Economics of Competitive Strategy
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Executive Summary

This paper analyzes the strategic implication of ORBITZ’s entry into the online distribution industry. ORBITZ, an online travel agency launched in 2000 by a consortium of airlines, has the potential to change the travel distribution industry’s structure and scope. ORBITZ is a low cost substitute for both travel agencies and computer reservation system providers (CRS) and therefore will decrease the power of both. ORBITZ’s proprietary technology will allow the website to eventually function independently of a CRS vendor, thus providing the first viable substitute for the CRS’s service. ORBITZ’s low cost position allows airlines to distribute heavily discounted fares (normally reserved for an airlines home website), forcing existing travel agencies to become more cost effective to remain competitive in terms of market offering. ORBITZ, through its contractually agreements, will also have positive effect on price cooperation for participating airlines by making prices more transparent (3rd party price list/ease of substitution effect). Overall, ORBITZ, by increasing the competition in the travel distribution industry, will shift power back to its investors, the airlines.

Background

Introduction:

Airline tickets are distributed primarily through three channels: directly from the airlines, through bricks-and-mortar travel agents and through online travel agents (Figure 1.). The vast majority of bricks-and-mortar and online travel agents use one of the four major computer reservation systems (CRS) to view available fares in the market and to book tickets with the airlines. These CRS’s compile fares, schedules, and availability information for almost every major U.S. airline. They also serve as an intermediary for bookings. When a traveler books a ticket through a travel agent (either bricks-and-mortar or online), the airline pays a commission to the travel agent (up until recently) and a booking fee to the CRS vendor. These fees are the primary source of revenues for both the CRS’s and the travel agencies.

Figure 1. Airline Tickets Distribution Channels as of June 2000.

Legend:

- **Direct from the Airline**
  - No External Fees

- **Bricks-and-mortar Agencies**
  - Agent Commission
  - CRS Booking Fee

- **Online Agencies**
  - Reduced Commission
  - CRS Booking Fee

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This distribution system represents the third largest expense for the airlines, behind labor and fuel\(^2\). Bricks-and-mortar travel agents and online travel agents received commissions of 6-7% (capped at $50) and 5% (capped at $10) respectively as of July 1999\(^3\). CRS fees were approximately $2-$4 per segment booked with the average total booking fee for a round trip ticket ranging from $10-$16\(^4\). Only recently have airlines been able to overcome the power of these channels to reduce the cost of distribution.

**ORBITZ.com:**

ORBITZ is an online travel agency that was originally funded by American, Continental, Delta, Northwest and United Airlines. The website came online June 4, 2000 with the stated strategy of utilizing the newest technologies to provide the most comprehensive, most unbiased, and most convenient information to the customer about schedules and fares. The firm claims that its independently developed (at MIT) search engine will allow them to eventually bypass the CRS’s and display fare and schedule information by directly accessing individual airlines internal reservation systems. This will allow them to display every schedule option and published fare while avoiding any potential CRS based pre-selection and bias. Initially, ORBITZ’s will rely on a CRS (Worldspan) to book tickets. As part of their strategy, Airlines will enter into a contract with ORBITZ (become “Chartered Associates”) where they will make all “published fares” available to the site in return for receiving an indirect booking discount (split the ORBITZ’s volume discount – 60%) on CRS fees. The CRS fee rebate will range between $1- $3. This relationship will provide ORBITZ with access to deeply discounted “E-fares” that normally are only available through a particular airlines own website. Additionally, ORBITZ will be contractually obligated to show the fares in an unbiased way. The company’s primary source of revenue will be the online travel agent commission paid by the airlines (Current commission is 5% capped at $10).

