

air transport, efficiency, alliances, mergers, takeovers

Joanna HAWLENA

Karol Adamiecki University of Economics
St. 1 Maja 50, 40-287 Katowice, Poland
Corresponding author. E-mail: hawlana@interia.pl

INFLUENCE OF ALLIANCES, MERGERS AND TAKEOVERS ON EFFICIENCY OF AIR TRANSPORT

Summary. Increasing competition in the air transport market leads to changes in the positioning of companies and to searching for effective means to improve economic efficiency. Effective realization of the transportation process entails considerable expenses, and obtaining financial resources is becoming more and more difficult. In the era of globalization the process of looking for the methods to improve efficiency in the air transport is considerably growing in importance.

The article presents the functioning process of strategic alliances, the system of code – share agreements and the significance of the level of the Load Factor coefficient. Possibilities of establishing a new organization by means of a merger or a takeover are also presented.

WPLYW ALIANSÓW, FUZJI I PRZEJĘĆ NA EFEKTYWNOŚĆ TRANSPORTU LOTNICZEGO

Streszczenie. Narastająca konkurencja na rynku usług transportu lotniczego prowadzi do zmiany pozycjonowania przedsiębiorstw oraz poszukiwania skutecznych sposobów poprawy efektywności ekonomicznej. Skuteczna realizacja procesu transportowego wiąże się z wydatkowaniem znacznych nakładów, a ich pozyskanie staje się coraz trudniejsze. W dobie globalizacji szczególnego znaczenia nabiera proces poszukiwania metod poprawy efektywności w transporcie lotniczym.

W artykule zaprezentowano proces funkcjonowania sojuszy strategicznych, system umów code – share, oraz znaczenie poziomu współczynnika Load Factor. Przedstawiono również możliwości utworzenia nowej organizacji w wyniku fuzji lub przejęcia.

1. INTRODUCTION

The aviation transport companies are subject to increasing competitive pressure. Surviving in these conditions, and all the more reaching a dominant position in the market, calls for previously unobserved efforts in the scope of improvement in the quality of services, implementation of modern techniques, information technologies and effective systems of distribution. Special attention is paid to the creation of relations within strategic alliances, as the global alliances set direction for the changes in the market of aviation services. Effective execution of the transportation process entails considerable expenses, and obtaining financial resources is becoming more and more difficult. In the existing circumstances the formation of mergers seems to be an advantageous solution. Increasing competition results in changes in the positioning of transport companies, and in extreme cases

takeovers or elimination from the market. Searching for effective methods to improve economic efficiency at each level of management is becoming the most important requirement crucial for a company's existence.

2. GLOBALISATION IN THE SECTOR OF AVIATION SERVICES

Civil aviation, operating in conditions of international market competition almost since its development, has found itself strongly influenced by the globalization processes. Extending networks to new areas of the world required detailed knowledge of specifics of the new, strongly diversified markets on the one hand, and on the other hand preparation of an attractive offer meeting local expectations, even though producers prefer standardized services which can meet optimal demand in all markets.

The natural functions of civil aviation, especially the fact that almost from its beginnings this kind of transport has been developing in an international environment caused that from among all the branches of the economy it has become the most typical example of a global sector which, at the same time, has the biggest potential influencing globalization of other areas of the economy.

Searching for effective ways for utilization of these processes indicates that without taking the potential offered by aviation into consideration, the development of many countries and regions could be significantly slowed down. At the same time globalization of the sector of air transport cannot be based exclusively on trite standardization and unification of services, as the process requires significant consideration of local expectations, which has considerable impact on the size of demand. Activities of civil aviation in the first years of the 21st century are however, strongly associated with economic conditions whose sources have their roots in toughening competition, sharp rises in the prices of fuel and aircraft, growing maintenance costs of the ground infrastructure and an increase in transport congestion in air space and at airports. In these conditions for the carriers reaching a position in the group of leading companies was possible not only owing to knowledge and capabilities, but mainly due to engagement of enormous financial resources, knowledge of the rules of forming alliances or winning a market niche, decisive about the position and the profit in this activity.

3. DIRECTIONS OF IMPROVEMENT OF EFFICIENCY IN THE AIR TRANSPORT

Observance of the efficiency improvement principle in air passenger transport requires integrated actions on many commercial levels, mainly the purchase of adequate types of aircraft, airport services, utilization of equipment, introduction of modern pricing methods, extension of activities in the field of supplementary and complementary offers and global partner cooperation within strategic alliances and bilateral agreements [7]. This makes an incredibly complicated system of a necessary and incessant analysis of economic situation of the aviation services companies, indispensable due to continuous fluctuation in the economic situation within economic cycles, development of new economic centers such as China and India, and increase in social mobility in some regions, as it can be observed in East - Central Europe. It will make it necessary to adjust the quality and quantity transformations to the changing market situation and effective exploitation of undertakings in the scope of:

- strategical allied cooperation,
- extension of *code – share* agreements,
- mergers and takeovers.

