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JOINT VENTURES ON THE AIR TRANSPORT MARKET – A NEW DIMENSION OF COOPERATION

Abstract

Strategic partnership based on cooperation, as part of strategic alliances and other cooperation agreements, has its history in the aviation sector. The processes of cooperation and consolidation decide about the competitiveness of entities from this sector in the global aviation market. This applies not only to airlines, but also airports constituting the infrastructure entities of this sector. The article points to new trends in the construction of partnerships, blurring relations in alliances and wider cooperation of airlines based on joint venture agreements. The development of joint ventures in aviation changes the structure of the aviation market, the conditions of competition, and also changes the strength and depth of existing cooperation within alliances. It re-evaluates their importance in obtaining competitive advantages on the market.

Keywords: air transport, joint ventures, consolidation, cooperation

Introduction

Consolidation and cooperation trends intensified on the aviation market with the development of globalization processes. The extension of liberalization trends, limiting the forms and scope of country interference in the functioning of the aviation market, deregulation and ownership transformation are the main aspects of changes and conditions for the functioning of aviation sector entities. The impulse of global changes in this area was the deregulation of the aviation market in the USA¹. Since the early 1990s, "Airlines Business" has published

¹ More on this subject, see: E. Marciszewska, *Globalizacja sektora usług transportu lotniczego*, Monographs and Studies, No. 493, OW SGH, Warsaw 2001.

research reports on the development of strategic agreements – alliances made in the aviation sector. These alliances were treated as a response to changing the conditions of competition on the market. It should be noted, however, that changes in the conditions of competition were at the same time the cause and effect of the development of alliances. The subject matter of alliances was also devoted to a lot of space in the Boston Consulting Group², in the works of J. Gallacher, J. Feldman, J. Burton, P. Hanlon or E. Marciszewska³. All the researchers at the time stressed that the main motive for alliances was to avoid destructive competition and replace it with cooperation of competitors, which also gives the opportunity to gain economies of scale, range, concentration and experience.

Air transport, from the essence of its activity, belongs to the global sectors, because, as M.E. Porter emphasizes: “the global sector is such a sector in which the strategic situation of competitors in the core regional markets depends to a large extent on their global situation”⁴.

Over the past 20 years, when the evolution of the entire aviation sector and its entities towards global action strategies has been observed, the forms, tools and methods of competing in this sector changed as a result of market liberalization. Still, the main carriers from the US, Asia or the European Union do not allow and probably will not allow for a long time to the situation where “foreign”, i.e. entities from other countries, will take full control over their lines. On the global market in the last 5 years, the configuration of airline participation in 3 major alliances, i.e. Star Alliance, Oneworld, Sky Team, has basically not changed. We have been observing the development since 1997, that is for 20 years. Established in 1997, Star Alliance currently has 28 carriers, Oneworld (established also in 1998) 15, and Sky Team (founded in 2000) 20. They support together over 60% of the aviation market. The potential of these groups is illustrated in Figure 1 and 2.

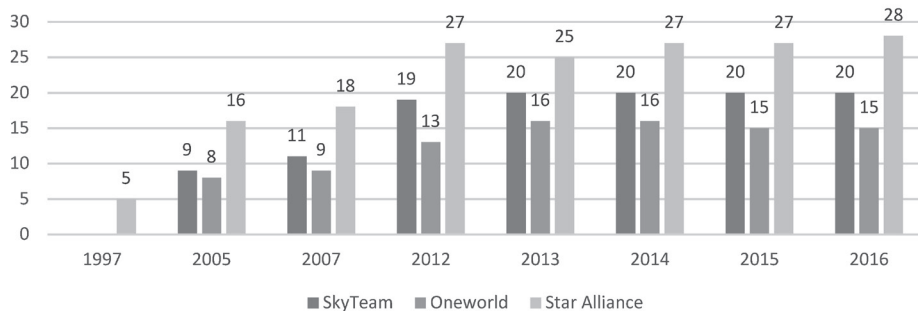


Figure 1. Number of air carriers in major aviation alliances in 1997–2016

Source: D. Tloczyński, *Aviation Market 2017. Report*, Tourism News, Warsaw 2017

² *Marriages made in heaven?*, The Avmark Aviation Economist, Boston Consulting Group 1996.