**Online Ticket Distribution Industry Analysis:**

The emergence of the lower-cost, web-based travel agencies in the mid-90s has lead to airlines encouraging consumers to utilize the new channel and reduce the overall cost of distribution and the power of existing distribution channels (Table 1.). Before June of 2000, there were approximately 270 online travel agents in the US with a trend toward continuing entry by new firms. However two firms, Expedia and Travelocity, have dominated the industry as evidenced in their combined market share of 70%\(^5\). These two companies, while still unprofitable, have gross margins around 60% and have seen sales growth in excess of 100% annually for several years\(^6\). While these numbers have encouraged entry, their continued domination is proof of several barriers. These barriers are mainly due to the combination of the effects due to Economics of Attention (information overload) with the first mover advantages in marketing (brand awareness) and channel crowding. ORBITZ’s entry strategy includes overcoming these barriers by providing a superior product in terms of searching capabilities (overcome economics of attention) coupled with

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\(^3\) U.S General Accounting Office, *Domestic Aviation: Effects of Changes in How Airline Tickets are Sold*, GAO/RCED-99-221, July 1999


\(^5\) Morrison, pg 3.

\(^6\) Marketguide.com
significant advertising investment and strategic relationships with other online companies. The structure of the industry is illustrated in a five forces framework diagramed in Figure 2. Overall the forces acting on the online ticket industry lead to the conclusion that the industry is marginally attractive. There is evidence that the large market share sites have significant power over the airlines\(^7\). This stems from the fact that there are no good substitutes for the online channel. While the customers can avoid online travel agents by searching all of the different airline websites to check fares, this is inefficient and suffers from effects due to the economics of attention. Another alternative would be to go through a traditional travel agent, however this option is not attractive to the “wired” customer. We can therefore conclude that, for companies with large market shares, this industry has potential for sustained profits.

**CRS Industry Analysis:**

CRS’s play an important role in getting fares, schedules, and availability information from the airlines to the final traveler. CRS’s value proposition lies in their ability to increase the number of

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\(^7\) Dept. of Justice, Docket OST-96-1145, Sept. 19, 1996
people that can view fares, thus maximizing distribution and sales. CRS’s systems allow airlines to create and communicate complex pricing schemes (price discriminate) to maximize revenue on the airlines perishable inventory of seats. It is not in an airline’s interest to be off of a CRS, because it will cut off the airline to vast market segments.

There are only four major players offering Computer Reservation Systems: Sabre, Worldspan, Amadeus and Galileo. There are large entry barriers mainly because of the large minimum efficient scale. Large investments in infrastructure require very high transaction volumes to pay off. CRS vendors have attempted to create switching costs for the travel agents by giving agents incentives to use their particular CRS service and create contracts that have monetary penalties for switching. However, historically, these switching costs have not prevented competitors from stealing agents. Today there is really no substitute for the CRS for these customers. The structure of this industry (Figure 3.) indicates that the CRS have significant power and are able to earn economic profit at the expense of suppliers and buyers.

**Figure 3. CRS Industry Five Forces Analysis.**

- **Intense of Rivalry Among Competitors**
  - **Assessment: Low**
    - Airlines need CRS to sell tickets
    - Airlines have perishable inventory
    - CRS prices increase 70% between 1990 and 2000.

- **Threat of New Entrants**
  - **Assessment: Low**
    - Airlines need CRS to sell tickets
    - Airlines have perishable inventory
    - CRS prices increase 70% between 1990 and 2000.

- **Supplier Power**
  - **Assessment: Low**
    - Customer lock-in
    - Shingling
    - Large minimum efficient scale

- **Threat of Substitutes**
  - **Assessment: Low**
    - Without CRS much more difficult for Travel Agents to compare prices.

- **Buyer Power**
  - **Assessment: Low**
    - Few systems for agents to choose from.
    - Difficult to switch because of contractual lock-in

- **Complements**
  - Travel magazines and TV shows
  - Destinations like Disney World
  - Hotels and Car Rental Companies
Analysis

Game Theory Approach:
There is strong evidence that the CRS vendors have substantial power over the airlines. One of the ways for the airlines to outmaneuver the CRS’s is to influence the structure of the industry. By creating ORBITZ, the airlines essentially “changed the game” between the CRS vendors and themselves. We can see these effects along five different dimensions:

Players - ORBITZ is a different type of player than those in the original five forces diagram. They are a travel agency that can operate independently of a CRS. Without any power over one of the players, the total power of the CRS’s in the game is diminished.

