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Refining shippers' dyadic cost, risk, and delivery responsibilities: The principal changes to INCOTERMS and a transaction cost focus for the future

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THE EVOLVING RELATIONSHIP BETWEEN AIRLINE PROFITABILITY AND PASSENGER SATISFACTION

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ABSTRACT

This paper examines the ongoing evolution of the U.S. airline industry under deregulation. After losing money for most of the past 35 years, carriers have made structural changes to their business models that have proven to be, at least in the short term, very profitable. After delineating these management actions, the paper examines their impact on passengers. The author utilizes the Service Quality Model to analyze the long-term implications of this new operating paradigm for passenger satisfaction. Based on this analysis the paper goes on to suggest several actions management could take to improve satisfaction. Finally, conclusions are offered and areas for additional research suggested.

INTRODUCTION

The U.S. airline industry has been in a state of instability since 1978. Deregulation, for better or worse, put the business of air transportation back into the hands of managers who were, after years of government regulation, free to decide what routes to serve, what fares to charge, and how best to meet the needs of their passengers while (hopefully) earning a profit. As the ensuing decades proved, the free market can be a tough place for an airline to survive in, let alone prosper. The 1980s saw a flood of new airlines entering the industry, often competing with the established (or legacy) carriers solely on the basis of low fares. By the latter part of the decade and into the 1990s, many firms realized that low price was difficult to sustain as a firm's only competitive advantage. Companies began failing in large numbers as the legacy carriers learned to leverage their route structures and higher service levels to attract passengers while selectively lowering prices to compete with new entrants. Unfortunately, the inability to adapt to an open market also quickly claimed some of the nation's oldest airlines: Braniff International in 1982, Western Airlines in 1986, and both Eastern and Pan Am in 1991.

The business environment became even worse in the 2000s as carrier managers were forced to

deal with rising fuel, security, and general operating costs while confronting an extremely price-sensitive customer base demanding the impossible: low fares and high service levels. As shown in Table 1, the volatility in annual industry earnings from 2000-2011 was staggering.

However, by 2009 there were clear signs that U.S. airlines had made structural changes to their business models that could very well signal a permanent turnaround in their fortunes. After delineating these management actions, this paper will examine their impact on passengers utilizing the Service Quality Model (Zeithaml, Berry and Parasuraman, 1985) to look at the long-term implications of this new operating paradigm for passenger satisfaction. Finally, conclusions will be drawn and areas for additional research suggested.

A NEW REALITY

This section of the paper reviews a number of management actions that have shaped the industry since deregulation, and the impact of those actions on passengers.

TABLE 1
OPERATING PROFIT/LOSS FOR U.S. CARRIERS 2000-2011

Year	Operating Profit/Loss (Thousands of Dollars)
2000	7,014,004
2001	-10,318,784
2002	-8,565,745
2003	-2,092,538
2004	-1,489,673
2005	447,623
2006	7,639,841
2007	9,343,743
2008	-3,350,129
2009	2,334,971
2010	10,516,933
2011	7,121,315

Source: Research and Innovative Technology Administration
Bureau of Transportation Statistics F41 Schedule P12 Data
http://www.transtats.bts.gov/Data_Elements_Financial.aspx?Data=6

Management Actions

Management actions that have been stood out in recent years are discussed next and could be grouped into categories that include mergers, fees, flight reductions, fares, and fuel costs.

Mergers

While airline mergers have been common since the beginning of deregulation, they reached a critical mass in the past decade. As seen in Table 2, many of the so-called legacy carriers that were household names in 1978 have disappeared, either because they failed outright, or merged with the survivors. In fact, American and US Airways are contemplating a union that would arguably be the last one possible without running afoul of anti-trust laws (Spector and Carey, 2012). As a result of this consolidation, the companies have been able to impose various fees on passengers, reduce the number of flights and raise fares, actions that have significantly improved their profitability but adversely

affected customers. Each of these business decisions will be discussed in more detail below.

Fees

The airlines have gradually imposed a myriad of charges for amenities and services that historically had been included in the fare, a process known as un- or de-bundling. Beginning with checked luggage and reservation charges, there are fees now for booking a ticket over the phone, reserving certain seats, boarding an airplane early, printing a boarding pass at the airport, and even carrying on a bag (Garrow, Hotle and Mumbower, 2012). The profit potential becomes obvious after examining a hypothetical airplane carrying 100 passengers each paying an average domestic \$146 fare (\$292 round-trip) and noting how many customers, on average, are needed to cover the cost of the flight. Twenty-nine people will be required to meet fuel expenses, with another 20 covering personnel salaries; 16 passenger fares will be allocated to ownership costs, 14 to

