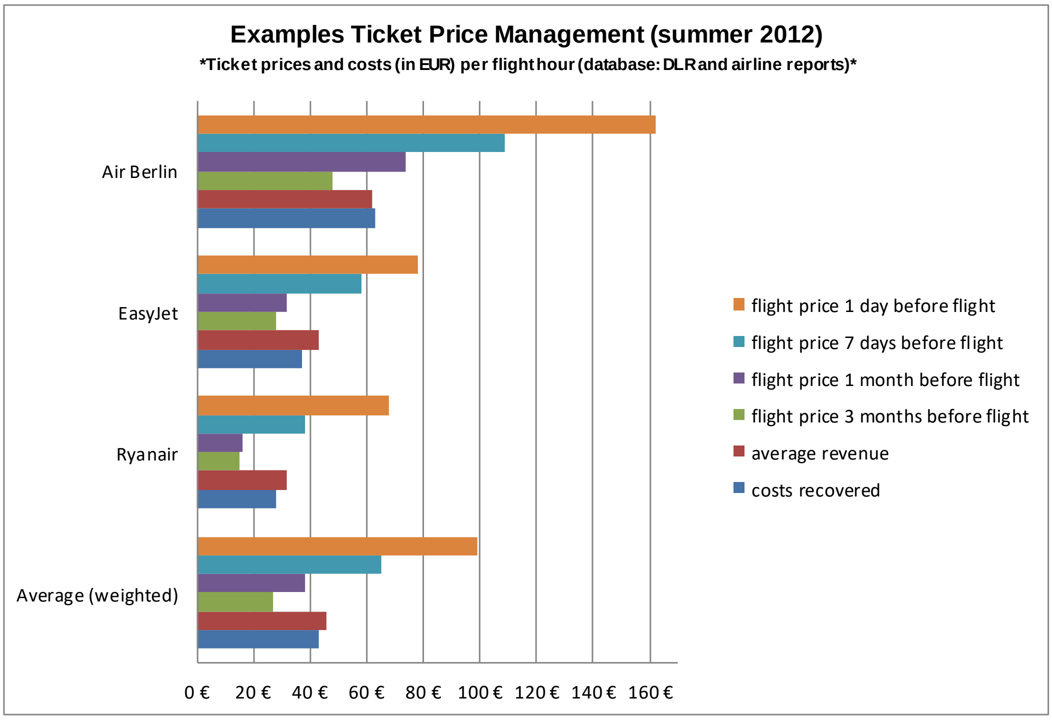

Figure 20: Examples ticket price management (DLR 2012 and airline reports)

Looking at this data, 64% of the whole costs of a flight are covered by the flight price if booked three months before flying. 91% of the costs are covered if booked one month in advance (expect for Air Berlin which already has 117% of the costs covered when booking one month in advance). 156% of the costs are covered with bookings seven days in advance, and 232% when flight is booked one day before departure.

In summary, no more than 75% of the whole flight tickets have to be sold more than one week in advance of the flight. Otherwise the flight costs might not be covered by the revenues. In case the 75% of the whole seat capacity is reached earlier than one week before the flight takes place, the prices have to be increased earlier (Yield-Management).[51]

Customers can buy the tickets at the lowest price if they book approximately three months in advance of the flight date. The newer study of DLR from 2014 showed that the lowest price can be reached when the booking takes place approximately one month in advance. Once the booking date passes less than one month from the flight date, generally the price will increase.

3.5 Fleet of low cost carriers

The European Low Fares Airline Association (ELFAA) publishes regularly statistics about their member airlines, as well information concerning the fleet of the airlines. The following table is part of the latest statistic which has been published in December 2014.

AIRLINE	NUMBER OF AIRCRAFT (DEC '14)	AVERAGE FLEET AGE (DEC '14)	FLEET TYPE (DEC '14)
easyJet	226	5.8	73 x Airbus A320, 153 x Airbus A319
Flybe	93	6.5	12 x Embraer 190, 14 x E195, 2 x E170, 11 x E175, 45 x Bombardier Q400, 12 x ATR72
Jet2.com	54	22	11 x Boeing 757-200, 30 x 737-300, 13 x 737-800
Norwegian	102	4.4	87 x Boeing 737-800, 8 x 737-300, 7 x 787
Ryanair	300	5.0	300 x Boeing 737-800
Sverigeflyg	10	12.0	5 x Saab 2000, 5 x ATR72/500
Transavia	31	9.7	22 x Boeing 737-800, 9 x 737-700
Volotea	15	10.2	15 x Boeing 717
vueling	87	6.7	82 x Airbus A320, 5 x Airbus A319
Wizz Air	52*	4.0*	52 x Airbus A320-200*
	970	6.6 years	

* Wizz Air - latest figures available. As at June 2014.

Figure 21: Low cost carriers - overview fleet (based on ELFAA, Dec. 2014)

According to the data Ryanair has the biggest fleet with 300 aircraft, followed by EasyJet with 226 aircrafts. This two low cost carriers operate the newest aircraft with an average of approximately five years (besides Wizz Air).[52]

In comparison the latest statistic of the DLR Low Cost Monitor (1/2015) includes already some actualised figures, as well as other airlines. Also in this statistic, Ryanair (increased number of aircraft to 315) and Easyjet (decreased number of aircraft to 209) operate the

[51] ref. Bergmann, Fliegen – ein (Alb-)Traum?, 2015, pp.442-444 / charts own schema based on Bergmann

[52] ref. ELFAA, members' statistics, December 2014, p.3

biggest fleet in the low cost carrier segment. An analysis about the age of the aircraft fleet is not included in this statistic from the DLR.[53]

It is very important to mention that the number of aircraft differs between these two statistics. For example there is a larger difference in the number of aircraft if you look at Norwegian. This fact might be based on the different way of assignment of data to the low cost segment. As explained in chapter no. 3.2, the DLR only counts real low cost routes within Europe and no long-haul flights to the United States or Asia like, however, Norwegian offers in their product portfolio. Other reasons for the differences of data are that some airlines in the meanwhile have received new aircraft and others have sold some.

Pos.	Name of Airline	Logo	Fleet
1	Aer Lingus		36 aircrafts (A320: 30, A319: 4, A321: 2)
2	Air Arabia Maroc		4 aircrafts (A320: 4)
3	Air Baltic		25 aircrafts (B737: 13, D8: 12)
4	Air Berlin		85 aircrafts [Euro] (A319/20/21: 49, B737: 34, ATR:2)
5	Blue Air		11 aircrafts (B737: 11)
6	Corendon		11 aircrafts (B737: 8, A320: 3)
7	Easyjet		209 aircrafts (A319: 137, A320: 72)
8	flybe		61 aircrafts (D8: 45, E: 16)
9	Germanwings		81 aircrafts (A319: 43, A320: 17, C: 21)
10	HOP!		98 aircrafts (ATR: 24, E: 43, CRJ: 31)
11	Iberia Express		16 aircrafts (A320: 16)
12	Intersky		5 aircrafts (D8: 3; ATR: 2)
13	Jet 2		56 aircrafts (B737-300: 45, B757-200: 11)
14	Niki		21 aircrafts A319/A320/A321: 19, E: 2)
15	Norwegian		85 aircrafts (B737: 76, ATR: 1, B787: 8)
16	Ryanair		315 aircrafts (B737: 313, A320:2)
17	Transavia		33 aircrafts (B737: 33)
18	Vueling		94 aircrafts (A320: 90, A319: 4)
19	Wizz		53 aircrafts (A320: 53)
20	Wizz Ukraine		2 aircrafts (A320: 2)
21	WOW		8 aircrafts (A320: 3, A319: 5)
22	Air Italy		10 aircrafts (B737: 7 B767: 3) (für Meridiana)
23	Blue Panorama		3 aircrafts (B737:3)
24	Corendon Dutch		2 aircrafts (B737: 2)
25	*Meridiana*		16 aircrafts (A320: 6, MD82/83: 10)
26	Transavia (France)		17 aircrafts (B737: 15, A320: 2)
27	Volare		1 aircraft (A320: 1)
28	Volotea		16 aircrafts (B717: 16)

Figure 22: Low cost carriers - overview fleet (based on DLR Low Cost Monitor, 01/2015)

As we can see from both statistics, the low cost carriers are using mainly the same type of aircraft. As explained in the chapters no. 3.4.1 and 3.4.2 this enables the airline to save essential costs as every crew member can fly on almost every aircraft. A synergy effect takes place as well if all the aircraft are the same when it comes to maintenance. Furthermore the age of the aircraft are relatively young within the low cost carrier fleet.

[53] ref. DLR, Low Cost Monitor 1/2015, pp.2+7 / chart own schema based on Low Cost Monitor

3.6 Safety aspects

Safety is the highest priority in the aviation sector. The authorities (registration offices) of each state/country have a high control function regarding the technical legality and economic performance of companies within the aviation sector.

The "Luftverkehrsgesetz (LuftVG)" is the legal basis for Germany, regarding aviation safety, which is executed and controlled by the Luftfahrt Bundesamt (LBA). The Spanish counterpart is the Agencia Estatal de Seguridad Aérea (AESA).

In Germany the most important control authority is the LBA, which looks after the safety of the flights far in advance of each flight taken place.

The LBA executes functions like registration and airworthiness checks of aviation products, ACAM (Aircraft Continuing Airworthiness Monitoring), issue of permissions for aviation staffs, technical checks and the financial situation of aviation companies.

The authority responsible in Europe is the EASA (European Aviation Safety Agency – EASA) which is the centre of the European aviation politics. While the national aviation authorities are still executing a sustainable part of the operative tasks (e.g. registration of aircrafts) the EASA develops common safety and environmental standards. Furthermore EASA executes inspections in the member countries and also offers technical advice and training in order to reach the common set.[54]

<u>Safety aspects of low cost carriers</u>

It is a fact that low cost carriers save costs in field of service but not in field of safety. This confirms also a statement of the LBA. Each low cost carrier receives the operating licence from the respective aviation authority that they are based in (e.g. in Germany from the LBA). After issuing the licence, the airlines are monitored constantly with regard to maintenance aspects of the aircrafts, this applies to traditional and low cost carriers. There have been some safety concerns that pilots of low cost carriers have longer working hours than their traditional counterparts. The press manager of the LBA pointed out that each airline has to observe the flight hours and rest periods of the crew, as well as to register them in a transparent way. There was also concerns that low cost carriers also pay a lower salary than their traditional counterparts, however, the article mentions that the training of pilots (licence) is also controlled legally and this means that the pilots and other crew members have to pass the same necessary qualifications and tests as their traditional counterparts.[55]

In order to improve the safety within the European aviation sector, the European Commission and the national civil aviation authorities of the member states have decided to deny "unsafe" airlines of operating in European airspace. Such "unsafe" airlines are listed in a common overview and the list is actualised constantly. Legal basis for this

[54] ref. Rommel, SE Strategisches Management, 2012/2013, pp.20-22
[55] ref. Stiftung Warentest, Billig hat seinen Preis, 08/2003, p.81

"black list" is the regulation (EG) No. 2111/2005 of the European Parliament and the council of 14. December 2005.

The safety criteria are defined by experts of the commission and the member states. It is mandatory for the states to execute the respective European decisions.

The issue and withdrawal of traffic rights for foreign aviation companies as well as withdrawals of operating licenses for national aviation companies still remains under national responsibility (e.g. Germany: LBA, Spain: AESA).

When a national authority informs the EU commission about a case of withdrawal of a traffic right, the Steering Committee decides if the respective company will be included in the overall "common black list". If an airline is part of the "common black list" it has a European wide flight ban. All European aviation authorities will then be informed about their safety concerns. This procedure was also confirmed within a personal phone call with the LBA in Braunschweig dated 15.09.2015.[56]

[56]ref. http://www.lba.de/DE/Presse_POE/A_Z/A_Z_Flugverbot.html?nn=693032, 15.09.2015

4 General competitor strategies

4.1 M. E. Porter's theory

Static approach of Porter

In the 1980s Michael E. Porter investigated which competitive advantages and competitive strategies are relevant for a successful company. Within this investigation Porter developed four promising approaches in order to "outperform other companies in a sector": The differentiation strategy (a), cost leadership strategy (b), and two concentration strategies (c) which are differentiation focus strategy (c1) and cost focus strategy (c2) (see diagram no. 23).[57]

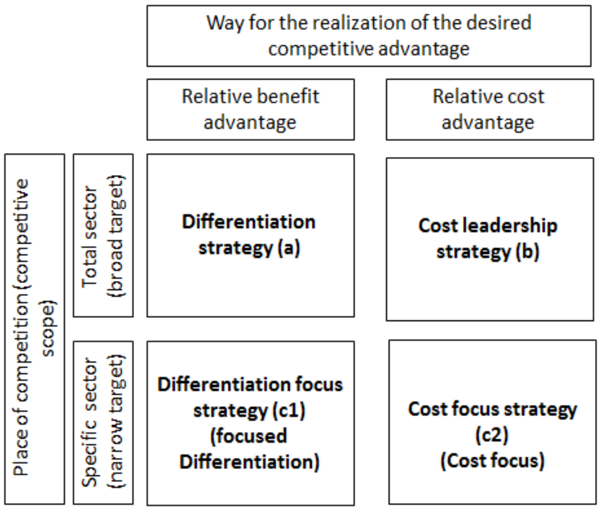

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Figure 23: Strategic approach according to Porter

The way to realisation of the desired competitive advantage is the first classification criteria according to Porter. A company can reach a competitive advantage of its products or services either by respective differentiation or by lower costs. The strategy of differentiation leads to a relative benefit advantage and the strategy of lower cost leads to a relative cost advantage.

The second classification criteria is related to the place of the competition (competitive scope). In this regard Porter distinguishes between specific sector and total sector wide strategies. A sector specific strategy is specified to specific customer groups (or product lines) and is based on either a differentiation of needs that were previously not yet met, or only met insufficiently. The industry-wide strategies are characterised by a generic approach without special focus on groups of customers or products.[59]

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[57] ref. Diesfeld, Strategieoptionen fuer den Ausbau Strategischer Allianzen, 2004, p.236
[58] ref. own schema based on Diesfeld, Straegieoptionen fuer den Ausbau Strategischer Allianzen, p.237 and Weiblen, Strategische Unternehmensfuehrung, lecture notes University of Applied Sciences Pforzheim, Wirtschaftsingenieurwesen, 2006, p.17
[59] ref. Diesfeld, Strategieoptionen fuer den Ausbau Strategischer Allianzen, 2004, pp.235-236

4.1.1 Differentiation strategy

When considering the differentiation strategy, the creation of a distinctive and unique product is in the foreground, which has a special character for the customer when it comes to the perceived product differences (compared to competing products). This enables the realisation of competitive advantages. Such products with special features or characteristics bring additional benefits to the customer and let product preferences grow. This enables higher surcharges on the product or service. The additional benefit can be based on exclusive customer service or high-performance product quality or design, for example. A differentiation strategy can also influence and build up a product image by intensive use of marketing activities or by highlighting of certain unique performance-based differentiation features.

The targets of differentiation strategies are to reach a higher customer loyalty and the decrease of price elasticity of the demander. The result is the entry into a quasi-monopolistic price range, in which the customers accepts higher prices for differentiated products than for undifferentiated products.

However, a differentiation strategy not only includes benefits because also risks and dangers are associated as well. So it may be that competitors imitate certain product components which can reduce the effect of the differentiation.[60]

4.1.2 Cost leadership strategy

The aim of the cost leadership strategy is to realise relative cost advantages against competitors, and to ensure long-term competitive advantages. By a consequent implementation of economies of scale, learning and experience curve effects, and/or utilisation of favourable access to production factors, cost advantages can be realised. To enforce a comprehensive cost leadership strategy, it requires high own market share, market penetration and high efficiency of distribution channels. Furthermore, sufficient process innovations regarding cost-cutting in the production process are necessary.

The cost leadership strategy is exclusively for companies with largely homogenous products, well-structured distribution channels and with a relatively high market share in the perspective sector. Furthermore, a relatively high market share allows the utilisation of effects related to the experience curve. If the previous mentioned conditions are fulfilled, the cost leader can reach a yield (return) above the industry average.

Like mentioned in the differentiation strategy there are also risks regarding the cost leadership strategy. For example, technological changes due to process innovations lead to new experience curves in the production of products and can also lead to a decline in value of the executed investments. Furthermore, a strong focus on cost structure includes the risk that product renewals might not be executed in time. In addition, the risk that cost

[60] ref. Diesfeld, Strategieoptionen fuer den Ausbau Strategischer Allianzen, 2004, pp.238-239

advantages might be lost if there are disproportionate increases of costs in the production process.[61]

4.1.3 Concentration strategies (focus strategies)

As mentioned above the concentration strategies can be distinguished between differentiation focus strategy and cost focus strategy. While the differentiation focus strategy is related to a specific product differentiation, the cost focus strategy has the aim to generate cost advantages against competitors.

Although there are parallels to the recent statements on cost leadership and differentiation strategy both concentration strategies are based on a geographic, demographic and / or socio-demographic segmentation of an industry, a submarket and / or a market niche. To gain a competitive advantage it is necessary to align the company to a specific market sector and not to an industrywide market (total sector). Due to this alignment of the strategy the company can serve the requirements of a specific market segment significantly better than an industry-wide operating enterprise.

A development of segment-specific concentration strategies will only be possible if market needs are present that have not been satisfied enough yet. Due to the lower requirements related to resource equipment of a company compared to an industry-wide orientation the segment-specific focus is especially interesting for smaller company.[62]

4.2 Outpacing strategy – a dynamic model of Gilbert and Strebel

In order to determine the market dynamic and specific situations, the competitor strategies have to be flexible. Originally Porter`s strategy did not take into account the dynamic aspect of the strategy. For the first time this aspect has been taken into account by Gilbert and Strebel with the approach of the "Outpacing Strategies" in 1985.

4.2.1 Definitions and backgrounds

Gilbert and Strebel saw the two following basic competitive strategic dimensions similarly to Porter:

- Perceived product value
- Process cost

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[61] ref. Diesfeld, Strategieoptionen fuer den Ausbau Strategischer Allianzen, 2004, pp.236-238
[62] ref. Diesfeld, Strategieoptionen fuer den Ausbau Strategischer Allianzen, 2004, p.239

Perceived product value and process costs

The expectation of benefits that a customer combines with a product (or service) are understood as perceived product value. The process costs include all investments which are necessary for development, production, marketing and delivery of a product. Gilbert and Strebel justify their decision as follows:

On one side the profit potential of a company is represented through the gap between process costs and perceived product value, and on the other side since almost all companies identify these two dimensions with respect to the decision between cost leadership and differentiation. The difference to Porter is that they are not seen as contrary but complementary dimensions. It is vitally important to be the first to achieve a position of low costs and high perceived product value.

Based on Gilbert and Strebel the "Outpacing Strategy" is the ability of a company to change based on the given/actual competition the focus between product value and process costs. By this, an essential advantage against the competition is reachable. Of highest importance is the time of the strategic shift. This remains valid especially regarding the background of the branch (industry) development.[63]

4.2.2 Branch development

For a comprehensive analysis of the industry development, Gilbert and Strebel have analysed data from 65 different consulting projects of IMEDE (International Management Institute). Related to the examined projects between the years 1979 and 1984 it was found that the various economic sectors have gone through a similar development.

According to Gilbert and Strebel the competition in new industries is embossed in the beginning fundamentally through innovations. At the time of the industry development, many providers plan to increase the perceived product value. Therefore they are focusing their efforts on their own further technological developments. For example, in the early 1980s, hundreds of companies in the computer industry competed for superiority in the PC market. Within that time period almost every vendor developed its own technology. Companies like IBM, Apple or Commodore had all different and incompatible PC's. The innovation rate decreases with the time and some product characteristics / features that are becoming standard within a market. Such a process is also driven by companies, for example, in case of strategic alliances (see chapter no. 2.3). In such cases the product needs become clearly defined by the definition of a standard. This makes it possible for following companies with a low-price policy to accelerate their market entry. This beginning phase of the industry development is now characterised through hard price competition, cost orientation and high market growth. The providers that do not withstand the price pressure or their products are not in line with the standard are forced to leave the market. When the market growth with further development subsides, the power relations

[63] ref. Zein, Dynamische Wettbewerbsstrategien in technologischen Branchen, 2001, pp.61-62

become stable. After the phase of cost orientation there is a change back to differentiation. Finally standardisation and revitalisation have a central importance within the evolution of an industry.[64]

4.2.3 Strategic alternatives

According to Gilbert and Strebel, it is obvious to follow the preference strategy for new products and service from the beginning. This is already reasoned that due to the fact of the novelty (of a product or service), a high benefit is mediated. At a later time of the competition a standard will be achieved on which the products of the competitors have to orientate. If a company succeeds to codetermine this standard, then it wins a temporary lead to realise cost reductions. The price competition which starts later can only be challenged effectively through targeted cost reduction.

