Transport Policy 12 (2005) 221–234
TRANSPORT POLICY
www.elsevier.com/locate/tranpol

# Perception of airline industry structure by regulators and managers☆

Mirko C.A. Schnell*

*Waldeckstr. 16, 72074 Tübingen, Germany*

Received 10 June 2003; revised 6 February 2005; accepted 10 February 2005
Available online 18 April 2005

**Abstract**

Differences in the perception of environmental conditions by regulators and managers may explain differences in their opinions and ultimately regulatory failure. The paper investigates whether regulators and firm managers in the European airline industry differ in their perception of current and future industry conditions in general, and route entry barriers in particular. It uses data gathered by a questionnaire-based survey, which reveals that regulators and airline managers perceive only some industry conditions significantly differently. Concerning entry barriers, the data uncover very little significant disagreement. In general, the differences detected do not suggest that one group has a more optimistic picture of the airline industry than the other group has. Correlation among variables only partly corresponds to predictions by theory.


*Keywords:* Airlines; Industry structure; Perception; Regulators

## 1. Introduction

Decision makers base their decisions on perceived environmental conditions (Snow, 1976; Paine and Anderson, 1977; Lefebvre et al., 1997). To the extent that regulators set the regulatory framework relevant to firms, regulators' perception of environment affects the conditions that firms face. It is in this respect that the view of regulators matters. In turn, the environmental conditions perceived by managers influence firms' behaviour and thus again industry state. Hence, it is also the perception of managers that counts.

However, as different human beings may view a specific aspect differently (Stubbart and Ramaprasad, 1988; Fombrun and Zajac, 1987), the behaviour of others cannot accurately be predicted. This may not be a problem as long as one party's action, which is triggered by a perceived condition, does not affect the other party in turn. However, concerning the relationship of regulators and firms operating in a regulated business, there are likely to exist many interactive effects—in fact, the very intention of regulations is to influence the conduct of firms. And vice versa, firms may try to influence regulations by lobbying regulators—a behaviour denoted as rent seeking (Krueger, 1974).

Besides, one important objection to regulations questions whether regulators have sufficient understanding of the regulated industry. Such a lack of industry knowledge may stem from a discrepancy in perception between regulators and competitors. It may endanger the effectiveness of regulations: regulators impose regulations on the basis of perceived facts that firms view differently. Thus, the regulated firms do not behave as anticipated by regulators. To the extent that regulations have been developed in line with anticipated, yet not realised behaviour, the effectiveness of regulations may suffer. The same logic holds for regulations that were abandoned or that are not enforced at all. Similarly, regulators may prioritise issues actually being less urgent and thus less relevant to the behaviour of firms. For the above reasons, regulatory actions may not improve industry efficiency to the extent planned.

Consequently, an investigation of the perception of environmental conditions of these two parties is first informative in itself. Furthermore, the differences detected may also contribute to explaining why regulations fail to work. The differences uncovered also provide insights into the conditions causing regulatory failure.

☆ Financial support by the Frankfurt International Airport Trust and the Friedrich-Naumann Trust is thankfully acknowledged.
* Present address: BSL Management Consultants, Barmbeker Str. 4a, 22085 Hamburg, Germany. Tel.: +49 173 3615 386.
*E-mail address:* mirko.schnell@web.de.

0967-070X/$ - see front matter © 2005 Elsevier Ltd. All rights reserved.
doi:10.1016/j.tranpol.2005.02.001

To provide empirical insights into the above aspects, the passenger air transport industry is selected. Passenger transport by air has traditionally been an industry of intensive regulations. In the last few decades, several markets have been liberalised. The paper focuses on the markets within the EU plus Iceland and Norway (i.e. the European Economic area). When the term ‘EU-airlines’ or ‘European airlines’ is used it refers to this region.