TABLE 2
MAJOR U.S. AIRLINES IN 1978

Airline	Current Status
American	Still operating, exploring merger with US Airways ⁱ
Braniff	Ceased operations, 1982 ⁱⁱ
Continental	Merged with United, 2010 ⁱⁱⁱ
Delta	Still operating
Eastern	Filed for Bankruptcy, 1989 ^{iv}
National	Merged with Pan Am, 1980 ^v
Northwest	Merged with Delta, 2008 ^{vi}
Pan Am	Filed for Bankruptcy, 1991 ^{vii}
TWA	Merged with American, 2001 ^{viii}
Western	Merged with Delta, 1987 ^{ix}
United	Still operating

(Endnotes)

ⁱ Carey, Susan. "AMR, US Airways Talks Draw Closer," *The Wall Street Journal*, September 1, 2012, p. B3.

ⁱⁱ <http://www.braniffpages.com/syhistory.html>

ⁱⁱⁱ <http://www.chicagotribune.com/business/breaking/chi-united-continental-pilots-vote-to-authorize-strike-20120718,0,2280435.story>

^{iv} http://articles.latimes.com/1989-03-10/news/mn-1205_1_eastern-airlines

^v <http://www.nationalsundowners.com/about/history.php>

^{vi} <http://www.northwestairlines.com>

^{vii} http://articles.latimes.com/1991-01-08/news/mn-8037_1_united-airlines

^{viii} <http://stlouis.cbslocal.com/2011/04/09/american-airlines-buyout-of-twa-completed-ten-years-ago-today/>

^{ix} http://deltamuseum.org/M_Education_DeltaHistory_Facts_Family_Tree_Western_Timetable.htm

various government fees and taxes, and 11 to maintenance. Nine tickets will cover "other" costs such as catering, delivering lost bags, rental of airport facilities, marketing, legal fees, etc. With 99 passengers accounted for, that leaves only one covering profit. Ancillary revenue, on the other hand, supplements the flight by \$18 per person or \$1800 total (McCartney, 2012a). The results speak for themselves. In the first three months of 2012, U.S. carriers earned \$816 million in baggage fees and \$631 million in reservation change fees (Jones, 2012), all of which are imposed along with the various government taxes and fees collected as additions to the fare.

Flight Reductions

For years, airline managers realized they were offering too many seats, but competitive

pressures made it impossible for any single carrier to reduce their capacity for fear of ceding business to a competitor. However, industry consolidation has reached the point where the remaining airlines have been able to successfully pull back on the number of flights they operate, with a concomitant positive impact on load factors. As shown in Table 3, the number of flights offered by U.S. airlines rose steadily from 2000, peaking in 2005, and then falling to their lowest level in 2011. Load factors, on the other hand, have trended upward for the entire decade, also reaching their peak at slightly over 82% in 2011. The end result is fewer aircraft carrying more passengers, which is good news for the firm, a fact confirmed in a recent study by Lin utilizing Activity-Based Costing and Data Envelopment Analysis to illustrate the power of lowering costs and raising load factors on schedules services (Lin, 2012).

TABLE 3
OPERATING DATA FOR U.S. CARRIERS 200-2011

Year	Passengers Moved (All Airports)	Flights (All Airports)	Load Factor (Passenger Miles as a Percentage of Available Seat-Miles)
2000	665,486,803	8,493,297	72.33
2001	621,369,048	8,221,751	70.00
2002	612,777,682	8,675,945	71.78
2003	644,234,973	10,136,163	73.46
2004	700,230,727	10,699,663	75.48
2005	735,104,668	10,825,881	77.64
2006	741,098,199	10,521,442	79.23
2007	766,626,582	10,671,436	79.93
2008	740,460,933	10,202,004	79.54
2009	701,164,455	9,542,320	80.41
2010	717,744,056	9,499,044	82.07
2011	728,351,972	9,455,032	82.10

Source: Research and Innovative Technology Administration
Bureau of Transportation Statistics F41 Schedule P12 Data
http://www.transtats.bts.gov/Data_Elements_Financial.aspx?Data=6

Fares

Table 4 shows average U.S. domestic fares in current and constant dollars from 1995-2011. In current terms, fares have risen 24.5% over the period from \$292 in 1995 to \$364 in 2011; while in real dollars, however, fares have actually fallen almost 16% since 1995. Year-to-year fluctuations, while generally upward, have been relatively modest with the largest annual change a 10.4% drop in 2009. In line with the earlier discussion regarding industry flight reductions, the 8.3% price increases in both 2010 and 2011 may indicate consolidation is having a positive impact (from management's point of view) on prices as well. Unfortunately, passengers are having an increasingly difficult time determining how and when to buy. The proliferation of online booking options usually beginning with lowest price can easily confuse a buyer. In fact, even airline websites offer fares that, while

appearing low, may involve ridiculously circuitous routings that can more than double the elapsed time of the trip.