The successors have to especially differ by lower costs and prices, and are forced to pursue a cost leadership. An additional competitive advantage will then be achieved by a differentiation in offer, which gradually begins. The offer differentiation is for a long-term existence in the market, and also for a position of simultaneous differentiation and cost leadership inevitable. The explained scenario can be seen also graphically in the following diagram-no. 24.[65]

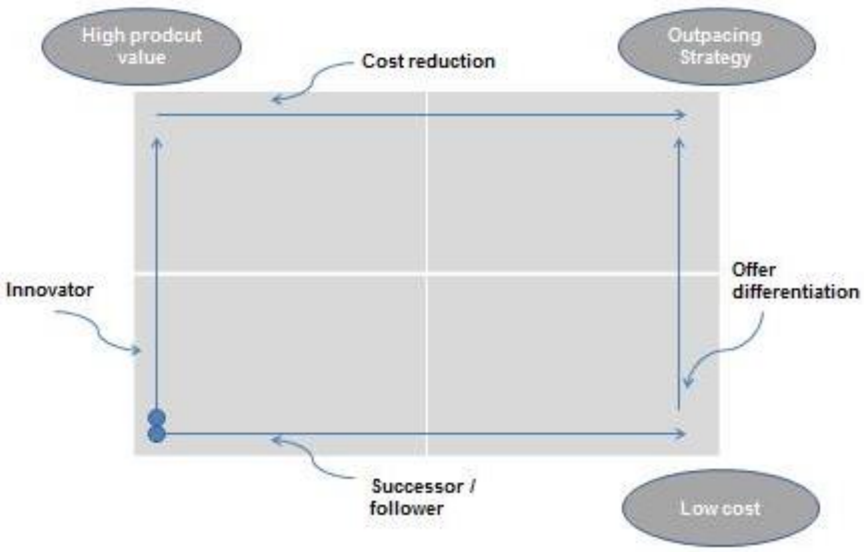

Figure 24: Visualisation of the outpacing strategy

[64] ref. Zein, Dynamische Wettbewerbsstrategien in technologischen Branchen, 2001, pp.62-63
[65] ref. Zein, Dynamische Wettbewerbsstrategien in technologischen Branchen, 2001, p.64 / graphic own schema based on Zein

There are two main possibilities to implement an outpacing strategy:

- Until a standard has been established in the market, a differentiation strategy has to be pursued. After that, the aiming of cost leadership takes place in which the differentiation advantages should preferably not be given up. The cost leadership is especially important for the survival of the imminent price competition.
- To generate enough capital in order to be able to invest afterwards in product improvements, a policy of low cost is important for a later market follower. Based on lower costs, the perceived product value shall be increased afterwards.

If the goal is reached, the company must try again by lowering costs or higher product benefits to gain an advantage, because the process starts again.

According to Gilbert and Strebel, to implement an outpacing strategy the following assumptions are essential:

- A detailed knowledge of the industry, and the ability to anticipate turning points in the development of the industry.
- A precise form of the original strategy which is based on costs or competitive advantages concerning the perceived product value.
- To reinvest the generated profits for the change in strategy in the necessary resources in order to be able to act more quickly than the competitors.

If the theoretical perceptions described are converted into practice, some issues need to be considered:

- It should be noted that not each mixture of cost leadership and differentiation is a outpacing strategy. The characteristics of an outpacing strategy is that they have a unique focus on product or process, and that additionally gained competitive advantages on one dimension cannot be “bought” by the loss of others. An example here for is that qualitative improvements can be achieved without compromising the efficiency of the processes.
- Furthermore the timing of the shift in strategy is very important. This is subjective, and a clear determination of the right time is not possible. In other words, a change of strategy is always subject to a certain risk. However, it is clear that after the standardisation-oriented production, mass-oriented production must be initiated and in the mature phase of the product life cycle, a revitalisation is imminent.
- Implementing an outpacing strategy is connected with difficulties as the requirements to the organisation of a differentiated company are often incompatible with those of a cost leader. According to Gilbert and Strebel, despite of this fact, there are companies which succeed to overcome these difficulties.[66]

[66] ref. Zein, Dynamische Wettbewerbsstrategien in technologischen Branchen, 2001, pp.64-66

5 The use of the competitor strategies in the practice

- ***Case studies/examples of airlines and expert interviews with airlines***

5.1 Lufthansa – the traditional airline (including Germanwings, Eurowings)

5.1.1 Company profile and strategy

History, business activities, organisation and strategy of Lufthansa

<u>History and business activities</u>

“Lufthansa was founded in Berlin in 1926 as a consolidated German airline. Its main aims were to develop safety of flying and open intercontinental routes. Lufthansa co-founded Iberia (Spain), Syndicato Condor (Brazil) and Eurasia Aviation Corp. (China) and held a stake in Deruluft, a German-Russian venture. In 1939 Lufthansa was one of the biggest airlines of that time, serving an extensive intra-European network and routes to South-America, to the Near and Far East. Its fleet counted about 150 aircraft. A reduced route network was maintained during the war until 1945. After WW II the company became liquidated.

In 1953 “Luftag“ was founded in Cologne, later renamed “Lufthansa“. This new German airline began operations in 1955, primarily with propeller aircraft, since 1960 with jets. Over the years a world-wide route network was growing. Today Lufthansa is one of the biggest international carriers. The Lufthansa home base is Frankfurt, the technical base Hamburg.”[67]

The global aviation company consists of the following five business segments (2014) which have a leading position in their respective markets: Passenger Airline Group, Logistics, MRO, Catering and IT Services. 540 subsidiaries and associated companies belong to the overall group.

Passenger Airline Group is the biggest operating unit within the group. Lufthansa Passenger Airlines, Austrian Airlines and SWISS are serving the worldwide market as network carriers while Germanwings offers point-to-point flights in Europe. Germanwings is the low cost carrier of the group and belongs 100% to Lufthansa. Furthermore Lufthansa has investments in the German-Turkish charter airline SunExpress and in the network carrier Brussels Airlines. Lufthansa Cargo is the freight airline of the business segment Logistics and is one of the world-wide leading providers regarding standard, express and special cargo. The other segments like Catering, MRO and IT Services offer a wide range of services for internal purposes but also to external customers. For

[67] ref. Deutsche Lufthansa AG, Information Material, Department Planning and Operations, FRA CI/P, e-mail 23.09.2015

example, Lufthansa Technik is the world-wide leading company which provides maintenance, repair and overhaul services for aircrafts (civil aviation). LSG Sky Chefs group is part of the catering segment and is also the market leading airline catering company in the world. Lufthansa Systems (until 2014) is an important provider of IT services to airline sector.[68]

The sales of the company amounted in the last business year 2014 €30.0 bn with 119,000 employees world-wide.

Organisation of Lufthansa

Deutsche Lufthansa AG is the mother company as well the biggest operating company of the overall Lufthansa Group. The business segment "Lufthansa Passenger Airlines" also belongs to this legal entity. The other business segments mentioned above (for example, Lufthansa Technik, Lufthansa Cargo, LSG Sky Chefs, etc.) are separate enterprises with their own profit and loss responsibility. The executive board of Deutsche Lufthansa AG is responsible for the overall strategy and managing of the enterprise and the supervisory board advises, appoints and supervises the executive board.[69]

The chart no. 25 shows the current organisation and responsible persons for the respective functions:[70]

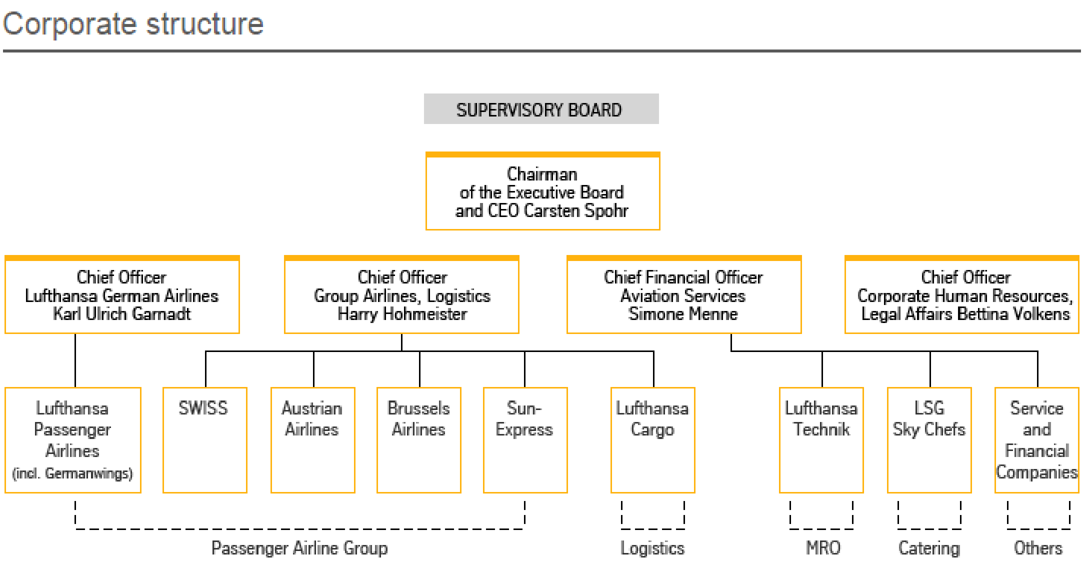

Figure 25: Deutsche Lufthansa AG - overview current organisation (organisational chart)

Strategy

Within the latest reorganisation and changes in the executive board (new responsibilities) the company has adjusted its global strategy. The following main pillars of Lufthansa´s strategy are:

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68 ref. http://www.lufthansagroup.com/en/company.html, 21.09.2015
69 ref. http://www.lufthansagroup.com/en/company/company.html, 21.09.2015
70 ref. http://investor-relations.lufthansagroup.com/en/fakten-zum-unternehmen/konzernstruktur.html, 21.09.2015

Lufthansa - main pillars of the global strategy -		
"Increase company value"	"Profitable growth and active role in shaping the aviation industry"	"Continuously increase customer satisfaction"

[71]

Figure 26: Lufthansa – main pillars of the global strategy

"The Lufthansa Group's objective is to be the first choice for customers, employees, shareholders and partners."

The initiative "7to1 – Our Way Forward": In order to achieve the above mentioned goals seven action fields have been defined and respective strategic steps implemented. The key success factors are: market position, age of the aircraft fleet and financial stability. These are all considered within the strategic steps of the initiative. "The seven areas of action" are the following:

"7to1 – Initiative" of Lufthansa - the seven areas of action -						
"Customer centricity and quality focus"	"New concepts for growth"	"Innovation and digitalisa-tion"	"Effective and lean organisa-tion"	"Culture and lead-ership"	"Value-based steering"	"Constantly improving efficiency"

Figure 27: Lufthansa - "7to1 – initiative, the seven areas of action"

""7to1 – Our Way Forward" will set the Lufthansa Group up for the challenges of the future" and "the future development of the Lufthansa Group is determined by the pillars of the company strategy, to increase company value, generate profitable growth, play an active role in shaping the aviation industry and to achieve ever higher levels of customer satisfaction."

The combination of the operating segments of Lufthansa makes the company unique in the aviation sector. Core business of the Lufthansa Group is still the network airlines segment but it has to be mentioned that the other companies outside the network airlines segment will continue to increase their sales and market share and as well their earnings. In regard to this it can be mentioned the service companies have a strong market position and remain a strategic competitive advantage for Lufthansa. "Their strong market position provides a natural hedge against the pressures exerted on the network and point-to-point airlines by the growth of their competitors."

[71] ref. http://investor-relations.lufthansagroup.com/en/fakten-zum-unternehmen/group-strategy.html, 21.09.2015

The new Eurowings (from October 2015 onwards) will be related to the low-cost market segment and will offer flights within Europe (short-haul routes) but also to destinations outside of Europe (long-haul leisure travel routes), e.g. to South East Asia or Middle East.

The following graphic summarises the previous mentioned descriptions regarding the strategy.[72]

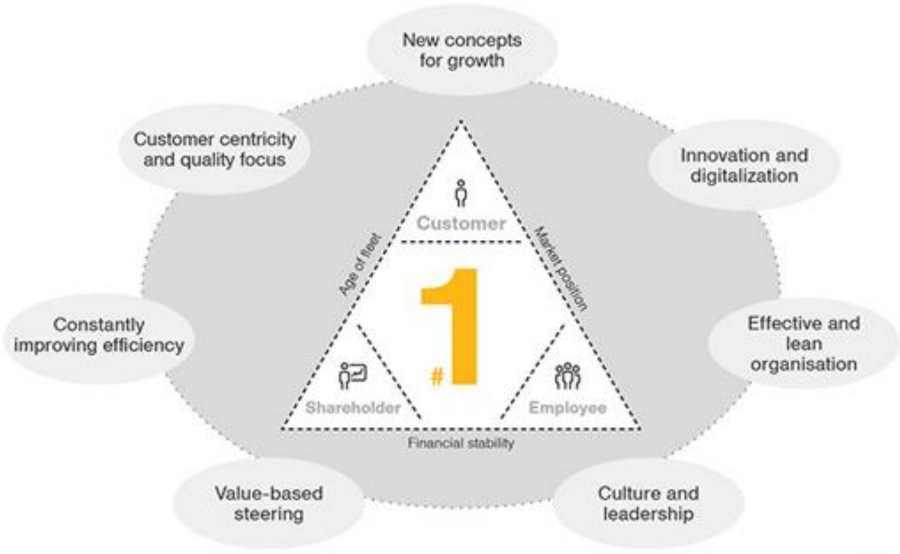

Figure 28: Lufthansa: Detailed overview "7-to1 initiative"

Descriptions and examples of measures related to the action fields of the "7to1-Initiative":

01 - Customer centricity and quality focus:

"On behalf of our customers, we are reaching for the stars on board and on the ground."

On more than 100 long-haul aircrafts the new first and business class is introduced which means that the entire long-haul fleet will have "fully flat beds" in business class. Furthermore, the implementation of the premium economy class starts as well at Lufthansa Passenger Airlines. All quality initiatives of all airlines of the group make a good progress.

02 - New concepts for growth:

"We are focused on the continuous profitable development of our Group and our companies."

As planned, the company transfers the connections outside of the Munich and Frankfurt hubs to Germanwings. The creation of the new Eurowings is based on a strategic decision

[72] ref. http://investor-relations.lufthansagroup.com/en/fakten-zum-unternehmen/group-strategy.html, 21.09.2015

in order to further develop and expand this business in a systematic way. For the loyalty / frequent flyer program “Miles & More” an own legal entity has been founded which ensures the follow up of further growth potential.

03 – Innovation and digitalisation:

“With new solutions and business models, we are making the Company viable for the future, both internally and externally.”

Lufthansa supports measures concerning innovation launching of an innovation fund which supports new solutions and technologies and the establishment of an innovation hub (Berlin), in order to intensify links with so called start-up companies (external partners).

04 – Effective and lean organisation:

“We are managing actively and lean our diverse group of companies.”

Programs to optimise administrative areas by ensuring the continuation of the same and high quality process are making progress, and the business segments are getting leaner. The processes are now more standardised, efficient and cost effective.

05 – Culture and leadership:

“Motivation and passion for aviation are what sets us apart.”

New developed unique leadership principles (“Driving Business, Leading Change, Creating Spirit, Fostering Talent and Mastering Complexity”) to manage staff and areas are used by the managers of Lufthansa across all companies of the group. This enables quicker decision-making.

06 – Value-based steering:

“With the right choice of financial performance indicators, we are making sure that our financial resources are allocated in the best way.”

The implementation of more transparent key performance indicators (EACC and EBIT) reduces the complexity of the internal and as well external reporting system.

07 – Constantly improving efficiency:

“A permanent focus on developing and implementing earning improvement potentials is a continuous management task for us.”

Initiatives like the “SCORE program” include the implementation of a lot of projects which support the stabilisation of earnings. In addition there are further measures ongoing in order to improve earnings, for example, an agreement to outsource the IT Infrastructure unit of the IT Services.[73]

5.1.2 Expert interview with Lufthansa

Within this Master Thesis I contacted the headquarters of Lufthansa in Frankfurt, Germany in order to ask if the company is willing to do an expert meeting concerning my final work. I am very thankful that Lufthansa agreed to my inquiry and so I was able to hold the interview with them.

The expert interview took place with Mr. Tobias Bunzel (Strategy Department of Lufthansa in Frankfurt/Main) via phone on 21. August 2015 in the time period from 10:30 am to 11:50 am. In the following I will give a summary of the questions and the answers of the interview. The original meeting minutes (in German) you will find in the appendix no. 1.

Hided as part may contain confidential information of Lufthansa Group.

[73] ref. Deutsche Lufthansa AG, Annual Report, 2014, pp.5,6,7,11

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Summary of the expert interview with Lufthansa

As a summary regarding the gained information out of the interview with Mr. Bunzel can be said that the business activities of low cost carriers have had a strong influence on the business of the traditional airline Lufthansa and these influences are still going on. This trend is also confirmed in the theory by various authors, see theoretical part of the work before.

Lufthansa had to reorganise the point-to-point traffic in Europe, which the company has done with Germanwings within the last few years. From October 2015 the new Eurowings will take over this direct traffic in Europe. But also long-haul flights to tourist destinations will be operated by Eurowings. As an outlook it can be mentioned that long-haul flights are

[74] ref. Deutsche Lufthansa AG, Expert Interview, Mr. Bunzel, Strategy Department FRA CE, via phone 21.08.2015

getting also more interesting to low cost carriers due to new aircrafts like the Boeing B787. This trend has to be observed carefully by the traditional airlines from my point of view.

With regard to the strategies it can be said that Lufthansa followed a strategic approach based on Porter (see chapter no. 4.1) until the liberalisation of the European Single Market in 1993. Until that time the company has lived a strategy of quality leadership.

After the European liberalisation and the start of the competition from the low cost carriers, the cost aspect has become more and more important for Lufthansa. From my perspective it can be seen that Lufthansa follows the dynamic approach (outpacing) of Gilbert and Strebel (see chapter no. 4.2). Lufthansa offered also cheap flights within Europe out of respective airports like Hamburg (beginning of the new century), and adjusted the cost structures, for example, creation of business units, increase of transparency of internal functions. (own knowledge M. Widmann)

Lufthansa lives the outpacing strategy which can be seen with the implementation of measures to improve the position of the unit costs and the creation of the low cost airline Germanwings. A further example of this is the current development of the second brand Eurowings, however the cost adjustments do not mean that Lufthansa follows the target of cost leadership as Lufthansa will remain a premium brand. For this the company implemented constant measures also and a current example is the mentioned “5Star Initiative” and Lufthansa Private Jets some years ago.

5.2 Vueling – a representative of the low cost carriers (an airline of the IAG Group)

5.2.1 Company profile and strategy

History, business activities, organisation and strategy

Vueling belongs to the IAG Group (International Airlines Group) which is one of the largest airline groups in the world, which was formed in 2011. The headquarters of the company is located in London, UK. The following airlines belong to the group: Aer Lingus, British Airways, Iberia and Vueling. IAG operates with 523 aircrafts and the number of passengers amounts to 96.9 million every year. Within Europe IAG is the third biggest airline company (related to revenue).

IAG is a Spanish registered company. The shares are traded on the Spanish and London Exchanges.[75]

<u>The history of Vueling</u>

Vueling was founded in May 2004. On 16. May 2004 Vueling`s website was completed which meant the start of the operation of the airline. On 1st July 2004, the first flight took place from Barcelona to Ibiza with an Airbus A320. Vueling start to operate with two

[75] ref. http://www.iairgroup.com/phoenix.zhtml?c=240949&p=aboutoverview, 30.09.2015

aircraft. The number of passengers reached in 2004 was 400,000 and the airline offered flights to 10 countries (and to 10 cities) within 15 routes and one operational base.