3.1. Functioning of strategic alliances

The developing process of globalisation in the economy is inseparably associated with the transport faces the necessity to develop new forms of coordination and fundamental mechanisms which will make it possible to increase advantages of partnership cooperation [6]. While deregulation and

liberalisation processes were the basis for development of economic activities based on free competition, the alliances have created conditions for closer integration of various aviation companies. This form of cooperation allows to consolidate resources, increase economies of scales, strengthen key competences and reduce costs of research [12].

The best way to survive the crisis is to participate in alliances making it possible to increase the share in the global market of passenger transport. This is the main reason why alliances in air transport are gaining new members, thanks to which they create global networks of connections with key market importance in a dynamically changing competitive environment [3]. The decreasing importance of national barriers creates favorable conditions for competition in international markets, and perturbations appearing in the environment increase the attractiveness of participation in strategic alliances which make it possible not only to survive, but, above all, to develop.

Table 1

Characteristics of the world-wide aviation alliances (as of the 1st June 2011)

Logo	Year of foundation	Number of members	Number of candidates	Main lines
 STAR ALLIANCE	1997	27	5	Lufthansa, Air Canada, Air China, United Airlines, US Airways.
 SKYTEAM	1998	14	5	Delta, Air France, Aeroflot Russian Airlines, KLM Royal Dutch Airlines, Air France, China Southern Airlines
 oneworld	1999	12	2	British Airways, American Airlines, Cathay Pacific, Qantas Mexicana

The creation of large strategic alliances is justified by the present day conditions in the global air transport market, as strong alliances have at their disposal sufficient instruments facilitating quick and thorough assessment of anticipated market fluctuations and an ability to adjust more easily to the changing environment. Their goal is getting control over the segment of business travel characterized by a uniform, high standard on the long-haul flights (Tab. 1) [23, 24, 25].

A strong market position of international partner blocks results from the volume of their resources and the effective exploitation of the influence the growing competition has on the pace in which associated transport companies take over the share in transcontinental markets. It also depends on the potential, related to the number of members, bookings, served customers, the number of airplanes owned and the scope of cooperation with a number of destination countries and airports (fig. 1) [1, 21].

The present day conditions in the global market are favorable for the growth in importance of international corporations and strategic alliances [12]. Increasing competition between them creates more and more complicated networks of interdependences, as a result of which the strongest global alliances establish new market standards. Their character is known as cooptation [2]. In the simplest way it can be defined as the simultaneous existence and joint interaction of competition and cooperation in the process of performance of specified tasks in the longer perspective. Cooperation within the alliance considerably changes the competitive position in respect to external subjects, as well as the ones cooperating within the alliance, where lower intensity of confrontation is observed, especially in strategic alliances operating within the same geographic sector.

