Journal of Air Transport Management 58 (2017) 50–57

Contents lists available at ScienceDirect

Journal of Air Transport Management

journal homepage: www.elsevier.com/locate/jairtraman

The effect of code-sharing alliances on airline profitability

Li Zou*, Xueqian Chen [1]

College of Business, Embry-Riddle Aeronautical University, Daytona Beach, FL 32114, USA

ARTICLE INFO

Article history:
Received 20 May 2016
Received in revised form
30 August 2016
Accepted 15 September 2016

Keywords:
Codesharing
Airline global alliances
Profitability

ABSTRACT

Code sharing and global alliances both have been increasingly adopted by airlines worldwide in recent years. A growing number of airlines, therefore, are embedded in networks of multilateral "coopetitive" (i.e., cooperative, but competitive) relationships that influence their product offering, pricing strategies, operating efficiency, market power, and their overall successes. There has been considerable research analyzing the benefits for airlines from joining global alliances, including bilateral code-sharing partnerships. However, the joint effect of code-sharing and global alliances on airline performance has not been fully investigated. In this paper, we study how the use of code-sharing strategies and their structural embeddedness into global alliances may impact airline performance. Using a unique dataset compiled from Flight Global and Airline Business's Annual Airline Alliance Report, the paper empirically investigates the joint benefits of code-sharing partnerships and global alliances on airline profitability. The results based on a group of 81 airlines during the 2007–2012 period show that the profit margin of an airline is positively associated with the number of code-sharing partners it has. Furthermore, the profit margin gains from code-sharing are greater when an airline has a higher proportion of its code-sharing partners in the same global alliance; i.e., allied code-sharing partners. Finally, we find no significant evidence that the percent of comprehensive code sharing partnerships to total partnerships has an impact on profit margin.

© 2016 Elsevier Ltd. All rights reserved.

1. Introduction

Code-sharing arrangements, the most common type of airline alliance, rapidly developed in the US domestic airline industry after industry deregulation in 1978 and on international routes by the late 1980s (Dresner, 2010). Under a code-sharing arrangement, one airline can use its designation code on a flight operated by a second carrier. The seats on that flight can be marketed and sold by the first airline either to provide regional connections to complement its own network (i.e., complementary alliance) or to reduce competition by having only one airline actually operate on the route (i.e. parallel alliance). There are several benefits for airlines from developing code-sharing partnerships. For example, through code-sharing arrangements, a major hub-and-spoke airline can use the flights operated by its regional affiliates or partners to feed traffic from spoke cities to its hub cities, enabling the efficient and successful operation of hub-and-spoke networks. Code-sharing arrangements also allow an airline to expand its service network without committing its own resources; for example, by extending its route coverage to more international destinations that otherwise cannot be served under the restrictive regulatory framework for international air transport.

The distinct advantages associated with code-sharing arrangement prompt many global airlines to enter into such partnerships, first at a bilateral level and later evolving into multilateral, more formalized group alliances. In 1989, Wings, the first global alliance, was established, mainly based on cooperation between KLM and Northwest. In 1997, Star Alliance, the largest and most mature alliance, was formed by five core members, including United, Lufthansa, SAS, Air Canada and Thai Airways Intl. One year after the formation of Star Alliance, American Airlines, British Airways, Qantas, Canadian Airlines, and Cathay Pacific teamed together and formed their own alliance – Oneworld. In 2000, Skyteam Alliance was founded by Air France, Delta, Korean Air, CSA, and Aeromexico. Following the merger between Air France and KLM, all the major member airlines of Wings joined Skyteam. With the extinction of

* Corresponding author. College of Business, Embry-Riddle Aeronautical University 600 S. Clyde Morris Blvd., Daytona Beach, FL 32114, USA.
E-mail address: zoul@erau.edu (L. Zou).

[1] Ms. Xueqian Chen is an undergraduate student in the accelerated MBA program at the College of Business of Embry-Riddle Aeronautical University, and she helped collect data for this project under the supervision of Dr. Li Zou during the spring of 2015.

http://dx.doi.org/10.1016/j.jairtraman.2016.09.006
0969-6997/© 2016 Elsevier Ltd. All rights reserved.

Wings, the remaining three global alliances – Star, Oneworld, and Skyteam, continue their growth and expansion, increasing airline membership by 58% from 34 in 2004 to 54 in 2012.

With the increasing prevalence of code-sharing partnerships and global alliances, a growing number of airlines, therefore, have recently been embedded in networks of multilateral "coopetitivity", meaning the coexistence of cooperation and competition among allied partners that influence product offerings, pricing strategies, operating efficiency, market power, and overall performance. On one hand, more and more airlines have formed closer and deeper partnerships with allied airlines in the same global alliance to leverage their joint branding, joint marketing, resource sharing, etc., for potential revenue gains, cost savings, or both. On the other hand, airlines also have developed and maintained their bilateral alliance relationships with non-aligned airlines or even with airlines from rival group alliances. For many airlines, including both aligned and non-aligned carriers, the bilateral code-sharing strategy remains a driver of revenue growth and cost savings.

