

# HETEROGENEITY OF BUSINESS PASSENGERS IN AIR TRANSPORT

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*Summary: The paper investigates heterogeneity of business travelers who travel with different types of air carriers. According to a set of studies published abroad it is researched that there are business passengers traveling with full-service carriers or with low-cost carriers. Our research objective is to identify the differences between those two segments evaluating their different attributes. Besides, the paper provides the related literature review. It designs a suitable data collection and evaluation methodology for conducting the research in the Czech Republic where such studies are missing.*

*Key words: Business travelers, full-service airlines, low-cost airlines*

## INTRODUCTION

The European air transport market has changed dramatically during the last 20 years. The most important factor that caused changes in this industry is a deregulation process which was commenced in 1978 in the USA and in the late 80's in the European Union. The market liberalization enabled to eliminate barriers which did not allow other carriers to enter the industry. After the deregulation, airlines were able to determine air ticket prices by themselves, as well as routes and their frequencies.

Newly established airlines took advantage of the market changes. They developed a new low-cost business model with several distinctive characteristics (1):

- Limited range of services and their unbundling: the base fare generally includes transfer from one point to another; other services are subject to charge (e. g. on-board meal, checked baggage, in some cases cabin baggage, airport check-in etc.);
- Factors of production maximization: low-cost airlines keep their aircraft turn-around times as short as possible (usually 20-30 min) because they do not carry any cargo goods, their planes are cleaned only once a day etc.,
- Fleet unification lowering maintenance and crew training costs,
- High share of ancillary revenues (thanks to e. g. baggage fees etc.),
- Single class configuration of aircraft simplifying booking and passenger handling,
- No paper air tickets: all bookings are made electronically.

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There are also several other characteristics of low-cost carriers (2):

- Focus on point-to-point traffic: low-cost carriers usually do not offer transfer flights,
- Use of secondary airports with lower charges and operation,
- One-way fare per flight,
- No frequent flyer programs offered.

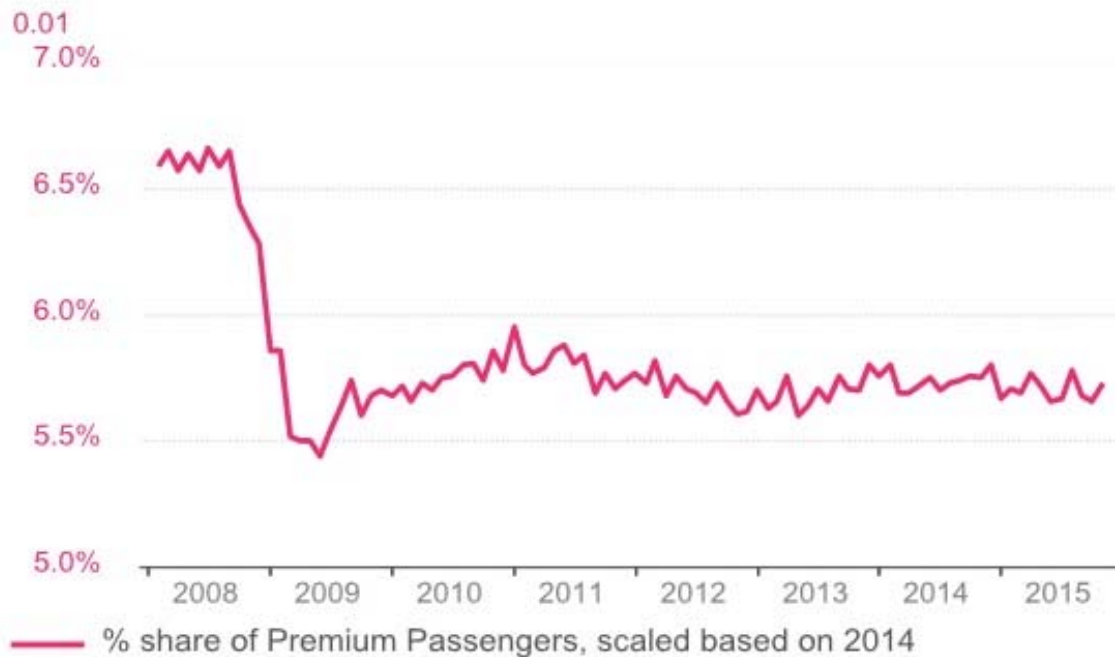
Business passengers are very important segment for air carriers because they travel more often than leisure passengers. Even low-cost airlines are aware of this potential and try to attract business travelers which is proved by several studies mentioned in the literature review chapter. IATA (International Air Transport Association) publishes statistical data which show declining trend of premium passengers in air transport. Fig. 1 illustrates that in 2008 the share of premium passengers dipped as a result of the global financial crisis. In the following years, the share did not increase. (3)

With the assumption of premium passengers being mostly business passengers, which was confirmed in a study conducted in the USA (4), it is possible to say that business passengers started using economy class for their traveling.