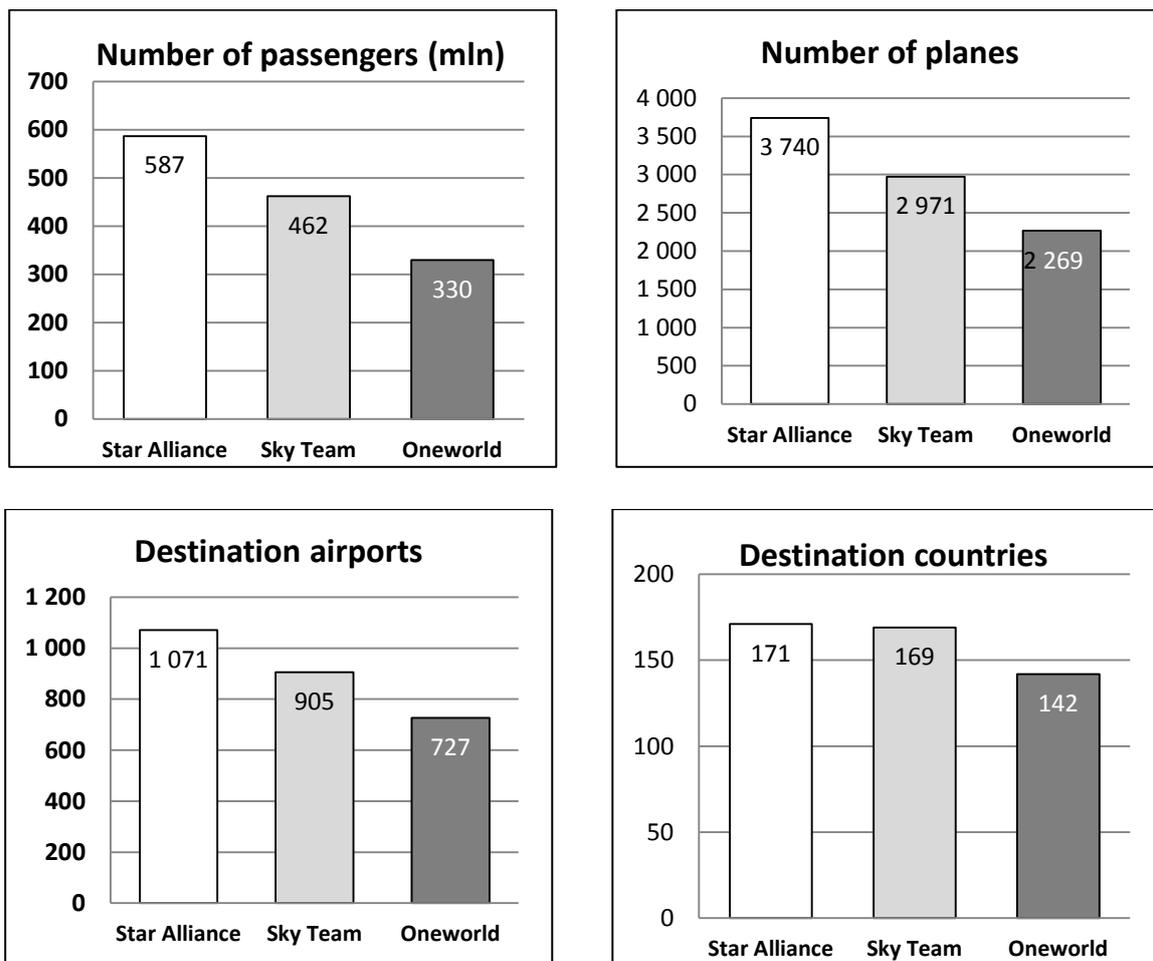


Fig. 1. Quantitative characteristics of aviation strategic alliances
 Rys. 1. Ilościowa charakterystyka lotniczych aliansów strategicznych

It also makes it possible to use dynamics of the alliance development, the scope and the form of expansion, creating new possibilities to extend effective cooperation in the most vital areas of operation. Although a considerable number of transport companies is trying to maintain their independence and freedom of choice, globalisation of the world airspace, by weakening the so far existing interregional barriers, is favorable to integration of aviation subjects. Members of strategic alliances have a considerable competitive potential resulting from servicing of more than 50% of the world-wide air transport market and synergy of resources and capabilities [19].

The creation of extensive strategic alliances is justified by the contemporary circumstances on the global air market, as strong alliances have at their disposal sufficient instruments which facilitate quick and thorough assessment of anticipated market fluctuations and make it easier to adjust to changing competitive conditions. Hence, it can be quite surprising that such a considerable number of airlines do not belong to any alliance. It concerns, in particular, the airlines registered in Africa and South America (fig. 2) [20].

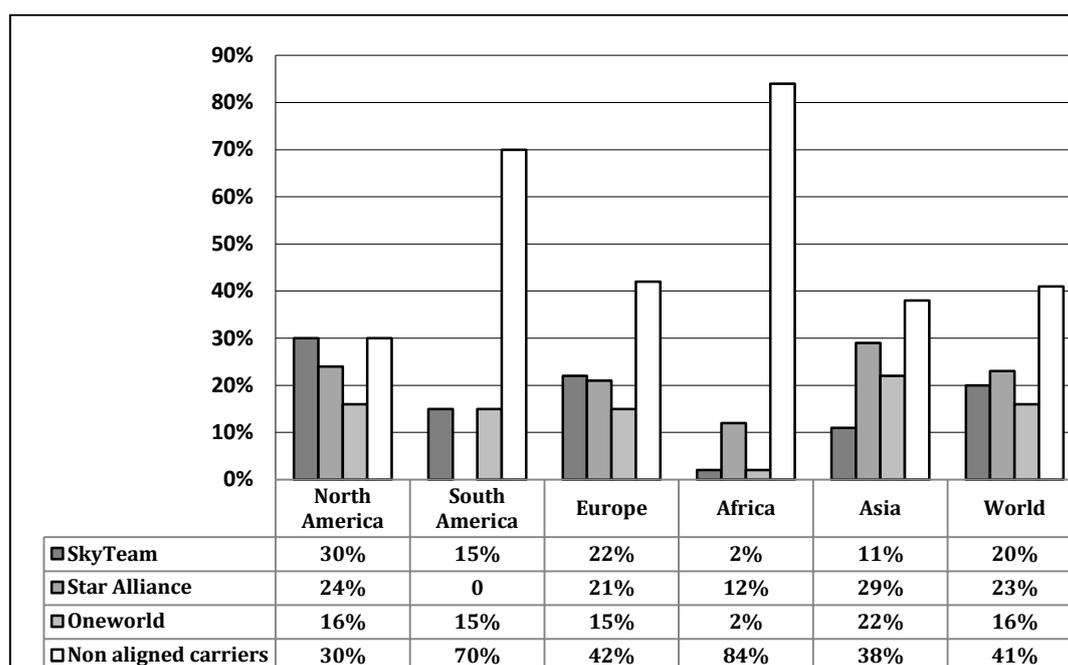


Fig. 2. Share of transport of passenger airlines associated in strategic alliances in particular regions of the world in the year 2009