³ J. Burton, P. Hanlon, *Airline alliances: cooperating to compete?*, Journal of Air Transport Managements 1994, 4; P. Hanlon, *Global Airlines, competition in a Transnational Industry*, Butterworth Heinemann 1996; E. Marciszewska, *Globalizacja...*

⁴ M.E. Porter, *Strategia konkurencji. Metody analizy sektorów i konkurentów*, PWE, Warsaw 1992, p. 270.

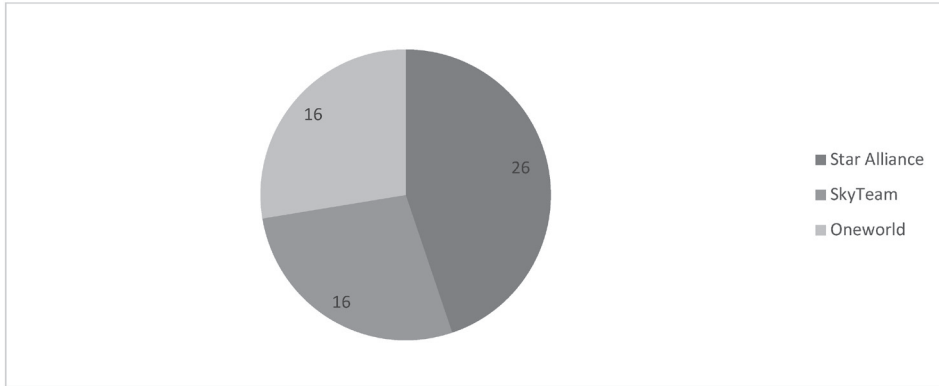


Figure 2. Participation of the largest airline alliances in 2016 according to the availability of seats

Source: D. Tłoczyński, *Aviation Market 2017. Report*, Tourism News, Warsaw 2017

1. Archetypes of strategic management from the perspective of the aviation sector

In the literature concerning management, three universal archetypes of strategic management are mentioned:

- product life cycle;
- economies of scale, scope benefits and learning curve;
- dimensions of the rational decision-making process⁵.

From the point of view of the aviation sector, considerations regarding the economies of scale, scope and curve of experience are particularly useful. They have a similar impact on management effectiveness and are the most useful archetype in strategic management in the new environment and internal structures of each organization. The benefits of scale and scope can be built both through internal development and cooperation based on the principles of strategic partnership, where the use of resources can be optimized by operating in coordinated markets. Here we are dealing with a relational paradigm in strategic management. The literature emphasizes that the more dynamic the industry and the possibilities of influencing demand, the stronger should be the orientation on the exploration of inter-organizational relations⁶.

It is also worth paying attention to the fact that having permanent partners (exploiting relations) enables carriers to use the experience gained during cooperation and deepens the trust and consolidation of common knowledge resources.

⁵ J. Niemczyk, *Uniwersalne archetypy zarządzania strategicznego* [in:] *Wyzwania współczesnego zarządzania strategicznego*, eds. A. Sopińska, P. Wachowiak, OW SGH, Warsaw 2017.

⁶ E. Stańczyk-Hugiet, *Eksplorować czy eksploatować relacje międzyorganizacyjne?* [in:] *Strategie, procesy i praktyki*, series: Scientific Works of the University of Economics in Wrocław No. 420, Publisher of the University of Economics, Wrocław 2016, p. 286–297.

However, building relationships with new partners (exploration of relationships) allows access to new experiences, gives new market opportunities and extends the structural boundaries of the existing network. In both cases, companies can accumulate the resources of relational capital, which contributes to their survival and development⁷. In literature, this is referred to as ambidexterity, or strategic ability to explore and exploit inter-organizational relations. Referring this concept to the theory of alliances and their effectiveness, it can be noticed that current actions do not bring unambiguous, positive results. Often the assumed benefits are not achieved, because the entities compete with each other for limited resources and markets, which causes a tendency to mutually supplant, especially when their environment is more and more uncertain and competitive, or operate in crisis conditions. This picture also applies to the aviation sector.

2. Development of joint ventures on the air transport services market

In the aviation market, after more than 20 years of strategic partnership development based on strategic concepts, we are observing the intensification of cooperation within joint ventures, usually consisting of two strong carriers, representatives of the European and American market and several smaller important partners from the point of view of network construction.

