



Improving the Quality of Services Provided by Air Transport Companies

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Abstract. Increasing quality of service and experience of air transport by setting up a catering company that focuses on the food provided on business jets flights. The sector of business jet flights has a favourable perspective in the future as it is estimated to have the value of \$ 21.76 billion by 2027. Every year, the quality of catering services in aviation is growing. The difference between the expectations of the passenger, i.e., the consumer, and what he receives as a result may be due to a lack of understanding of what the customer expects from the service. The purpose of the study was to analyse the current market status of private air carriers performing business flights and to assess their needs and their satisfaction with the existing air catering services. By means of a questionnaire, the business jet companies responded to a series of questions that were aimed at determining whether there is a need for a new-founded company concentrated on air catering. It was found out that the demand is higher than the offer, therefore a new-founded company could be successful at the market of business jet flight provided they comply with the needs of business jet companies that are now unfulfilled. This article proposes what a new-founded company should include in their business plan, and it establishes three possible scenarios for the company's future (pessimistic, realistic, optimistic).

Keywords: Quality of experience · Customer expectations · Onboard services · Flight catering

1 Introduction

Air transport is one of the most important ways of achieving economic growth and development. Among other, air transport integrates domestic markets with the global market, in other words, it interconnects the national, regional, and international levels. The aviation industry creates trade, promotes employment and tourism [1].

The International Civil Aviation Organization (ICAO) states on its website that commercial aircrafts make approximately 400 scheduled departures per hour. Passengers and cargo are transported by air carriers, which have a major impact on the social and economic development and sustainability of individual destinations [2].

Airlines are constantly in competition, fighting for customers. Air catering and on-board services in most cases serve to distinguish one airline from another. We can include catering in the parts of the marketing strategy, which aim to attract new and keep old clients [3].

The difference between a business jet and other airlines is that on board of private flights, catering occurs almost on every flight and more solvent passengers are fond of the superior taste and quality of food or drink.

The aim of this article is to find out, through market analysis, whether private air carriers that provide business jet flights would welcome a new airline catering company and whether this new-founded company would be able to successfully enter the airline catering market.

2 Theoretical Part

Services provided on board aircraft, in particular air catering, play a key role in the perception of the travel experience from the passenger's point of view [4]. Nowadays, airline catering is certainly widely used as airline catering companies produce more than a billion meals per year [5]. There are several factors that can influence airline catering and one of those was also the penetration of low-cost airlines into the air transport market. They had a significant impact on traditional airlines [6] and consequently on airline catering.

2.1 Catering and Business Jet

Business travel can be defined as a trip made for the employee's work purpose, which is paid for by the employer, not by the employee. Business trips are related to business activities and the buyer is natural or legal person. In this flight category the main demands of the passengers are made upon fast and comfortable flight. Another demand is a high frequency of flights and the ability to change the flight plan in a short time. Business passengers represent a significantly higher profit for the airline than "leisure" passengers. The business passenger deals with the overall quality, experience in the process of checking in his flight, the services provided on board the aircraft, food and drinks, the comfort of the seats, entertainment, and adherence to the time schedule. Passengers in this class fly regularly and can therefore objectively evaluate and compare the services of different airlines [7].

Private jets are mostly privately owned by large corporations or high-net-worth individual. There is also the possibility on the market to order a one-off aircraft transport from companies that focus on such transport. This type of service is called "Air Taxi". Only a small number of people are transported in this type of transport. Arrival and departure are not scheduled and often the request to make such a flight comes in a short time. Passenger requirements are unique, and always met exactly according to the client's expectations, meaning what the client orders, he will receive. When eating, it is usually the case that the client requests a specific meal (for example from his favourite restaurant), which is then served on board the plane [8].

2.2 COVID-19 Pandemic and its Impact on Inflight Catering Market

Nowadays, the current topic is the infectious disease caused by the coronavirus SARS-CoV-2. The disease first appeared in December 2019. No one expected the world to slow down and have a monumental impact on both the people and the economy. The gastronomy industry and tourism suffered the biggest losses. With the measures against Covid-19 also came the closures of individual countries borders, so-called lockdown. Air traffic in Europe has fallen rapidly. According to the European Commission, only 40% of flights took place compared to the years before Covid-19 [9, 15].

However, a look at the past confirms that the aviation industry is a very unstable industry. It is not only airlines which are under constant pressure due to intense competition, increasing passenger numbers, and a constant need to monitor their costs, but they are also going through turbulences caused by government regulations and the health of individual countries' economies.