Added values - By creating a technology to allow travel agents to directly access the airlines computer systems they lower the value of the CRS’s to the travel agents. Creating ORBITZ shows that this type of system can work.

Changing the Rules - Prior to ORBITZ, the airlines posted the vast majority of their flights on all of the CRS’s. They had no other choice because they would lose access to a significant number of customers if they went off of the system. ORBITZ will make it possible to reach a large market segment without using a CRS. This reduces the cost of not using a CRS vendor.

Tactics - Creating ORBITZ also changes the CRS’s perceptions about the airlines and travel agents. Even if the airlines can’t immediately bypass the CRS’s they are at least signaling to the CRS’s that they are not willing to be held hostage. The CRS’s now have an incentive to lower fees, or at least not raise them as much, because each increase is going to further increase the effort by the airlines to complete their new computer system. It is possible that the CRS’s should actually reduce fees once they see that the airlines are working on this system. With lower fees there is less incentive for the airlines to work through technical difficulties that may come during system development.

Scope - ORBITZ increases the scope of the “game” between the airlines and the CRS’s by increasing the role of the travel agents. In the past, travel agents and CRS’s competed in a limited manner. ORBITZ creates a situation where the travel agents can bypass the CRS vendors. This weakens the power of the CRS’s over the travel agents. If the CRS’s are less essential for the travel agents it lessens the airlines need for the CRS’s. (An airline not posting on a particular CRS will have less negative consequences for it.)

Vertical Integration Perspective:
While ORBITZ is not technically part of one airline, it gives its founders many of the benefits that occur from producing goods internally. These benefits include reducing the power of travel agents and CRS’s by reducing the airline’s reliance on their ticket distribution services. The airlines have

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an incentive to vertically integrate to reduce the distribution inputs power. There are four main reasons to produce goods internally: holdup, coordination in production and design, double marginalization, and foreclosure. The creation of ORBITZ by the airlines improves the situation for the airlines in all four of these areas.

**Holdup** - The market power of the CRS’s has taken a substantial share of airline profits for years. The airlines must make their flights available on all of the CRS’s or they risk losing access to discrete market segments. By creating a competitor to the existing CRS’s, the airlines show if prices are high enough they will find a way to get around them (quasi-threat of integration). This threat will deter the CRS vendors from increasing their fees.

**Coordination in Production:** Airlines offer “E-fares” and other specials at the last minute to fill up seats on airplanes that have a risk of being significantly undersold. People who are on e-mail lists may learn about these fares, but it is difficult for the airlines to spread the news of these fares to all potential customers. The high booking fees of the CRS’s could makes these special fares unprofitable for the airline to distribute through traditional channels. ORBITZ gives the airlines a large market outlet with much lower distribution costs allowing them to better coordinate their product offerings to capture demand.

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9 McAfee, pg 118  
10 DOT, NPRM, Aug. 14, 1996  
11 Dept. of Justice, Docket OST-96-1145, Sept. 19, 1996  
Double marginalization: By eliminating intermediaries, the airline can keep a greater share of the value customers receive when they fly (Figure 4.). ORBITZ has essentially combined the roles of the CRS and the travel agent. Also, as a part owner of ORBITZ, the airlines can share in the profits. By ORBITZ charging lower fees, it reduces the degree of the double marginalization for the industry.

Foreclosure: The different CRS’s have a history positioning some airlines flights in a better listing position (CRS bias) to influence market shares\textsuperscript{14}. Certain airlines were (possibly are still) in essence being foreclosed for prime screen real estate. The nature of ORBITZ’s contractually obligation ensures that fares are displayed in an unbiased way therefore avoiding the foreclosure problem.

Tapered Integration: Because the airlines will still be using the CRS’s for part of their business, this is more of an instance of tapered integration instead of vertical integration. By being involved in ORBITZ, they will better understand the costs of the competing CRS’s and be in a better negotiating position. If the CRS’s increase fees, the airlines can retaliate by investing more in ORBITZ to improve its services.