## **1. LITERATURE REVIEW**

When low-cost carriers (LCCs) started to operate, they concentrated mostly at leisure and VFR (visit friends and relatives) passengers. Nowadays the market is characterized with different situation since this type of air carrier targets business passengers. This presumption is based e. g. on a study from the USA which was conducted in 2011. Authors of this research investigated a development of business passengers' share by different airline types. They discovered that after 2007 full-service carriers (FSCs) lost the share of business passengers and at the same time an American LCC Southwest Airlines monitored a rising trend of business travelers' share. (5)

## Premium Passengers as % of Total



Source: IATA

Fig. 1 – Share of Premium Passengers in Air Transport

It is expected that business and leisure passengers have different characteristics. A study (6) of Spanish researchers provides related results of the distinction between these two passenger segments. The results empirically prove that there are significant differences regarding category of hotel (in case of business travelers is higher), length of stay (shorter) and activities undertaken at destination (fewer). The study respondents evaluated five factors (price, proximity of airport, length of flight, flight quality and waiting time) but none of the characteristics proved significant differences between the two segments.

There are only a few studies investigating the heterogeneity of business travelers in air transport. One of them is a study conducted by Mason (7) who used the stated preference in his research. The study objective was to identify the propensity of business travelers to use low cost airlines in case of short haul flights. Stated preference methodology was used to assess trade-offs between different product characteristics. Mason created several hypothetical scenarios including the following variables: price, frequent flyer programs, in-flight comfort and flight frequency. The survey took place at two London airports (Luton and Stansted). It showed that 67.5% of respondents had traveled with LCCs before for either business or leisure purpose. Besides, the survey results show that the business passengers working for large companies were less sensitive to price and other attributes were more important for this segment compared to employees of small or medium sized companies.

The different scenarios in the Mason's study were evaluated by respondents on a ten-point scale. The first scenario offered a business class type of service worth £200 and a low-cost service worth £100. The second option was more attractive for employees of small companies and less attractive for passengers working in large companies. In the second

scenario, respondents were choosing between two daily frequencies for £100 and five frequencies for £150. The second option was more attractive for bigger companies. The third example offered two daily frequencies with low-cost service worth £100 and five daily frequencies in business class worth £150. The second option was more attractive for employees of bigger companies. In the last scenario respondents had to choose between the following options: air ticket worth £100 without any frequent flyer scheme and ticket worth £125 with a frequent flyer program. The second option was not attractive for passengers working for companies with less than 100 employees. (7)

There is another survey conducted by Mason (8) focusing on short haul business passengers who use LCCs and FSCs. The data collection was held at two airports: London-Heathrow and London-Luton. The latter airport is mostly used by LCCs whilst London-Heathrow is typical for full service operators. The study results prove the respondents from Heathrow airport are mostly employees working for large companies whilst business passengers departing from Luton are employed by smaller companies. Mason used a chi-squared test revealing no significant differences between those two segments. The respondents were asked to evaluate seven attributes of air transport on a ten-point scale and ANOVA significance level was used. It showed there was not such a big difference between business passengers traveling with LCCs and FSCs. This result may establish the idea that business travelers flying with LCCs use FSCs and vice versa. The only attribute showing difference between those two segments is price being more important for LCC travelers.

Another research study (9) proves market segmentation of business travelers in air transport. The data were collected via interviews at Rio de Janeiro airport. The research shows that the LCC business passengers are younger and are employed by smaller companies. Contrary, FSC users are typical for well-defined travel policy in their companies. Similarly to the previous study, the respondents had to evaluate 11 attributes of air transport during the interviews. The results bring different results than the Mason's research because according to the Brazilian study those two segments differ significantly. The most important factors for FSC travelers are (in given order): punctuality, frequency, flexibility of ticket emissions, price, mileage programs, in-flight service and VIP lounges. For the LCC passengers, the most important attributes are punctuality, price, flexibility of ticket emissions, frequency, mileage programs, in-flight service and VIP lounges, respectively.

Another study investigating heterogeneity of air transport business passengers is geographically scoped from South Africa. Its authors deal with determinants of business travelers' choice of airline type. Its respondents evaluated 11 attributes on a five-point scale. The results reveal that business passengers evaluate some attributes differently. The biggest difference is in assessing the following factors: frequent flyer programs, frequency of flights, on-board meal, airport lounges, business class option and seat selection. The research shows there are attributes which are important for both groups of business passengers in a similar way, e. g. seat comfort, in-flight entertainment, high cancellation charges, price and payment method. In conclusion it is possible to say that there are differences between LCC and FSC business passengers but they are not that big compared to the Brazilian study. (10)

It is necessary to mention that the studies above are outdated and were conducted in countries which have different market characteristics from the CEE region that has no similar study.

## **2. RESEARCH QUESTIONS AND OBJECTIVES**

Based on the literature review we set the objectives of our research:

- to find the key determinants affecting the choice of airline type by business passengers (FSCs or LCCs),
- to reveal the heterogeneity of business travelers,
- to propose strategy for both types of air carriers based on the survey data.