One year later the airline operated flights to 15 cities in 6 countries within 26 routes, 2 operational bases and 8 planes. The growth of the airline regarding planes, flight routes and number of passengers increased significantly within the last couple of years. Ten years later, in 2014, the number of aircrafts has reached 88 planes. Vueling carried 17.2 million passengers in 2014 and operated on 301 routes to 131 cities in 38 countries with 21 operational bases.[76] The number of total employees per 31st December 2014 amounted 2,390 with a net turnover of 1,696,781 thousand EUR. The following chart no. 29 gives an overview about the number of employees per gender and category.[77]

Categories	2014		
	Men	Women	Total
Senior Management	3	1	4
Pilots	687	24	711
Flight attendants	247	975	1,222
Operational support personnel	106	76	182
Administrative support personnel	100	131	231
Sales personnel	11	29	40
Total	**1,154**	**1,236**	**2,390**

Figure 29: Vueling - overview employees per categories (state: 31.12.2014)

Strategic milestones of Vueling

2006:
Frequent Flyer Program “Punto”: Vueling implemented its “Punto Programme” which is an air points collecting system without a card (100% online). Today 695,000 customers are using this benefit programme.

In November 2006 Vueling became part of the stock exchange as the first “new generation” airline. This time on the floor ended with the integration into the IAG group in 2013.

2008:
Launch of travel agency sales: The sales of flight tickets also via travel agencies started. Currently Vueling works in partnership with e.g. Amadeus, Sabre, Galileo and Worldsplan.

Furthermore Vueling was the first airline to launch the possibility of buying flight tickets via mobile phones in 2008.

2009:
A next significant step in the history of the airline was the merger with Click Air. With this merger, an airline with 45 planes, 300 daily flights and 112 routes was formed.

Furthermore the code-share agreement with Iberia and the option of the mobile boarding started in 2009.

[76] ref. http://www.vueling.com/en/we-are-vueling/us/infographic10, 30.09.2015
[77] ref. Vueling Airlines S.A., Annual Report, 2014, pp.3+59

2010:
Vueling had 50 planes based at the Airport of Barcelona El Prat (BCN). The airline offered 130 direct flight destinations and also over 11,000 connecting flights.

2012:
The airline was awarded by the certification of the IATA Operational Safety Audit Programm (IOASA). This audit is based on approximately 1,000 requirements and practices regarding operational safety.

Within the year 2012 the new “Excellence fare” was created, which enables customers to sit in the first row. These seats have an special space and ensure also an empty middle seat. In addition access to VIP-Lounges and priority boarding, priority check-in as well flexibility of last minute changes are granted with this exclusive booking class.

Another historic milestone was that Vueling reached 50 million passengers in June 2012.

2013:
Vueling joined the International Airlines Group (IAG). This airline group is also the mother company of British Airways and Iberia.

2014:
Vueling implemented its second hub at the airport of Rome Fiumicino. This enables Vueling to follow the expansion in Europe but also in Middle East and Africa. Vueling offered 40 direct flights from Rome and approximately 850 flight combinations. This hub enables the operation of domestic flights within Italy and also to other destinations outside of Italy. Besides Rome Fiumicino the airports of Catania, Palermo, Florence, Turin and Genova became the operational basis for some planes in Italy.

An additional strategic milestone was in 2014 when the code-share agreement was signed with British Airways. The airlines jointly operate domestic flights in Italy and Spain and also international ones. The AVIOS miles system became able to be used by the customers as well.

New Premium Customer Programme: The implementation of this programme in 2014 targets to acknowledge the loyalty of the frequent flyers of Vueling. The preconditions to become a Premium Customer are to fly 40 times within a time period of 12 months. A Premium Customer has to be member either of the “Punto” or the “Iberia Plus” frequent traveller programmes. A “Premium Customer” has benefits like priority boarding, fast track within security controls and faster response regarding incidents.

Other convenient services which Vueling implemented in the last year were: change of booked flights via mobile or webpage to previous ones which depart on the same day (free of charge) and the offer of high-speed Wi-Fi connection.[78]

The “DNA” of Vueling

“We're an airline with friendly people and the conviction that there's always room for improvement. For us, flying is a true pleasure and we're aware that paying less doesn't mean enjoying less services or comfort.

[78] ref. http://www.vueling.com/en/we-are-vueling/us/infographic10, 30.09.2015

We like to define our DNA by way of the following principles:

Efficiency

Efficiency is what drives us. At Vueling, we regard efficiency as the be-all and end-all. Focusing on doing what is truly important for our customers, doing it always, doing it better and accomplishing it with less resources is our driving force. Always, better and with less.

Nonconformism

Nonconformism is what sets us apart. We like to think that there's always room for improvement and that we have something to achieve. And why not? It's the question that makes us fly.

Friendliness

Friendliness is our philosophy. We strive to get closer to our customers by way of products that are both affordable and suitable for them. We're convinced that nothing enhances a relationship more than an open, respectful and friendly attitude. Without obstacles, without barriers, with respect.

With our feet on the ground

Keeping our feet on the ground is also part of our character, as important to us as giving wings to our rebellious side. Being realistic from the outset is the only way we know to be different, viable and competitive. We're realistic, because we want to go further."[79]

5.2.2 Expert interview with Vueling

I also contacted the headquarters (Human Resources Department) of Vueling in Barcelona, Spain in order to ask if the company is willing to do an expert meeting concerning my final work. However, the company did not answer directly to my inquiry. As I know a First Officer of Vueling I used this contact. I am very thankful that this contact person hold the interview with me.

The expert interview with Vueling has been done with a First Officer of Vueling Airlines. The interview took place in person via phone on 29. September 2015 (time period: 7:45 pm - 9:15 pm). The original meeting minutes (in English) you will find in the appendix no. 2. The answers from the interview are listed as below:

Hided as part may contain confidential information of Vueling / IAG Group.

[79] ref. http://www.vueling.com/en/we-are-vueling/us/our-dna, 07.10.2015

Hided as part may contain confidential information of Vueling / IAG Group.

Hided as part may contain confidential information of Vueling / IAG Group.

[80] Vueling Airlines S.A, Expert Interview with a First Officer (pilot), via phone 29.09.2015

Summary of the expert interview with Vueling

As a summary of the expert interview and the research I have done regarding Vueling it can be said that Vueling originally started like a typical low cost carrier back in 2004. The company expanded its business constantly within the last few years and today Vueling is a very important airline for Spain and also in the European aviation sector. Internally the airline acts like a low cost carrier. However, the airline aims to build up a quality image externally which follows a traditional airline. During the last years the airline offered more and more additional services which are not common for a typical low cost carrier model. The chance for customers to book special seats with more space, access to VIP-Lounges, additional onboard services and connecting flights are typical differentiation aspects for example. When we compare this development to the explained strategy models (chapter no. 4) Vueling now follows also the so called outpacing strategy based on Gilbert and Strebel. The airline entered into the business with a focus on cost orientation which the company still follows. However, at the time Vueling implemented more quality aspects by keeping the costs in focus. The latest significant strategic milestone was that Vueling became as a “high-quality low cost airline” an official member of the IATA organisation. This confirms that the company targets on the usage of the outpacing strategy.

5.3 Air Berlin (short additional example)

Within this Master Thesis I also planned to make an expert interview with the airline Air Berlin. I contacted the headquarters of the company in Berlin, Germany (Strategy Department). Unfortunately I did not receive a response from the airline. However, I will give a statement concerning this airline as well from my own point of view and the theoretical research which I have done. The questionnaire which I have developed within the work concerning Air Berlin can be seen in the appendix no. 3.

As mentioned in chapter no. 3.4.1 Air Berlin developed within the last few years from a low cost carrier to a full-service airline (how they define them by themselves today) but they currently operate as well as low cost carrier, charter airline and a full-service airline.[81]

This company is a further example which shows the airline is following an outpacing strategy (see chapter no. 4.2) according to Gilbert and Strebel. Starting originally as a charter airline, the company adjusted its offers more to match a traditional airline. They implemented hubs (e.g. Palma de Mallorca) and started with the single sale of tickets. “In December 2011 Air Berlin and Etihad Airways established a strategic partnership, and in the spring of 2012 Air Berlin became a full member of the global airline alliance Oneworld.”

From my point of view the airline neither follows a clear cost or differentiation strategy in line with Porter. The strategy of Air Berlin can be seen as well more like the outpacing

[81] ref. Bergmann, Fliegen – ein (Alb-)Traum?, 2015, pp.433-434

model as Air Berlin has clearly strategies in both directions (cost orientation and quality orientation).[82]

- ***Expert interviews with stakeholders - handling companies / suppliers***

Expert interviews with handling companies

In order to receive also a feedback about the current situation in the aviation sector I also did expert interviews with handling companies which are directly affected stakeholders. The focus of this Master Thesis are traditional airlines and low cost carriers. Therefore I do not mention in detail the strategies about the handling operators like I did it for Lufthansa and Vueling but some information about the strategy comes out of the interview.

In the interviews with handling operators I wanted to know how the airline business has changed for them within the last years and how they see the further development. With this topic I contacted the two handling operators Swissport and Groundforce at Barcelona El Prat Airport (BCN). In the following I will mention the questions and answers from the interviews. The original meeting minutes (Swissport in Spanish and Groundforce in English) can be seen in the attachments no. 4 and 5.

5.4 Swissport

5.4.1 Company profile

The company was founded in 1996. "Swissport International is the leading global airport and aviation service provider in terms of quality, reliability, safety, innovation and network coverage. Offering a comprehensive range of services, Swissport is able to provide an "all-inclusive" service package in addition to managing integrated collaboration models."

The products / business units of Swissport are as follows:

- Ground Handling
- Cargo Services
- Executive Aviation
- Fuelling Services
- Aircraft Maintenance
- Aviation Security
- Travel Services

[82] ref. http://www.airberlingroup.com/en/about-airberlin/history, 30.09.2015

The following chart shows the various key figures of the business year 2014.[83]

Revenue (not normalised)	CHF 3.0 billion
Countries	48
Employees	~ 60,000
Flights handled (movements)	> 3.9 million
Cargo handled (tonnes)	> 4.1 million
Warehouses	> 120
Airports served	> 270
Customers	> 700
Passengers handled (departures)	> 229 million

Figure 30: Swissport - facts and figures 2014

5.4.2 Expert interview with Swissport

The expert interview took place in with Mr. Josep Lluis Fargas (Station Manager of Swissport at Barcelona El Prat Airport, BCN). The questions have been answered from Mr. Josep Lluis Fargas directly via e-mail on 19. August 2015. The answers out of the interview are listed in the following. The original meeting minutes (in Spanish) you will find in the appendix no. 4.

Hided as part may contain confidential information of Swissport.

[83] ref. Swissport Ltd., Company Profile, 2015, p.6

Hided as part may contain confidential information of Swissport.

5.5 Groundforce

5.5.1 Company Profile

“Globalia Handling is an independent business unit of Globalia Corporation that has become a leading ground handling services provider to the sector since its establishment in 2003.

[84] ref. Swissport Spain S.A., Expert Interview with Mr. Fargas, Station Manager BCN, via e-mail 19.08.2015

The beginning of its activity dates back to the mid-nineties when AENA (via Iberhandling and Eurohandling) awarded the company handling services licenses.

Currently Globalia Handling is an established Company in the market that provides Handling, Cargo and GSE management to more than 200 worldwide customers in 13 airports of Spain and Morocco and at 14 cargo terminals in Spain, marketing its services through its brands Groundforce and Groundforce Cargo."

The number of active employees amounts to 3.500.[85]

The main services which Grounforce offers are as follows:[86]

Main services

- Passenger services
- Ramp services
- Flight operations and crew
- Ticketing
- Airport security
- Airport representation
- Vip lounge
- Load control

- Aircraft cleaning
- Ground transportation
- Administration
- Facility Management
- Training
- Consulting and technical support
- Special flights assistance
- GSE Maintenance

Figure 31: Groundforce - overview main services

5.5.2 Expert interview with Groundforce

The expert interview took place in person with Mr. Oscar Caballero (Training Department of Groundforce) on 22. September 2015 between 01:15 pm to 02:15 pm. In the following I will give a summary out of the questions and the answers of the interview. The original meeting minutes (in Spanish) you will find in the appendix no. 5.

Hided as part may contain confidential information of Groundforce.

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[85] ref. http://www.groundforce.aero/en/companyia/nosotros.html, 25.09.2015

[86] ref. Groundforce, Corporate Brochure, 2014, p.4

Hided as part may contain confidential information of Groundforce.

Hided as part may contain confidential information of Groundforce.

Summary out of the expert interviews with Swissport and Groundforce

The interviews with Swissport and Groundforce confirm that the business activities of the low cost airlines also has a strong influence on the daily business of the handling companies. The handling companies have to adjust their strategies according to the market. As both interview partners confirmed, safety and punctuality are the two most important points which every handling company has to focus on. Furthermore the fact that both companies have always to continuously reduce costs in order to be competitive, show that this strategy can be seen as well as an approach according to Gilbert and Strebel (outpacing strategy). Originally the offer of quality services (e.g. cleaning, catering, etc.) was more in focus and now the hard price competition requires that the companies have to adjust their structures (costs, resources, etc.) according to the market needs (less services like e.g. cleaning, catering required). The handling companies are following this challenge even the high quality of safety and punctuality will be always in the focus. This fact confirms that they are using the outpacing strategy (see chapter 4.2).

[87] ref. Grounforce, Globalia Handling S.A., Expert Interview with Mr. Caballero, Training Department BCN, 22.09.2015

- ***Surveys with stakeholders – flight passengers / customers***

Survey to determinate the opinion of users (flight passengers) respective the use of air transportation

"A survey within the Master Thesis "Competitive Position Analysis of Airlines: Traditional Airlines and Low Cost Carriers – Market Development, Trends and Outlooks based on the European Market" in Aviation Management at the Universitat Autònoma de Barcelona (UAB)".

5.6 Background information of the surveys

In order to obtain a customer view concerning the current market situation and also the necessary potentials which have to be improved in the future, I have done a survey with flight passengers between August and September 2015. I wanted to know which criteria are important for flight passengers when they take a flight, and how they evaluate the traditional airlines vs. low cost carriers.

Originally I intended to do the surveys directly at the Airport of Barcelona el Prat (BCN) and to ask for permission I contacted AENA with an officially inquiry letter (dated 31.07.2015). Unfortunately AENA was not able to grant me the permission to do the surveys directly within the airport (see e-mail answer from AENA dated 14.08.2015 in the appendix no. 6).

Therefore I did the interviews with colleagues of Swissport (I have worked with them during the summer as a flight dispatcher) and with friends and family members. In addition to the paper version of the questionnaire an online version has been developed (via Google). The original questionnaires in English, Spanish and German, and also some screenshots of the online version I attached to the appendix no. 7.

In total 78 people participated in the survey. From that number, 50 people filled out the written paper version and 28 persons replied online. 47.4% of the respondents were men and 52.6% women. More information concerning the sociodemographic data (e.g. age of the surveyed persons, nationality and education background) I will give under question number nine of the survey.

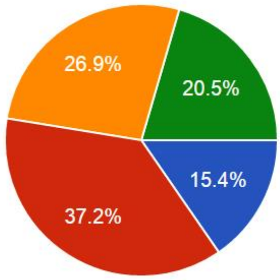
In the following I will give a detailed overview about the results out of the survey to each question and also a conclusion at the end.

5.7 Results out of the surveys

1. How often did you fly within the past years and for which reasons are you using the plane?

The respondents could choose between: not at all, 1-3 times, 4-6 times, and more than 7 times. For utilisation of the air transportation modes the following answers were possible:

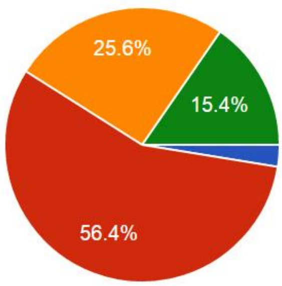
private, business, both or does not apply- in case the surveyed person did not use an aircraft within the last year.



Not at all / No lo he utilizado	**12**	15.4%
1-3 times / 1-3 veces	**29**	37.2%
4-6 times / 4-6 veces	**21**	26.9%
more than 7 times / más de 7 veces	**16**	20.5%

Figure 32: Survey passengers: Number of utilisation of plane within the last year

According to the chart no. 32 above, the majority of the people have used a plane between 1-3 times within the last year (37.2%). 26.9% have used the plane between 4-6 times, and 20.5% more than 7 times within the last year. Only 15.4% did not take a plane within the last year.



Business / Negocios	**2**	2.6%
Private / Privado	**44**	56.4%
Both / Los dos	**20**	25.6%
Does not apply / No aplica	**12**	15.4%

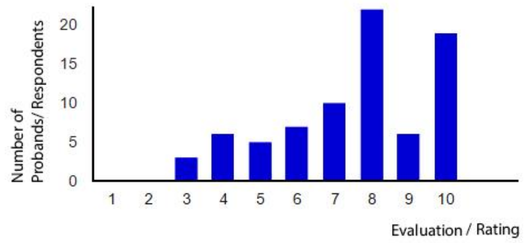
Figure 33: Survey passengers: Purpose of utilisation a plane

As the chart no. 33 shows, more than the half of the respondents used a plane for private purposes (leisure). 25% used a plane for private and business reasons, and only 2.6% only for business travels. 15% of the surveyed people gave the answer “does not apply” as they did not fly within the last year.

2. How important are the following points for you concerning a flight?

With this question I wanted to know how important various aspects are for the customers. The criteria which the respondents had to evaluate where: onboard service, safety, age of the aircraft fleet, price, flight schedule (frequencies) and reputation of the airline. The people had to mark their opinion for each criteria on a scale from 1 (not at all important) to 10 (very important). The results of the survey were as follows:

Onboard service

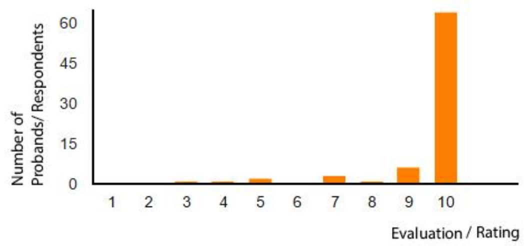


Not at all important / Nada importante: 1	**0**	0%
2	**0**	0%
3	**3**	3.8%
4	**6**	7.7%
5	**5**	6.4%
6	**7**	9%
7	**10**	12.8%
8	**22**	28.2%
9	**6**	7.7%
Very important / Muy importante: 10	**19**	24.4%

Figure 34: Survey passengers: Evaluation importance criteria onboard service

28% evaluated the criteria onboard service with an 8 as important and even for 24.4% of the respondents the onboard service is very important. For more than the 60% of the respondents onboard service is an important criteria.

Safety

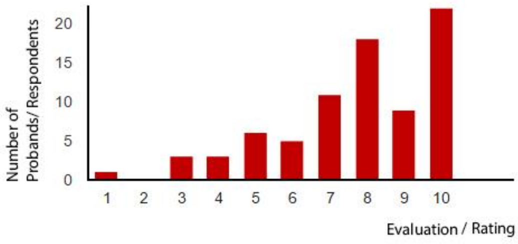


Not at all important / Nada importante: 1	**0**	0%
2	**0**	0%
3	**1**	1.3%
4	**1**	1.3%
5	**2**	2.6%
6	**0**	0%
7	**3**	3.8%
8	**1**	1.3%
9	**6**	7.7%
Very important / Muy importante: 10	**64**	82.1%

Figure 35: Survey passengers: Evaluation importance criteria safety

This result is more than clear. For 82.1% of the respondents safety is very important. Nobody evaluated this criteria with a 1 or 2 (not at all important).

Age of the aircraft fleet

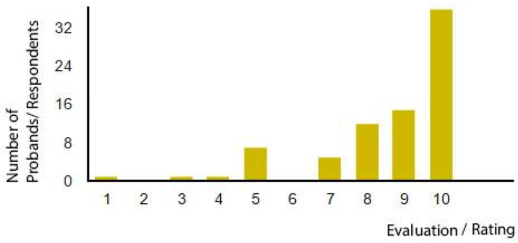


Not at all important / Nada importante: 1	**1**	1.3%
2	**0**	0%
3	**3**	3.8%
4	**3**	3.8%
5	**6**	7.7%
6	**5**	6.4%
7	**11**	14.1%
8	**18**	23.1%
9	**9**	11.5%
Very important / Muy importante: 10	**22**	28.2%

Figure 36: Survey passengers: Evaluation importance criteria age of the aircraft fleet

Also the age of the aircraft fleet is an important aspect for the flight passengers. 28.2% evaluated this criteria with very important. In total 62.8 % evaluated this criteria in the scale of 8 to 10.