Fuel Costs

Coping with rising fuel costs is an on-going challenge for carrier management and the impetus for many of the strategic changes already discussed. As shown in Table 5, double-digit year-to-year increases, both in the United States and abroad, became the norm in 2003, although the volatility inherent in oil prices made managing these costs even harder. For example, fuel was 46% more expensive in 2008 than in 2007, but in 2009 the price fell 38% only to rise again 18% in 2010. Rather than increasing fares, surcharges are often used to recoup higher fuel costs because they can be easily manipulated as market conditions change. In addition, the passenger perceives that the fare

TABLE 4
ANNUAL U.S. DOMESTIC AVERAGE ITINERARY FARE IN
CURRENT AND CONSTANT DOLLARS

Year	Average Fare (\$) (in Current Dollars)	Percent Change from Previous Year (in Current Dollars)	Cumulative Percent Change from 1995 (in Current Dollars)	Average Fare (\$) (in 1995 Dollars*)	Percent Change from Previous Year (in 1995 Dollars*)	Cumulative Percent Change from 1995 (in 1995 Dollars*)
1995	292			292		
1996	277	-5.3	-5.3	269	-8.0	-8.0
1997	287	3.8	-1.7	273	1.5	-6.7
1998	309	7.6	5.8	289	6.0	-1.1
1999	324	4.7	10.8	296	2.5	1.4
2000	339	4.7	16.0	300	1.3	2.7
2001	321	-5.4	9.7	276	-8.0	-5.6
2002	312	-2.6	6.9	265	-4.1	-9.4
2003	315	1.0	7.9	261	-1.3	-10.6
2004	305	-3.2	4.5	246	-5.7	-15.7
2005	307	.6	5.2	240	-2.7	-17.9
2006	329	6.9	12.4	248	3.6	-15.0
2007	325	-1.0	11.3	239	-3.7	-18.2
2008	346	6.5	18.5	245	2.6	-16.1
2009	310	-10.4	6.2	220	-10.1	-24.5
2010	336	8.3	15.0	235	6.5	-19.6
2011	364	8.3	24.5	247	4.9	-15.6

Source: Bureau of Transportation Statistics, http://www.bts.gov/programs/economics_and_finance/air_travel_price_index/html/annual.html

* Rate calculated using Bureau of Labor Statistics Consumer Price Index.

Note: Percent change based on unrounded numbers.

TABLE 5
AIRLINE FUEL COST AND CONSUMPTION 2000-2011
(U.S. CARRIERS – SCHEDULED)

Year/ Percent Change	Domestic Consump- tion (Million Gallons)	Domestic Cost (Million Dollars)	Domestic Cost per Gallon (Dollars)	International Consumption (Million Gallons)	International Cost (Million Dollars)	International Cost per Gallon (Dollars)	Total Consumption (Million Gallons)	Total Cost (Million Dollars)	Total Cost per Gallon (Dollars)
2000	13,903.7	10,810.6	.78	5,122.5	4,387.8	.86	19,026.2	15,198.4	.8
2001	13,112.1	10,024.7	.76	4,955.6	3,989.5	.81	18,067.6	14,014.2	.7
% change over 2000	-5.69%	-7.27%	-1.67%	-3.26%	-9.08%	-6.01%	-5.04%	-7.79%	-2.9%
2002	12,287.2	8,602.9	.70	4,571.6	3,334.8	.73	16,858.7	11,937.7	.7
% change over 2001	-6.29%	-14.18%	-8.42%	-7.75%	-16.41%	-9.39%	-6.69%	-14.82%	-8.71%
2003	12,417.0	10,315.4	.83	4,451.0	3,838.2	.86	16,868.0	14,153.7	.8
% change over 2002	1.06%	19.91%	18.65%	-2.64%	15.10%	18.21%	.06%	18.56%	18.5%
2004	13,380.0	15,141.2	1.13	4,764.7	5,690.7	1.19	18,144.7	20,831.9	1.1
% change over 2003	7.76%	46.78%	36.22%	7.05%	48.26%	38.5%	7.57%	47.18%	36.83%
2005	13,284.2	21,682.9	1.63	5,040.3	8,600.8	1.71	18,324.5	30,283.7	1.6
% change over 2004	-7.2%	43.20%	44.24%	5.78%	51.14%	42.87%	.99%	45.37%	43.95%
2006	13,019.4	25,105.4	1.93	5,220.3	10,535.2	2.02	18,239.7	35,640.6	1.9
% change over 2005	-1.99%	15.78%	18.14%	3.57%	22.49%	18.27%	-.46%	17.69%	18.24%
2007	12,998.8	26,889.9	2.07	5,428.0	11,685.0	2.15	18,426.8	38,584.9	2.0
% change over 2006	-.16%	7.15%	7.32%	3.98%	10.91%	.67%	1.03%	8.26%	7.16%
2008	12,469.4	37,194.9	2.98	5,508.9	17,773.5	3.23	17,978.4	54,968.4	3.0
% change over 2007	-4.07%	38.27%	44.14%	1.49%	52.11%	49.87%	-2.43%	42.46%	46.01%
2009	11,147.4	21,168.5	1.9	5,086.6	9,514.4	1.87	16,234.0	30,682.9	1.8
% change over 2008	-10.60%	-43.09%	-36.34%	-7.67%	-46.47%	-42.02%	-9.70%	-44.18	-38.18%
2010	11,056.2	24,791.7	2.24	5,246.4	11,626.7	2.22	16,302.6	36,418.4	2.2
% change over 2009	-.82%	17.12%	18.08%	3.14%	22.20%	18.48%	.42%	18.69%	18.19%
2011	10,863.6	31,345.1	2.89	5,521.1	15,536.3	2.81	16,384.7	46,881.4	2.8
% change over 2010	-1.74%	26.43%	28.67%	5.24%	33.63%	26.98%	.5%	28.73%	28.08%