There is also a new phenomenon of cooperation of low-cost carriers with network lines – traditional, but in these considerations we will not discuss it. The evidence of the power of joint ventures on the aviation market is the results of research conducted on the EU-US connection market, which shows that three groups of operators cooperating on the basis of joint ventures on this market have about 80% share, including Air Canada-Austrian Airlines – Brussels Airlines-Lufthansa-SWISS and United Airlines over 28%, Air France-Alitalia-KLM-Delta around 26.5%, and the American Airlines-British Airways-Elysair-Finnair-Iberia joint venture around 24%⁸.

The airlines cooperating in the first of these joint ventures already served in the transatlantic market in 2013, almost 14.5 million passengers, in the second over 13.6 million passengers and the third over 12.2 million passengers. The main success of these three groups resulted from the construction of a transatlantic network of connections in the hubs, most of which belonged to the 30 largest airports in the world, which indicates the importance of incorporating strong hub ports in the network offered, in which joint ventures partners have their bases. The multiplicity of markets served as part of joint venture and of course

⁷ C. Cummings, *Structure-based Alliance ambidexterity: an empirical study of the American Motion Picture Industry*, *Journal of Business and Management* 2014, 19(3), p. 23.

⁸ I-100 International Segment (All Carriers) US Department of Transportation, Bureau of Transportation Statistics, http://www.transtats.bts.gov/Fields.asp?Table_ID=261 (access: 20.02.2018).

the presence of the largest players from the aviation market in each of these agreements is of great importance⁹.

Among the 10 ports in which the largest number of passengers in regular traffic in EU-US relations were served in 2013, the transport leaders were carriers with bases in them and members of one of the three joint venture agreements operating on these routes. It seems that this is due to the fact that global multilateral alliances as such lost the value of strategic agreements, while capital relationships and joint venture agreements can be qualified as the main factors tightening the multifaceted multilateral cooperation that appears inside the constellation. As a rule, carriers – members of the alliance who do not have capital ties or are not parties to joint venture agreements are considered by other members of the alliance as competitors, as confirmed by D. Boniecki's research¹⁰.

Joint venture agreements improve the competitiveness of operators that are parties to these agreements. Mutual abolition of property restrictions by the European Union and the United States can significantly improve the scope and depth of this cooperation and its economic effects in the future. Of course, certain conditions for joint action must be met, structure of cooperation with each partner, quantification of synergy effects and selection of a way to share the benefits gained from cooperation. Report prepared by L.E.K. Consulting indicates problems that should be covered by the scope of the contract and considered jointly both before its conclusion and during joint venture cooperation, as conditions in the near and distant surroundings of joint venture partners often change and certain elements of the contract should be adjusted. As it appears from the report by L.E.K. Since the establishment of a groundbreaking partnership between Northwest Airlines and KLM Royal Dutch Airlines, i.e. for more than twenty years, we have been observing a growing global cooperation between carriers on the aviation market. Historically, it took various forms. After a period of development of code-sharing agreements, joint loyalty programs and classic alliance agreements, giving a lot of freedom and independence to each partner, there was a period of tightening cooperation based on joint ventures. The authors of the abovementioned report by A. Lewis, Z. Momin, P. Smith and B. Catlin emphasize that in the new strategies of competing in the aviation market, a joint venture-based partnership can be a tool leading to new levels of development and maximization of common values of these agreements. Currently, on the market of air services, over twenty air carriers benefit from cooperation within the joint venture. It is estimated that in 2016, around 25% of all global long-distance traffic was realized by lines operating as joint ventures. It is worth noting that only 10 years ago, only about 5% of long distance traffic was served by airlines operating under the joint ventures.

Partners of joint venture agreements can have different scale of operation. On the one hand, they are such large aviation companies as, for example, Qantas, Emirates, Delta or Virgin Atlantic, while the other may be small regional carriers. We are dealing with joint ventures concluded with flagship carriers with high

⁹ More on the subject, see: D. Boniecki, *Podaż usług na rynku przewozów lotniczych między UE i USA w kontekście polityki otwartego nieba*, PhD thesis, SGH Warsaw School of Economics, KZiF, Warsaw 2016.

¹⁰ D. Boniecki, *Podaż usług...*, p. 222–229.

potential and small ones representing regional markets, which allows these great operators to access the so-called emerging markets that are just developing on different continents. In turn, this allows achieving economies of scale, reach or compaction by a global partner in such agreements, while smaller lines gain access to global networks. An example of such a symbiotic relationship may be a long-term partnership built by the Dutch KLM carrier from Kenya Airlines or Delta with the Brazilian carrier GOL. The degree of integration of websites within joint ventures is growing, often referred to as “virtual mergers”. They are becoming more and more popular not only on the transatlantic market, but all over the world. It is anticipated that by 2021, more than 35% of all global long-haul air traffic will be served by joint venture lines. Especially, this cooperation will intensify between mature aviation markets (the EU, the USA) and developing markets such as Latin America and Africa. More than half of the traffic associated with the US market will be supported by operators cooperating within the joint ventures within the next five years.