Price

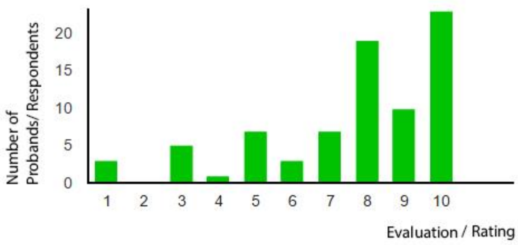


Not at all important / Nada importante: 1	**1**	1.3%
2	**0**	0%
3	**1**	1.3%
4	**1**	1.3%
5	**7**	9%
6	**0**	0%
7	**5**	6.4%
8	**12**	15.4%
9	**15**	19.2%
Very important / Muy importante: 10	**36**	46.2%

Figure 37: Survey passengers: Evaluation importance criteria price

For almost the half of the people (46.2%) the flight price is a very important aspect. On a rate from 8 to 10, 80.8% said that the flight price is important to very important.

Flight schedule (frequencies)



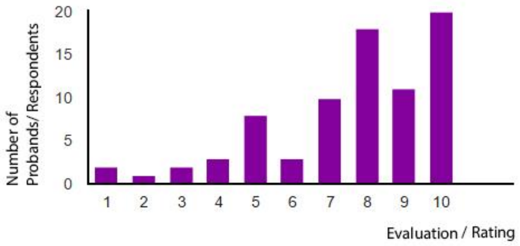
Not at all important / Nada importante: 1	**3**	3.8%
2	**0**	0%
3	**5**	6.4%
4	**1**	1.3%
5	**7**	9%
6	**3**	3.8%
7	**7**	9%
8	**19**	24.4%
9	**10**	12.8%
Very important / Muy importante: 10	**23**	29.5%

Figure 38: Survey passengers: Evaluation importance criteria flight schedule (freq.)

Generally this criteria has been evaluated as important, but as the answers show the people evaluate this criteria according to business or private purpose often differently.

(see answers to open question no 2). In total 66.7 % rated this criteria between the marks 8 to 10 as important to very important.

Reputation of the airline



Not at all important / Nada importante: 1	**2**	2.6%
2	**1**	1.3%
3	**2**	2.6%
4	**3**	3.8%
5	**8**	10.3%
6	**3**	3.8%
7	**10**	12.8%
8	**18**	23.1%
9	**11**	14.1%
Very important / Muy importante: 10	**20**	25.6%

Figure 39: Survey passengers: Evaluation importance criteria reputation of the airline

10.3% of the surveyed people evaluate the importance of the reputation of the airline as neutral (mark 5). Another 10.3% are in the opinion that this criteria is not at all important or not important (rating between 1 and 4 on the scale). However, for 62.8% of all respondents the reputation of the airline is an important to very important aspect (see marks between 8 and 10).

The background of the following open question was to receive a feedback if the above mentioned points are evaluated differently based on the purpose of the flight.

"In case you use either private (leisure) or business purpose – how do you evaluate the above mentioned points? Same? If different, what are the relevant points?"

The majority of the surveyed respondents do not make a difference if they travel for private or business, and evaluate the above mentioned points the same. In total 24 people (out of 37) gave this statement. In case the people evaluate the points differently, the most common answer was that the customers evaluate the criteria "flight schedule (frequencies)" as the most important aspect when it comes to business travels (8 times mentioned). Concerning private flights, price is very important for a flight passenger (7 times mentioned). Further comments which have been mentioned are that safety is the most important point overall and in case of business travels, access to lounges, and less waiting times are required. It has to be mentioned that from 78 respondents 47.4% (37 respondents) gave feedback and the rest did not make any comment (see chart no. 40). The detailed answers can be seen in the appendix no. 8.

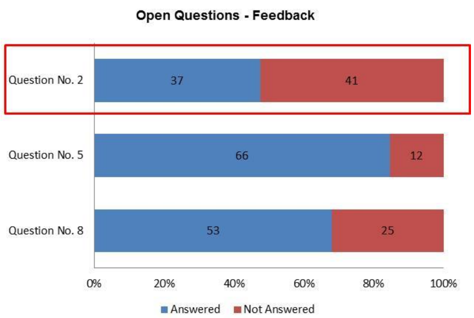
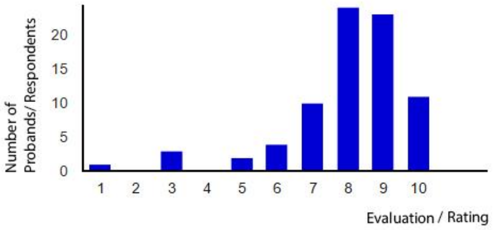


Figure 40: Survey passengers: Open question 2 - feedback

With the next question I wanted to hear how the flight passengers evaluate the same criteria in general respective the traditional airlines.

3. How do you rate traditional airlines like Lufthansa, Iberia, Emirates, etc. regarding the following points?

Good onboard service



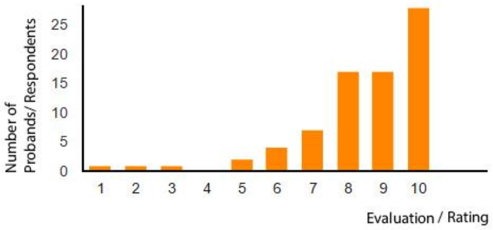
Not correct at all / No es correcto en absoluto: 1	**1**	1.3%
2	**0**	0%
3	**3**	3.8%
4	**0**	0%
5	**2**	2.6%
6	**4**	5.1%
7	**10**	12.8%
8	**24**	30.8%
9	**23**	29.5%
Correct at all / Se aplica por completo: 10	**11**	14.1%

Figure 41: Survey passengers: Traditional airlines - evaluation criteria onboard service

Exactly 74.4% rated between 8 and 10, and are in the opinion that the traditional airlines offer a good onboard service. 11 persons (14.1%) say that this criteria is fulfilled completely from the traditional airlines (correct at all).

High standard of safety

As the answers under question number one show the safety criteria is the most important aspect for the flight passengers.

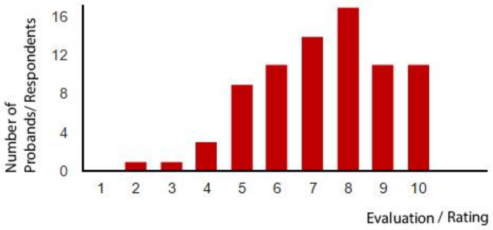


Not correct at all / No es correcto en absoluto: 1	**1**	1.3%
2	**1**	1.3%
3	**1**	1.3%
4	**0**	0%
5	**2**	2.6%
6	**4**	5.1%
7	**7**	9%
8	**17**	21.8%
9	**17**	21.8%
Correct at all / Se aplica por completo: 10	**28**	35.9%

Figure 42: Survey passengers: Traditional airlines - evaluation criteria safety

According to the answers given from the respondents 35.9% are the opinion that the traditional airlines fulfils the safety aspect completely (correct at all). 79.5% in total evaluated that criteria in the scale between 8 and 10. Only 3.9% are the opinion that the traditional airlines do not have a high standard of safety.

Young age of the aircraft fleet

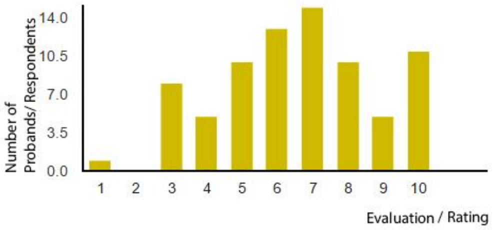


Not correct at all / No es correcto en absoluto: 1	**0**	0%
2	**1**	1.3%
3	**1**	1.3%
4	**3**	3.8%
5	**9**	11.5%
6	**11**	14.1%
7	**14**	17.9%
8	**17**	21.8%
9	**11**	14.1%
Correct at all / Se aplica por completo: 10	**11**	14.1%

Figure 43: Survey passengers: Traditional airlines - evaluation criteria age of the aircraft fleet

The people evaluated this criteria mostly on the scale between 5 and 10. Half of the people evaluated between 8 and 10 and think that the traditional airlines are operating with new aircrafts.

Good price/quality value

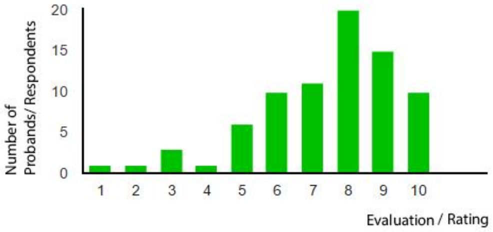


Not correct at all / No es correcto en absoluto: 1	**1**	1.3%
2	**0**	0%
3	**8**	10.3%
4	**5**	6.4%
5	**10**	12.8%
6	**13**	16.7%
7	**15**	19.2%
8	**10**	12.8%
9	**5**	6.4%
Correct at all / Se aplica por completo: 10	**11**	14.1%

Figure 44: Survey passengers: Traditional airlines - evaluation criteria price/quality value

Many people have a different opinion regarding the price/quality value of traditional airlines. The majority (19.2%) evaluated the fulfilment of this criteria with a 7. Almost half of the respondents have a neutral opinion as they evaluated this criteria from 5 to 7 on the scale. Anyhow, 33.3% of the participants see good price/quality value of the traditional airlines (rating 8 to 10 on the scale).

Good flight schedule (frequencies)

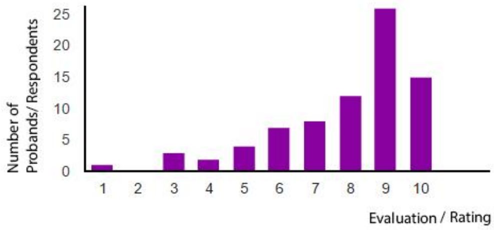


Not correct at all / No es correcto en absoluto: 1	**1**	1.3%
2	**1**	1.3%
3	**3**	3.8%
4	**1**	1.3%
5	**6**	7.7%
6	**10**	12.8%
7	**11**	14.1%
8	**20**	25.6%
9	**15**	19.2%
Correct at all / Se aplica por completo: 10	**10**	12.8%

Figure 45: Survey passengers: Traditional airlines - evaluation criteria flight schedule (freq.)

25.6% of the flight passengers agree that the legacy carriers have good flight schedules and frequencies, and gave the mark 8. In total on a scale from 8 to 10, 57.6% are of the opinion that the flight times are good to very good. Not satisfied (on a mark on the scale between 1 and 4) represent 7.7% of the persons.

Positive reputation of the airline

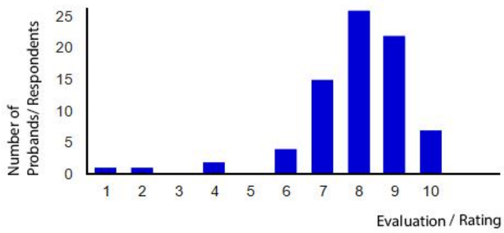


Not correct at all / No es correcto en absoluto: 1	**1**	1.3%
2	**0**	0%
3	**3**	3.8%
4	**2**	2.6%
5	**4**	5.1%
6	**7**	9%
7	**8**	10.3%
8	**12**	15.4%
9	**26**	33.3%
Correct at all / Se aplica por completo: 10	**15**	19.2%

Figure 46: Survey passengers: Traditional airlines - evaluation criteria reputation of the airline

The answers to this question are again clear. 67.9% of the people are the opinion that the traditional airlines have a positive reputation in general and rate them from 8 to 10.

4. If you have already travelled with a traditional airline like Lufthansa, Iberia, Emirates, etc. – how satisfied have you been with the overall service?



Not at all satisfied / Nada satisfecho: 1	**1**	1.3%
2	**1**	1.3%
3	**0**	0%
4	**2**	2.6%
5	**0**	0%
6	**4**	5.1%
7	**15**	19.2%
8	**26**	33.3%
9	**22**	28.2%
Fully satisfied / Totalmente satisfecho: 10	**7**	9%

Figure 47: Survey passengers: Traditional airlines - evaluation satisfaction overall service

Interesting to see is that only 9% of the 78 interviewed persons are fully satisfied with the service which the traditional airlines offer to the customers. However, the majority of the participants of the survey is satisfied with the overall service of the traditional airlines and evaluated these criteria with 8 and 9 (in total 70.5%).

The second part of the survey was related to the low cost carriers.

5. When you think about airlines like Vueling, Ryanair, Easyjet, Norwegian, Germanwings, etc. – what do you have in your mind?

To this question 84.6% (=66 persons) of the total respondents gave their feedback (see following chart no. 48).

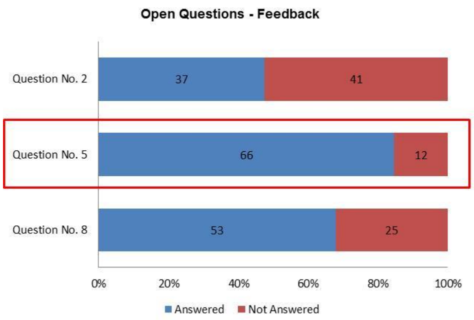


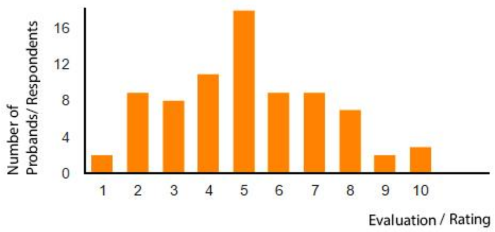
Figure 48: Survey passengers: Open question 5 - feedback

Most people (45 respondents / 68.2%) combine low “cost carriers” with cheap/good prices. But in addition to this, most of the people are in the opinion that these airlines offer less service (16 answers in this regard), and that extra charges for luggage, drinks and food etc. have to be paid (10 answers given). Furthermore some respondents are not sure if the safety aspects are fulfilled (7 answers), and that the flight schedules (times) are less convenient (4 times). Another interesting aspect is that companies cannot be compared directly with each other (Germanwings and Vueling cannot be compared with Ryanair for example) as they offer a different standard of quality according to the perception of participants. The detailed answers can be seen in the appendix no. 8.

For number 6 I asked exactly the same questions as I did for the traditional airlines, in order to be able to make a comparison statement afterwards.

6. How do you rate airlines like Vueling, Ryanair, Easyjet, Norwegian, Germanwings, etc. regarding the following points?

Good onboard service

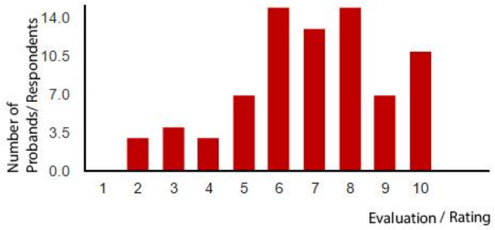


Not correct at all / No es correcto en absoluto: 1	**2**	2.6%
2	**9**	11.5%
3	**8**	10.3%
4	**11**	14.1%
5	**18**	23.1%
6	**9**	11.5%
7	**9**	11.5%
8	**7**	9%
9	**2**	2.6%
Correct at all / Se aplica por completo: 10	**3**	3.8%

Figure 49: Survey passengers: Low cost carriers - evaluation criteria onboard service

This result is completely different compared to the result of traditional airlines. The majority of people (82%) have the opinion that the onboard service of the low cost carriers is not satisfying (rate between 2 and 7 on the scale).

High standard of safety

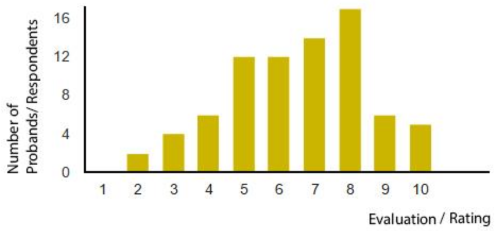


Not correct at all / No es correcto en absoluto: 1	**0**	0%
2	**3**	3.8%
3	**4**	5.1%
4	**3**	3.8%
5	**7**	9%
6	**15**	19.2%
7	**13**	16.7%
8	**15**	19.2%
9	**7**	9%
Correct at all / Se aplica por completo: 10	**11**	14.1%

Figure 50: Survey passengers: Low cost carriers - evaluation criteria safety

Compared to the ratings which the respondents gave to the traditional airlines, people`s opinion on the safety fulfilment on low cost carriers is different. 14.1% of the respondents have the opinion that the low cost carriers have a high standard of safety compared to 35.9% which rated a ten for the traditional airlines. In total 42.3% think that the safety standard of low cost carriers is good to very high (rating between 8 to 10 on the scale). This is a significant difference compared to the rating of traditional airlines in which 79.5% in total evaluated that criteria in the scale between 8 and 10.

Young age of the aircraft fleet

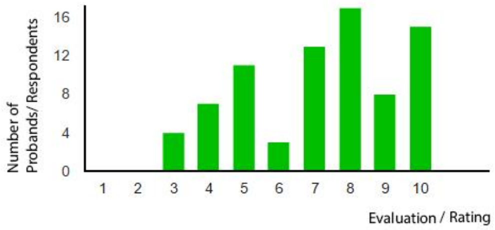


Not correct at all / No es correcto en absoluto: 1	**0**	0%
2	**2**	2.6%
3	**4**	5.1%
4	**6**	7.7%
5	**12**	15.4%
6	**12**	15.4%
7	**14**	17.9%
8	**17**	21.8%
9	**6**	7.7%
Correct at all / Se aplica por completo: 10	**5**	6.4%

Figure 51: Survey passengers: Low cost carriers - evaluation criteria age of aircraft fleet

In total 35.9% have the opinion that the low cost carriers fly with almost new aircraft (rating 8 to 10). This shows that the flight passengers see here also a difference compared to traditional airlines as 50% gave the mark 8 to 10 to the traditional airlines. But the result shows also that approximately 33% of the people have a neutral opinion. This might also be based that some flight passengers are not able to evaluate this criteria really due to less background information available. This is also similar in the evaluation result for the traditional airlines where 25.6% of the surveyed people gave the mark 5 or 6.

Good price/quality value

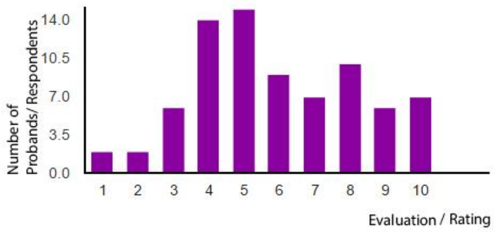


Not correct at all / No es correcto en absoluto: 1	**0**	0%
2	**0**	0%
3	**4**	5.1%
4	**7**	9%
5	**11**	14.1%
6	**3**	3.8%
7	**13**	16.7%
8	**17**	21.8%
9	**8**	10.3%
Correct at all / Se aplica por completo: 10	**15**	19.2%

Figure 52: Survey passengers: Low cost carriers - evaluation criteria price/quality value

With regards to good price/quality value of the low cost carriers, 51.3% have the opinion that this is correct to correct at all (rating 8 to 10). The same opinion concerning the traditional airlines share 33.3% of the respondents. This result shows that the customers are more satisfied with the price/quality value of the low cost carriers.

Good flight schedule (frequencies)

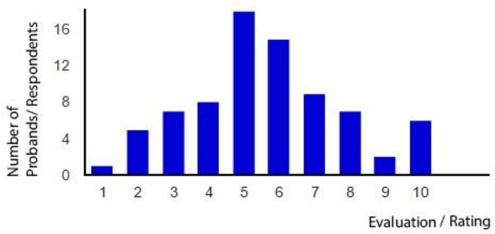


Not correct at all / No es correcto en absoluto: 1	**2**	2.6%
2	**2**	2.6%
3	**6**	7.7%
4	**14**	17.9%
5	**15**	19.2%
6	**9**	11.5%
7	**7**	9%
8	**10**	12.8%
9	**6**	7.7%
Correct at all / Se aplica por completo: 10	**7**	9%

Figure 53: Survey passengers: Low cost carriers - evaluation criteria flight schedule (freq.)