Rys. 2. Udział przewozów pasażerskich linii lotniczych zrzeszonych w aliansach strategicznych w poszczególnych regionach świata w 2009 roku

The situation can be partly explained by reluctance of the participants in the leading alliances to start cooperation with the airlines without an adequate fleet and developed organisational solutions which would influence the quality of services offered within the entire organisation. In this situation the best solution is to accept in the alliance a strong European airline that offers in its network destinations in the same directions (it can be exemplified by acceptance of Iberia to the Oneworld alliance). Huge aviation corporations also begin to appreciate companies with a smaller commercial potential but operating in countries characterised by a high economic growth and the ones active in peripheral regions of the world. This is a correlatively advantageous phenomenon, evidenced by accepting in the alliance structures carriers from Asia, Eastern Europe and South America. Due to such operations strong subjects gain free access to new, absorptive markets, and the weaker ones receive considerable benefits resulting from cooperation with companies with a strong and well-known brand, high reputation and access to the demand segments which were previously out of their reach.

The first decade of the 21st century witnessed a growth in the number of alliances formed in the sector of air transport. It is due to the fact that these arrangements are considered to be the most effective way for reaching the position of a global transport company, a possibility to enhance market expansion and gain fundamental instruments of strategic management. The strength of the alliances can be proven by a forecast of strategic analysts, according to which it is expected that only three global groups of carriers associated with British Airways, Lufthansa and the Air France - KLM Group will survive on the European market [17]. The sale of complementary services within the alliances allows their participants to specialize in segments which are to a high degree complementary for one another [16].

Creation of large strategic alliances is justified by the contemporary circumstances in the global air transport market. Strong alliances have at their disposal instruments facilitating a quick and multiple-variant assessment of expected fluctuations of the economic situation within the sector and the economy, competitive behavior of other subjects as well as possibilities to adjust more easily to

changeable realities in the market environment. Their advantages include good position in the business segment and a possibility to create a high quality standard market offer on the middle and long - haul flights [22]. It can be assumed, that in the near future the global aviation market will be to a great extent captured by multi modal groups, with integrated networks of air transport operating within them. The number of formed alliances, growing in the recent years, results from the fact that these arrangements are considered to be the most effective way for winning the position of global carrier. However, the way in which competitors cooperate in the sector changes the character and the structure of behavior, fundamentally strengthens the market position of the allies, allows to weaken or to eliminate companies which do not belong to it, and strengthens the bargaining position towards the suppliers [16].

3.2. The *code – share* agreements as an instrument for development of the air transport market

Reasonable development of the air services market should observe the principle of a free and unlimited possibility to use international air space and the integration of aviation companies into allied partnership associations. A considerable number of aviation companies, which for various reasons were unable to participate in the process of integration with stronger alliances, had to work out a different form of cooperation [16]. In such conditions the solutions, that turned out to be the most suitable, were bilateral *code - share* agreements recognized as the basic instrument of cooperation and market expansion, that allow to pursue common marketing strategies. Partnership cooperation based on these agreements is a special kind of commercial arrangement between air carriers within which the partners operate flights to specific destinations under their own or joint code and flight numbers. In such a system each carrier is given the right to sell seats in a plane for a particular flight even though it does not operate it [10].

Alliances and *code-share* agreements are developing as substitutes for capital relations. The ability to compete with a unique offer is considerably greater in a stronger group than performed individually, and it allows to reduce negative pricing factors and guarantee high standard of transportation services. The *code - share* agreements are eagerly used, as they offer a possibility to establish a wide range of global connections and to coordinate them between hub ports and the local ones. The network extended by means of these agreements decides about development of global carriers, that, as indicated by research, will decide about the distribution and the future of the aviation market.

Thanks to the *code - share* agreements one can operate on several markets at the same time which, in the expansion process, has made them into one of the most attractive forms of cooperation between the carriers. The range and efficiency of their application makes it possible to pursue a strategy based on a combination of global activities with local conditions which in turn significantly extends the ability to influence airline competitiveness. As an important tool in the development of global networks and competition these agreements have become a dominant instrument of international cooperation [5]. Their common utilisation results from a considerable flexibility of form and scope of their influence, thanks to which it is easier to adjust conditions to the individual requirements of the users and the abilities of carriers aiming to develop a global network of connections.

