

THE PROCESS OF CREATION AND MANAGEMENT OF AIRLINES' NETWORKS

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The aim of the contribution is to give a view on the process of creation and management of airlines' networks. The first part of the contribution consists of a short introduction giving some basic information. The next part talks about the International Air Transport Association (IATA) and clarifies its role in the process of establishing an airline. The other parts are focused on comparison of United Airlines and Delta Airlines (financial results, operating indicators as well as the offered products). The last part suggests solutions in the process of creation and management of airlines' networks.

K e y w o r d s: airlines, financial and operational indicators, statistics, United Airlines, Delta Airlines

1 INTRODUCTION

Based on the fact that air transport is seeking to expand its scope throughout the world every day, it is increasingly difficult to manage not only the organization and management of air transport as a whole, but also the process of creation and management of airlines' networks. This process consists of a sequence of actions to ensure fluent and safe air traffic; therefore it is needed to combine them all into one functioning whole. Achieving this objective is assisted by different number of organizations dealing with the issue of aviation that determine the operating conditions of airlines by issuing various conventions and regulations.

2 INTERNATIONAL AIR TRANSPORT ASSOCIATION - IATA

IATA was founded in the spring of 1945 after the Chicago conference. Its headquarter is in Montreal, Canada, while most of its financial transactions is taking place in the office in Geneva, Switzerland. In addition to these two places IATA has other offices in different areas. Activities of the organization are divided into three so-called conference areas. Each conference area has different requirements. Currently, IATA has 230 members, 230 airlines from 126 countries of the world. These air carriers produce about 93 percent of international air transport worldwide.

The basic goals of the International Air Transport Association are:

- to establish a unified global air transport system, wherein the air transport will be safe, continuous and economic,
- to organize activities in order to ensure the improvement of financial results of air transport as a whole and represent the interests of airlines before governments and economic operators which are interested in aviation,
- to ensure cooperation between airlines and other aviation organizations based on established standards and regulations,
- to cooperate with ICAO and implement its standards to airlines' activities.

The main activities of the International Air Transport Association are:

- IATA convenes a multilateral global conference twice a year that involves the coordination of schedules between airlines and airports.
- IATA Clearing House performs independent and major activity of the Association, because it pays debts and obligations to members of the center e.g. for the carriage of passengers traveling on other airlines documents (interline), sale of fuel, aircraft servicing, etc.
- Billing System (BSP) that allows airlines to sell their tickets quickly and safely through travel agencies.
- Representation of the common interests of airlines and project management in order to achieve targeted improvements.

3 TERMS OF ESTABLISHING AN AIRLINE

For the establishment of a company in the field of air transport it is necessary to obtain an Air Operator's Certificate (certificate or AOC). In the Slovak Republic it is issued by the Civil Aviation Authority of the Slovak Republic (Civil Aviation Authority or CAA). To obtain the AOC it is necessary to meet the obligations of the founding body (operator) in three areas. First, it must be certified by the Civil Aviation Authority of the Slovak Republic and also must be financially, professionally, technically and morally fit. Next it must have an adequately prepared business plan, implemented an internal control system relating to the compliance of the operation and its security.

Obtaining a certificate in the Slovak Republic and in the states of the European Community (EC) is conditional on Commission Regulation EC 859/2008. This Regulation contains the technical and administrative requirements for the certification of an air carrier. Key terms are defined in head C, which includes three regulations of JAR-OPS 1.175, 1.180 and 1.185 and two amendments to OPS 1.175.

The regulation 1.175 relates to an applicant for the Air Operator's Certificate and Operator of Air Transport. The regulation 1.180 determines the conditions under which the Civil Aviation Authority may withdraw

its Air Operator's Certificate. The correct requirements are in turn contained in the regulation 1.185.

When establishing an airline it is very important to meet the requirements of these documents:

- The Convention on International Civil Aviation,
- The other contractual documents in air transport,
- Contractual modes in air transport,
- Regulations of the European Union.

4 AIRLINES' OPERATION

The airlines' operation itself consist of activities such as determining the company's strategy, the inclusion of the company according to the nature of the offered product, market analysis, marketing, cooperation between airlines.

4.1 The airlines' strategy

The strategy is a major component in the planning phase when implementing new routes.

The basic strategy of an air carrier is designed to address three key areas, namely:

- the placement of the company on the market and reachable resources,
- the rate and manner of the airlines' activities and
- the structure of the company.

There are three basic models of aviation activities:

- operation of solely air services, so-called. core business model,
- operation of air and related services so-called. related business model and
- portfolio of independent, so-called unrelated businesses model.

The first model is used by low cost airlines, the second model is applied by network carriers and the third model is nowadays unused.

The basic strategy is needed to be further decomposed. In this context, we can talk about tuning the fundamental processes of an airline. This processes focus on solving problems related to air links, aircraft fleet, distribution, price, product, cooperation with alliance partners, development of information technologies and personnel. Address issues of airlines, aircraft fleet, distribution, price, product, cooperation with alliance partners, development of information technology and personnel. Title of the paper, name(s) of the author(s), annotation and the keywords are given at the beginning. All pages should feature 3cm upper margin and a 2.5 cm margin at the bottom line. The left margin should also be of 2 cm. The text is to be written in two columns as noted in paragraph 2. Illustrations have to be of a column width (7.25 cm is recommended). Expanding them throughout two columns could only be allowed in case of deteriorating reading. The illustrations, however, must not

exceed 15 cm in width and 10 cm in height. The column is then continued all the page long, regardless of the illustration inserted.