Source: Bureau of Transportation Statistics, <http://www.transtats.bts.gov/fuel.asp?pn=0&display=data1>

has not risen, but the price of fuel has, which is beyond the company's control.

Impact on Passengers

The above airline practices have had a major impact on passengers. These impacts are discussed next and relate to mergers, fees, flight reductions, and fares.

Mergers

There are now fewer U.S. airlines to choose from, especially for overseas travel. As the survivors rationalize their routes and realign their hubs, multiple stop flights are becoming more common as passengers hopscotch from hub to hub over what used to be a one stop trip. Frequent Flier programs have been merged, with negative implications for virtually everyone. Delta Airlines, for example had three levels of elite frequent fliers prior to their merger with Northwest: Silver, Gold, and Platinum. A fourth tier, Diamond, was added after the merger which had the practical effect of shifting the existing categories downward. In addition, the sheer number of members, especially in the lowest elite tiers, now works against receiving an upgrade to business class or even claiming an award ticket (McCartney, 2012b). On a recent domestic flight, there were 38 coach passengers on the wait list for a seat upgrade on a 120 seat aircraft. Needless to say, the chances of anyone below Platinum receiving an upgrade were virtually non-existent. This dilution of their loyalty programs should be viewed with concern by managers, given the findings of a recent study that frequent flier programs are strongly associated with behavioral loyalty for business and frequent travelers, the companies' most profitable customers (Dolnicar et al., 2011).

Fees

Supplementary fees have arguably become the most frustrating aspect of flying today. The 2012 American Customer Satisfaction Index

rated airlines in the bottom three among 47 industries evaluated for customer satisfaction (Carey, 2012). Similarly, the JD Powers and Associates 2012 North American Airline Satisfaction Study found that, after two years of consecutive industry improvements, overall passenger satisfaction declined slightly, with costs and fees (specifically related to baggage) playing a key role in that reduction (autos.jdpower.com., 2012). Carriers have realized the profit potential inherent in charging for ancillary goods and services, and they have become more creative in determining what they can demand a fee for. Customers have been paying for tangibles such as food, beverages, paper tickets, headsets, pillows and blankets for some time. Given that air transport is primarily a service industry, future revenue opportunities lie in charging for intangibles, several of which have already been mentioned. Other items under consideration by various airlines include fees for aisle and window seats, which would significantly impact, for example, families wanting to sit together (Mayerowitz, 2012), and allowing passengers to pay for the privilege of exiting the airplane early (Jones, 2012). Indeed, customers can be forgiven for wondering where the upcharges will end. One study suggested adopting passenger weight as a major fare determinant (Bhatta, 2012). Given the direct relationship between aircraft operating cost and weight, charging a 200 pound person a higher price than a 100 pound individual does not seem unreasonable. Irish low-cost carrier Ryanair has a truly imaginative CEO who has, in the past, suggested charging passengers to use the toilet on-board the aircraft (Massey, 2012). While most critics view his comments as a publicity stunt, such a move does not seem beyond the realm of possibility.

There are also fees and taxes added to the ticket price that are required by the U.S. and foreign governments. The total fare quoted to the customer includes all of these and they are easily identified if the buyer cares to see them. Checking an economy fare from Orlando to

Tokyo shows a base fare of \$1127.40 plus \$724.90 in taxes and carrier-imposed fees for a total charge of \$1852.30. Examining those figures in more detail shows the carrier-levied charges constitute \$654 with the remaining \$101.90 spread out over seven various charges imposed by the U.S. and Japanese governments. As stated by the airline, these non-government costs represent “Carrier-imposed surcharges stated separately from the base fare on some international itineraries” (Delta, 2012). A logical assumption would be that at least part of it is to cover higher fuel costs, but there is really no way to tell.

