

Business economics assessment – passenger airlines

[Transportation](#), [Airlines](#)



In the airline industry it is possible to identify separate markets. In generally it can be argued that oligopoly is the dominating market structure. The firms in the industry are interdependent and therefore individual companies' decisions have an influence on the competitors. Furthermore barriers to entry can be observed.

In this imperfect competitive market the airline companies face the choice of adopting competing or colluding strategies towards each other. These include for instance hub-and-spoke networks and the establishment of alliances. Customers are primarily affected by the carriers' strategies through price discrimination and product differentiation.

Although the recent deregulation and privatisation of the airline industry the passenger airlines are still faced with various restrictions tending to increase costs.

Nevertheless, the process of reducing operational costs and the exploitation of economies of scale are consequences of the market structure identifiable for the firms in the industry. The price discrimination exercised might imply either benefit or disadvantage, depending on the demand elasticity of the respective customer group. Altogether the consequences for society might be seen as positive, given benefits like an increase in UK GDP. Nonetheless harmful factors, such as negative externalities from the growth in air traffic, cannot be neglected.

Due to the oligopolistic market structure the European airline market has been subject to various restrictions aiming to increase the competition in the industry.

The Market Structure of the Airline Industry

According to the Competition Commission (2000a), " competition in the airline industry takes place on a number of levels and the relevant market in an examination of airline competition can vary from one case to the next".

However, it is very common and indeed simplest to view the industry not as one single, overall market, but to divide it into a number of separate markets, each representing a route between two airports. Most of these 'micro-markets' show an oligopolistic market structure, i. e. " they contain only a few competing [carriers, with each having] enough market power to prevent its being a price-taker ... [Each carrier] is subject to enough inter-firm rivalry to prevent it considering the market demand curve as its own" (Lipsey, 1999, p. 176). The airlines are interdependent with one another, and each carrier's actions impact upon the actions of other firms within the market. In most markets, air services are still provided by a few carriers, generally dominated by an incumbent flag carrier or by an airline alliance between incumbents (Gonenc and Nicoletti, 2000).

There are, nevertheless, significant differences in the structure of industries under oligopoly (Sloman, 2000). The different types of oligopoly vary from collusive, including dominant firm oligopolies, to non-collusive oligopolies. The case of collusive ones is represented by the occurrence of legal alliances

amongst airlines, such as the Star Alliance, Oneworld Alliance, Sky Team or North West Airlines/KLM. Those firms agree to limit competition between them. They may set output quotas, fix prices or agree not to 'poach' each other's markets in order to achieve an efficient use of their capacity and, thus, to maximise their profits (Sloman, 2000). These firms' behaviour can be characterized as a monopoly, since the participants will act as a single seller (see Diagram 1).

In the aviation sector, however, there are not only different modes of oligopolies discernible, but also in some cases other market forms which are different from the oligopolistic structure, such as monopolies and monopolistically competing firms (Stavins, 2001). The case of monopoly, when there is only one firm in the industry (Sloman, 2000), is given for those routes, i. e. markets, which are operated by only one airline. Monopolistic competition, by contrast, is prevailing in those markets where there are many firms, each one producing a slightly differentiated product and thus having some control over its price.

Summarizing, all these aspects regarding the market structure of the airline industry, oligopoly can be viewed as the dominant market structure, while in some few cases tendencies towards monopoly as well as monopolistic competition can be recognized. The latter cases are due to certain external influences effecting the level of competition within the separate markets, such as the geographical locations and capacities of the airports.

Having identified a dominant oligopolistic market structure within the industry for air services, further indicators are going to be examined in the following, which justify this result.

As already mentioned, there are still only a few firms in each of the different airline markets. There were 27 in 1998 (Competition Commission, 2000b); nearly all of them were only operating a limited number of routes, i. e. usually only few carriers constitute a single market.

As another key feature of oligopolistic markets, new entrants to the aviation industry have to face several entry barriers. Such barriers are, according to Bain (1956), the existence of product differentiation and brand loyalty within the industry, economies of scale and an absolute cost advantage for the established firms as well as sunk costs for the new entrants.

* Product differentiation is a common practice to prevent potential competitors to enter the airline market. Through the alliances in the passenger airline industry they can act like a monopolist. It is difficult to enter the market because the oligopolist and their alliance try to close the gaps in the service i. e. flight service (see Diagram 4). Through this wide range of services they are able to prevent competition in this industry.