29.5% rated that the low cost carriers have good flight schedules / frequencies and rated 8 to 10, while 48.6% do not think that the flight schedules are good, giving them a rating of 4 to 6. 57% people rated the traditional airlines with good flight schedules, rating them 8 to 10. 30.8% were not satisfied with the flight schedules of the low cost carriers (on a mark on the scale between 1 and 4), compared to a result of 7.7% with the traditional airlines.

Positive reputation of the airline

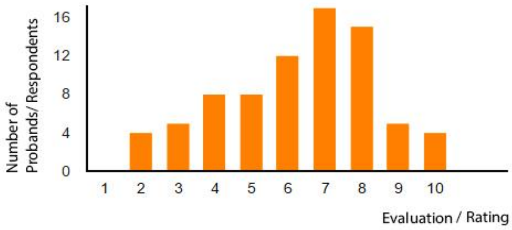


Not correct at all / No es correcto en absoluto: 1	**1**	1.3%
2	**5**	6.4%
3	**7**	9%
4	**8**	10.3%
5	**18**	23.1%
6	**15**	19.2%
7	**9**	11.5%
8	**7**	9%
9	**2**	2.6%
Correct at all / Se aplica por completo: 10	**6**	7.7%

Figure 54: Survey passengers: Low cost carriers - evaluation criteria reputation of the airline

Only 7.7% have the opinion that the low cost carriers have a positive reputation (correct at all). This is less than the half of the people compared to the opinion of traditional airlines (19.2%). In total 19.3% evaluated this criteria with 8, 9 or 10. This is a clear difference to the result of the traditional airlines where 67.9% rated from 8 to 10 that they have a positive reputation.

7. If you have already travelled with an airline like Vueling, Ryanair, Easyjet, Norwegian, Germanwings, etc. – how satisfied have you been with the overall service?



Not at all satisfied / Nada satisfecho: 1	**0**	0%
2	**4**	5.1%
3	**5**	6.4%
4	**8**	10.3%
5	**8**	10.3%
6	**12**	15.4%
7	**17**	21.8%
8	**15**	19.2%
9	**5**	6.4%
Fully satisfied / Totalmente satisfecho: 10	**4**	5.1%

Figure 55: Survey passengers: Low cost carriers - evaluation satisfaction overall service

In total 30.7% were satisfied to fully satisfied with the service when they used a low cost carrier, marking them 8 to 10. This is again more than 50% fewer people who gave this evaluation of the traditional airlines which had a total of 70.5%.

In the following open question I wanted to receive a feedback about the customer requirements when using a plane. The respondents had to mention necessary improvements which they see for the future.

8. What would you expect from future flights? Are you satisfied like it is right now or is there a necessity to improve? If you see improvements, which?

67.9% (53 persons) of the overall respondents of 78 persons gave their feedback concerning potential improvements of flying (see chart no. 56).

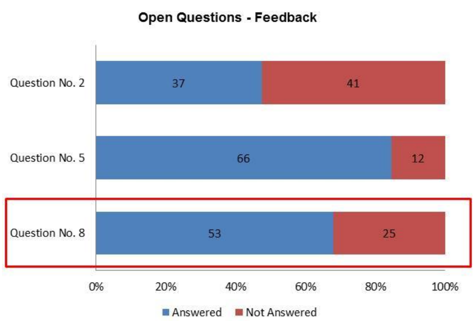
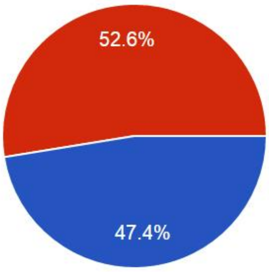


Figure 56: Survey passengers: Open question 8 - feedback

The most frequent answer was that the service has to be improved in general (19 responses). This includes not only food or drink on board, but also communication with the flight passengers. For example, in cases of delays or that the pilot communicates not only within the “welcome-speech” at the beginning of the flight. Another aspect which is also related to service is the seat comfort the airlines offer. People want better seat comfort, and there were 7 people with this opinion. Participants also mentioned the necessity to adjust the pricing system further and that the traditional airlines should decrease their flight prices based on the opinion of some respondents. Other respondents have the opinion that the pricing system has to be more transparent. Price has been mentioned in total 11 times. Safety was mentioned 7 times and this has to be kept at the same level, or increased further. These answers show that some passengers might have doubt especially in case they are flying with low cost carriers. Other improvement potentials which people wish for are: less additional fees for luggage, seat reservations, credit card payments (6 times mentioned), a higher punctuality of flights (6 times mentioned), faster check-in/boarding times (5 times mentioned), more flight destinations (5 times mentioned), better flight frequencies (3 times mentioned) and better connection flights (3 times mentioned). All answers given to this question can be seen in the appendix no. 8.

9. Sociodemographic data

Sex:



Male / Hombre	**37**	47.4%
Female / Mujer	**41**	52.6%

Figure 57: Survey passengers: Sociodemographic data - sex

From the 78 participants in the survey 37 were men (47.4%) and 41 women (52.6%).

Nationality:

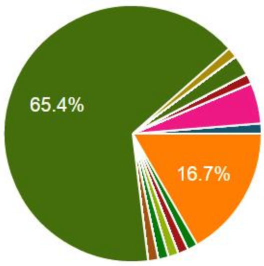


Figure 58: Survey passengers: Sociodemographic data - nationality

65.4% of the respondents were Spaniards, followed by 16.7% being German. Other respondents were from other European countries but also from America (North, Central and South America). No respondents were classed as Asian.

Year of birth:

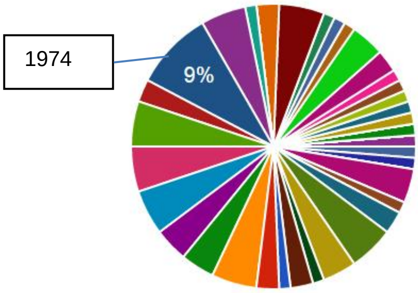


Figure 59: Survey passengers: Sociodemographic data - year of birth (age groups)

The age of the surveyed people were very heterogeneous. The majority of the respondents have been between 31 and 40 years (44.9%), followed by the age range 21 to 30 years (20.5%) and people between 41 and 50 years (15.4%).

The exact data concerning the age of the respondents can be seen in the following table:

	18-20 years	21-30 years	31-40 years	41-50 years	51-60 years	61-70 years	71-80 years
Number of respondents	2	16	35	12	11	1	1
Percentage of respondents (%)	2,6	20,5	44,9	15,4	14,1	1,3	1,3

Education:

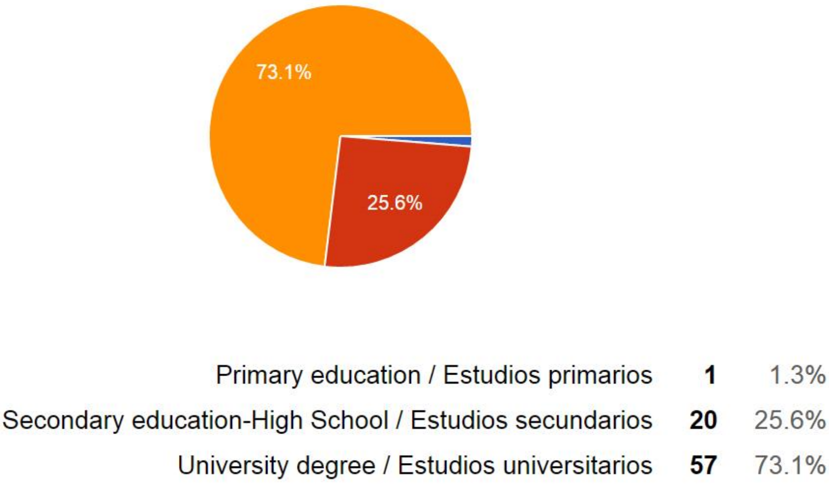


Figure 60: Survey passengers: Sociodemographic data – education level

Most of the respondents (73.1%) have a university degree or a higher education. Another 25.6% have reached the secondary school and 1.3% the primary school.

This result given are because many of the respondents were friends, family and co-workers. If AENA had given me permission to do this survey directly at the airport, the education background of the surveyed people might have been more heterogeneous as well.

5.8 Summary of the surveys

TA	VS.	LCC	Criteria
8	8	5	Onboard service
8	9	7	Safety
7	8	7	Age of the aircrafts fleet
7	9	7	Price / quality value
7	8	6	Flight schedule (frequencies)
8	8	6	Reputation of the airline
	GRP		

*Main potential aspects to be improved

GRP: General Requested Perception
TA: Traditional Airlines
LCC: Low Cost Carriers

Figure 61: Survey passengers: Total summary criteria evaluated (GRP, TA, LCC)

In the following I will give a summary of the overall survey with flight passengers:

According to question number 2, 3 and 6 I developed the above chart no. 61 which shows a summary of the evaluation results. All marks given for each criteria have been added up and divided by the number of participants of the survey. The figures have been rounded after (for example 9.39 = 9 or 6.78 = 7).

In the middle of the chart can be seen the results out of question number 2 “How important are the following points for you concerning a flight?” This means the GRP = General Requested Perception how the respondents evaluated the importance of each criteria in general. The left column of the graphic shows the results of how the people evaluated the traditional airlines (TA) for each criteria from their point of view. On the right column is the same summary for the low cost carriers (LCC).

Based on the results, it can be pointed out that the respondents see potential for improvements in the price/quality value, flight schedule (frequencies) and age of the aircraft fleet (see red marked box). Neither the traditional airlines nor the low cost carriers fulfil these criteria according to the customers needs. Within the rating scale all these criteria have been evaluated with a 7 which means satisfying (an 8 or 9 is expected for these criteria from customer side). The criteria flight schedule (frequencies) on low cost carriers, have been evaluated with a 6. This means that both airline types (traditional and low cost) have to implement measures in order to improve these aspects.

When we look at the others criteria, we see that the traditional airlines fulfil the criteria of onboard service and reputation of the airline, exactly to the customer requirements. Respondents rated safety with a 9, which according to this survey the respondents also do not see as absolutely fulfilled from the traditional airlines (the traditional airlines received an overall rating of 8). The low cost carriers received a rating of 7 in terms of safety, and therefore this result is one mark less compared to the traditional airlines.

A big gap between traditional airlines and low cost carriers show the results of the evaluation for the points “onboard service” and “reputation of the airline”. The low cost airlines received a mark of 5, while the traditional airlines received an overall mark of 8. The next gap between the two airline concepts is the “reputation of the airline”, and here the low cost carriers received a 6 compared to 8 for the traditional airlines.

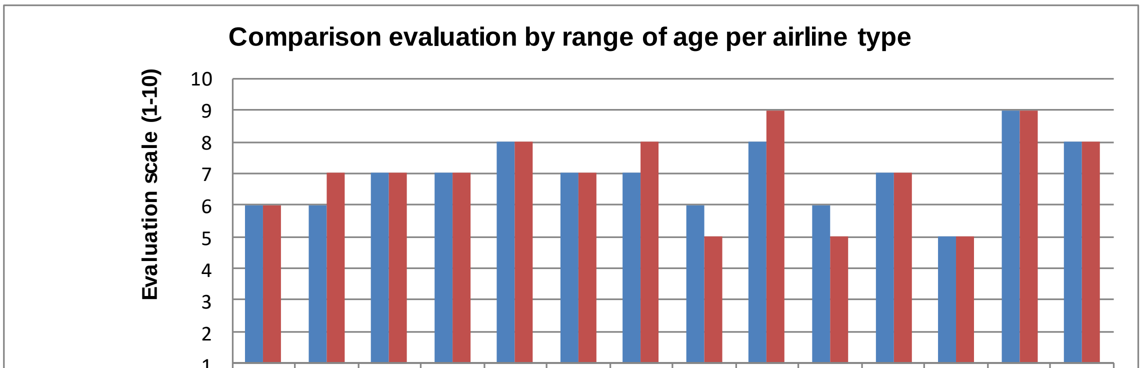
These results confirm the answers to the open questions number 2, 5 and 8. Especially the answers regarding question number 8 which shows that the respondents see the necessity to improve the offered service (mainly on the low cost carrier side). Examples given, besides the classical onboard service are more seat comfort and communication with the flight passengers, in cases of delays, and customer treatment in general.

How satisfied are the passengers concerning the respective type of airline per age group?

The following graphic includes the average results of the evaluations for the criteria which the passengers rated within question number 3 and number 6 [AE/AT (all criteria) = Average evaluation of all criteria per airline type]. All results per age group and airline type have been summed up and divided by the quantity of criteria.

Furthermore the graphic shows how the respondents evaluated the traditional airlines and the low cost carrier overall in question number 4 and 7 [OE/AT= Overall evaluation per airline type (Q4 and Q7)].

The detailed data base (table) of the following graphic can be seen in the appendix no. 9.



	TA	LCC	TA	LCC	TA	LCC	TA	LCC	TA	LCC	TA	LCC	TA	LCC
	Age: 18 - 20		Age: 21 - 30		Age: 31 - 40		Age: 41 - 50		Age: 51 -60		Age: 61 - 70		Age: 71 - 80	
AE/AT (all criteria)	6	6	7	7	8	7	7	6	8	6	7	5	9	8
OE/AT	6	7	7	7	8	7	8	5	9	5	7	5	9	8

Figure 62: Survey passengers: Total summary comparison evaluation by age group per airline type

By analysing the results we can see some variations per age group between the traditional airlines and low cost carriers, but also in between the same airline type when it comes to the overall evaluation of an airline type (means average result of all criteria vs. overall evaluation per airline type).

As mentioned above (question number 9) the participants can be divided into seven age groups. The youngest (18-20 years), and two oldest age groups (61-70 and 71-80 years) have been presented only by four persons in total and therefore the following comments are focused on the remaining age groups. 95% (74 persons) of the respondents belong to the four age groups between 21 and 60 years.

Analysis per age group comparing traditional airlines (TA) vs. low cost carriers (LCC)

The overall evaluation per airline type (OE/AT = red bars) differed per age group as follows: The group of 21-30 years (21% of 78 participants) does not see any differences between the two airline models. 7 was given in the overall evaluation. When we have a look on the age groups 31-60 (three groups, = 74% of 78 participants) we can see that these respondents evaluated the traditional airlines with a higher mark compared to low cost carriers. Especially the age group 51-60 (14% of participants) evaluated the traditional airlines 4 marks better than the low cost carriers.

The average evaluation of all criteria per airline type (AE/AT = blue bars) show in the most cases similar or very close to OE/AT (red bars). In the overall analysis by criteria the traditional airlines also receive better results.

Analysis per age group related to each single airline type

By analysing the single airline types within the four main age groups (21-30, 31-40, 41-50, 51-60) we need to compare the red and blue bars to obtain the match percentage in between the overall evaluation per airline type (OE/AT), and the average evaluation of all criteria per airline type (AE/AT).

TA: Concerning the groups 21-30 and 31-40 there are no differences between the evaluations of AE/AT compared to OE/AT. The differences can be seen in the age groups 41-50 and 51-60. These age groups evaluated the traditional airlines on “OE/AT” with 8 to 9 points, but compared to AE/AT they marked lower. With a total of 78 respondents, the match between these parameters is 71% (2/7: two variations within seven age groups). This means that the OE/AT for TA was in 71% of the cases similar to the AE/AT for all criteria.

LCC: The age groups 21-30 and 31-40 did not evaluate the AE/AT different compared to OE/AT. For both age groups the results on the scale from 1 to 10 was 7. A difference can be seen in the age groups 41-50 and 51-60. These people evaluated the OE/AT of the LCC more negative compared to the AE/AT of the LCC (mark OE/AT for the low cost carriers is 5 in the scale from 1 to 10) while the mark AE/AT of the low cost carriers for both groups is 6. Based on this data, the match of the evaluations AE/AT vs. OE/AT is 57% (3/7: three variations within the seven age groups).

From my point of view this result might be based on the fact that especially the “older” respondents have travelled more with traditional airlines in the past and appreciated their former service. Due to further unknown criteria (in addition to the criteria the respondents had to evaluate) these age groups might have additional criteria or experiences they take into account when it comes to the overall evaluation per airline type. The results confirm that these age groups are even less satisfied with the overall service of the low cost carriers compared the criteria I asked them to evaluate only.

6 Conclusion

6.1 Trends and outlook

A trend which can be seen from the survey taken by passengers, shows that they want a better quality of service, but the flight price will always be a very important criteria for them. Differences can be seen in the requirements of the customers when it comes to private or business travel. Regarding business travel people have a higher focus on flight frequencies, and that they also want the seats to be more comfortable (especially when the flights are longer). The airlines have already reacted to these customer needs. Some airlines offer more additional services – some less. For example, Germanwings and Vueling now offer the possibility to book extra comfortable seats and additional services all the way up to VIP lounge access. Ryanair also has additional services in their portfolio for example, special seat reservation, however, less compared to Germanwings or Vueling. Offering additional services alongside the flight ticket has now become a further revenue generator for airlines. As we learnt in chapter number three, Ryanair generated 24.8 % further revenue by selling additional services in 2013/2014. The usage of an internet connection is a further service which customers have requested, and some airlines already offer Wi-Fi connections as a standard service now. The use of electronic devices during take-off and landing in flight mode is now permitted. In general the internet had and has a very strong influence on the overall airline business. Smart phones and tablets changed the booking procedure, check-in and boarding procedures, and further developments in this area will surely take place. The airlines have to adapt their offers and processes according to new technologies in order to be always up-to-date. It has to be mentioned that in the service sector, airlines are adjusting their flight prices with regard to customer needs (required services). Lufthansa as a traditional airline reduced the price of the basic tariff within Europe, but started to charge additional fee in case the flight passenger wants to check-in luggage with their lowest tariff. Air Berlin also followed that trend (own knowledge out of internet research). Concerning the flight prices, the customers want to have a higher transparency. This has been mentioned several times in the surveys.

Further trends are that the low cost carriers will receive far fewer (or sometimes none at all) subventions when they are flying to regional airports (so called secondary airports). The use of regional airports has been a main part of the original business model of a low cost carrier. Due to less subventions and the fact that the customers have a tendency to want to fly to the main airports (has been confirmed also within the expert interview with Lufthansa and by the surveys with flight passengers) in future the growth of the air traffic will take place more within the main international airports as also low cost carriers like Ryanair will fly more to these airports. This means for traditional airlines like Lufthansa, even more competition in the future. In the interview with Lufthansa, the interviewee pointed out that furthermore the Gulf Carriers are now a strong competition to traditional airlines like Lufthansa – not only within long-haul traffic.

As mentioned within the expert interview with Vueling, high speed trains have become an additional competitor to airlines also, especially within short-haul destinations. This competition also has to be taken into account.

Another trend which has been mentioned (within the expert interview with Lufthansa) is that new technologies / aircraft might enable some low cost carriers to fly longer distances, and that they might enter into the long-haul business also. Norwegian is an example of an airline already doing this.

Due to the overall high competition the airlines have decreased the turnaround times and are asking for less ground handling services. When an average turnaround time in the past was approximately fifty minutes – today turnaround times of approximately thirty minutes are not uncommon. This trend has had a direct influence on handling companies and they are now under a lot of pressure to reduce service time and costs also (see results out of the expert interviews with Swissport and Groundforce). Furthermore, with these new reduced turnaround times, there is a potential for more flights to be delayed because the schedule (handling, flight preparations, boarding and disembarkment) is far tighter.

Regarding the future outlook of Strategic Alliances, I learnt from the interview with Lufthansa that such alliances are well developed and quiet complex already. Joint ventures between airlines will therefore become a higher importance in future, with deeper collaborations between several airlines. Strategic alliances between low cost carriers and traditional airlines might not happen, as the low cost carriers do not normally fulfil the preconditions of membership. Furthermore the costs of a membership are quiet high, and the business model of a low cost carrier (normally no utilisation of hubs, only point-to-point traffic) does not require the advantages of a classical strategic alliance. Selective partnerships in the low cost segment will be more in focus than memberships in strategic alliances. Strategic alliances between low cost carriers are not seen at all as geographic supplements (benefits) do not exist (information out of expert interview with Lufthansa).