Code - share is a form of cooperation used both within strategic airline alliances and outside them. It has character of activity coordinating the functioning of a vertical transport chain, performed successively by several carriers, including transfer connections. Thus the agreements are to be assessed as a positive element of coordination and ordering on the aviation market whose network extension and tightening effects contribute to the increase in the air carriers' profits [18]. Assessment of these processes and their outcomes demonstrates that strategic alliances and *code – share*, which are common in the aviation transport, stimulate the development activities and intra- and inter-branch coordination. They have replaced previously used institutional mechanisms making use of administrative and ordering methods [1]. Significant dynamism in the development of the passenger transport segment, the network of connections and airports, confirms efficiency of their influence. The *code - share* or the *blocked – space* agreements make it possible for the participants in alliances to

profit from more effective utilisation of planes, easier access to customer segments, extended scope of new offers and higher a flexibility of connections [13].

The revenue of all the subjects participating in the system is a primarily result of, the efficiency of the marketing mechanism used to create global networks, through extension of the range (*economies of space*) and densification (*economies of density*). The system contributes to a great extent to improvements in the comfort of travel, mainly on the connections with intermediate landings on route. The partners then provide the customer with a complex service at the port of transit.

3.3. Level of the *Load Factor* coefficient

Efficiency improvement is facilitated considerably by the growth in the coefficient of seat occupancy (passenger load factor – PLF or LF). This type of goal procedures undertaken turns out to be very effective, as efficiency improvement performed this way generally does not require expensive investments, requiring exclusively an efficient distribution, flexible price adjustment and effective forms of promotion. The lowest passenger load factor in global air transport was observed in the year 2001 which is known to be a consequence of the international situation and related to concerns in taking decisions on air travel. However, the trend was relatively quickly reversed in almost all the areas of aviation activities (fig. 3) [8, 9] .

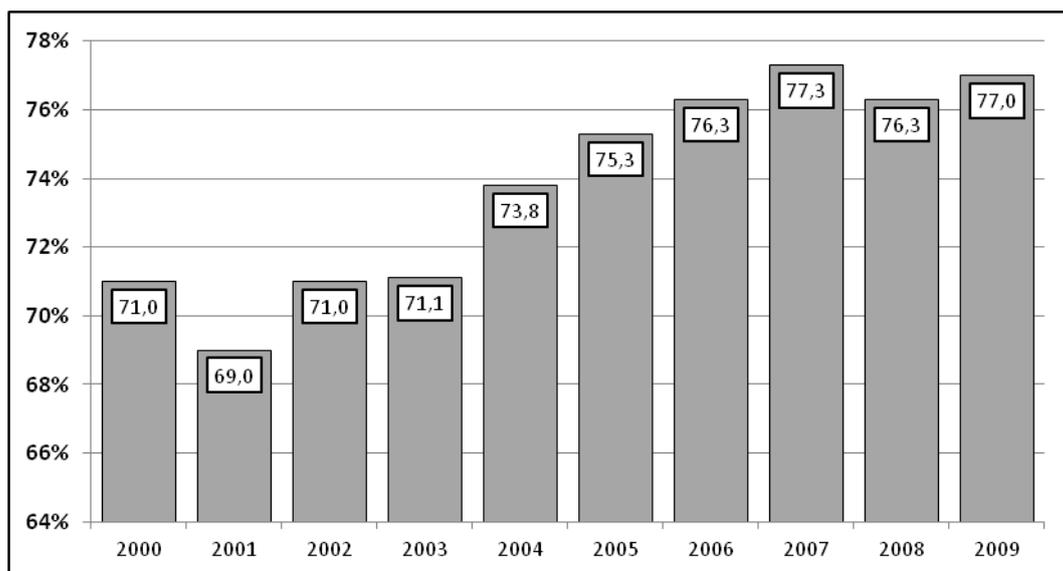


Fig. 3. *Load Factor* in the world aviation in the years 2000 – 2009

Rys. 3. *Load Factor* w światowym lotnictwie w latach 2000 – 2009

Each unused seat in passenger transport generates financial losses, that is why pursuing to obtain occupancy a maximal level of airplane causes, that in case of certain destinations it is profitable to temporarily reduce the supply which in turn leads to an increase in the LF coefficient [20]. The carriers associated in partnerships deal with the problem of effective utilization of seat capacity in a more efficient way. The outcomes of these activities are visibly reflected in the results of the year 2006. In this period the filling-up of airplanes in particular segments was still diversified but in general the upward trend was maintained. More significant differences in particular segments of transport were observed in the years 2007-2009 (fig. 4) [19].