There are, from the passengers’ standpoint, several problems with these types of fees. First, once they are imposed, they rarely go away. Second, the relationship between fares and these charges is unclear so the danger is that fares can be raised by more than the amount needed to cover the fee(s), essentially turning them into a money-making proposition. As an example, fuel surcharges by U.S. airlines have risen 53% since April 2011, while the price of fuel has increased 24% (Martin, 2012a). Finally, as nations grapple with future societal issues that embrace the airline industry (security, emissions, economic development, etc.), fees are likely to proliferate. For example, the European Union’s (EU) emissions trading system (ETS) went into effect for airlines on January 1, 2012, and applies to all carriers regardless of nationality operating flights to or from Europe (Wall Street Journal Editorial, 2011). Delta, United-Continental, American and US Airways immediately imposed a \$6 per round trip ticket surcharge on European routes, although some estimates suggest that complying with the program could cost the airlines about 3% of the fare per passenger (Jansen, 2012). The airlines did not immediately acknowledge that the \$6 increase was attributable to ETS program compliance, nor is it explicitly reflected on any website. Perhaps it is included in the Carrier Imposed Surcharge discussed earlier.

Flight Reductions

As was mentioned earlier, fewer and fuller flights have been a direct result of industry consolidation, a clear benefit to the carrier as every departure is virtually guaranteed to be, for all practical purposes, full. However, passengers do not typically share management’s enthusiasm for full aircraft. The boarding process alone becomes more problematic and takes longer to complete. Because so many people want to carry on larger bags, securing overhead storage space becomes very important. Most airlines have historically required passengers to follow some form of zone policy to smooth the boarding process: business class passengers go on first, followed by those seated in Zone 1, then Zone 2, etc. Today, however, after business class, there are multiple categories allowing various elite passengers to board before even getting to Zone 1 (which used to include the elite customers). The inevitable result is that overhead space fills before late-boarding passengers can be accommodated, thus disrupting the boarding process as they try and figure out where to stow their bag(s). Ultimately, some luggage must then be checked, but the fee cannot be collected at this late stage, so these customers do not pay when others have.

Fares

As explained earlier, there are clear indications that fares will continue to increase: seat capacity has been reduced, load factors are increasing and fuel costs remain highly unstable. Unfortunately for management, consumers do not really differentiate between fares and fees; they are, for all practical purposes, one in the same so that, to consumers, raising the latter means the former increases as well. As explained earlier, Delta provides a complete breakdown of fees which are added to a base fare. For a comparable route, US Airways quotes a base fare almost double that of Delta, but with a much smaller amount listed for taxes and fees (US Airways, 2012). In both cases the total customer cost is essentially the same. With

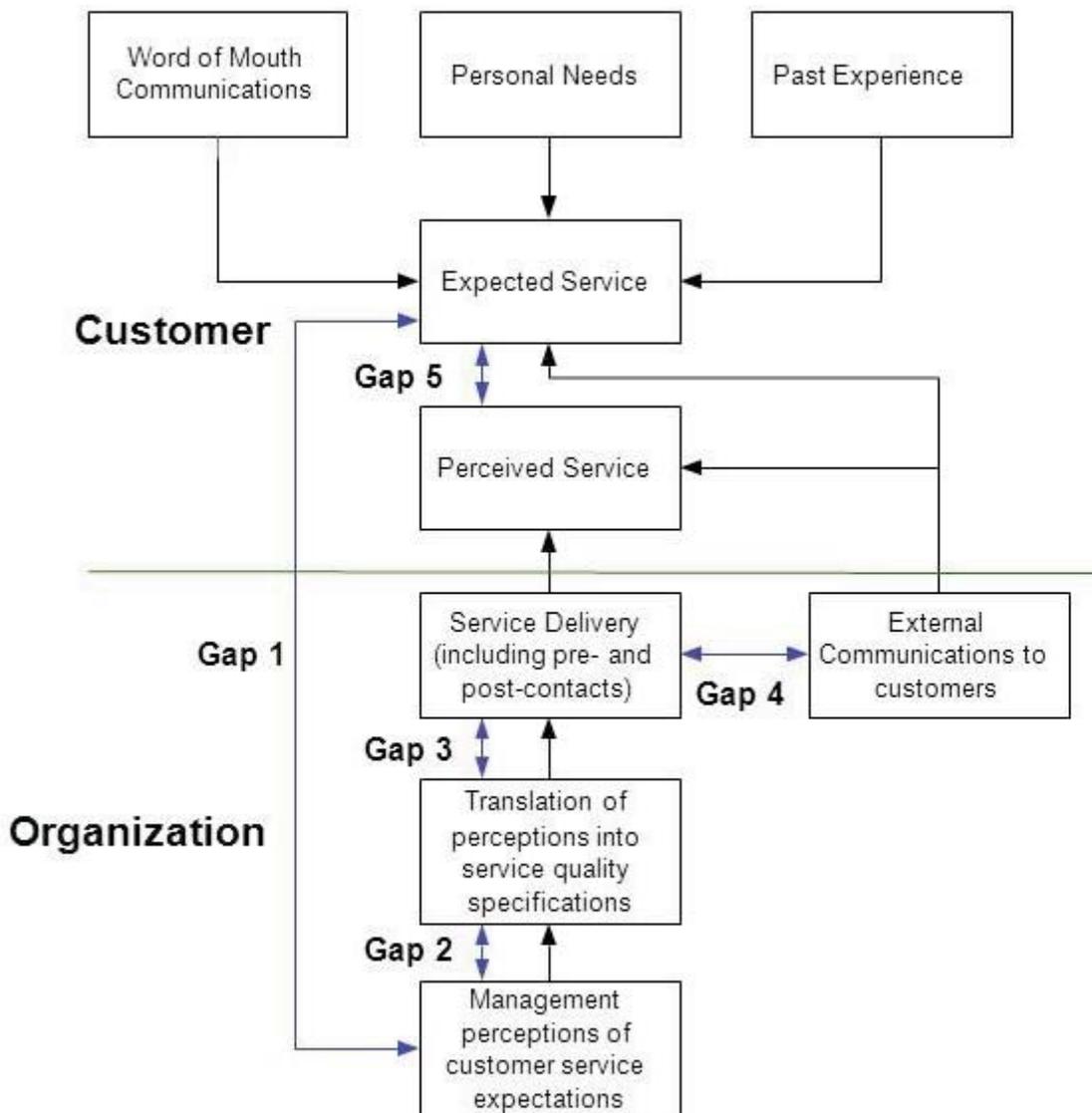
upward pressure on both fares and fees, customers should be able to tell what component of each goes into the total cost they pay.