6.2 Own recommendations to the future development of the airline business in Europe

Hided part. Recommendations given from author side are related to e.g.:

- Communication with PAX
- Pricing
- Product
- Digitalisation
- Supply Chain

Hided part. Recommendations given from author side are related to e.g.:
- Communication with PAX
- Pricing
- Product
- Digitalisation
- Supply Chain

6.3 Closing words

Since the liberalisation of the aviation market, flying has changed. In Europe the change started in the 1990s with the full liberalisation of the European aviation sector. Since that time, the low cost carriers started their operation in Europe. The market share of the low cost carrier in Europe was 5% in 2000. Since that time their market share increased significantly and amounts today to approximately 30%.

The cheaper flights offered by low cost carriers enabled more and more people the use of air transportation. As a very important conclusion of the work, it has to be mentioned that the traditional airlines and low cost carriers are getting more and more close to each other. A migration of the classical business models can be seen, which confirm the utilisation of the outpacing strategy in the practice (see theory of Gilbert/Strebel, chapter number 4.2). This means the airlines are not focusing anymore on either a clear quality or on a clear cost leadership strategy, according to the approach of Porter (chapter number 4.1). When we summarise the results of the expert interviews with Lufthansa and Vueling, it can be pointed out that Lufthansa focuses its measures (since the liberalisation of the European aviation market and since a few years with Germanwings, and now with Eurowings) more on cost aspects, but without losing the original quality leadership strategy. Vueling as another example, uses after a successful utilisation of the cost leadership strategy now stronger the differentiation strategy. But also Vueling does not lose their original strategy regarding costs. Both airlines which have been investigated in the practical part of the work are an indication for the outpacing strategy.

The traditional airlines which stand (originally) for premium quality airlines have to reduce their unit costs constantly in order to offer also cheaper flights to customers according to the market needs. The airlines always have to keep their cost structures under control, and offer at the same time "more quality". Only economical airlines will survive the hard competition from my point of view. The airlines have been in the past and are still very confronted with collective bargainings on the employee side. In some cases the airlines have been able to sign agreements with the employees and in some cases there are still conflicts. Also the continuous adjustment of tariff agreements with employees is of highest importance (see expert interview Lufthansa). In some cases the traditional airlines created their own low cost carrier in order to remain/be again competitive especially in the point-to-point traffic (short-haul flights). In case of creation of own low cost carriers by a traditional airline, often new tariff agreements with employees are used in order to achieve the necessary competitiveness, for example regarding salaries the airline has to pay.

Furthermore the traditional airlines are operating more and more only with one type of aircraft within short-haul flights. Due to this the traditional airlines can also reduce staff costs as each pilot can fly each aircraft and each flight attendant can also work on each plane. Besides the reduction of employee costs, the utilisation of only one (two or few) type of aircrafts leads to further synergy effects when it comes to maintenance, for example. As we can learn from the statistics of the actual low cost carrier market in Europe (chapter number three), 90% of the flight routes are only operated by one low cost carrier. This means that the direct competition in regard to flight routes in Europe is still low, which some airlines might use as a potential to increase their business in the future as well.

In general the original low cost carriers nowadays offers more quality in form of additional services like the possibility of booking special seats, food and drinks on board, priority services regarding check-in procedures and so on. However, it has to be pointed out that not each low cost carrier can be compared with each other. Ryanair has to be seen still more like a typical low cost carrier like Vueling or Germanwings. Ryanair offers additional services, too but the airlines Vueling or Germanwings even more. Also the flight prices of Vueling and Germanwings are in average higher compared to Ryanair for example. Some respondents of the passenger survey made negative comments especially regarding to Ryanair (see appendix number 8).

As the results of the survey with flight passengers show the people still differ between traditional airlines and low cost carriers and evaluate the traditional airlines in tendency better compared to the low cost carriers. Especially the older respondents can be mentioned in this regard.

But as mentioned in chapter three, the migration of the business models within the last years has also led to the fact that it is more and more difficult to clearly define a low cost carrier (expect the real low cost carriers like Ryanair and Easyjet). The migration of the business models also leads to differences (problems) concerning the assignation of the respective data in statistics. Air Berlin is counted in some statistics as low cost carrier and in some not. Therefore in some years it might be the case that a differentiation between low cost carriers and traditional airlines will become of less importance or even not necessary anymore.

7 Appendix

Appendix 1: Expert interview with Lufthansa, 21. August 2015

Lufthansa Group

Hided a part may contain confidential information of Lufthansa Group.

part of Appendix 1

Hided as part may contain confidential information of Lufthansa Group.

part of Appendix 1

Hided as part may contain confidential information of Lufthansa Group.

part of Appendix 1

Hided as part may contain confidential information of Lufthansa Group.

Appendix 2: Expert interview with Vueling, 29. September 2015

Hided as part may contain confidential information of Vueling / IAG Group.

part of Appendix 2

Hided as part may contain confidential information of Vueling / IAG Group.

Appendix 3: Expert interview with Air Berlin (was planned / did not take place)

<u>Remark:</u> Interview inquired dated 18. August 2015 but no answer received from the company. Below attachment shows the questionnaire which I have prepared concerning Air Berlin. Also I have attached the original inquiry letter which I sent to Air Berlin.

Máster Gestión Aeronáutica 2014-2015 UAB

<u>**Fragenkatalog / Experten Interview mit Airline Vertretern, z. B. Air Berlin**</u>

<u>Questions / expert interviews with airline representatives, e.g. Air Berlin</u>

****** im Rahmen der Master Thesis "Competitive Position Analysis of Airlines: Traditional Airlines and Low Cost Carriers – Market Development, Trends and Outlooks based on the European Market" in Luftfahrtmanagement an der Universitat Autònoma de Barcelona (UAB)*****

***** as part of the Master Thesis "Competitive Position Analysis of Airlines: Traditional Airlines and Low Cost Carriers – Market Development, Trends and Outlooks based on the European Market" in Aviation Management at the Universitat Autònoma de Barcelona (UAB)*****

1. Wie kommentieren Sie die folgenden Punkte hinsichtlich des Geschaeftserfolges fuer Air Berlin? → Vertriebsweg (Internet vs. Reisebuero), Flughaefen als Drehkreuze (Hubs), Allianzen, Key Account Management, Bonus Programm, Fills (onboard service)

How do you see/comment the following points regarding the overall importance for the business success of Air Berlin? → *Sales channel (internet vs. travel agency), Hub Airports, Strategic Alliances, Key Account Management, Bonus Program (Miles & More), Fills (onboard service)*

2. Wie ist die strategische Differenzierung bei der Air Berlin - Zusammenhang mit dem Thema Qualitaets- vs. Kostenfuehrerschaft (Outpacing Strategie)?

What is the strategic differentiation at Air Berlin in context with the topic quality vs. cost leadership (outpacing strategy)?

3. Die Angebote der Air Berlin gleichen sich in vielen Strecken an denen der traditionellen Airlines an (Service, Kosten, Regelungen zu Annullierungen, Flugrouten). Worin bestehen die Gruende fuer diese Angleichung?

The offers of Air Berlin to various flight destinations get more and more similar to traditional airlines (concerning service, cost, cancellations, flight routes). What are the reasons?

4. Wie hoch ist die Kapazitaetsauslastung der Flugzeuge momentan (in %)? Wie flexibel wird/kann das Thema Sitzplatzdichte gehandhabt werden?

What is the capacity utilization of aircrafts at the moment (in %)? How flexible can be the topic "seat density"?

Marcel Widmann Datum: August 2015 Seite: 1

Máster Gestión Aeronáutica 2014-2015 UAB

5. Piloten / MA (Gehalt, Arbeitszeiten, Alter, Wechsel zu anderen Unternehmen, Tarifverhandlungen und Streiks, Subventionen, etc.): Was sind die Unterschiede und Chancen zwischen Air Berlin, Niki, Belair Airlines, Etihad Airways?

Pilots / employees (salaries, working times, age, transfer/changes to other companies, collective bargaining's and strikes, subventions, etc.): What are the differences and chances between Air Berlin, Niki, Belair Airlines, Etihad Airways?

6. Air Berlin Technik: Werden grundsaetzlich alle Anfragen bedient, auch die von Low Cost Carrier?

Air Berlin Technik: Do you realize/serve in general all inquiries? As well as inquiries from Low Cost Carriers?

7. Wie wird die Konkurrenz durch Low Cost Carrier und traditionelle Airlines gesehen? Wie gravierend hat sich der Markt in den letzten 10 Jahren veraendert und wie wird der zukuenftige Trend gesehen/bewertet?

How does Air Berlin see the competition of Low Cost and traditional airlines? How significant has the market changed within the last 10 years and how do you see the future trend/outlook?

8. Strategische Allianzen (oneworld): Wie ist die kuenftige strategische Entwicklung? Was ist der Value Added fuer Air Berlin aus der strategischen Partnerschaft mit der Etihad Airways?

Strategic alliances (oneworld): What will be the future strategic development? Which is the Value Added for Air Berlin having a strategic partnership with Etihad Airways?

9. Luftverkehrsbranche allgemein und speziell fuer Air Berlin: Wie wird der Ausblick in die Zukunft gesehen (auch ggf. regionale Unterschiede)?

Aviation market in general and especially for Air Berlin: How is the future outlook (and what are eventually the regional differences)?

Marcel Widmann Datum: August 2015 Seite: 2

Addition to Appendix 3: Confirmation Letter UAB to Airlines (Air Berlin)

Universidad Autónoma de Barcelona
Escuela de Ingeniería
José Manuel Pérez de la Cruz, Profesor Asociado
Cluster de Innovación Tecnológica en Gestión Aeronáutica
josemanuel.perez@uab.es, www.uab.cat/enginyeria

Sabadell, 05.08.2015

Attn.:
Airlines
- To whom it may concern -

Expert Interview as part of a Master Thesis / Confirmation academic purpose

Dear Sir or Madam

Herewith I confirm that Mr. Marcel Widmann (German nationality) is an official student in Máster Gestión Aeronáutica at the Universidad de Autónoma de Barcelona (UAB).

Currently he is writing his final thesis with the topic *"Competitive Position Analysis of Airlines: Traditional Airlines and Low Cost Carriers – Market Development, Trends and Outlooks based on the European Market"* for which I am the academic tutor.

Within this work he intends to make a short expert interview with representatives of airlines. This information gained out of the interview is a very essential input for his work. We confirm that any information he will get from the interview we will keep strictly confidential and will have no use at all but academic purpose.

Thank you very much for granting him to do this interview which will take approximately 15-20 minutes. If you have any questions or require further information please do not hesitate to contact me directly.

Best regards

José Manuel Pérez de la Cruz

Enclosure: Questionnaire Expert Interview

UAB
Universitat Autònoma de Barcelona

Escola d'Enginyeria
José Manuel Pérez de la Cruz
Professor associat
Clúster d'Innovació Tecnològica en Gestió Aeronàutica

Carrer dels Emprius, 2
Edifici S · Campus de Sabadell · 08202 Sabadell
(Cerdanyola del Vallès) · Barcelona · Spain
T +34 93 728 77 18 · F +34 93 728 77 27
josemanuel.perez@uab.cat
www.uab.cat/enginyeria

Appendix 4: Expert interview with Swissport, 19. August 2015

Hided as part may contain confidential information of Swissport.

part of Appendix 4

Hided as part may contain confidential information of Swissport.

Appendix 5: Expert interview with Groundforce, 22. September 2015

groundforce

Hided as part may contain confidential information of Groundforce.

part of Appendix 5

Hided as part may contain confidential information of Groundforce.

Appendix 6: Questionnaires with flight passengers - inquiry to AENA regarding surveys at Barcelona El Prat Airport (BCN)

Remark: Originally I intended to do the surveys directly at the Airport of Barcelona el Prat (BCN) and to ask for permission I contacted AENA. Unfortunately AENA was not able to grant me the permission to do the surveys directly within the airport. The original inquiry letter to AENA and the answer to it I attached in the following.

Inquiry / Confirmation Letter sent to AENA:

Universidad Autónoma de Barcelona
Escuela de Ingeniería
José Manuel Pérez de la Cruz, Profesor Asociado
Cluster de Innovación Tecnológica en Gestión Aeronáutica
josemanuel.perez@uab.es, www.uab.cat/enginyeria

Sabadell, 05.08.2015

Attn.:
AENA
- Airport of Barcelona Information Office

Surveys at BCN Airport – Inquiry for permission / Confirmation academic purpose

Dear Sir or Madam

Herewith I confirm that Mr. Marcel Widmann with NIE Y3835783-H (German nationality) is an official student in Máster Gestión Aeronáutica at the Universidad de Autónoma de Barcelona (UAB).

Currently he is writing his final thesis with the topic "*Traditional Airlines and Low Cost Carriers – Market Development, Trends and Outlooks based on the European Market*" for which I am the academic tutor.

Within this work he intends to make a short survey with flight passengers and visitors at the BCN Airport. This customer view gained out of the survey is a very essential input for his work. We confirm that any information he will get from BCN Airport we will keep strictly confidential and will have no use at all but academic purpose.

Thank you very much for granting him to do this survey which will take approximately some hours within one, maximum two days. If you have any questions or require further information please do not hesitate to contact me directly.

Best regards

José Manuel Pérez de la Cruz

Enclosures: Questionnaires in English and Spanish version

UAB
Universitat Autònoma de Barcelona
Escola d'Enginyeria
José Manuel Pérez de la Cruz
Professor associat
Clúster d'Innovació Tecnològica en Gestió Aeronàutica
Carrer dels Emprius, 2
Edifici Q · Campus de Sabadell · 08202 Sabadell
(Cerdanyola del Vallès) · Barcelona · Spain
josemanuel.perez@uab.cat
www.uab.cat/enginyeria

Answer from AENA:

Von: Jariod Martínez, Esther <ejariod@aena.es>
An: 'marcel_widmann@gmx.de'
Cc: 'torrejon.plaza@terra.es'
Betreff: Máster Gestión Aeronáutica UAB / Final Thesis - inquiry permission for a survey at BCN Airport
Gesendet: vi. 14/08/2015

Buenos días Sr. Wildmann:

Primero de todo pedir disculpas por no haber recibido respuesta por nuestra parte a su petición de realización de encuestas en el aeropuerto y agradecer el interés que muestra por centrar su estudio en las compañías que operan en el Aeropuerto de Barcelona-El Prat.

Tal y como hemos comentado telefónicamente, lamento indicarle que desde hace un tiempo, no están permitidas las encuestas a pasajeros en el aeropuerto salvo las estrictamente necesarias y coordinadas por Aena. Eran numerosas las peticiones al respecto y se ha considerado que podrían incomodar al pasajero en su paso por el aeropuerto, por lo que se han prohibido.

Espero entienda esta postura.

Reciba un cordial saludo,

Esther Jariod Martinez
Dpto. Planificación Estratégica

aena

Aeropuerto de Barcelona-El Prat
Terminal T1, Dique Sur, Oficina 235
08820 El Prat de Llobregat
Barcelona
Teléfono 93 298 32 53
Fax 93 479 39 02
ejariod@aena.es
www.aena.es

Appendix 7: Survey with flight passengers - questionnaire

A) English version

Máster Gestión Aeronáutica 2014-2015

UAB

Survey to determinate the opinion of users (flight passengers) respective the use of air transportation

A survey within the Master Thesis "Competitive Position Analysis of Airlines: Traditional Airlines and Low Cost Carriers – Market Development, Trends and Outlooks based on the European Market" in Aviation Management at the Universitat Autònoma de Barcelona (UAB).

1. How often did you fly within the past year and for which reasons are you using the plane?

not at all ☐ 1-3 times☐ 4-6 times☐ more than 7 times☐

private ☐ business☐ both ☐ does not apply ☐

2. How important are the following points for you concerning a flight?

Onboard service	not at all important	1 2 3 4 5 6 7 8 9 10	very important
Safety	not at all important	1 2 3 4 5 6 7 8 9 10	very important
Age of the aircraft fleet	not at all important	1 2 3 4 5 6 7 8 9 10	very important
Price	not at all important	1 2 3 4 5 6 7 8 9 10	very important
Flight schedule (frequencies)	not at all important	1 2 3 4 5 6 7 8 9 10	very important
Reputation of the airline	not at all important	1 2 3 4 5 6 7 8 9 10	very important

In case you use either private (leisure) or business purpose – how do you evaluate the above mentioned points? Same? If different, what are the relevant points?

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3. How do you rate traditional airlines like Lufthansa, Iberia, Emirates etc. regarding the following points?

Good onboard service	not correct at all	1 2 3 4 5 6 7 8 9 10	correct at all
High standard of safety	not correct at all	1 2 3 4 5 6 7 8 9 10	correct at all
Young age of the aircraft fleet	not correct at all	1 2 3 4 5 6 7 8 9 10	correct at all
Good price/quality value	not correct at all	1 2 3 4 5 6 7 8 9 10	correct at all
Good flight schedule (frequencies)	not correct at all	1 2 3 4 5 6 7 8 9 10	correct at all
Positive reputation of the airline	not correct at all	1 2 3 4 5 6 7 8 9 10	correct at all

Marcel Widmann Date: August 2015 Page: 1

Máster Gestión Aeronáutica 2014-2015

UAB

4. If you have already travelled with a traditional airline like Lufthansa, Iberia, Emirates etc. – how satisfied have you been with the overall service?

Not at all satisfied 1 2 3 4 5 6 7 8 9 10 fully satisfied

5. When you think about airlines like Vueling, Ryanair, Easyjet, Norwegian, Germanwings, etc. – what do you have in your mind?

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____

6. How do you rate airlines like Vueling, Ryanair, Easyjet, Norwegian, Germanwings, etc. regarding the following points?

Good onboard service	not correct at all	1 2 3 4 5 6 7 8 9 10	correct at all
High standard of safety	not correct at all	1 2 3 4 5 6 7 8 9 10	correct at all
Young age of the aircraft fleet	not correct at all	1 2 3 4 5 6 7 8 9 10	correct at all
Good price/quality value	not correct at all	1 2 3 4 5 6 7 8 9 10	correct at all
Good flight schedule (frequencies)	not correct at all	1 2 3 4 5 6 7 8 9 10	correct at all
Positive reputation of the airline	not correct at all	1 2 3 4 5 6 7 8 9 10	correct at all

7. If you have already travelled with an airline like Vueling, Ryanair, Easyjet, Norwegian, Germanwings, etc. – how satisfied have you been with the overall service?

Not at all satisfied 1 2 3 4 5 6 7 8 9 10 fully satisfied

8. What would you expect from future flights? Are you satisfied like it is right now or is there a necessity to improve? If you see improvements, which?

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9. Sociodemographic data

Sex: female☐ male☐ / Year of birth: 1 9 ☐☐

nationality: ____________________

Education (degree): primary school ☐ secondary school☐ University (academic)☐

******Thank you very much for your participation in this survey!!!******

Marcel Widmann Date: August 2015 Page: 2

B) Spanish version

part of Appendix 7

Máster Gestión Aeronáutica 2014-2015

UAB

Encuesta para determinar la opinión de los usuarios (pasajeros) en el uso del transporte aéreo.

Entrevista parte de la tesis "Competitive Position Analysis of Airlines: Traditional Airlines and Low Cost Carriers – Market Development, Trends and Outlooks based on the European Market" en el Máster de Gestión Aeronáutica por la Universidad de Autónoma de Barcelona (UAB)

1. ¿Cuántas veces ha utilizado el avión en el último año y cuáles fueron los motivos para hacerlo?

no lo he utilizado ☐ 1-3 veces ☐ 4-6 veces ☐ más de 7 veces ☐

privado ☐ negocios ☐ los dos ☐ no aplica ☐

2. ¿Qué importancia le da a los siguientes puntos referentes a un vuelo?

Servicio a bordo	nada importante	1 2 3 4 5 6 7 8 9 10	muy importante
Seguridad en el avión	nada importante	1 2 3 4 5 6 7 8 9 10	muy importante
Antigüedad de la flota de aviones	nada importante	1 2 3 4 5 6 7 8 9 10	muy importante
Precio	nada importante	1 2 3 4 5 6 7 8 9 10	muy importante
Horario de los vuelos (frecuencia)	nada importante	1 2 3 4 5 6 7 8 9 10	muy importante
Reputación de la aerolínea	nada importante	1 2 3 4 5 6 7 8 9 10	muy importante

¿Las valoraciones anteriores difieren si viaja por placer o por negocios? En caso afirmativo, ¿qué puntos relevantes quiere mencionar?