Diagram 4:

* A passenger airline experiences economies of scale if cost per passenger fall as the scale of production increase. In the passenger airline we have mostly fixed costs. If there are a high number of passengers that means that

the average cost per passenger is low. Therefore we have economies of scale (A). If one of the passenger airlines tries to extend their capacity then they have to buy new equipment. The fix costs increase and when in the same time the number of passenger does not increase then there will be an increase of average costs per passenger. Therefore the airline is experiencing diseconomies of scale (C) (see Diagram 5).

Diagram 5:

* Another barrier to enter are the sunk costs. These are costs that cannot be recouped (e. g. by transferring asset to the uses). Sunk costs are irrecoverable and therefore the airlines will not get the money back. Many firms do not enter because they cannot cover the costs of the exit, which is typically for the airline industry. That is why we can conclude that there is no hit and run philosophy in the passenger airline industry.

Considering the above-mentioned facts, evidence is given for imperfect contestability within the airline industry, i. e. entry is neither free nor absolute, and sunk costs occur. The level of contestability of the separate markets within the industry, however, depends on several factors such as the availability of counter and loading space at the airports.

A final factor, justifying an oligopolistic market structure, is the existence of price discrimination within the aviation industry. It occurs when a carrier sells its services at different prices to different customers in order to maximise profits, for reasons unrelated to cost differences. This phenomenon is a typical feature of oligopolistic markets, as monopolists are able to maximise

profit without discriminating their prices, and as firms under monopolistic as well as perfect competition mostly act as price takers and thus cannot set their prices completely on their own.

The industry for air services can be segregated on the basis of different types of flights, namely charter and scheduled flights. Charter flights are usually viewed as relevant only to the leisure market, since they do not normally offer the service frequency, ticket flexibility or indeed higher levels of service associated with business travel, and have a particular disadvantage in not offering the facility to interline with other carriers. Therefore, some airlines even regard charter services as non-substitutes for scheduled services, particularly for time-sensitive and business travellers. Those usually stick to scheduled flights because of their high standard of service and lounge facilities, their high service frequency and their flexibility.

Finally, the previous investigation was concerned with markets as being defined by separate routes between two airports. Another distinction which helps to define different markets, however, is whether a traveller is time-sensitive or price-sensitive, as airline ticket prices and conditions usually mean a trade-off between flight flexibility and cost (Competition Commission, 2000a). These two types of market represent in general two different types of passengers - business and leisure travellers. While the former are usually categorized as time-sensitive, the latter ones are, in most cases, viewed as the price-sensitive customers.

Strategies in the airline industry

To understand the strategies adopted by firms, we have to be aware of the indications of our analysis of the market structure (see 4.). First of all, competition is on single routes, i. e. city pairs. The dominant market structure is oligopolistic. Therefore firms are interdependent and are left with the choice between collusion and competition. Nevertheless, some routes are only served by only one company (monopoly), while others are facing a monopolistic competition with many firms competing for market share. However, the strategies adopted are highly influenced by the contestability of the market. Not the existing competition, but the potential competition determines the firm's behaviour.

Strategies towards each other

One of the first decisions a firm in an oligopolistic market has to make is the one between collusion and competition. In the current past we could observe the emergence of new alliances, e. g. the Star Alliance and the Oneworld Alliance (Humphreys).

These aim to increase efficiency and increase market power. Typical features of these alliances are code sharing, which allows advertising one flight through two firms, and franchising. This means that small airlines being granted the licence to operate routes under a major carrier's code, increasing the feeder traffic to a hub and the size of the network as a whole.

The number of firms competing in one market (i. e. route) depends on the number of passengers that wish to fly that route. It is not unusual that certain routes are natural monopolies, due to low demand. In this case only

one firm can operate the route profitable. However, contestability in the airline market is comparatively high, as it is easy for existing firms to enter new routes, even if that means entering a tough competition like in the case of the natural monopoly. Nevertheless, due to the fact that costs of entry and exit as well as sunk costs are reasonable low, it is only a low risk for a firm to enter that market if it thinks it can operate it more efficiently. In case of loosing the competition the firm can use the planes on other routes; its sunk costs are low.

Therefore firms are forced to operate as efficient as possible in order to keep competitors out of their markets. This includes using all possible economies of scale. Therefore the use of the so-called hub-and-spoke system was chosen by many airlines in order to increase efficiency. This means that traffic is collected from feeder points and consolidated at a hub before being redistributed by further flights to other destinations. This reduces the number of flights required to serve a certain number of routes and allows the use of larger aircrafts as passengers for several destinations can be consolidated onto one flight and therefore offers economies of scale (Ferguson, 1993).