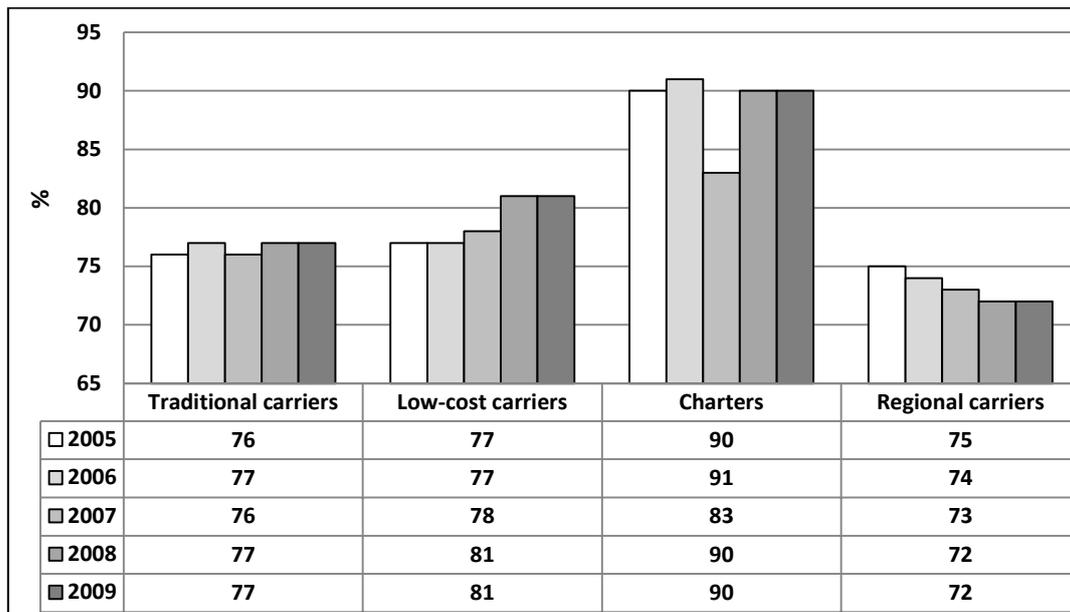


Fig. 4. Changes in the coefficient of utilization of places in the airplanes operating in particular segments of the air transport in the years 2004-2009

Rys. 4. Zmiana współczynnika wykorzystania miejsc w samolotach operujących w poszczególnych segmentach przewozów lotniczych w latach 2004 -2009

In the year 2007 the average value of utilization of places was 77% (it was the best result in the analysed period). There were 13 carriers of the group leading in the world rankings above that level, and 10 exceeded the level of 80%. The highest value of the *Load Factor* coefficient was obtained on the transatlantic routes (above 82%) [19].

In the following year the upward trend in filling-up of airplanes was stopped (LF dropped by 1% in comparison with the preceding year), and in the year 2009 it went slightly up. It can be believed that introduction of large capacity planes into use and simultaneous stress on the rise in the passenger load factor in passenger transport will have increasing influence on improvement in economic results in passenger air transport.

3.4. Mergers and takeovers in the air transport sector

The Optimal execution of the intentions presented frequently leads to the creation of the most advanced organizational and legal arrangement, that is *joint venture*. The process frequently results in a merger or takeover bringing a full integration of the allies. The sector of passenger air transport is characterised by a significant flexibility of subjects' participation in partnership agreements. The process is frequently observed within the framework of strategic alliances which turned changes in the alliance's structure into one of most important instruments of market globalization and the most important method of reaching high competitive position.

Dynamically changing market conditions, intensity of competition in particular, result in increased interest of companies in mergers and takeovers which is confirmed by the value of transactions which in 2002 was about 1 trillion and in the year 2009 reached the level of 3,9 trillion USD (fig. 5) [14, 29, 30].