Summary

Clearly, airlines, like any other enterprise, must make money in order to survive and grow. Hopefully, managers are able to earn profits

from satisfied customers through their return business. After years of losing money, carriers are profitable again and seem poised to remain that way. But, if the previous discussion is any indication, virtually all of the actions taken to turn the businesses around, while successful in that regard, have shifted costs to passengers, reduced value-added services, and generally diminished the travel experience. In the next

**FIGURE 1
SERVICE QUALITY MODEL**



Source: Zeithaml, V.A., Berry, L.L., and Parasuraman, A., "Communications and Control Processes in the Delivery of Service Quality," *Journal of Marketing*, vol. 52, April 1998, p. 36

section, the Service Quality Model will be introduced to evaluate the longer term implications of these actions for both airline profitability and customer satisfaction.

SERVICE QUALITY MODEL

Because airlines are a service industry, the Service Quality Model depicted in Figure 1, is useful in illustrating how customer dissatisfaction can develop. Ignoring the arrows, the model represents the basic marketing process. That is, the chart is divided into two parts: customers are on the top, management on the bottom. Managers must first learn what customers expect in terms of service. Once management understands their customers' needs they can put together a service mix that will satisfy them. The customer benefits offered by the firm must be communicated to the buyers so that they understand why the firm provides more value than a competitor. That value must then be delivered to the customer in a way that meets their expectations. If the service the buyer receives meets their expectations, then they will be satisfied and the firm will profit. The arrows, or Service Quality Gaps, depicted in the model represent potential sources of customer dissatisfaction. Each of these Gaps will be explained below.

Gap 1: Understanding Customer Needs

Gap 1 illustrates the situation when management does not really understand their customers' needs. For example, managers might assume that passengers desire an inflight amenity which, in fact, they do not. Either insufficient market research has been performed or the results have been misinterpreted. Whatever the reason, management cannot hope to design and deliver quality service if they do not completely understand what their customers want.

Gap 2: Satisfying Customer Needs

Gap 2 opens when management does know what their customers desire (i.e. Gap 1 does not exist)

but is unwilling or unable to satisfy their needs. Perhaps customer expectations are too high or the firm simply lacks the resources to adequately meet them. Alternatively, customers may not be sufficiently aware of their "true" travel needs so that their stated desires are inconsistent with their actual requirements. Again, the service mix developed and offered to customers does not meet their expectations, and dissatisfaction results.

Gap 3- Staff-Passenger Interactions

Gap 3 is an especially troubling one because it signifies the situation where managers know what customers want and have developed a high-value offering to meet those needs, but that service is poorly delivered. For example, the passenger may be satisfied with the airline's reservation and ticketing process, but the gate agent is rude and refuses to change a seat assignment. Thus, the customer is dissatisfied with the whole encounter (see Gap 5). Often the difficulty is that the only carrier employee the passenger comes into contact with is the flight attendant, ticket agent, or customer service representative. If this person is upset for some reason or simply disinterested, he or she can undermine all of management's best efforts to provide quality service.