Air catering is always affected by current events in the world. For example, in 2002, the SARS-CoV epidemic broke out, affecting the serving of food on board. Airlines like Qatar Airways, Emirates, Singapore Airlines switched from metal cutlery to plastic, and staff who encountered food (even flight attendants who only heated and served food) had to use latex gloves [10].

SARS virus, like other viruses, is easily transmitted from person to person and the advantage of plastic cutlery is that it can be disposed after use. After the epidemic, several airlines returned to metal cutlery. In 2010, concerns were expressed about air carriers from Australia and New Zealand since plastic cutlery was used repeatedly on international flights, ten to thirty times. The companies objected that the cutlery is being sterilized and washed and justified that it permits them to save costs, protect the environment [11].

Unlike the SARS epidemic, the Covid-19 pandemic has hit the world and dealt a heavy blow to air traffic. The pandemic has prevented airlines from operating flights, many employees have lost their jobs and most airlines are now facing bankruptcy or seeking state aid.

Although these events may seem to slow progress in the aviation industry, the opposite is true. Quite several airlines continue to invest in new technologies and innovations and to implement quality management in their companies. Product quality is key for most airlines. Based on this information, it is possible that the aviation industry has shown much more effort, initiative, and enthusiasm for innovation than any other transport sector. As air transport is the primary mode of transport on long and cross-continental routes, it also has a direct impact on international tourism. Airlines are constantly striving to reduce ticket prices by reducing costs. In other words, airlines get rid of additional services such as meals and focus only on the main service, namely, to transfer a passenger from point A to point B for the lowest possible ticket price. The basis for gaining a competitive advantage is to control the prices and determine the lowest at the most optimal costs. Other incentives for customers are also used in a competitive environment. Many companies consider their customer satisfaction very important [12].

Despite the situation associated with the Covid-19 pandemic, the airline catering market has grown (see Fig. 1). The forecast estimates that the global aviation catering market will be \$ 21.76 billion by 2027 [13].

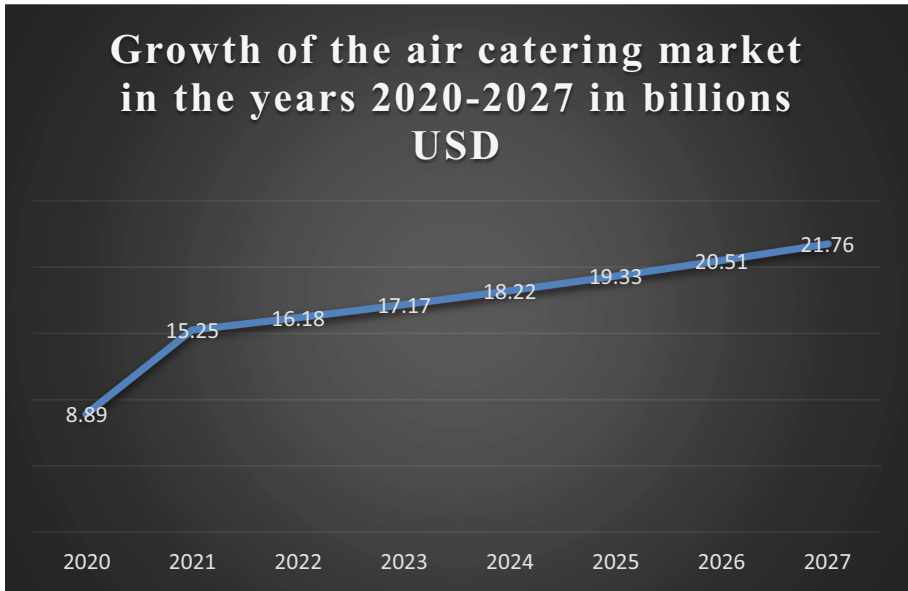


Fig. 1. Growth of the air catering market [13]

The restrictions of various countries that were imposed in order to prevent the spread of SARS-CoV-2 have caused a crisis not only in the aviation sector. Air transport must face significant constraints, which also affects the economic situation of airlines. Catering, which were provided on board of the aircraft, needed more changes. Prior to the pandemic, air food suppliers focused only on diseases that could be caused by food. Currently, however, the pandemic is responsible for increasing food safety control and increasing disinfection. These measures also lead to increased costs for airlines in boarding. The trend is an ordering system, where passenger orders food in advance, which he later consumes on board. The forecast predicts a large increase in catering services on board of the aircraft, mainly due to increased quality and focus on individual catering cultures. Diversification of different world tastes and meals (vegetarian, vegan) is considered to be very attractive for the passenger.