Competitive Rivalry Perspective:
In addition to reducing the power of the CRS’s, ORBITZ will serve to mitigate the current power of traditional and online travel agents. These agencies have historically been able to extract profits from the airlines based on the lack of an effective substitute. ORBITZ will serve as a low cost substitute to both a bricks-and-mortar and online agency. ORBITZ’s low cost position allows airlines to distribute heavily discounted fares (normally reserved only for an airlines home website), forcing existing travel agencies to become more cost effective to remain competitive in terms of market offering. These “E-fares” and other specials are used to generate demand to capture some value before the product spoils (the flight takes-off). If an agent cannot evolve to offer low cost distribution, it will not have access to the low price products.

Industry Cooperation:
Use of ORBITZ by participating airlines has the potential to facilitate price cooperation. The fact that ORBITZ will have the right to all “published fares” means that the website can act as a “price list”. Published price lists can permit each firm to see what its rivals are doing, and to do the same, thereby reaching a cooperative outcome\textsuperscript{15}. ORBITZ’s ability to access all published fares makes it much more difficult for a participating airline to gain market share by cheating and offering discount fares (without being caught). The nature of the search results display essentially constructs a complete substitution matrix allowing airlines to identify any price discrepancies instantly (Figure 5.). The real-time information will allow competing airlines to quickly retaliate with punishing fares. The overall effect of ORBITZ is that fares will be more transparent and the benefits from penetration pricing will be severely reduced.

\textsuperscript{14} Dept. of Justice, Docket CAB-41686, Nov. 17, 1983
\textsuperscript{15} McAfee, pg 107-108.
Disadvantages of ORBITZ:

One potential drawback from ORBITZ is that the increase in price transparency could encourage price-shopping consumer behavior. Consumers will have one access to all available prices, and will be able to easily choose the lowest ones. However, the substitution matrix nature of the display will allow airlines to differentiate along other dimensions such as stops or departure times. We feel this disadvantage is a minor one when compare to the benefits.

CRS Reaction to ORBITZ:

One reaction by the CRS companies is the filing of antitrust suits. Airlines are a great political magnet and the government would be sure to initiate some type of investigation at the request of the CRS’s or online travel agencies, if not on their own. A major question of these lawsuits is whether ORBITZ will have an unfair advantage that will enable it to dominate internet ticket distribution, and if their system will bias the participating airlines in terms display of flight and ticket information. Online and brick-and-mortar travel agents have argued that ORBITZ’s clout will bar their access to airline discounts and will ultimately lead to higher airfares. By allegedly receiving exclusive low fares, ORBITZ can make other travel sites and agents less appealing to customers. In theory this would lead to ORBITZ monopolizing the industry, or at least having excessive market power. The two main anticompetitive hurdles ORBITZ must pass are the Sherman Antitrust Act and the Clayton Act.

To test violation of the Sherman Antitrust Act, courts typically ask two questions:
1. Does the firm have monopoly power in a product market?
2. If they have monopoly power, did they use illegal tactics to acquire or maintain it?

Since ORBITZ is not competing with the CRS’s, they obviously cannot monopolize the CRS industry. In the online ticket distribution business, they have the potential to become a major player, but monopolization of the entire industry would be difficult. As stated earlier there were approximately 270 online providers in early 2000. Also the two dominant players, Travelocity and Expedia, would be difficult to completely out of the market.

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17 McAfee, pg 157.
The Clayton act is another situation where ORBITZ should be in the clear. Section 2 of the Clayton Act prohibits price discrimination that lessens competition. This part of the law usually applies for sales to firms that compete against each other. Since ORBITZ is selling directly to the end customer they would not have a concern with this part of the law. However, the interaction between the airlines and ORBITZ requires some caution. The airlines are planning to offer fares on ORBITZ that other CRS’s and travel agents cannot access. A Section 2 defense is that it is permissible to pass along the higher cost if the cost to serve one firm is higher than another. The lack of CRS fees is part of the reason the airlines are willing to post these fares on ORBITZ. The airlines cannot be forced to offer services through a system that makes these services unprofitable for the airline. As long as the airlines are willing to offer to the similar fares through similar cost channels then there should not be a problem here.