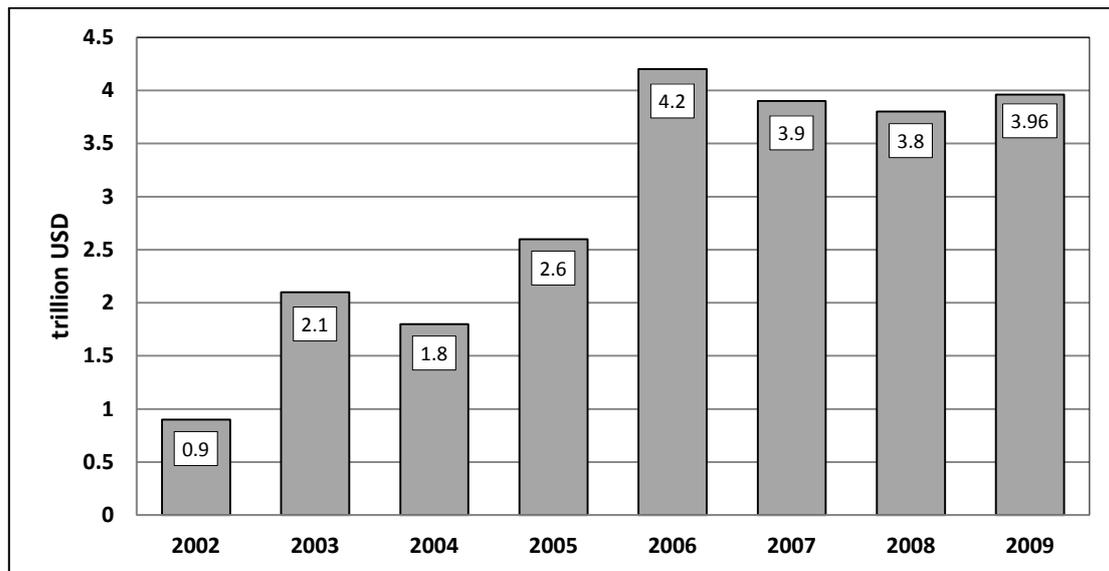


Fig. 5. Value of international mergers and takeovers in the years 2002 – 2009

Rys. 5. Wartość międzynarodowych fuzji i przejęć w latach 2002 – 2009

The main aim of these transactions is effective integration of particular forms of activities in order to strengthen the competitive potential of the subject which is being created towards other market competitors. In the majority of cases they are not aimed at obtaining short-term speculative profits, but at realization of active development strategy which makes it possible to control the market. Assessment of this process demonstrates that its realization results from many reasons, however, the basic importance is given to the ones which strengthen the basis of the strategy and policy of the lead partner in the alliance. The number of merger and takeover transactions is presented in the figure 6 [14, 15, 29].

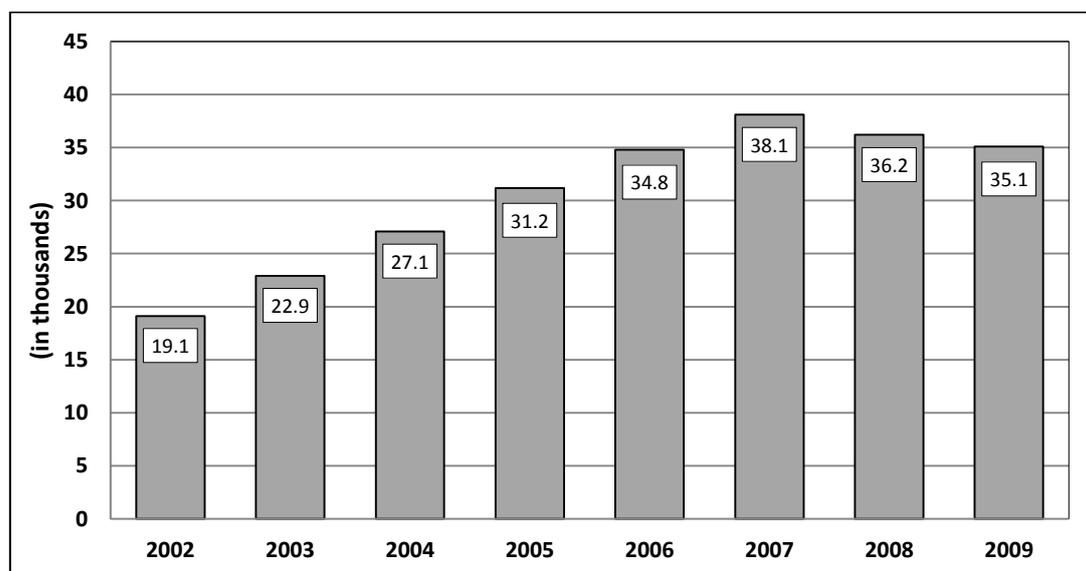


Fig. 6. Number of merger and takeover transactions on the global market in the years 2002-2009

Rys. 6. Liczba transakcji fuzji i przejęć na rynku globalnym w latach 2002-2009

A new organization, created as a result of a merger or takeover is a type of a company based on a uniform system, thanks to which, at the time of its creation, it profits from a breakthrough potential growth. Its source lies in a concentration of property and capital, as well as in the form of cooperation with competitors and frequently also with suppliers. This scope of activities, irrespective to the concentration of resources of the merging companies, most often results in stabilization of the sector and market position of its participants. These effects make that mergers and takeovers are more and more frequently used as optimal instruments for the pursuit of global strategies and the consolidation of groups of companies, in particular on the markets opening to free competition, with the possibility to access various forms of capital [4]. The period of world economic crisis strengthened the importance of this process for the survival of companies on the market that was characterized by a considerable degree of uncertainty. It has also increased the risk of making transactions with subjects with an endangered or uncertain economic status. The character and market importance of mergers and takeovers is confirmed by the biggest transactions made in the passenger air transport in the first decade of the 21st century.