A similar trend is observed in the relations between Europe and the USA with the Asian market. Especially Chinese airlines are seen as a strong partner in the development of cooperation based on joint venture agreements. This is mainly due to the dynamic growth of air traffic in China and the economic and demographic potential of this country. Chinese airports as hubs of airlines from this region is an important element of joint venture network construction based on hub and spoke systems.

An example of this type of cooperation is the joint venture agreement concluded in 2017 between Air China and Lufthansa, described as a breakthrough in the global aviation market. Other major American carriers following the Lufthansa route include capital agreements, such as the recently announced capital investments of Delta Air Lines in China Eastern and American Airlines in China Southern. Such actions can be considered as a step towards further tightening cooperation and concluding agreements on joint ventures of these carriers on the air transport services market.

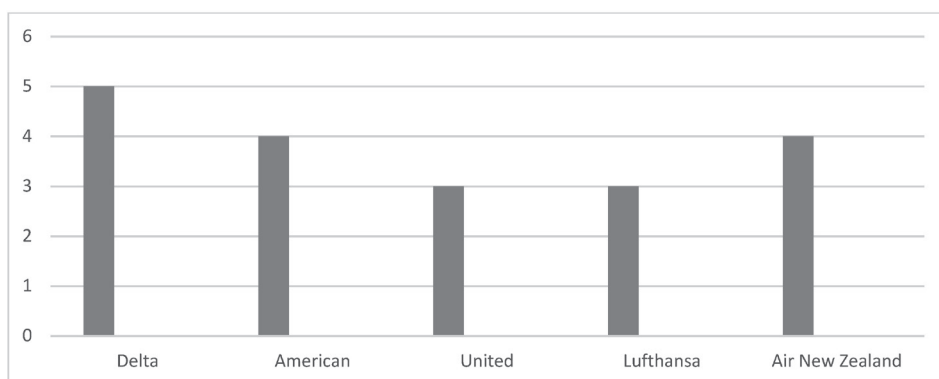


Figure 3. Number of established joint venture agreements by selected air carriers

Source: L.E.K. Consulting

Figure 3 shows the scale of engagement of major airlines in agreements based on agreements on joint ventures.

The scale of obtained effects depends not only on the scope of coordination of activities, but also on the way of organizing and managing a joint venture. The most important element of this partnership is to build the basis of mutual trust. The sustainability of joint venture agreements depends primarily on the partners' ability to construct clear, fair and flexible partnership rules. The essence of joint venture agreements is the simultaneous tightening of cooperation between the parties and the exclusion of competition between them. The mechanism of sharing costs and revenues means that for each of the partners it remains irrelevant which of them performs the cruise¹¹. The joint venture agreements in aviation are referred to as "metal-neutral", i.e. independent of the airplane (metal) belonging to a given carrier. Operating on these conditions is always subject to the consent of the authorities supervising the protection of the market and competition. And so, the European Commission studied joint venture agreements between airlines based in the EU countries, and carriers from the United States concluded in 2009–2016. Depending on the provisions of such contracts, revenue or profit are divided regardless of who makes the connection.

It is also important to define the scope and proper structure of joint ventures, which is usually the starting point of negotiations. The key issues considered in these negotiations are:

- establishing the regions and routes covered by the joint venture partnership contract;
- defining the home markets and external partners of the agreement;
- exclusion from the common network of non-relevant routes or market segments for joint ventures (e.g. typical tourist transports operated by one of the partners).

Here you can give an example of the joint venture agreement between Singapore Airlines and Lufthansa, where different markets are included in the agreement, namely the entire traditional market of the Lufthansa group, namely Germany, Austria, Belgium and Switzerland, while the area in the Singapore Airlines domain is widened and includes Australia, Indonesia and Malaysia. On the other hand, the Delta Airlines and Virgin Atlantic contracts excluded a significant portion of the tourist traffic carried out by Virgin in the Caribbean.

