

The Performance Implications of Vertical Integration: Evidence from Regional Airlines

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This paper investigates the performance implications of vertical integration between major U.S. airlines and their regional partners. Regional airlines operate short- and medium-haul flights under the codes and brands of major carriers. Regional airlines are either owned by a major airline or they are independently owned and contract with one or more major airlines. There is substantial heterogeneity both across and within majors in whether or not regionals are owned. Building on our earlier work on the incentives for vertical integration between majors and regionals (Forbes and Lederman, 2005), we analyze how ownership of a regional will affect specific measures of a major's performance. In particular, we argue that because the primary benefit of owning a regional is that it allows a major to optimize its response to unforeseen contingencies at a network level, the performance benefits of vertical integration in this setting will also occur at the level of the airline's network - rather than the individual flight. For example, when adverse weather necessitates flight cancellations, a major that owns its regional will not necessarily cancel fewer flights than a major that does not, rather it will cancel those flights that impose the lowest costs on its overall network. We use detailed data on flight delays, diversions and cancellations to construct measures of the overall performance of an airline's network at a given airport on a given day. We also weight these measures by the number total and connecting passengers to more accurately account for the cost of delays, diversion and cancellation on the airline's network. We relate these measures to the number of the major's daily flights at the airport that are operated by owned and by independent regionals, using an instrumental variables approach to account for the potential endogeneity for major's vertical integration decision. In addition to looking at a baseline relationship between the number of flights operated by owned and by independent regionals and a major's overall performance at an airport, we also test whether the performance differences resulting from ownership of a regional are greater under conditions in which unforeseen schedule disruptions are more frequent, such as adverse weather.