



Europe Economics

Differentiation and Price Convergence in the Airline Industry

Briefing Note

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Differentiation and Price Convergence in the Airline Industry

Introduction

Since the early work of Stigler (1961), economists have been trying to explain why prices for homogenised products are set differently by firms in competitive markets. Whilst the underlying commonly accepted argument is that sufficient competition should eliminate price dispersion (corroborating the existence of the “law of one price”), several empirical studies seemed to suggest a persistent dispersion on prices; even across homogeneous products.

The first attempts to provide an explanation to price disparity built on the concept of market frictions. An extensive wealth of early literature tried to explain such differences with information imperfections, in particular consumers’ search costs. According to such theories, buyers can maintain price differences (and not converge to a single competitive price) as long as there are “uninformed” consumers (those for whom searching is costly).

The introduction and proliferation of price comparison websites created an opportunity to reduce such frictions and advance towards price convergence. The evidence however has not followed suit. In this note we explain the features of changes in new distribution channels, and the practices that followed in the airline industry.

Price comparison websites

Price comparison websites are internet-based platforms that allow consumers to filter and compare products and services provided by different suppliers. Consumers can then make purchase decisions based on the different features, prices, reviews and other criteria offered by the suppliers.

With the evolution of the Internet and electronic commerce, economists saw (and even welcomed) price comparison websites as a tool which would tend to reduce market inefficiencies (or increase its efficiencies). It was believed that the lower search costs the Internet provided would lead to a reduction in prices and price dispersion. The reasoning was that “the ready availability of price and product information combined with the low costs of search leads to the frictionless environment that is typically assumed in idealized economic models”.¹ The economic press also echoed the same idea: “The explosive growth of the Internet promises a new age of perfectly competitive markets. With perfect information about prices and products at their fingertips, consumers can quickly and easily find the best deals. In this brave new world, retailers’ profit margins will be competed away, as they are all forced to price at cost”.²

Such effects were particularly expected in the airline industry. The dramatic reduction in search costs provided by the Internet would allow consumers to sort tickets by prices or other ticket characteristics, and

¹ Baye, M. R. et al. (2001): “Price Dispersion in the Small and in the Large: Evidence from an Internet Price Comparison Site”.

² The Economist, November 20, 1999. As quoted in Baye et al. (2001).

“check out other travel agency websites, price comparison sites, and airline websites for better deals quickly and easily”³.

The results however did not conform with expectations. Szopiński and Nowacki provide a list of studies on the relationships between airline tickets' price dispersion and the competitiveness of the market for air transport.⁴ Their research shows contradictory findings. In routes serviced by more than one carrier the average price dispersion between companies is smaller, but if the number of carriers increases the price dispersion *widens*.⁵ On the other hand, an increase in competition on a route can *reduce* price dispersion considerably (in a market with a diverse structure of business clients and leisure travellers).⁶

Understanding dispersion

The explanation for these differences has focused on describing and understanding the effects of two opposing factors: the “convergence” and the “differentiation” arguments.

The convergence argument would recognise that global distribution systems (GDSs) and online travel agencies (OTAs) have been providing critical intermediation services for the air travel services industry. This is because price convergence would be facilitated in the electronic marketplaces as intermediaries “provide many value-adding functions that cannot be easily substituted or internalized”.⁷ At the same time, creating an “electronic marketplace” would reduce “the inefficiencies caused by buyer search costs”.⁸

However, recent literature on searching costs has identified a number of market imperfections as determinants of the widespread “differentiation” in airline tickets. Given the increased “commoditisation” of products being offered in electronic marketplaces, airlines have been trying to develop “à la carte pricing mechanisms”⁹ in their direct distribution channel, especially through their web sites, which exploit the differentiation of consumers. Hence, different types of tickets are provided according to customer’s different sensitivities. This has evolved into price differentials according to the time of purchase (cheaper for advance purchases) or services demanded.

In parallel, airlines have begun to adopt actions in order to differentiate their offers and accommodate different types of travellers, and this has also generated some dispersion. This strategy, has been referred to as ticket restrictions or “fencing mechanisms” so that ticket characteristics like refundability, Saturday-night stay over, minimum or maximum stay restrictions and day of travel restrictions “are widely used by the airlines to segment demand between high and low value customers in order to increase revenues”.¹⁰

Other innovations have been loyalty programmes (frequent flier programmes) which help create switching costs. This sort of explanation is provided in Lee (2015) as a driver of price differentials: “the presence of

³ Lee, HwaRyung (2015): An Empirical Study of the Effect of the Internet on Fares in the U.S. Airline Industry. KDI Journal of Economic Policy.

⁴ Szopiński, T. S. and Nowacki, R. (2014): “Plane Ticket Price Dispersion in the Online Selling System in Poland”.

⁵ Borenstein, S. and Rose, N. L. (1994). “Competition and Price Dispersion in the U.S. Airline Industry.” Journal of Political Economy, as cited in Szopiński and Nowacki (2014).

⁶ Gerardi, K. and Shapiro A. (2009): Does Competition Reduce Price Dispersion? New Evidence from the Airline Industry. Journal of Political Economy, as cited in Szopiński and Nowacki (2014).

⁷ Giaglis, G. M., S. Klein, and R. M. O’Keefe (2002): The role of intermediaries in electronic marketplaces: Developing a contingency model. Information Systems Journal.

⁸ Bakos, J. Y (1997): “Reducing Buyer Search Costs: Implications for Electronic Marketplaces”.

⁹ Granados, N. et al (2012): “À la carte pricing and price elasticity of demand in air travel”.

¹⁰ Sengupta, A. and Wiggins, S (2012): “Comparing Price Dispersion on and off the Internet Using Airline Transaction Data”.

switching costs offers less flexibility to consumers” so that although a decrease in search costs will intensify price competition, an increase in switching costs will hinder such competition.¹¹

Finally, the reduction of searching costs needs an important requirement to be met: that the information provided by airlines and price comparison websites is consistent and, most importantly, that the price provided by both channels is similar (or not worse in the indirect channel). This is something that in other contexts has been referred to as Most Favoured Nation (MFN) clauses which are conditions that restrict the price at which the supplier can sell through its own direct channels. The existence (or not) of MFN clauses will also explain dispersions in price.

Conclusion

The development and expansion of price comparison websites has not been translated into convergence in prices in the airline industry. This can be attributed, in part, to a response of airline companies and price comparator websites to diversify their offers (and move away from a “commoditisation” of services). However, it would be incorrect to consider such practices merely as anticompetitive. The disparity of prices allows that purchases are realised in a way that better matches consumers’ demands and their willingness to pay for certain services.

Such disparity is likely to increase in the near future with the refinement of e-commerce tools. The development and exploitation of big data provides a new dimension in marketing and distribution of goods and services, and this is likely to change dramatically the distribution landscape. Players which are currently providing social networks (Facebook), consumer retail (Amazon), or searching engines (Google) will be able to obtain incredible large amounts of data about their consumers’ habits. This would put them in a position to learn about patterns and profiles of consumers. It is possible that a whole new range of services is provided, all of which would tend towards a higher differentiation and specialisation of fares and services. In the process, however, it is possible that some sort of price conversion also takes place: for those consumers for whom price is an important attribute it is likely that more comparisons are being offered (and hence price convergence could be observed in some market niches).

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¹¹ Lee, HwaRyung (2015): An Empirical Study of the Effect of the Internet on Fares in the U.S. Airline Industry. KDI Journal of Economic Policy.