As a result of the tests, further problems identified during the JV conclusion were identified, among others:

- how to solve the issue of exclusive service of routes;
- can other parties partners be included on joint routes;
- whether third parties can operate certain markets on an exclusive basis;
- how to manage a joint venture;
- what the joint venture organizational structure should look like.

In the joint venture agreement between Air France and Delta, assumptions regarding service and exclusions from the traffic of individual partners were made, sharing markets with India. And so Delta operates to Mumbai, and KLM to New Dehli. In the A++ joint venture agreement, Air Canada, Lufthansa and United fully

¹¹ *Ibidem*, p. 74.

cover the North America, Europe, Africa, India and Middle East markets together. An important issue at the stage of establishing the joint venture is also the decision whether joint venture applies to all air transport, i.e. cargo and passenger, or only one of these market segments, and whether revenues or profits will be shared.

Another problem are pricing strategies, tariff structure binding under joint venture, integration of tariff systems. In many cases, there are simplification of joint venture tariff systems, their standardization and transparency for customers. Such solutions were adopted by the ANA and Lufthansa lines establishing tariff zones in Europe and Japan. This allowed the ANA carrier to significantly expand ticket sales to 190 destinations in Europe. Before the joint venture agreement, ANA offered its services to 120 ports.

However, the most important problem, including many aspects affecting the success of any joint venture project in the aviation sector, is the partnership mechanism, that is the mechanism for sharing revenues or profits. For this purpose, such issues should be settled¹²:

- way of calculating revenues or profits;
- whether the joint venture will be based on revenue or profit sharing;
- for what period to conduct a joint calculation of revenues and profits;
- how to settle and account for differences in the level of profitability of joint venture partners;
- how to shape the effectiveness of each partner when the results are worse than the base ones;
- how to share costs when the cooperation mechanism is based on profit;
- how to introduce and use the proportionality clause in practice, so as to rationalize transport capacity offered on common routes;
- how to protect yourself and respond to random or crisis situations that violate the established cooperation mechanism;
- what is the optimal period for which the contract is concluded;
- how to settle disputes and other problems undefined in the contract;
- how to deal with and terminate the joint venture agreement and how to terminate your cooperation.

The most important thing is to establish a mechanism for sharing revenues or profits in operating joint ventures. Currently, the situation regarding the use of these mechanisms is presented in Table 1.

Table 1. The mechanism for sharing benefits in joint ventures

Year of establishment	Partners	Mechanism for sharing benefits
2009	A++ (Air Canada, Lufthansa, United)	Income
2009	Delta, Air France, KLM, Alitalia	Profit
2010	American, IAG, Finnair	Income
2011	ANA, United	Income
2011	JAL, American	Income
2011	Delta, Virgin Australia	Income

¹² L.E.K. Consulting.

Year of establishment	Partners	Mechanism for sharing benefits
2011	Air New Zealand, Virgin Australia	Income
2012	ANA, Lufthansa, Austrian, Swiss	Income
2013	Qantas, Emirates	Income
2013	Japan Airlines, IAG, Finnair	Income
2013	Delta, VirginAtlantic	Profit
2014	Air New Zealand, Singapore	Income
2014	Air France, KLM, Kenya Airways	Profit
2016	Singapore, Lufthansa	Income
2017	Delta, Aeromexico	Profit
negotiated	LATAM, American	Income
negotiated	LATAM, IAG	Income
negotiated	Air New Zealand, United	Income
negotiated	Air China, Lufthansa	Income
negotiated	Delta, Korean Air	Profit
negotiated	American, Qantas	Income

Source: L.E.K. Consulting

Based on the data presented in Table 1, it can be concluded that the vast majority of joint ventures are based on the revenue sharing mechanism.

In every issue we meet with very different provisions in joint venture agreements between airlines. It is important that they are accepted and respected by the parties to the agreement.

Conclusions

Regardless of the scope and provisions of detailed joint venture agreements between airlines, they always take into account the aspirations to create such cooperation mechanisms that allow to maximize jointly achieved effects. They also always take into account the differentiation of added value brought to joint venture by each party.

The analysis of the development of joint ventures clearly indicates that such agreements tighten cooperation between aviation market operators and allow for obtaining much wider synergic values than marketing agreements under strategic alliances. It can even be said that we are dealing with a kind of erosion and devaluation of alliances. Referring to the Polish aviation market, it seems that the national carrier of Polish Airlines LOT should not only be privatized as soon as possible, but also make efforts to build its future based on joint venture agreements, especially on long-haul routes in the transatlantic and Asian markets.

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