The paper is organised as follows. First, the paper outlines the conditions including entry barriers that are considered in the subsequent analysis. Second, the paper explains the data used. Third, the results of the data analysis are presented. Fourth, the paper investigates whether according to perception the interaction of conditions corresponds to theory. Next, the paper deals with route entry barriers. Finally, the conclusions are presented.

## 2. Industry conditions

This study considers the following potential current and future industry conditions. Bargaining power of suppliers and customers, the threat of potential entrants and competition between existing rivals are said to influence performance (Porter, 1980). The degree of market power and industry concentration closely relate to the above. A further aspect of high topicality represents the aftermath of the terrorist attacks on 11th September 2001 on airlines. Finally, the paper investigates the perceived extent of growth opportunities and the degrees of freedom left by the regulatory regime.

Not only current industry conditions influence the decision of airline managers, but also managerial expectations on how these conditions may look like in the future. In this respect, it is analysed whether airline managers expect competition, industry concentration and operating costs to rise. Furthermore, additional threats to airlines are a decline in demand and yields, while the former may also result in excess capacity. The paper additionally considers long-standing issues of civil aviation such as supply side constraints to expansion and the environmental impact of aviation. After 11th September 2001, the introduction of new safety and security regulations has been discussed. Moreover, governments have started to financially aid some airlines that may thus be favoured. Economic re-regulation of the airline industry has been proposed (Coorsh, 1998; Anonymous, 2001).

Route entry barriers represent a feature of industry structure, which is crucial to market performance. With such conditions in place, potential entrants are deterred and thus incumbents do not have to fear additional rivalry. One can distinguish between natural and strategic barriers to entry. The former exist regardless of competitors while the latter are caused by incumbents. Various conditions constituting entry obstacles have been advanced in the literature. As the extent of deterred entry represents a major debate in the airline industry, the paper considers a detailed list of such conditions as suggested by theory and evidence—such as sunk costs (Eaton and Lipsey, 1980), exit difficulties (Gilbert, 1989), product differentiation (Bain, 1956) and price discrimination (Shepherd, 1997), superior service, advertising (Comanor and Wilson, 1967), route structure (Bittlingmayer, 1990), and reputational measures (Milgrom and Roberts, 1982).

## 3. Data

Data reflecting the perception of regulators and airline managers are not readily available. Hence, primary data that portray an intra-firm (i.e. managerial) perspective had to be collected. The data collection procedure should be capable of handling a comprehensive list of industry conditions and entry barriers. For the results to be generalisable, the sample has to comprise of more than a handful of airlines. Moreover, the approach should be affordable regarding costs and manageable with regard to time. In view of these requirements, the choice falls on a questionnaire-based survey (Snow and Thomas, 1994).

Concerning regulators, in early 2002, 57 questionnaires were mailed to regulatory institutions concerned with aviation and responsible for one or more countries within the EU, Norway or Iceland. After 3 weeks, a reminder letter was dispatched. Eighteen filled-in questionnaires were received amounting to a response rate of 31.6%.

Concerning airline managers, 676 questionnaires were sent in late 2001 to airline managers working with 178 different carriers that have their home country in either the EU, Norway or Iceland. Three weeks after the initial mailing a reminder letter was sent. A further 4 weeks later, the questionnaire was emailed to the managers to further increase the response rate. A final email reminder was sent another 3 weeks later. Finally, 138 questionnaires from 93 different airlines were returned. This equals an overall response rate of 52.2% on the airline level and 20.4% on the manager level.

In an open question, the majority of responding regulators state that they are concerned with tasks such as market/economic analysis and legislation (about 69%) and to represent the head of unit (about 59%) (cf. Table 1). On average, regulators have worked for 15.3 years in the airline industry and for 5.3 years on their current job. Therefore, one can assume that responding regulators have a profound view of the airline industry.[1]

The majority of the responding airline managers work at the top-management level of the airlines (cf. Table 2). 81.1% of airline managers are concerned with general

[1] A larger sample size of regulators would have increased the statistical significance of the results—yet there is only a limited population of regulators to draw from.