Figure 2 demonstrates the increase or decrease in the number of flights in 2020 compared to 2019 on the basis of different market segments. According to Fig. 2, we can see that COVID-19 had impact on all means of aviation transport, especially on low-cost and other scheduled flights. What we may find interesting is that the impact was not so significant in regard to Business Aviation flights. Flights in Business Aviation have a growing tendency as well as the other two types of flights which are represented in the figure, Business Aviation flight have a significant growth as they have a 40% increase in flights compared to 2019. This may be the result of the various restrictions which are posed by many countries. The common passengers of low-cost and commercial air carriers could have also suffered from the restrictions of COVID-19, and they may not have enough financial resources for traveling. This presupposition together with the number of restrictions and measures represent additional obstacles in travelling. On the

other hand, a common passenger of business jet flights are typically more solvent people, who may not have suffered in terms of finances as greatly as the passengers of economy class.

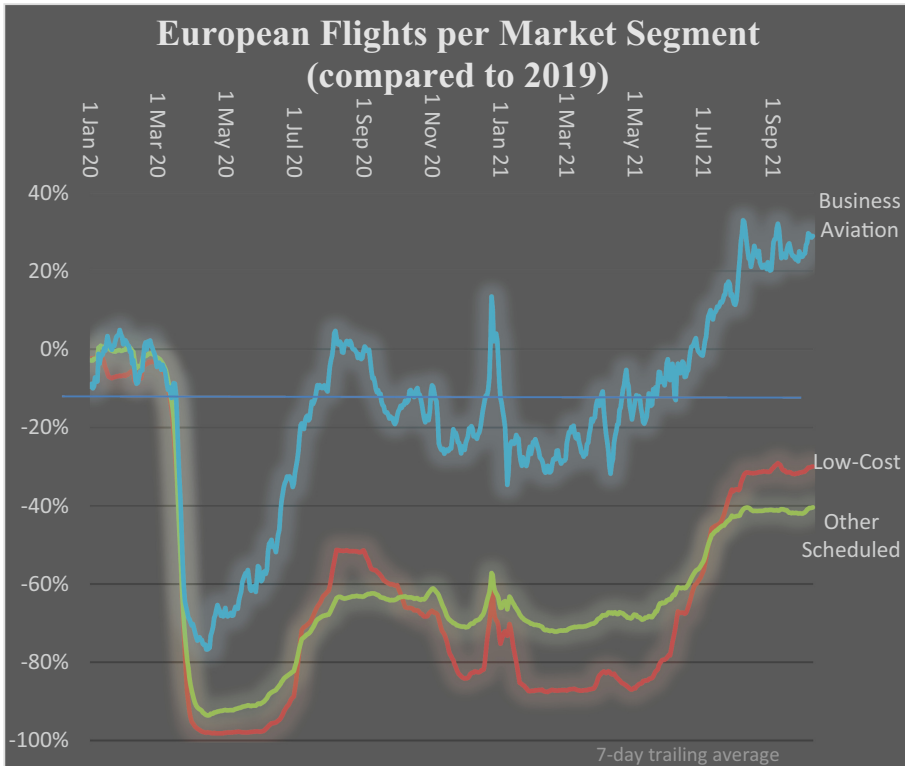


Fig. 2. European flights per market segment [14]

3 Methodology

The aim of this article is to show the current situation in the field of business jet transport, to find out the needs in catering of business jet companies and to propose a business plan of a company that would satisfy these needs.

Our focus was not limited only to Slovak Republic, in our research we also included Czech Republic, since the transport market of these two countries is to a certain extent interconnected. It also gives us the opportunity to approach more companies and to observe the results on a larger scale. A catering company that would be founded in Slovak Republic, would also very likely cooperate with business jet companies from Czech Republic and many other countries, since aviation transport is an international field.

In order to determine the needs in catering of business jet companies we performed qualitative research, which was in the form of a questionnaire that was made via Google Forms. The respondents received our questionnaire by an email. So as to maintain the objectivity of the research the responses were anonymous.

In our research we approached 10 business jet companies, namely ELITE JET s.r.o., Aeropartner a.s., Alpha Aviation, s.r.o., ABS Jets a.s., Time Air s.r.o., AIR PRESTIGE s.r.o., Silesia Air s.r.o., CTR Atmospherica Aviation a.s., Tatra JET s.r.o., Smartwings a.s. We received the responses of 8 companies, due to the anonymous nature of the questionnaire we cannot determine which 8 companies out of the 10 approached were the ones that responded to our questions. Among these companies we can find companies which have decades of experience, but also new companies that are were founded in the recent years.