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____

3. ¿Cómo evalúa las aerolíneas tradicionales, como por ejemplo, Lufthansa, Iberia, Emirates etc… en relación con los siguientes puntos?

Buen servicio a bordo	no es correcto en absoluto	1 2 3 4 5 6 7 8 9 10	se aplica por completo
Alta seguridad en el avión	no es correcto en absoluto	1 2 3 4 5 6 7 8 9 10	se aplica por completo
Nueva flota de aviones	no es correcto en absoluto	1 2 3 4 5 6 7 8 9 10	se aplica por completo
Buena calidad/precio	no es correcto en absoluto	1 2 3 4 5 6 7 8 9 10	se aplica por completo
Buenos horarios de los vuelos (frecuencia)	no es correcto en absoluto	1 2 3 4 5 6 7 8 9 10	se aplica por completo
Buena reputación de la aerolínea	no es correcto en absoluto	1 2 3 4 5 6 7 8 9 10	se aplica por completo

Marcel Widmann Fecha: Agosto 2015 Pág.: 1

Máster Gestión Aeronáutica 2014-2015

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4. ¿Si usted viaja con alguna de las aerolíneas tradicionales como por ejemplo Lufthansa, Iberia, Emirates etc… como está usted de satisfecho en general con el servicio?

Nada satisfecho 1 2 3 4 5 6 7 8 9 10 totalmente satisfecho

5. ¿Cuándo usted piensa en las aerolíneas como por ejemplo Vueling, Ryanair, Easyjet, Norwegian, Germanwings, etc… que le viene en la cabeza?

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6. ¿Cómo evalúa las aerolíneas, como por ejemplo, Vueling, Ryanair, Easyjet, Norwegian, Germanwings, etc… en relación con los siguientes puntos?

Buen servicio a bordo	no es correcto en absoluto	1 2 3 4 5 6 7 8 9 10	se aplica por completo
Alta seguridad en el avión	no es correcto en absoluto	1 2 3 4 5 6 7 8 9 10	se aplica por completo
Nueva flota de aviones	no es correcto en absoluto	1 2 3 4 5 6 7 8 9 10	se aplica por completo
Buena calidad/precio	no es correcto en absoluto	1 2 3 4 5 6 7 8 9 10	se aplica por completo
Buenos horarios de los vuelos (frecuencia)	no es correcto en absoluto	1 2 3 4 5 6 7 8 9 10	se aplica por completo
Buena reputación de la aerolínea	no es correcto en absoluto	1 2 3 4 5 6 7 8 9 10	se aplica por completo

7. ¿Si usted viaja con alguna de las aerolíneas, como por ejemplo, Vueling, Ryanair, Easyjet, Norwegian, Germanwings, etc…cómo está usted de satisfecho, en general, con el servicio?

Nada satisfecho 1 2 3 4 5 6 7 8 9 10 totalmente satisfecho

8. ¿Qué espera de los futuros vuelos? ¿Está satisfecho ahora mismo o cree que se necesita alguna mejora? Si usted cree que se necesitan favor mejoras, indíquelas.

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____

9. Datos socio-demográficos

Sexo: hombre ☐ mujer ☐ / fecha de nacimiento: 1 9☐☐ nacionalidad: ______________

Educación: estudios primarios ☐ estudios secundarios ☐ estudios universitarios ☐

*******Muchas gracias por su participación en este cuestionario!!******

Marcel Widmann Fecha: Agosto 2015 Pág.: 2

C) German version

part of Appendix 7

UAB

Umfrage „Nutzung Verkehrsmittel Flugzeug" mit Flugpassagieren

Eine Umfrage im Rahmen der Master Thesis "Competitive Position Analysis of Airlines: Traditional Airlines and Low Cost Carriers – Market Development, Trends and Outlooks based on the European Market" in Luftfahrtmanagement an der Universitat Autònoma de Barcelona (UAB)

1. Wie oft sind Sie im letzten Jahr geflogen und wofuer nutzen Sie das Flugzeug?

gar nicht ☐ 1-3 mal ☐ 4-6 mal ☐ mehr als 7 mal ☐

privat ☐ geschaeftlich ☐ beides ☐ keine Angabe

2. Wie wichtig sind Ihnen folgende Punkte bei einem Flug?

Bordservice	ueberhaupt nicht wichtig	1 2 3 4 5 6 7 8 9 10	sehr wichtig
Sicherheit	ueberhaupt nicht wichtig	1 2 3 4 5 6 7 8 9 10	sehr wichtig
Alter der Flugzeugflotte	ueberhaupt nicht wichtig	1 2 3 4 5 6 7 8 9 10	sehr wichtig
Preis	ueberhaupt nicht wichtig	1 2 3 4 5 6 7 8 9 10	sehr wichtig
Flugzeiten (Frequenzen)	ueberhaupt nicht wichtig	1 2 3 4 5 6 7 8 9 10	sehr wichtig
Image der Airline	ueberhaupt nicht wichtig	1 2 3 4 5 6 7 8 9 10	sehr wichtig

Bewerten Sie diese Punkte gleich oder unterschiedlich im Falle von Privat- oder Geschaeftsreisen? Falls unterschiedlich, welches sind die wesentlichen Punkte?

____

3. Wie beurteilen Sie traditionelle Fluggesellschaften wie z.B. Lufthansa, Iberia, Emirates bezueglich der folgenden Punkte?

gutes Bordserviceangebot	trifft ueberhaupt nicht zu	1 2 3 4 5 6 7 8 9 10	trifft voll und ganz zu
hohes Mass an Sicherheit	trifft ueberhaupt nicht zu	1 2 3 4 5 6 7 8 9 10	trifft voll und ganz zu
junges Alter der Flugzeugflotte	trifft ueberhaupt nicht zu	1 2 3 4 5 6 7 8 9 10	trifft voll und ganz zu
gutes Preis-Leistungsverhaeltnis	trifft ueberhaupt nicht zu	1 2 3 4 5 6 7 8 9 10	trifft voll und ganz zu
gute Flugzeiten (Frequenzen)	trifft ueberhaupt nicht zu	1 2 3 4 5 6 7 8 9 10	trifft voll und ganz zu
positives Image der Airline	trifft ueberhaupt nicht zu	1 2 3 4 5 6 7 8 9 10	trifft voll und ganz zu

4. Falls Sie schon einmal mit einer traditionellen Airline wie Lufthansa, Iberia, Emirates etc. geflogen sind – wie zufrieden waren Sie mit der Gesamtdienstleistung?

1 2 3 4 5 6 7 8 9 10

UAB

Ueberhaupt nicht zufrieden voll und ganz zufrieden

5. Wenn Sie an Fluggesellschaften wie z.B. Vueling, Ryanair, Easyjet, Norwegian, Germanwings, etc. denken – was geht Ihnen dabei durch den Kopf?

____

6. Wie beurteilen Sie Fluggesellschaften wie z.B. Vueling, Ryanair, Easyjet, Norwegian, Germanwings, etc. bezueglich der folgenden Punkte?

gutes Bord-Serviceangebot	trifft ueberhaupt nicht zu	1 2 3 4 5 6 7 8 9 10	trifft voll und ganz zu
hohes Mass an Sicherheit	trifft ueberhaupt nicht zu	1 2 3 4 5 6 7 8 9 10	trifft voll und ganz zu
junges Alter der Flugzeugflotte	trifft ueberhaupt nicht zu	1 2 3 4 5 6 7 8 9 10	trifft voll und ganz zu
gutes Preis-Leistungsverhaeltnis	trifft ueberhaupt nicht zu	1 2 3 4 5 6 7 8 9 10	trifft voll und ganz zu
gute Flugzeiten (Frequenzen)	trifft ueberhaupt nicht zu	1 2 3 4 5 6 7 8 9 10	trifft voll und ganz zu
positives Image der Airline	trifft ueberhaupt nicht zu	1 2 3 4 5 6 7 8 9 10	trifft voll und ganz zu

7. Falls Sie schon einmal mit einer Airline wie Vueling, Ryanair, Easyjet, Norwegian, Germanwings, etc. geflogen sind – wie zufrieden waren Sie mit der Gesamtdienstleistung?

Ueberhaupt nicht zufrieden 1 2 3 4 5 6 7 8 9 10 voll und ganz zufrieden

8. Haben Sie konkrete Wünsche für das zukünftige Fliegen? Sind Sie zufrieden wie es aktuell ist oder sehen Sie Verbesserungspotentiale bzw. notwendige Aenderungen? Falls ja, welche?

____

9. Soziodemographische Daten

Geschlecht: weiblich ☐ maennlich ☐ Geburtsjahr: 1 9 ☐☐

Nationalitaet: ____________

Bildung: Hauptschulabschluss ☐ Realschulabschluss ☐ Abitur ☐

Hochschulabschluss ☐

****Vielen Dank fuer Ihre Teilnahme an dieser Umfrage!!!****

D) Online version (English and Spanish): Screenshots questionnaire

part of Appendix 7

Remark: The following graphics are extracts (schematically only) of the overall Online version of the surveys with flight passengers. The Online version was created via Google Application.

Final Project Master Aviation Management / Proyecto Final Máster Gestión Aeronáutica 2014-2015 Universitat Autònoma de Barcelona

By/Por: Marcel Widmann (Industrial Engineer / Ingeniero Industrial), Maestrante.

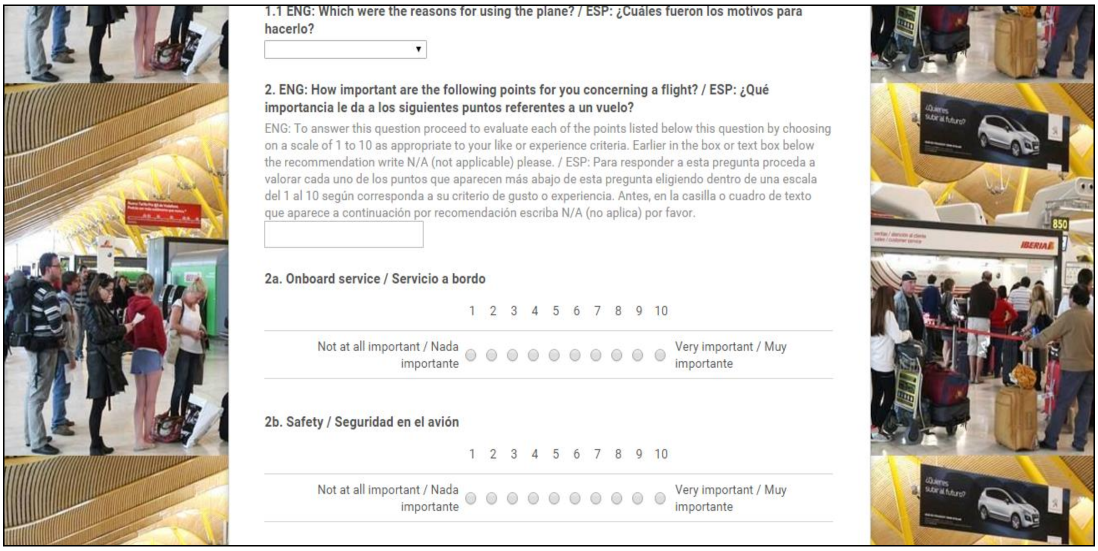
ENG: Survey to determinate the opinion of users (flight passengers) respective the use of air transportation
A survey within the Master Thesis "Competitive Position Analysis of Airlines: Traditional Airlines and Low Cost Carriers – Market Development, Trends and Outlooks based on the European Market" in Aviation Management at the Universitat Autònoma de Barcelona (UAB).

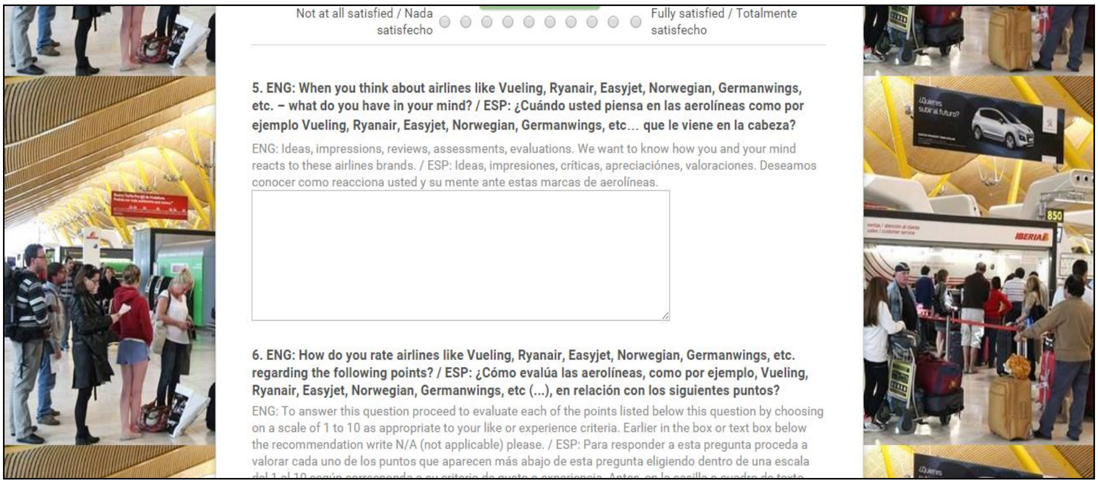
ESP: Encuesta para determinar la opinión de los usuarios (pasajeros) en el uso del transporte aéreo.
Entrevista parte de la tesis "Competitive Position Analysis of Airlines: Traditional Airlines and Low Cost Carriers – Market Development, Trends and Outlooks based on the European Market" en el Máster de Gestión Aeronáutica por la Universidad de Autónoma de Barcelona (UAB)

UAB
Universitat Autònoma de Barcelona

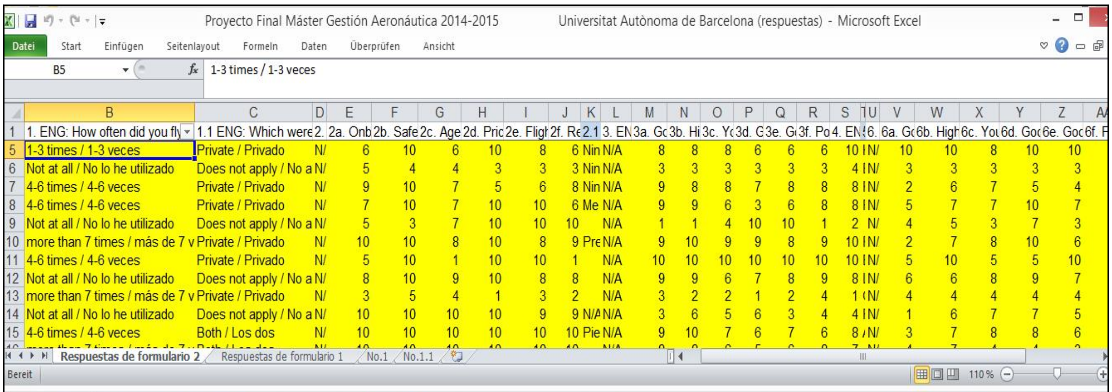
*further screenshots online questionnaire

part of Appendix 7

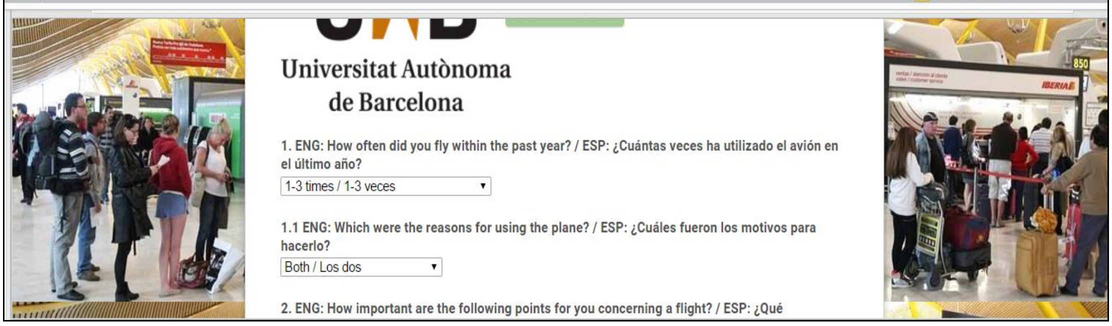




Example of the results / statistics (extract) …



	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	U	V	W	X	Y	Z	AA
1	1. ENG: How often did you fly	1.1 ENG: Which were	2.	2a. Onb	2b. Safe	2c. Age	2d. Pric	2e. Fligl	2f. Re	2.1	3. EN	3a. Gc	3b. Hi	3c. Yc	3d. G	3e. G	3f. Po	4. EN	6.	6a. Gc	6b. High	6c. You	6d. Goc	6e. Goc	6f. F
5	1-3 times / 1-3 veces	Private / Privado	N/	6	10	6	10	8	6	Nin	N/A	8	8	8	6	6	6	10	IN/	10	10	8	10	10	
6	Not at all / No lo he utilizado	Does not apply / No a	N/	5	4	4	3	3	3	Nin	N/A	3	3	3	3	3	3	4	IN/	3	3	3	3	3	
7	4-6 times / 4-6 veces	Private / Privado	N/	9	10	7	5	6	8	Nin	N/A	9	8	8	7	8	8	8	IN/	2	6	7	5	4	
8	4-6 times / 4-6 veces	Private / Privado	N/	7	10	7	10	10	6	Me	N/A	9	9	6	3	6	8	8	IN/	5	7	7	10	7	
9	Not at all / No lo he utilizado	Does not apply / No a	N/	5	3	7	10	10	10		N/A	1	1	4	10	10	1	2	N/	4	5	3	7	3	
10	more than 7 times / más de 7 v	Private / Privado	N/	10	10	8	10	8	9	Pre	N/A	9	10	9	9	8	9	10	IN/	2	7	8	10	6	
11	4-6 times / 4-6 veces	Private / Privado	N/	5	10	1	10	10	1		N/A	10	10	10	10	10	10	10	IN/	5	10	5	5	10	
12	Not at all / No lo he utilizado	Does not apply / No a	N/	8	10	9	10	8	8		N/A	9	9	6	7	8	9	8	IN/	6	6	8	9	7	
13	more than 7 times / más de 7 v	Private / Privado	N/	3	5	4	1	3	2		N/A	3	2	2	1	2	4	1	(N/	4	4	4	4	4	
14	Not at all / No lo he utilizado	Does not apply / No a	N/	10	10	10	10	9	9	N/A	N/A	3	6	5	6	3	4	4	IN/	1	6	7	7	5	
15	4-6 times / 4-6 veces	Both / Los dos	N/	10	10	10	10	10	10	Pie	N/A	9	10	7	6	7	6	8	/N/	3	7	8	8	6	



Appendix 8: Survey with flight passengers – answers open questions no. 2, 5 and 8

A) Open question no. 2:

2.1 ENG: In case you use either private (leisure) or business purpose – how do you evaluate the above mentioned points? Same? If different, what are the relevant points? / ESP: ¿Las valoraciones anteriores difieren si viaja por placer o por negocios? En caso afirmativo, ¿qué puntos relevantes quiere mencionar?

Si se trata de un viaje de ocio (turismo o vacaciones) para mí el factor "precio" es muy importante a la hora de planificar los gastos de tu estadía; y si es para un viaje de negocios el "horarios" (frecuencia de vuelos) es muy importante porque en el mundo del trabajo el tiempo equivale a productividad (dinero).
No difieren en ningún caso (da igual para ambos tipos de interés de viaje)
No, las razones son las mismas.
Ninguna razón, me da igual
Ninguno
Ninguna opinión
Me parece que da igual uno que otro motivo de viaje
Precio.
N/A
Pienso que no importa el motivo del viaje deben prevalecer al tope de 10 todos factores antes mencionados.
Para un viaje de trabajo si que le daría más importancia al horario de los vuelos.
Igual en ambos casos
NO, ME ES INDIFERENTE QUE SEA POR TRABAJO QUE POR PLACER.
No, pero si depende de la distancia, no es lo mismo vuelo de 3 horas que de 15.
In case of business more important are the flight schedules and the service (onboard and in general) - especially on long haul flights.
Nada que opinar.
Ninguna diferencia.
Ninguna diferencia.
Seguridad ante todo.
Ninguna diferencia
Si que difieren porque para vacaciones importa menos horarios pero mucho más la reputación de la aerolínea.
Ninguna diferencia.
No hay ninguna diferencia.
Ninguna diferencia.
Es igual tanto para viaje de negocio como privado. Es deseable un buen y rápido trayecto que no altere lo planificado, arribar en tiempo.
Cuando viajo por placer es importante el precio, mientras que si viajo por negocios me importa tanto los horarios de los vuelos, como la posibilidad de disponer de tarjetas de fidelización que me permitan acceder a la sala de espera de la compañía o acceder al vuelo sin hacer colas.
Private. For me is different if I fly by my own or by business were the company should pay for the trip. When I make a private flight It is important for me the price, when its paid by the company I work with, I don't ask for first or business class, but it is important at what time is the flight and I would like to fly with a reclinable seat and more space for my legs.
Gleiche Bewertung.
Kann kein Urteil abgeben, da ich nur privat fliege.
Same important points in both purposes.