Gap 4 – Execution of Services

Gap 4 is created when the organization promises something to the customer that is subsequently not provided. For example, the airline promises that passengers will receive their checked bags once the aircraft arrives at the destination airport. Unfortunately, for a variety of reasons, bags are misrouted or lost, and do not arrive with the customer. While most people are reunited with their luggage relatively quickly, passenger resentment for this situation has increased with the arrival of baggage fees which are typically not refunded when a bag is mishandled, leading to customer dissatisfaction (Gap 5).

Gap 5 – Performance vs. Expectations

Gap 5 is the most critical opening, because it reflects a situation in which the service received by customers is different than what they expected. The buyer is dissatisfied because their actual experience was less than what they anticipated. On the other hand, the customer may actually experience better service than what they were prepared for, but this situation presents its own challenges and is beyond the scope of this paper. Gap 5 also results when any of the other four Gaps open. However, Gap 5 may also open by itself. Note that satisfactory performance results from the interaction of factors that the managers can control (the interior layout of the aircraft, employees) and those that they cannot (other customers, the passenger's emotional state). Thus, a customer flying on a crowded, noisy airplane may be unhappy with the experience even if the service is fine. Similarly, a person who is unhappy, irritated, or simply having a bad day, may be disposed to find fault with very minor company mistakes.

External forces (i.e. laws, governmental regulations, weather, etc.) can also have an impact on the level of service provided by an airline. For example, winter weather can disrupt flight operations and strand passengers, sometimes for days. Also, new government regulations now penalize airlines for ramp/tarmac delays once passengers have boarded. As a result airlines have erred on the side of cancelling flights whenever winter weather threatens which has exacerbated service failures.

In addition, air traffic control requirements can adversely impact airline performance as well. Naturally, situations such as these can have a detrimental impact on customer service even though the company has no control over the factors causing them. The challenge for managers is to minimize the size and occurrence of service quality gaps by understanding the needs of customers, providing a service mix that meets those needs better than the competition,

and constantly monitoring customer satisfaction so that corrective action can be taken immediately if required.

RECONCILING THE NEW AIRLINE MANAGEMENT PARADIGM WITH CUSTOMER SATISFACTION

Based on the financial information presented earlier, U.S. airlines are doing better than they have in years. Flight reductions have led to higher load-factors, fares are rising, and ancillary fees are proving to be especially lucrative. As a result, profits are up. However, none of these factors are particularly appealing from the passenger's point of view implying less schedule choice, more crowded airplanes, and higher costs. In fact, complaints filed by customers with the U.S. Department of Transportation against U.S. Carriers are up almost 8% for the first five months of 2012 versus the same period in 2011 (Airconsumer.gov., 2012). When viewed in the context of the Service Quality Model, this rising level of customer dissatisfaction represents a widening of Gap 5, as a result of Gap 2: i.e. managers know their actions are unpopular with customers, but business realities require that these steps be taken anyway. What, if anything, should management do to mitigate Gap 5 and improve overall customer satisfaction? There are several options.

Do Nothing

Perhaps no management action needs to be taken. Load factors are up, operating costs are down, and profitability is increasing for the first time in years. As a result, management may see a modest increase in the number of customer complaints as a small price to pay for continuing a business model that is both sustainable and profitable. A study by Steven, Dong and Dresner found that market concentration moderates the relationship between satisfaction and profitability for the US airlines. Carriers that operate in concentrated markets have fewer incentives to satisfy their customers than those

that serve more competitive markets (Steven, Dong and Dresner, 2012). The latest round of industry consolidation means customer alternatives are reduced to a smaller number of airlines all following similar strategies, so there is little incentive for passengers to switch carriers. The end result of these changes is that market power has shifted from customers back to managers, with all that change implies.

Realign Carrier Customer Service to Fit Today's Environment

There are some steps management could take to enhance the overall customer experience. First, the collection of fees must be streamlined to eliminate the passenger perception that they are being nicked-and-dimed to death. The reality is that customers find some fees reasonable (priority boarding, preferred seating, upgrades and WiFi) while viewing others (checked baggage) as just the opposite (McCartney, 2012c). Airlines should consider re-bundling some charges into a passenger service fee that everyone pays, similar to what hotels have instituted in the form of a resort fee to cover telephone, internet, fitness center, etc. For an airline, such a fee could cover one checked bag, entertainment, snacks, perhaps internet, but every passenger would pay the fee. There would probably be initial customer dissatisfaction, but the managers could mitigate this resistance by offering enough bundled value that passengers felt like they were getting something even without checking a bag. Furthermore, the presence of a relatively fixed fee would eliminate uncertainty and the feeling of constantly being asked to pay for something. Resort fees that are transparent and fully disclosed prior to check-in have been accepted by customers as preferable to multiple charges for individual items. The airlines could find the same thing happens with a passenger service fee.