Though there has been much research analyzing the benefits for airlines either from joining global alliances or from building bilateral code-sharing partnerships, an examination of the joint effects of code-sharing and global alliances on airline performance is still unexplored. In this paper, we focus on the question: To what extent are the impacts from code-sharing strategies on an airline's performance moderated by its structural embeddedness (or the lack thereof) into global alliances? Using data collected from *Flight Global* and the *Annual Airline Alliance Summary Report* results published by *Airline Business*, we empirically investigate the combined effects of code-sharing partnerships and global alliances on airline performance. The results based on a group of 81 airlines during the 2007–2012 period show that the profit margin of an airline is positively associated with the number of code-sharing partners it has. Furthermore, the profit margin gains from code-sharing partnerships are greater when an airline has a higher proportion of its code-sharing partners in the same global alliance, i.e., allied code-sharing partners. Perhaps, due to methodological limitations, we do not find significant evidence that the level of cooperation moderates the profitability benefits for code-sharing partners from a code-sharing strategy. Nevertheless, our finding that there are joint benefits from code-sharing partnerships and global alliances provides valuable implications for airline management seeking to develop the most rewarding code-sharing partnerships in the context of global alliances.

This paper contributes to the existing literature and to airline alliance management in three ways: First, we develop a new construct, namely, *allied code-sharing partner*, to represent the code-sharing partnership formed between airlines in the same global alliance. This construct is then used to measure the extent of an airline's allied code-sharing partnerships compared to its total number of code-sharing alliances. Through our empirical analysis, we find evidence suggesting that an airline can gain a greater profitability benefit when it increases its code-sharing partnerships with allied airlines. For airlines that are already in the three global alliances (i.e., Star, Oneworld, and Skyteam Alliance), this finding can help them decide whether to develop code-sharing partnerships with allied or non-allied airlines. For those non-aligned airlines that have existing code-sharing arrangements, our findings may be valuable in helping them to choose the most beneficial global alliance to join. Second, although there is empirical research estimating the impact of code-sharing alliances on airline performance, the moderating effect of the depth of code-sharing alliances (measured by the extent of route integration through code-sharing arrangements) is unexplored. In this paper, we develop a convenient instrument to measure the depth of code-sharing arrangements in order to estimate their potentially moderating effects. Finally, we contribute to the existent literature on airline alliances by using a panel dataset that includes a broad sample of airlines varying in operating scale, geographic region, and alliance engagement.

In the following section, a literature review is provided. Section 3 introduces our hypotheses. Data descriptions and the empirical models are presented in Section 4. The results are summarized in Section 5. The last section concludes the paper and discusses potential for future research.

2. Literature review

Dresner and Windle (1996) examine the early development of airline alliances and code-sharing arrangements and suggest several rationales for the adoption of such strategies by a growing number of international airlines in the 1990s. For most airlines, the primary consideration of forming alliances is to expand global route coverage and serve on international routes that would otherwise be impossible to offer due to legal and regulatory restrictions. Through code-sharing arrangements, the most common type of airline alliance, each of the two partner airlines can market and sell seats under its code on the flights operated by the partner carrier. Such an arrangement may generate revenue to partner airlines through market expansion, traffic feeds, improved connectivity, multiple listings on Computer Reservation System (CRS) screens, etc. Moreover, code-sharing arrangements and other alliance activities may help the partner airlines reduce the cost per passenger because of increased traffic, joint advertising, equipment sharing, etc. Therefore, it is expected that airlines may gain competitive advantages by code-sharing, and that carriers that do not enter into these partnerships are at a disadvantage (Dresner and Windle, 1996).

There are various types of code-sharing partnerships. In the US domestic airline industry, the first code-sharing arrangement were formed between major US airlines and their smaller regional partners that provided service on lower density routes, and fed traffic onto mainline routes operated by the major airline. This type of code-sharing arrangement, known as "complementary code-sharing," has become an essential component of the hub-and-spoke systems in the US domestic airline industry (Ito and Lee, 2007). On international routes, a similar type of code-sharing arrangement has been adopted by international airlines to connect their route networks and provide seamless connections for passengers traveling from one country to another and flying beyond gateway hubs to inland destinations in the foreign country. In contrast, so-called "parallel code-sharing" arrangements are developed between two airlines that competed on routes prior to forming partnerships (Park, 1997). The study of airfare effects of parallel versus complementary alliances has been a research topic over the last two decades (Yousseff and Hansen, 1994; Oum et al., 1996; Park, 1997; Park and Zhang, 2000; Brueckner, 2001, 2003; Brueckner and Zhang, 2001; Ito and Lee, 2007; Wan et al., 2009; Zou et al., 2011; Gayle and Brown, 2014). The extent of cooperation associated with code-sharing arrangements on international routes also varies depending on whether antitrust immunity is granted or not. With antitrust immunity, the partner airlines are allowed to jointly set airfares and capacity, enabling them to have greater cooperation in terms of airfares, flight scheduling, marketing and capacity adjustments (Dresner and Windle, 1996; Brueckner, 2003).

Given the prevalence of code-sharing partnerships and the potential anticompetitive concerns over antitrust immunity for the alliances, Brueckner (2003) develops an in-depth study to investigate the joint airfare effects of code-sharing alliances and antitrust immunity. As an extension of his earlier results (Brueckner and

Download English Version:

https://daneshyari.com/en/article/5111590

Download Persian Version:

https://daneshyari.com/article/5111590

Daneshyari.com