1

Gleich, d.h. kein Unterschied ob privat oder beruflich unterwegs.
Wird gleich bewertet.
Definitivamente, como trabajador del sector puedo asegurar que el item más importante sin duda alguna, es la seguridad, puesto que es el máximo propósito. De hecho, si nos ceñimos al contrato (billete) y a las normativas ICAO, el transporte aéreo es simplemente transporte aéreo, ya sea de correo, mercancías o personas, siempre garantizando la máxima seguridad. No obstante todo lo que se da hoy en día, como servicio es un extra, cuyo único objetivo es comercial (promovido por un mercado competitivo). Mucha gente desconoce que los TCPs tienen como función primordial, la seguridad de los pasajeros, y NO el servicio (aunque evidentemente que se valora como un plus). La seguridad ocupa el 99,99% de nuestro training, dejando apenas escasas horas para uniformidad, protocolo y servicio a bordo. Ligado a esto, la edad de los aviones viene a ser el segundo factor más importante, puesto que el estado de la aeronave, está directamente ligado a la seguridad de su operación. Afortunadamente, en Europa, las regulaciones son muy estrictas, y los aviones no superan los ciclos recomendados por el fabricante.
For business trips most important are the flight schedules. Less important the price. For leisure safety and price are very important.
Same.
Me da igual sea cual se el motivo de viaje.
Si es por negocio no tiene importancia el precio.
No hay diferencia. Lo más importante para mí es buen servicio a bordo y seguridad en el avión.
Por placer: Precio. Por negocios: Horario para ida y vuelta el mismo día.

2

B) Open question no. 5: *part of Appendix 8*

5. ENG: When you think about airlines like Vueling, Ryanair, Easyjet, Norwegian, Germanwings, etc. – what do you have in your mind? / ESP: ¿Cuándo usted piensa en las aerolíneas como por ejemplo Vueling, Ryanair, Easyjet, Norwegian, Germanwings, etc… que le viene en la cabeza?

Varias cosas a la vez: 1. Viajes (rutas) cortos y domésticos, 2. Precio boleto aéreo más adsequible, 3. Servicios al pasajero a bordo de la aeronave mínimos, 4. Marcas de aerolíneas de bajo coste, 5. Aeronaves de tamaño medio, 6. Mucha competencia de costes, 7. El futuro del negocio de las aerolíneas.
Bajo precio de boleto aéreo, conectividad, falta de comida a bordo
Vuelos baratos y poco seguros, con pocos servicios a bordo.
He volado con Norwegian y estuve encantada
Barato… Inseguridad
Restricciones. Falta de asistencia al viajero.
Precios más baratos Mayor número de rutas En ocasiones aeropuertos alejados de las ciudades. Peor gestión de embarque/desembarque
Precio.
Buen precio y puntualidad
Low cost.
Cheap tickets and many European destinations
Flying bus, cheap trip, fare fair.
Aerolíneas de bajo coste y con destinos domésticos dentro de todo el espacio de la UE.
Low price
Mejores precios y horarios peores.
Ryanair
No entender muy bien esos precios tan baratos. Y que no se puede comparar Iberia con Emirates (Emirates tiene mil puntos más de valoración que Iberia en todo) ni Ryanair con Norwegian aunque ambas sean low cost, por ejemplo Air Asia es low cost y le da mil patadas a todas las low cost de Europa en servicio.
They are low cost airlines and you can save money that later you might use it in a Hotel in the journey of your preference and other expenses that you might have in your holidays or business travel.
-Ofertas. -Posibilitación de viajar. -Vuelos de corta duración -Turismo de ciudad. -Cobertura de un espectro necesario -Escapadas -Ahorro de servicios -Equipaje ligero
Precio económico.
Coste
Low Cost Carrier - "take a plane like a bus". Flying is nothing special anymore / less exclusive (especially within Europe). High competition, no transparent pricing.

1

Compañía de bajo coste
Compañías de bajo coste, precios competitivos, mayores inconvenientes e imprevistos.
Mayor frecuencia de vuelos y buenos precios y calidad.
Seguridad en entredicho.
Alta frecuencia de vuelos y precios competitivos
Mal servicio
Low cost
Vuelos baratos con un servicio a bordo aceptable.
Ryanair mal servicio en general. El resto muy bien en general.
Con Ryanair nunca he viajado, y espero no tener que hacerlo nunca. El resto de aerolíneas son fiables y las que más se salvan son EasyJet y Vueling.
Precio adsequible, llegada más pronta al aeropuerto
Low Cost
Precio bajo de billete relacionado con horarios pocos familiares y poco servicio a bordo que puede resultar atractivo según la finalidad del viaje.
Competitividad de precios
Precios más competitivos, posibles cancelaciones, pérdida de maleta.
Low Cost
Que son muy informales en los horarios de salida, no son puntuales.
Según comentarios, inseguridad; pero no por eso, se deja de apreciar el "low cost" y el servicio es el mismo en términos generales.
Viajes baratos a aeropuertos secundarios con escaso equipaje.
Flights for a really low price and on-time.
"Billigflieger" mit schlechtem Service, wenig Komfort und Extra-Zahlungen fuer Nebenleistungen (z.B. Essen und Getraenke an Bord).
Guenstige Preise, aber ich muss Abstriche beim Service machen. Ich muss mich auf kleinere extra Kosten einstellen (Gepaeck, Getraenke, Essen).
Schlechter Service (d.h. Essen und Trinken muss gekauft werden), nur begrenztes Gepäck und vor allem muss dieses extra bezahlt werden
Good prices on month in advance. Expensive punishes if you want to change a flight, etc.
Hohe Extrakosten fuer Gepaeck. Undurchsichtige Preise, da im Flugpreis Zuschlaege zum Teil separat zusaetzlich berechnet werden (z.B. fuer Gepaeck).
Extra Preise fuer Gepaeck, Bordservice, etc.
Billigfluege - Sicherheit garantiert?
Guenstig. Esssen nicht befriedigend.
alte Flotte, kein Service, aussenliegende Flughaefen, Mehrkosten fuer Gepaeck, hoher Kreditkartenzuschlag
Billigfluege, aeltere Flugzeuge.
Kein Interesse mit diesen Fluglinien zu fliegen. Leider jedoch gezwungen mit Germanwings, wenn bei Lufthansa gebucht wird.
Ablehnung, vor allem bei Germanwings und Ryanair.
La seguridad es igual o mayor, de hecho los informes SAFA no las castigan en absoluto (excepto RYR). La diferencia es el turn over del avión. En mi opinión personal (y por propia experiencia), una diferencia fundamental, es que en estas compañías, los TCPs, al realizar las tareas de escala que en aerolíneas de bandera, realizan otros departamentos, los TCPs están más en contacto con el avión, por lo cual es más fácil detectar discrepancias. Asimismo, por motivos de seguridad, cuanto menos personas ajenas a la tripulación entren en una aeronave, mejor, por lo que resumiendo: creo que la gran diferencia es que las aerolíneas ahora

2

*part 2 regarding open question no. 5

part of Appendix 8

mencionadas tienen un modelo de negocio más masificado, pero eso no merma su seguridad en absoluto. De hecho, como sus aviones hacen más ciclos por año, suelen tener una renovación más elevada.
Supuestamente billetes más baratos.
inseguridad, retrasos, overbooking
Que es muy barato.
I use them only for short distance fights. And it is okay for me.
There are 3 groups: 1. traditional airlines, 2. middle classs like Vueling, Germanwings, Air Berlin, Transavia and 3. Easyjet, Ryanair, Norwegian, etc.
Bajos precios pero vuelos con retardos e imprevistos
Económico y poca comodidad.
Low Cost
Aviones incómodos. Servicios mínimos.
Coste más económico. Horarios más incómodos. Inseguridad en horarios, embarque, equipaje.
Bajo coste.
Inseguridad.
Buen precio.
Low Cost
Low Cost, precio, frecuencia, sin comida a bordo, vuelo directo desde Barcelona
Low Cost y económico.
Low Cost.

3

C) Open question no. 8: *part of Appendix 8*

8. ENG: What would you expect from future flights? Are you satisfied like it is right now or is there a necessity to improve? If you see improvements, which? / ESP: ¿Qué espera de los futuros vuelos? ¿Está satisfecho ahora mismo o cree que se necesita alguna mejora? Si usted cree que se necesitan mejoras, favor indíquelas.

1. Conexiones con otros destinos de larga distancia, por ejemplo Latinoamérica, 2. La posibilidad que tú puedas planificar tu viaje con una oferta de vuelos con servicios integrados de hoteles, coches, restaurantes, etc, a costes competitivos, 3. Un plan de fidelización que no sea el típico y común plan de millas.
Refrigerio a bordo, eliminar el servicio de ventas a bordo, mejorar el trato de los sobrecargos con respecto a los pasajeros, volar hacia aeropuertos principales (no periféricos).
Se necesita reducir los precios o más ofertas, así como volver a dar el servicio de catering a bordo.
Seguridad y precio.
Tiempo de espera en los embarques y desembarques menor al actual.
Cada vez las aerolíneas son más restrictivas con las dimensiones y peso del equipaje y hay que pagar por facturar cuando antes era gratis. Se debería poder elegir asiento de forma gratuita.
Precios más baratos y mayor oferta de destinos.
Suelo viajar con Vueling y esta es la excepción, pero Ryanair y Easyjet me dan miedo, prefiero no volar con estas aerolíneas, cuanto a las demás no puedo opinar porque nunca he volado con ninguna de ellas.
Que tengan mejor servicio de atención al cliente y el trato del personal de vuelo, más comodidad y más distancia entre asientos y que no cobren por la elección de asientos desde el momento de la reserva.
Mejorar precios y frecuencias
En viajes low cost al menos dar bebidas. En iberia mejor servicio ya que es deplorable y mejor catering. Emirates un 10 en todo, atención, servicio, comida, incidencias, todo. Lufthansa mejorar la comida también y los asientos. Mejoras en los enlaces de vuelos a Asia. Mejoras en el chek-in si no lo haces online.
-en general considero satisfactorio el servicio, independientemente de la necesidad de las actualizaciones periódicas necesarias, y de la corrección de errores que inevitablemente se producen: embarque, facturación de equipaje, retrasos, etcétera.
Lo que tienen que mejorar son las conexiones con Asia y Africa.
Mejorar precios
Flying should be more exclusive again. The flight prices should be more transparent, e.g. minimum price and maximum price for a flight route should be communicated to the customer. E.g. MUC-BCN-MUC: min. price = 150 EUR / max. price = 250 EUR.
Transparencia de coste pasaje séreo que aparezca reflejado en el billete.
Mejorar la comunicación y el servicio para con los pasajeros.
Buen servicio y puntualidad.
Las "prime airlines" necesitan precios más competitivos. En cambio, las "Low Cost Companies" necesitan mejorar el trato con el pasajero (algunas de ellas).
Seguridad lo primero, puntualidad y prefiero el buen trato al pasajero antes que ten servicio tipo comidas, etc.
Que se respete el espacio y demandas de los pasajeros al igual que una mejora de las bonificaciones en caso de retraso o cancelación del vuelo.
Más seguridad
Esperaría que el bajo coste fuera desapareciendo y que las mejores aerolíneas "Low Cost" se convirtieran en líneas aéreas tradicionales. Se necesitaría que una Low Cost como Ryanair desaparezca.
Mayor variedad de destinos
Está todo bien, ninguna mejoría es necesaria.
Establecer precios regulares de billetes (transparencia) para que las empresas Handling puedan cobrar lo suficiente y así poder prestar buenos servicios.
Más rutas aéreas desde Barcelona
Cumplir con la hora de salida.
Lo importante es que el pasajero disfrute de un vuelo tranquilo y para esto es necesaria una muy buena y efectiva comunicación con él, por ello es aconsejable que el piloto comandante tenga mayor control de la comunicación.
Si hablamos de placer, como suelo fijarme más en el precio acabo en compañías no tradicionales. Estas compañías deberían mejorar la comodidad del pasajero en el avión. Las compañías tradicionales deberían mejorar los precios de los billetes (¿quizás más caros debido a la infraestructura?). Si hablamos de negocios, como los billetes los paga la empresa, sí que se agradecería disponer de ventajas como la sala de espera o el acceder al vuelo sin hacer colas. Estas ventajas deberían estar asociadas al tipo de billete (particular/business), que no al precio. Ya que por precio, la compañía no nos permite disponer de billetes más caros.
I think that flying is in a good situation right now. The entrance of low cost airlines to the market I think it was positive thing. Now more people can fly and travel to other cities/countries that before was impossible. For sure this has been also good for countries so now they can have more tourists that will spend money in their cities/countries helping the development of them.
Mehr Sitz-Komfort auch in der Economy-Class. Fraglich, ob Segment "Economy Plus" sich durchsetzen kann. Konsequent waere dann die Abschaffung der Business Class (4 Klassen sind m.E. zu viel).
Check-in Wartezeiten koennten verringert werden.
Wünsche mir weniger Beschränkungen beim Gepäck.
Low cost companies really increase their flights in terms of frequencies, number of planes, less prices... Hope that safety will not decrease because this for me the main thing.
Bin zufrieden. D.h. keine Verbesserungsvorschlaege.
Piloten besser und oefter untersuchen.
Sicherheitsfaktor muss erhoeht werden.
WIFI und Filmangebote sollten angeboten werden.
Freundlicheres Personal. Trifft nur bei Emirates zu, da Lufthansa nicht mehr das ist, wwas es mal war. Unverschaehmtheit von Lufthansa, Billigflieger Germanwings einzusetzen. Ich wuerde mir wuenschen, dass der Flugkapitaen nicht nur begruesst, sondern auch etwas waehrend des Fluges sagt. Z.B."Wir fliegen ueber..."
Sin duda alguna, en el futuro las aerolíneas de nueva generación, diversificarán su mercado y podrán empezar a competir en el long haul, como ya es el caso de Norwegian Long Haul. Las innovaciones que los fabricantes desarrollan, no solo permiten, que esta idea sea cada día más probable, sino que cambian constantemente el mercado aeronáutico, permitiendo mejores radios, operativas más rápidas, mayor seguridad y mayor confort.
Algunas veces pasa que se retrasan mucho los vuelos. Sería mejor que fueran avisado o lo mejoran.
Skilled staff, which I find more by the established airlines. Safety standards, high professional skills of the staff plus more comfort - more space better onboard service.

*part 2 regarding open question no. 8

part of Appendix 8

More room for the passenger, not like a sardine buck or I have to go by boat or bus...
Menos retrasos y más destinos
Más puntualidad en las salidas. Mejores precios. Mejor combinación/escalas.
Mejorar el servicio y puntualidad en el horario.
Mejor control del equipaje y embarques más rápidos.
Seguridad
Que sean más económicos y mejorar servicio en las aerolíneas baratas.
Espacio en el avión.
Más vuelos directo desde Barcelona. Horarios de ida y vuelta el mismo desde Barcelona.
Más frecuencia, menos escalas y menos tasas a pagar.

3

Appendix 9: Detailed overview evaluation per age group concerning criteria per airline (average) and overall (per airline type)

Overview evaluation per age group concerning criteria per airline (average) and overall (per airline type)

	Age group 1995-1997 (18-20 years)			Age group 1985-1994 (21-30 years)			Age group 1975-1984 (31-40 years)			Age group 1965-1974 (41-50 years)			Age group 1955-1964 (51-60 years)			Age group 1945-1954 (61-70 years)			Age group 1935-1944 (71-80 years)		
Criteria…	GRP	TA	LCC	GRP	TA	LCC	GRP	TA	LCC	GRP	TA	LCC	GRP	TA	LCC	GRP	TA	LCC	GRP	TA	LCC
Onboard service	6	4	6	7	7	5	8	8	5	8	8	5	7	8	5	10	7	5	9	9	9
Safety	7	6	8	9	8	7	10	9	7	10	8	6	10	9	7	10	7	5	9	8	8
Age of the aircraft fleet	9	7	7	7	7	7	8	7	7	7	7	6	9	8	6	10	7	5	9	9	8
Price	10	10	9	8	6	8	9	7	7	8	6	7	8	7	6	10	7	5	8	8	8
Flight schedule (frequencies)	6	6	2	7	7	6	8	8	7	7	7	5	8	7	5	10	7	5	8	9	6
Reputation of the airline	8	3	6	6	7	6	8	8	6	8	8	5	8	8	5	10	7	5	8	9	8
Results…																					
Average Evalution of criteria to be evaluated per airline type (AE/AT)	8	6	6	7	7	7	9	8	7	8	7	6	8	8	6	10	7	5	9	9	8
Overall Evaluation per airline type (OE/AT)		6	7		7	7		8	7		8	5		9	5		7	5		9	8

Legend:
***GRP = General Requested Perception
***AE/AT = Average Evaluation of all criteria per airline type
***OE/AT = Overall Evaluation per airline type
***TA = Traditional airline
***LCC = Low Cost Carrier

Remark:
Some respondents might not have red the questions in detail/might have not understood correctly. Therefore especially the results of the youngest age group from my point of view have to be seen with a question mark.

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Signature of the Author

Herewith I confirm that I have established this work. Literature (books, studies, statistics, internet sources, company information, etc.) which has been used within the work I signed clearly.

Signed:
Marcel Widmann (NIA: 1398294)
Barcelona, 19th October 2015

Address Spain:

Marcel Widmann
Carrer de les Moles, nº6, 4º
08002 Barcelona / Spain

Address Germany:

Marcel Widmann
Hofstaettstr. 31
75449 Wurmberg (Stuttgart) / Germany

For further information you can get in contact with me via:

marcel_widmann@gmx.de

https://www.linkedin.com/in/marcel-widmann-939749b9

ABSTRACT / EXTRACTO / RESUM

ENG: The present study examines the European aviation market regarding the development of the past few years and the current situation. The focus of this work is traditional airlines and low cost carriers. Within the project expert interviews with airlines (Lufthansa and Vueling) and handling companies (Swissport and Groundforce) were executed in order to underpin the theoretical part of the work and to derive trends in the sector. A further component of the work was a survey with flight passengers. The target of this was to receive customer views concerning the actual situation and to represent customer needs.

ESP: El presente estudio repasa el desarrollo del mercado europeo de la aviación desde los últimos años hasta la actualidad. Basa su enfoque en las compañías aéreas tradicionales y las de bajo coste. Fueron necesarias entrevistas a representantes de compañías aéreas (Lufthansa y Vueling) y empresas de handling (Swissport y Groundforce) con el fin de sustentar la parte teórica de la investigación y para obtener las tendencias en el sector de cara al futuro. Así mismo, fue necesario conocer a través de encuestas, la opinión de los pasajeros con el objetivo de determinar la situación actual vista por ellos y para conocer las necesidades del cliente.

CAT: El present estudi repassa el desenvolupament del mercat europeu de l'aviació des dels últims anys fins a l'actualitat. Basa el seu enfocament en les companyies aèries tradicionals i les de baix cost. Van ser necessàries entrevistes a representants de companyies aèries (Lufthansa i Vueling) i empreses de handling (Swissport i Groundforce) amb la finalitat de sustentar la part teòrica de la recerca i per obtenir les tendències en el sector de cara al futur. Així mateix, va ser necessari conèixer a través d'enquestes, l'opinió dels passatgers amb l'objectiu de determinar la situació actual vista per ells i per conèixer les necessitats del client.