The year 2003 witnessed one of the most significant, from the point of view of development of the branch, i.e. merger of Air France and KLM [12]. At present Air France – KLM Group is the second, biggest carrier in Europe after Lufthansa with a market share of about 30%. Among the most recent agreements special attention should be paid to the merger between British Airways and the Spanish airlines - Iberia on 21st January 2011 [12]. The arrangement resulted in the creation of the third largest aviation company in Europe. The merger ensures stable development of the partners as the strengths of both subjects are complementary, and the destinations operated by them coincide only to a minor extent. The newly created association has at its disposal considerable qualities of effective expansion as British Airways have a well established position in the markets of the USA and Canada, and Iberia is present in Latin America.

In South America a merger of Columbian Avianca and TACA - Central American airline, which is now being finalised will probably create a new leader on the Latin American market of aviation transport - Avianca - TACA Ltd [29]. The market strength of the association which is being created can be confirmed by the fact, that it is already in the area of interest of the Sky Team and Star Alliance global strategic alliances. Preliminary agreements concerning a merger have also been made between Brazilian airline TAM and Chilean LAN [27].

The biggest merger in civil aviation took place in the year 2008 on the American market. The consolidation of Delta Air Lines and Northwest Airlines resulted in the creation of the biggest air carrier in the world [28]. The merger of these leading airlines was formed in order to fight the effects of the economic crisis in passenger transportation, continuously rising prices of fuel and competition from low cost carriers. This type of mergers can become a stimulus for further changes in the world ownership structure of the sector. This development appears to be supported by another arrangement between two main competitors, United Airlines and Continental Airlines in October 2010 [28]. As a result of this merger the reserve capital of the financial reserves of United Continental Holdings society, can be allocated for improvement of passenger service standards.

Outside the above, listed markets with increasing activity of merger and takeover transactions can be observed in Japan, China, Korea and India. However, the world-wide public finance crisis of the year 2008 slowed down the intensity of this process in some regions of the world. It turned out that the scale of their formation is associated with general economic conditions which strongly influence development of this process. There is no doubt that the intensity of the merger and takeover processes within a determined range presents a threat to free competition, eliminating some of weaker participants. At the same time it allows to concentrate capital and improve economic efficiency of the leading economic subjects. The majority of mergers in the aviation sector have a horizontal character based on competitive logics (i.e. Delta AirLines and Northwest) [16]. It can be also observed in the strategic activities of Lufthansa, which, having at its disposal a considerable capital, a strong market position and a brands name known around the world Lufthansa purchases shares in many airlines, including partners within its own Star Alliance. Such process should make the partners realize that a weakening of their economic position within the alliance can lead to a takeover. Therefore the criteria

for analysis of this process should be tightened. Strong domination of one partner in the alliance creates a certain degree of risk for the other members related to the situation in which speculative or even hostile purchases can take place resulting from occurrence of fortuitous opportunities, or made under competitive pressure.

4. CONCLUSIONS

The deregulation and liberalization processes taking place in the aviation market call for competitive actions which should ensure an increase in the efficiency of aviation companies' activities, their development and the realization of their goals. The pace of necessary changes in the nearest future will decide about improvements in efficiency and market position of aviation companies as the demand for transport is triggered mainly by the strong development of new economic centers in the world and the increase in social mobility. Alliances and *code-share* agreements are developing as substitutes for capital relations. The ability to compete based on a unique offer is considerably greater in a stronger group than on one's own, it is also easier to reduce negative pricing factors and guarantee a high standard of transportation services. The *code-share* agreements are widely used, as their use offers a possibility of establishing a wide range of global connections and coordination between the junction ports (*hubs*) and local ones. These agreements mean that the network is crucial for the development of global transport companies, who, as indicated by research, will decide about the distribution and the future of the aviation market.

It can be assumed, that in the near future the global aviation market will be to a great extent captured by mega alliance groups, with integrated lines of air transport operating within them. The increase in the number of alliances concluded that can be observed in recent years results from the fact that this form has been recognized as the most effective way of gaining a position of global transport company, the pursuit of expansion and the instruments of strategic coordination and management on the global market.

In case of performing services within the scope of the air transport, the efficiency improvement process begins in companies manufacturing airplanes and aviation equipment. High technical and operational level of the machinery is just one of the means allowing to improve efficiency of air transport. High importance is given to cooperation within strategic alliances and the application of modern effective management strategies which facilitate the increase in seat occupancy in aircraft and a partial reduction of seasonal nature of the services. Activities aimed at increasing the income from tickets unrelated to services, coming from supplementary and complementary activities, are also helpful in making a profit.

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