Interpretation Section 3 of the Clayton Act makes six exclusionary practices illegal.

- Tying (must buy one good to get another)
- Requirements Tying (buyer agrees to deal only with seller)
- Exclusive Dealing (buyer agrees to deal only with the seller)
- Exclusive Territories (Buyer agrees to operate only in specified region)
- Resale Price Maintenance (Buyer agrees to a minimum resale price)
- Predatory Pricing (pricing below cost to eliminate a competitor)

As with Section 2 of the act, the airlines must be willing to offer these fares to any competitor who offers reasonable terms and will cooperate in a way that makes the exchange of this last minute pricing information smooth and effective.

The most important point from the analysis of antitrust law is that ORBITZ does not need to engage in any unlawful practices for the airlines to benefit from the venture. The benefits of “changing the game” and of a quasi-vertical integration occur without anticompetitive methods. While engaging in illegal practices could in theory further increase the benefits of ORBITZ, these marginal increases do not outweigh the additional risks. It is in the best interest of the airlines and ORBITZ to be very open with the authorities to make sure no violation of the rules takes place.

Airline Industry Reaction to ORBITZ:

While there are a number of advantages for the airlines to join forces and create ORBITZ, the possibility of an airline not wanting to participate should also be examined. A traditional hub-and-spoke airline would probably have difficulty not participating with ORBITZ because most travelers lump them together with the rest of the competitors. This situation can be examined using the Hotelling line. When all the airlines are considered identical it is in their best interest to locate at the center of the Hotelling line describing the possible range of airline images. If an identical airline does not go on ORBITZ, they have not really put themselves at a new location on the line. Instead they have differentiated themselves buy making ticket purchase more difficult. Not joining ORBITZ also reduces the power of the new system over the CRS vendors.

Airlines that don’t fit the “traditional” mold may have an incentive not to participate. Southwest airlines, by not joining ORBITZ, could actually benefit entire airline industry. Southwest has

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18 Newsbytes News Network.
19 McAfee, pg 158.
always offered a different type of service, essentially locating on a different part of the Hotelling line for airline image. By limiting access to fare information it is easier for them to maintain their “low fare image,” because customers will have a harder time making fare comparisons. This will actually allow Southwest and their traditional competitors to charge slightly higher prices while maintaining everybody’s image. Southwest can also afford not listing on the traditional services because they have a large amount of sales on their website (www.southwest.com).

**Figure 6.** US travel companies’ online revenue in 4 financial quarters to about 06/30/2001.²⁰

<table>
<thead>
<tr>
<th>Place</th>
<th>Airline name</th>
<th>Revenue ($bln.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Southwest Airlines</td>
<td>$2.190</td>
</tr>
<tr>
<td>2</td>
<td>Delta Air Lines</td>
<td>$1.800</td>
</tr>
<tr>
<td>3</td>
<td>Yellow Freight Systems</td>
<td>$1.600</td>
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<tr>
<td>4</td>
<td>Priceline.com</td>
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<tr>
<td>5</td>
<td>US Airways</td>
<td>$1.155</td>
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**Conclusion**

The creation of ORBITZ will have a significant impact on the power struggle between the airlines, the CRS vendors, and on-line travel agents. ORBITZ will change the “games” within which these groups interact. ORBITZ also creates benefits similar to those of vertical integration for the airlines, as well as better structure for the airlines to cooperate in their pricing methods. It is in the best interest of all airlines (that fit the traditional image) to participate in this project, those that don’t will just lose access to another set of customers. Non-traditional airlines, like Southwest, may actually help with ORBITZ’s goals by not participating. By separating themselves they lessen price competition between these different airline types and should allow for slightly higher prices to exist in the industry. Finally, while ORBITZ provides opportunities for anticompetitive behavior, illegal actions are not required to obtain benefits. Considering all of these factors we feel that the launch of ORBITZ by the airlines was a very good strategic move that will provide them substantial benefits in the future.

²⁰ “Interactive Week” 3rd annual Interactive 500,