

Aviation 2010

Achieving efficiency and differentiation in turbulent times

Airlines and airports face escalating costs, revenue growth constraints and an increasingly dissatisfied customer base. To regain lost customer confidence and provide for more operating efficiency, airlines and airports should collaborate to establish a scalable, agile infrastructure that enables a more positive and differentiated passenger experience.

Research by IBM, which included interviewing 20 leading airlines and airports in the United States, Europe and Asia Pacific, has identified the three attributes with the most potential to enhance the aviation industry's customer image and profitability over the next three to five years. They include cost-effective solutions that give customers better service and more control over their journeys, an agile infrastructure that can be scaled up or down to accommodate fluctuations in demand and greater collaboration among partnering airlines – as well as between airlines and airports.

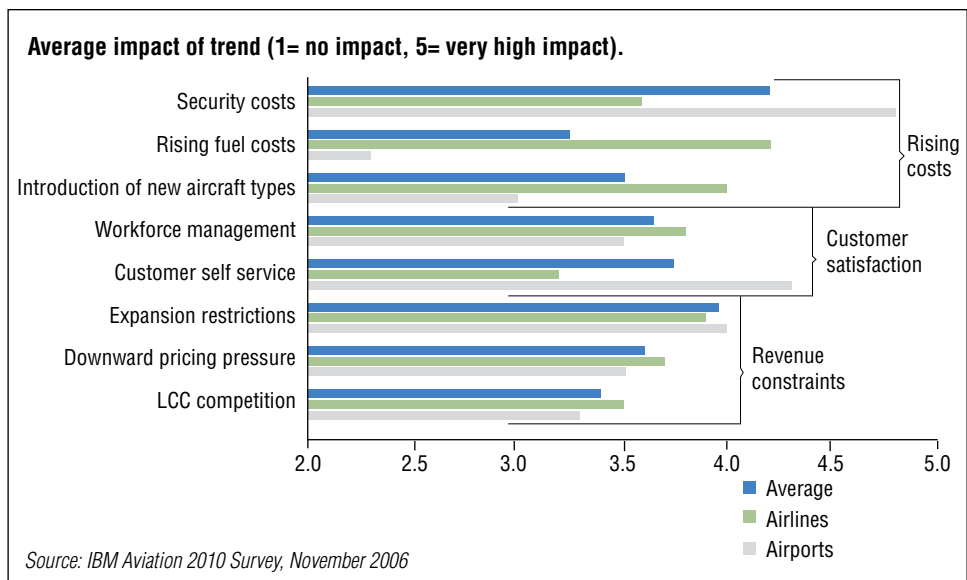
The study shows that although some of the challenges airlines and airports face differ, there are some common areas of concern. These can be clustered into three broad categories: rising costs, constraints on revenue growth and increasingly dissatisfied customers (See Figure). Most airlines have made strenuous efforts to reduce their costs, but soaring fuel prices and increased security requirements have outweighed

these savings. Restrictions on the industry's expansion have constrained growth and exacerbated these problems. This results in a level of customer satisfaction lower than in almost any other industry.

The traditional network airlines and low-cost carriers have responded to these pressures by borrowing from each

other's best practices. Most network airlines have reduced their fares, increased the number of direct flights and moved toward more fuel-efficient aircraft. Conversely, most low-cost carriers have expanded the services they offer to attract business travelers and extend their market reach.

Of paramount importance, though, is the ability to deliver a differentiated passenger experience that is also operationally efficient. Three features, in particular, are vital: services that give customers more control over their journeys, an infrastructure that can be easily changed to cope with variations in demand and greater collaboration among travel providers. IBM has identified five technological innovations





that can help the aviation industry deliver these features – innovations that are practical to implement and able to generate the higher returns by optimizing capital resources, reducing costs and enhancing the customer experience.

- *Self-service solutions:* Self service began as a cost-cutting measure, but has now become a way of giving passengers the choice and control they expect. Close cooperation among travel providers is essential to deliver end-to-end service – as is a shared infrastructure to broaden the range of self-service solutions that can be offered while reducing the costs of providing them.
- *Integrated baggage handling:* If the aviation industry is to manage increasing passenger loads and security requirements while reducing costs, it must start by reducing the irregularity rate. That, in turn, means airlines and airports must work together more effectively by merging their IT systems and processes, use electronic tracking technologies such as radio frequency identification (RFID) and refine their business models by providing *à la carte* baggage services.
- *Shared services:* The aviation industry has considerable experience with outsourcing, but it is much less accustomed to using shared services. There are three levels of service sharing. The most advanced enables multiple organizations to share commodity applications and dramatically reduce their infrastructure costs. The intermediate is common service hosting, which allows dedicated applications to be used jointly by partners and other clients. The least advanced, and most common today, is traditional application hosting,

which enables multiple clients to use commodity applications for a per-use charge. Overall, airlines and airports need to move toward less ownership of resources and more sharing, partnering and outsourcing of assets to increase flexibility and reduce costs.

- *Modular, flexible airport operating systems:* If airports are to keep up with the growth in travel, improve the efficiency of air traffic and streamline passengers' transit, they will have to improve their operating systems. They will need to adopt a modular, flexible architecture that can receive and route operational data to multiple points within the network, such as flight information display systems, ground crew systems and catering systems.
- *New security technologies:* The growing threat of terrorism has resulted in the introduction of more rigorous border controls and safety procedures, but the long queues that often arise are frustrating for passengers. Fortunately, widespread adoption of emerging identity management solutions will change how passengers are screened and ease the security process. We anticipate that fingerprint recognition systems, automated document identification systems and Web technologies that connect customs, airlines and airports will be increasingly used over the next one to two years. Wireless technologies that connect customs, airlines and airports, and iris-scanning technologies will be increasingly used within the next two to three years. And facial-recognition technologies, closed-circuit TV surveillance and data analysis systems for pre-screening passengers will be more widely adopted by the industry in 2012.

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