These hypotheses whether they will be proved or disproved will reflect the current situation on the market of business jet catering and it will provide us with essential information of which aspects should the new catering company fulfil in order to be successful on the market of aviation transport. The hypotheses of our research were formulated as:

Hypothesis No. 1: Majority of the companies use catering services regularly on their flights.

Hypothesis No. 2: Majority of the companies use catering services provided by external supplier.

Hypothesis No. 3: Majority of the companies think that the catering market environment is not diverse enough.

Hypothesis No. 4: Majority of the companies are not completely satisfied with the level of catering services that are currently provided.

Hypothesis No. 5: Majority of the food provided on board is cold.

4 Results and Discussion

4.1 Results

The research questions are to prove or disprove the previously stated hypotheses about the current situation and the needs on the market of business jet catering in Slovak and Czech Republic. The analysis was done by descriptive statics. The questionnaire that was sent to the participants of the research contained the following research questions:

In Fig. 3 we can see results of the research. Concerning question 1 the results show that majority 88% of the companies use catering services regularly. This result proves our first hypothesis and demonstrates the quite high frequency of protentional future catering orders for the new company.

The second question proves the second hypothesis and results in an interesting finding that no company uses their own catering services, but all the approached companies use an external catering provider. This means that the market is full of possibilities, since the new company would function as an external provider, they could be successful because of the wide range of possible partner business jet companies.

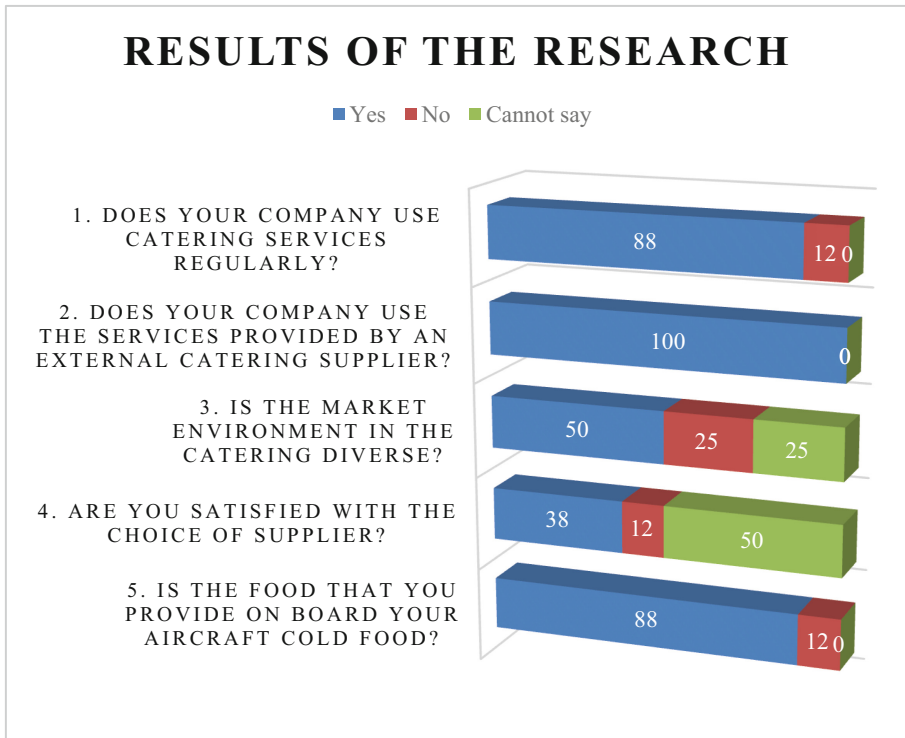


Fig. 3. Results of the research

Most of the companies think that the market environment of business jet catering is diverse, but 25% say that they feel that there could be more catering companies, other 25% did not give their opinion about this issue. This disproves the third hypothesis. However, half of the respondents could possibly welcome a new catering provider this also manifest the number of opportunities for a new-founded company. The company could bring more diversity onto the market providing they would bring something new, e.g., local products, luxurious presentation, sophisticated menu, etc.

The captivating result in the question 4 is that 50% of the respondents said that they do not know whether they are satisfied or not with their catering services. The fourth proved hypothesis suggests that even though not all companies are dissatisfied, there is a place for improvement. Their current needs may be satisfied in a way, they are not especially content with it. This proves that the new-founded company could be successful provided it would comply with the needs and could truly satisfy them.

Last hypothesis is proved since most companies provide only cold food on board of their aircraft instead of previously cooked meals. The last answer shows which type of cuisine should the new-founded company focus on. The most probable reason for the preference of cold food, could be the limited space on the aircraft.

