

POINT OF VIEW

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BEYOND PRICE AND LOYALTY PROGRAMS

CUSTOMIZING AIRCRAFT IS THE NEW FRONTIER FOR CUSTOMER EXPERIENCE

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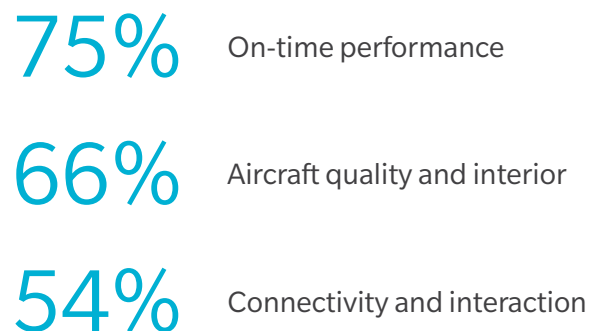
Do you recall your best in-flight experience? Maybe your worst experience was more memorable? In the highly-competitive airline industry, improving the customer experience is driving investment, differentiating brands, and generating a “healthy” tension between airlines and aircraft OEMs.

Airlines already score very high in terms of the impact the customer experience has on revenue, ranking second only to mobile phone companies. To date, the focus has been on price, on-time arrival, schedules, lounges, wifi/entertainment, and loyalty/reward programs, whose currencies seem to be continually depreciating. The next frontier is more frequent collaboration between airlines and OEMs to tailor the customer experience.

The aircraft – which an OEM designs and assembles – is one of the most critical customer-facing assets for an airline (see Exhibit 1). Thus, the design choices an airline and OEM make have a significant influence in determining the

customer's experience. Historically, there has been a "healthy" tension between airlines and aircraft OEMs. Airlines want aircraft that are just right for their range and performance requirements. OEMs have typically designed and delivered a "one-size-fits-all" plane, which individual airlines then look to reconfigure to their tastes – an expensive and often time-consuming process.

Exhibit 1: Top three factors impacting airline brand perception globally



SOURCE: 2015 IATA Global Passenger Survey

To be sure, even with "one-size-fits-all" aircraft, OEMs have contributed to improved customer experience. For example, Boeing has differentiated its 787 aircraft by circulating fresh air, increasing humidity levels up to 15% (more than double industry norms), and pressurizing to a lower altitude to create a more comfortable cabin climate and lessen the physical side effects of flying.¹ Nonetheless, the high cost of reconfiguration can test the relationship between airlines and OEMs, as evidenced by Emirates' deferral of a purchase decision for nearly 100 Boeing Dreamliners. That deferral came after the airline was concerned about the ability of the aircraft's engines to perform in hot climates when passenger capacity and cargo loads are maximized.²

Typically, an airline's first involvement with the design process is after the aircraft has been designed, with modest involvement prior. Going forward, both airlines and OEMs realize they need to work together earlier on design. "Accepting an off-the-shelf interior is no longer a viable business process for the airlines, because there is too much competitive opportunity to differentiate the passenger experience," says Shane O'Hare, Senior VP Marketing, at Etihad Airways. "Ultimately, your passengers are spending most of their time interacting with the interior."

"The cost of reconfiguring an aircraft is massive, and OEMs are now looking to transform how that happens," says Michel Tellier, VP Aerospace & Defense with Dassault Systems. "The aircraft OEMs are looking to 3D printing of cabin interiors to allow airlines to massively personalize the experience they create for customers. Why? Because there is no tooling involved. Manufacturers could create a new interior and print it without spending tens or hundreds of millions of dollars for tooling, testing, and certification. OEMs want to reduce