The research questions are following:

1. Based on what determinants do business passengers make a decision of the selection of air carrier type?
2. To what extent do business travelers working for small and medium sized companies use LCCs for their business trips?
3. What are the typical characteristics of business passengers traveling with LCCs and FSCs and what are their differences?

## **3. DATA COLLECTION**

The primary data collection will be made via a questionnaire consisting of closed-ended questions except for a question providing a name of the air carrier. The questionnaire includes several questions on the respondent's age, length of stay, travel time, accommodation type, company size etc.

The study results will provide information about the heterogeneity of both business passenger groups. It will be possible to verify if there are two different segments of business travelers in air transport. Besides, the questionnaire includes a list of 18 attributes of air transport traveling which are evaluated by respondents on a five-point Likert type scale:

- 1 – not important,
- 2 – quite important,
- 3 – important,
- 4 – very important,
- 5 – very important.

The list of factors will help to reveal the most important determinants of LCCs and FSCs selection by business passengers and if there are any differences between these two segments. The list of attributes was compiled from the research studies mentioned in the literature review chapter and other factors that were selected based on interviews with managers of different companies in the Czech Republic were also added. The selection of factors is adjusted to the local market conditions. Tab. 1 shows the list of factors included in the questionnaire. The table shows the sources from which the factors were selected. If there

is no resource provided it means that the attribute came from the personal interviews with managers.

Tab. 1 – List of factors in the questionnaire

Factor	Evangelho (9)	Mason (8)	Martínez-García (6)	Fourie (10)
Punctuality	✓	✓		
Flight frequency/Schedule	✓	✓		
Price	✓	✓	✓	✓
Ticket emission flexibility	✓	✓		
In-flight service	✓	✓		✓
Frequent Flyer Programs	✓	✓		✓
Business Lounge/VIP	✓	✓		✓
Easiness through check-in	✓			
Proximity of airport (from the city center)			✓	
Seat comfort (seat pitch etc.)				✓
Seat selection availability				
Cancellation charges				✓
Business class option				✓
Method of payment				✓
Possibility to change time of departure free of charge				
Possibility to define custom time of departure				
Complementary services (e.g. special taxi service, accommodation)				
Accessibility of airport (public transport, taxi...)				

Source: cited studies, authors

The questionnaire was designed as a web-based in Quanda marketing software in both Czech and English version. The questionnaire distribution is being held at the airports in Prague and Bratislava in the area between check-in and passport control. The authors were not allowed to enter to the transit area by the airport operator due to strict security conditions. At the airport, passengers are approached randomly and asked if they are traveling for business purpose. In case of a positive answer they receive a business card with a brief information on our project including the researchers' contacts and an URL link to the web-based questionnaire. The link is printed on the business card both in an explicit way and as a QR code which redirects respondents to the desired web page which is much more convenient than typing the whole URL link into the web browser. Respondents can fill in the

questionnaire while waiting for the departure in a lounge. This specific questionnaire distribution was applied in several studies: (11), (12).

The questionnaire has been already tested on a small sample. So far we have received about 20 filled questionnaires which represents about 6% response rate. The low number of filled questionnaires is caused by lack of business passengers' time. Many of them arrive at the airport on time just to go through the passport and security control and to board the plane, unlike e. g. leisure passengers who usually arrive with a time reserve. Some of business passengers refuse to take part in the research which should be respected.

#### **4. METHODOLOGY OF DATA EVALUATION**

The collected data will be evaluated by calculation of each factor's mean score using PASW statistics 18 software. According to the average values it will be possible to reveal if there is a distinction between business passengers using LCCs and FSCs. We assume that the samples are normally distributed, independent of each other and have the same variance. This supposition allows us to use the simple test for equality of means. The same methodology was used e. g. in Evangelho's study (9). The method can be formally captured as follows:

$$H_0: \mu_{FS} - \mu_{LC} = 0 \quad (1)$$

$$H_0: \mu_{FS} - \mu_{LC} \neq 0 \quad (2)$$

#### **CONCLUSION**

The paper provided literature review and proposed methodology for air transport business passengers' heterogeneity determination. After collecting the data from business passengers at the airports in Prague and Bratislava the conducted research will be able to reveal to what extent do business travelers using LCCs and FSCs from the CEE region differ from each other. If the results show a huge distinction between these two segments it could be interpreted that LCCs attracted a new segment of business travelers who had not traveled with LCCs before. In case that there was not such a big difference between those two groups it would imply that LCCs drive away business passengers from FSCs.

Anticipated results shall prove some differences between those two segments. We suppose that business passengers flying with FSCs will place higher emphasis on in-flight service, frequent flier programs, VIP lounges, seat comfort and business class option. On the other hand, there is an assumption that there are several attributes which will be evaluated similarly by both passenger groups, e. g. punctuality, seat selection availability or method of payment. We also suppose that LCC users will be more likely employees working for small and medium sized companies.

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