Second, baggage simply must be managed better. The implementation of fees for checked luggage forced more bags into the cabin, slowing both

the security screening and aircraft loading processes. If everyone paid the passenger service fee as discussed earlier, perhaps the amount and size of carry-on items would decrease. While the company might experience an increase in the quantity of checked bags, they, along with most airports, already have the infrastructure in place to absorb them. In addition, size and weight limits for cabin bags need to be enforced prior to boarding and preferably before security.

Third, fare transparency should be improved. Vague explanations regarding surcharges, taxes and fees need to be eliminated in favor of full disclosure regarding the true cost of a ticket. Spirit Airlines was sued in August 2012 for collecting a passenger usage fee ranging from \$9 to \$17 per flight segment that appeared to be an officially imposed charge but was, according to the lawsuit, a scheme to collect more money from passengers while advertising a low base fare (Martin, 2012b). Surcharges are especially worrisome because they are intended to be temporary and typically are applied by the carrier. In theory, these should decline or disappear altogether once they are no longer needed to deal with a specific situation. In the absence of clarity, the risk to the customer is that these charges become permanent.

Finally, a system should be developed to allow for the immediate on-board reporting of passenger-related aircraft problems. As flights are reduced and older aircraft are retired, those that remain are flying more. For example, an aircraft might depart from Atlanta for a flight to Amsterdam where it stays for a few hours before flying on to New Delhi. After turning around there, it returns to Amsterdam before continuing back to Atlanta where it is turned back around to make the same circuit again. A passenger confronted with a reading light that does not work, a seat that does not recline, or worst of all, a defective entertainment system, is likely to be stuck with that situation for the duration of their flight because higher load factors mean less opportunity to change seats. The passenger

might advise a flight attendant of the deficiency, but, realistically speaking, there is really nothing they can do other than document the issue in the hope that it will be taken care of at some point. Given the short turn-around times and the lack of comprehensive maintenance support available at en-route stops, the likelihood is that multiple passengers will be dissatisfied as a result of what should be a relatively minor problem. If the aircraft is turned as quickly at its domestic domicile (where maintenance activities are presumably concentrated), the problem may remain unresolved for a lengthy period of time, resulting in a number of dissatisfied customers. Given the prevalence and sophistication of inflight entertainment systems, passengers should be able to register seat-specific complaints that can be (a) viewed immediately by flight service personnel in case there is something they can do to remedy the problem, and (b) sent via aircraft systems directly to maintenance personnel on the ground if in-flight correction is impossible.

A Balanced Approach

Earlier research (Gourdin and Kloppenborg, 1991) found that, up until deregulation, passengers and managers tended to agree on what constituted quality airline service. As a result, customers were satisfied and the airlines were profitable. After 1978, customers became very price sensitive, demanding the high service levels they were used to together with extremely low fares. Managers focused on cutting costs in order to compete in a free-market environment, which meant paring down services. This polarization at opposite ends of the quality spectrum generated passenger dissatisfaction that persisted for 30 years. But the recent events discussed in this paper have forced passengers to redefine their expectations to fit the new reality, presenting airline managers with an opportunity they must not squander by doing nothing. The suggestions made in the above section would go a long way towards improving the customer experience at relatively little cost to the company.

CONCLUSIONS AND FURTHER RESEARCH

The U.S. airline industry has experienced more structural changes in the last five years than at any time since deregulation occurred in 1978. Because passenger expectations for air service quality remained locked in the halcyon days of the 1950s and 1960s, managers were unable to reconcile customer demand for high levels of service and low fares with the economic realities of competing in a free market. As illustrated with the Service Quality Model, customer dissatisfaction was the result as were decades of money-losing airline operations. Recent industry consolidation has reduced the number of competitors and forced passengers to modify their service expectations, which has been good news for managers. As the latter move to improve their respective bottom lines, they need to ensure that they don't alienate their customers. This paper offers executives several options for improving customer satisfaction while continuing to enhance profitability, a seemingly unattainable goal before now. Additional investigation into customer price sensitivity would be invaluable in determining, for example, what amount makes sense for a passenger service fee and to identify new service offerings that people will pay for. One successful innovation is the enhanced economy seating options now being offered by some carriers to those who are willing to pay extra for a bit more legroom and seat comfort on long flights. Perhaps similar revenue opportunities exist in offering improved dining options to coach passengers as well. Additional research into buyer behavior would also be useful in helping managers understand what they can charge for and what they cannot, knowledge especially useful for a carrier with extensive overseas routes.

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