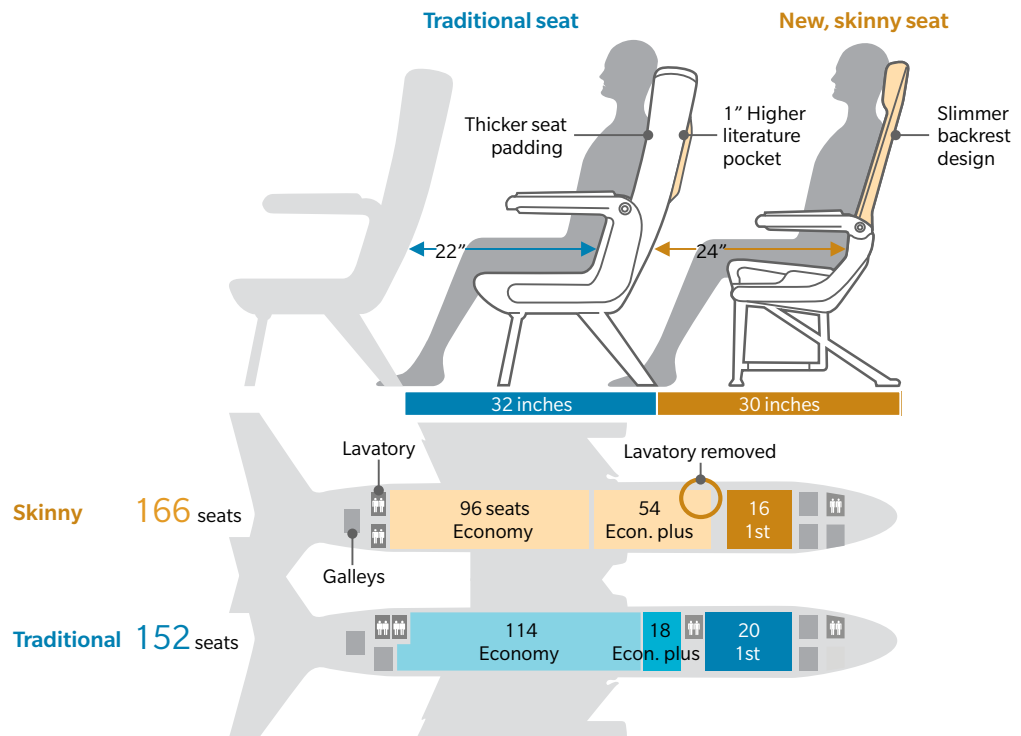
¹ "How Dreamy Is the Dreamliner?" The Wall Street Journal, February 16th, 2012.

² "Emirates' request for changes to Boeing Dreamliner are rejected," The National. November 4th, 2015.

the time and expense to define, design, engineer, fabricate, inspect, certify, and install an interior by 95 percent. If they do, an airline could come in with a new concept – and see it realized economically, safely, and in a certifiable way. Creating an aircraft that will tolerate mass customization is just starting now with commercial aircraft, as has typically been the case with business jets.”

One potential concern is that an improved customer experience typically benefits premium customers the most, overlooking the majority of passengers – economy cabin customers. Etihad, for example, has designed first-class “Apartments” for \$30,000 a pop. At the same time, airlines are challenging OEMs and suppliers to continue lowering costs without impacting the experience for economy customers. United, for example, has updated its 737-800 aircraft configuration to fit more, thinner seats that utilize less space, without damaging the customer experience (see Exhibit 2). In part because of such efforts, the number of average seats per departure (for all airlines) has increased 12 percent since 2009.

Exhibit 2: United Airlines new vs. old 737-800 configuration: Thinner seats and more rows leads to better economics.



SOURCE: The Wall Street Journal, www.PlaneStats.com

Other innovative approaches being pursued by OEMs to improve the customer experience include calmer cabin lighting, increased bin space, improved connectivity options, dimmable windows, aisle access for all economy customers, and new privacy elements. “We’ve introduced a fixed headrest with the A380, which was driven by customer research,” says Etihad’s O’Hare. “People like window seats where they can rest their head against the cabin wall. So we introduced, if you like, a “fake” cabin wall that allows economy passengers in now-window seats to tilt and support their heads.”

AIRLINES & OEMS: IMPROVEMENTS THROUGH INCREASED COORDINATION

Through better communication and coordination, the healthy tension between airlines and OEMs can be channelled into a win-win outcome. At the same time, the more customization, the more time it can take to produce a finished aircraft, which creates a whole new level of tension. “I think airlines need to keep pushing so that manufacturers get the idea that this is not going to go away,” says Etihad’s O’Hare. “Airlines are going to continue to customize and innovate within the cabin, and they are relying on manufacturers to make that happen on time. We want to be up-to-date technologically when we launch a new aircraft, and we can’t do that if the schedule slips by a few years.”

To lower the reconfiguration costs requested by the airlines, OEMs should turn the design process on its head by involving the airlines earlier in the process so that the aircraft better meets airline specifications prior to purchase negotiations. Airlines, on the other hand, should treat their OEMs as partners – not just as their engineering shop – to better communicate long-term business needs and to develop customized solutions.

Once established, this new process will enable OEMs to factor aircraft delivery delays into their product development plan and to deliver a final product that is better positioned to meet the airline’s customization and “latest-technology” requests. O’Hare says, “The good news is, the level of investment to raise the game both on the OEM side and the airline side is orders and orders of magnitude higher than it was 15 years ago.”

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GLOBAL AEROSPACE SUMMIT 2016

The Global Aerospace Summit is an invitation-only event for C-level executives, senior decision-makers, and government officials involved with the aerospace, aviation, defense, and space industries.

The 2016 summit brought together more than 1,250 industry leaders in Abu Dhabi’s St. Regis Hotel, Saadiyat Island, to discuss the future of the aerospace industry.

Dassault Systems sponsored the Customer Experience Strategy Session during the Summit, and Michel Tellier, VP Aerospace & Defense with Dassault Systems, Shane O’Hare, Senior VP Marketing at Etihad Airways, and Vik Krishnan, a Partner with Oliver Wyman, spoke during the session. This article utilizes commentary from that session.

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