4.2 Market analysis

The airlines' strategies are mainly based on market analysis. They outline the risks and the environment in which the airlines will operate. When implementing new routes, the airlines use external information from marketing agencies that are part of so-called MIDT (Market Information data Transfer)

One of the marketing tools used in the implementation of a new route is called PESTE analysis. This analysis observes the five basic factors of the macroeconomic environment of the company (political, economic, social, technological and environmental factors).

4.3 Cooperation and accounting in air transport

The system, when one airline may issue a ticket on another carrier is called interline. If the passenger is travelling in the section of another air carrier it can be issued only on the basis of Agreement on mutual recognition of documents between air carriers so called Interline Traffic Agreement (ITA). The airline, which flies a certain distance on the ticket issued by another airline, must charge to the airline an amount so called Prorate. It is the amount on one flight coupon from multi-section flights.

In order to simplify the process of accounting between airlines, IATA Clearing House was created through which the whole process of accounting takes place. There is also an accounting center between airlines and travel agencies called BSP (Billing and Settlement Plan).

Airlines may also conclude code-sharing, Regards the agreement on flight codes sharing, which means that an airline places its flight code on the flight of another airline.

4.4. Indicators used in air transport

Due to the constantly rising and more intense competition in passenger air transport it is essential to continuously observe the effectiveness of airlines' activities. For this purpose we distinguish, there are a number of operational and financial indicators.

The non-financial indicators include profitability point of the use of aircraft capacity, average daily utilization of aircraft, distance flown, passenger-kilometres offered, weight capacity of the aircraft sectional average length and average utilization of seating capacity.

Financial indicators of transport are based on operating revenues and costs. They are charged per unit of transport performance.

5 COMPARISON OF UNITED AIRLINES AND DELTA AIRLINES

Based on the comparison of economic results of United Airlines and Delta Air Lines, we found out which of these airlines was in years 2012 and 2011 operationally profitable, which in turn invested more costs to operation. The comparison of selected indicators reveals operational efficiency of companies operating in both years.

Tab. 1 Comparison of economic data (United Airlines and Delta Air Lines)

(in millions)	United Airlines		Delta Air Lines	
	2012	2011	2012	2011
Operating income	37,152	37,110	36,670	35,115
Operating costs	37,113	35,288	34,495	33,140
Operating profit / loss	0,39	1,822	2,175	1,975

The data shown in the table give a view on the economic results of United Airlines and Delta Airlines. There is a visible increase in operating costs bringing higher operating income.

Tab. 2 Comparison of 4 selected operational indicators of United Airlines and Delta Air Lines

	United Airlines		Delta Air Lines	
	2012	2011	2012	2011
Revenue passenger miles	205,485	207,531	192,974	192,767
Available seat miles	248,860	252,528	230,415	234,656
Passenger revenue per available seat miles	13.09	12.87	13.80	12.89
Passenger load factor	82.6%	82.2%	83.8%	82.1%

From the data shown in the table is clear that United Airlines achieved better results in terms of available seat miles than Delta Airlines. On the other hand Delta Airlines achieved better results in terms of passenger revenue per available seat miles. In 2012 had Delta Airlines a larger load factor (83,8 %) than United Airlines.

6 DIRECT SCHEDULED AIRLINE NEW YORK, NY (JFK) – LOS ANGELES, CA (LAX)

The comparison of direct scheduled air lines New York, NY (JFK) - Los Angeles, CA (LAX) of United Airlines and Delta Air Lines showed that some of

the offered services are the same and some are different. The listed air line is operated by both airlines every day of the week (United Airlines 40 flights a week, Delta Airlines 54 flights a week). They offer the same number of classes (economy, business), loyalty programs (United Airlines – MileagePlus Miles, Delta Airlines – Sky Miles), and food in the first/business and economy class is at the same level as well as the opportunities for entertainment. Differences are in the capacity of used aircrafts, departure times and in fares for the air transport.

7 SOLUTIONS IN THE PROCESS OF CREATION AND MANAGEMENT OF AIRLINES' NETWORKS

Due to the fact that aircrafts often have delays it is necessary to adopt more measures to remedy them quickly in order to avoid delays or even cancellation or diversion of the flight to another airport. Pilots must always have accurate and current information about weather conditions to be able to respond quickly and well to the situation and so ensure a peaceful, tranquil and safe flight. If a company can not ensure this, it is necessary to provide better and newer technology that allows it or possibly ensure greater cooperation with organizations providing meteorological information. In the case of mechanical failures airlines should always have quick and well-trained team. If the airline does not have one or it does not fulfil its obligations as it should, it is necessary to train the employees or ensure new ones. An Important role plays spare parts, which would allow faster remedy. It is better to invest money in advance than in the case of an accident. Sometimes it comes to delays due to lack of crew. In such case it is necessary to recruit new staff, which, although cost the company money, but still less than the tax for delays, cancellations, diversions of the flight. The fleet is difficult to be replaced just in a year. If an aircraft can not be automatically excluded from operation, it can be refurbished by covering its seats, carpeting. Changing the configuration of an aircraft is indeed expensive, but it would solve the problem of insufficient place for legs. The lack of entertainment would solve Wi-Fi access for free, new movies, music and kite on the backrest. A positive thing for an airline could be if the food and refreshments would move to a higher level by providing food or drink for free, offering vegetarian food.

8 CONCLUSION

Airlines links and routes nowadays provide a myriad of different destinations with a great choice of airlines and offered services. We cannot find an airline that would be perfect. Airlines are trying to improve the offered products in order to acquire new customers and to ensure the increase of the flight's safety. Neither such large American companies as United Airlines and Delta Air Lines are no exception. Solutions proposed in this

contribution should ensure the improvement of their airlines' network, restrict, eventually completely get rid of the problems that occur on these lines and so become more profitable.

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