4.2 Discussion

Based on the obtained results we found out that there is higher demand than the offer on the market of catering for business jet companies. Even if companies performing such activities exist, their services are not of such quality that would completely satisfy all business jet carriers. We propose to establish a company that would provide food of superior quality. The company's effort should result in mutual trust or in other words above-standard relations with clients, suppliers.

After detailed analysis we came to the conclusion that a company that aims at finding success in Slovak and Czech Republic should work from Bratislava airport. It is a transport node which has a good connection with surrounding airports (Brno, Vienna). The new-founded company should also include in their portfolio restauration services, which could compensate possible loss caused by irregular orders of catering. The company should be able to react swiftly to the specific requirements of clients resulting from their eating habits, health issues, etc. In order to set apart from the competition, the company could focus their cuisine on simple fresh unrefined ingredients, which would come from local suppliers, for example with the Fair-trade trademark. For the company to become known to its potential clients, they should also invest to a large extent in the marketing and promotion of the company.

Three possible scenarios of the company's development were verified by calculations: pessimistic, realistic, and optimistic scenario. The pessimistic scenario of the company's development envisages a 10% occupancy of the restaurant. For example, the restaurant's total capacity would be 80 seats, here 10% represents eight people per hour. Let us say that the provision of catering services for air carriers would be once a week. The average expenditure per customer in the restaurant is set at € 20 and at air catering at € 300 / year. Revenues from the sale of own goods represent 15%. The determination of occupancy and sales of goods is based on data from a similar company in the same area of business. Due to the inaccuracy of the restaurant's occupancy estimates, an average of two unoccupied hours is expected during which the restaurant will be completely empty. The average opening hours of the restaurant is approximately 180 h per month (30 days) and the average occupancy in the 2021 marketing year is 11 520 people (8 months × 30 days). The volume of required raw materials makes up 30% of the expected revenues from own products. Legal person's income tax is calculated at a standard rate of 21%. After the first financial year in a pessimistic scenario, the company would have lost more than 117 731 €.

In the realistic scenario, 18% of the restaurant is occupied, which represents an average of 86.4 people per day, so the total annual attendance is 21 216 visitors. In this scenario, air catering would be provided twice a week. In the realistic scenario, the company would have a profit of approximately 185€ after their first year.

When calculating the optimistic scenario, we took into account 20% occupancy, the provision of air catering 4 times a week and the production of 33 packaged meals a day in the amount of 10 € / package. According to the optimistic scenario, the company would report a profit of approximately € 122 197 in the financial year 2021.

It would be advantageous for the company to set short-term and long-term goals. Short-term goals that should be completed within 5 years include, for example, the acquisition of a stable contract, at least 3% market share and the have contracts with

at least 35% of private carriers within the Slovak Republic. The most important long-term goals over a 10-year period should be return on investment, optimization and cost reduction, and revenue maximization.

The founders of the company should not forget that there are risks with business. Adequate measures should be proposed for each potential risk, for example when input prices increase, the price of outputs should also change, if there is a lack of interest on the part of customers, it is necessary to use so-called aggressive marketing [16–19].

5 Conclusion

In conclusion, it can be stated that the area of providing catering in air transport is an extremely current issue. Based on the research we can see that there is a forecast that the market of business jet flight will continue to grow, therefore there will be also growth in the demand for air catering. The market environment was analysed based on a questionnaire, in which the degree of satisfaction with catering services in private airlines was determined. The questionnaire confirmed that there is an opportunity in the market in the field of aviation catering business. The proposal part demonstrates that the new-founded company could be successful, if the business plan is implemented well the probability of success of the company will be about 50%. The disadvantage is that the project cannot be tested on a smaller sample of customers which is the case with most business plans. Another disadvantage was represented by low wages of employees. The set wage level must increase by at least 20% per year to enable the employment of quality staff with adequate knowledge and a positive attitude towards customers. It is important to note that the company will start to return the invested capital several years after its opening. The company's turnover is not equal to the profit and a large share of funds is returned to business - to the reconstruction of premises, advertising and marketing costs, activities related to maintaining and developing the company in the market and developing a good reputation. In our future research we would like to focus on the customer's point of view, to establish their needs and their perspective on the catering provided in business jets. In addition to catering and other on-board services, we would like to continue to focus on intermodal cooperation, namely the integrated transport system. An integrated approach will allow to enjoy a "seamless" travel experience and replace different types of competition in their collaboration. In order to maintain a constant demand for air transport, it is necessary to constantly re-evaluate the efficiency of transport networks, i.e., their maximization.

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