IBM Global Business Services
Executive Report

Travel and Transportation

IBM Institute for Business Value

New routes to profitability

Reinventing the airline business model with creative leadership, focused experimentation and industry innovation

IBM Institute for Business Value

IBM Global Business Services, through the IBM Institute for Business Value, develops fact-based strategic insights for senior executives around critical public and private sector issues. This executive report is based on an in-depth study by the Institute's research team. It is part of an ongoing commitment by IBM Global Business Services to provide analysis and viewpoints that help companies realize business value. You may contact the authors or send an e-mail to iibv@us.ibm.com for more information.

By Steve Peterson

The airline industry has been on the cusp of transformation for years. Yet, despite one crisis after another, the industry has been able to muddle through without substantive change. But cost reduction and consolidation have not been enough to alter the industry's overall financial trajectory. Today, a few carriers are flourishing by entering growth markets, focusing on new traveler needs and seeking to reinvent the customer experience. Can the lessons of these top performers catapult the industry into a new, more profitable era? The answer is a resounding "yes" – as long as these tactical improvements are implemented through one of three business models that will define the industry over the next decade.

The global airline industry is always so near the breaking point that it seems that just one more crisis or one more downturn is sure to set in motion a cascade of changes that will bring substantial transformation to the industry. Yet, somehow airlines have managed to navigate these events and land gear-down – if only marginally – through a series of cost-cutting measures and mergers that address the symptoms of business-model malaise – but leave the more serious underlying issues unresolved.

Experts have long predicted that the innumerable bumps and bruises suffered by the industry will eventually lead to wholesale industry transformation. And today, after decades of churn and countless significant crises, it can be argued that the first steps of this transformation are underway. However, what improvements have been made have, surprisingly, not emerged from airlines in crisis, but, instead, have been initiated from a small number of carriers that have outperformed the industry average in a difficult economic environment.

Skeptics will argue that the financial improvements made by these top performers have not been the result of innovation or emerging transformation, but are the result of generous government policies and/or subsidies. Yet, the 2012 IBM Institute for Business Value Airline Business Model study refutes this. Not a single carrier among the top five performers interviewed received external support over the past five years, nor do they expect any over the next five.[1] For those airlines looking for a sustainable model, this is particularly important – as recent economic woes have rendered many governments unable to continue or extend industry subsidies.

So what sets these successful enterprises apart from their underperforming peers? Can their success be explained by economics, government policies or geography? Has it become easier in the past few years for carriers in general to succeed? Or, aside from the elite few, are there structural impediments that will continue to limit success for most airlines?

This study will answer those questions and set forth recommendations that will enable airlines to capitalize on what top performers have learned. More important, we will outline three business models that can build upon the lessons learned and introduce meaningful industry transformation.

Correspondingly, those airlines that desire to create a sustainable path forward must embrace one of three business models, depending upon their competitive profile and the markets they serve:

1. Airlines in high growth regions that face stable competitive conditions can consider defensive strategies that modify share or scale while preserving the underlying business model.
2. Airlines confronting larger threats and/or opportunities can implement innovative strategies that adjust their scope of services or limit their exposure to market changes.
3. By extending innovative strategies beyond the bounds of current business models, some airlines will create disruptive innovations that change scope and exposure in more fundamental ways.

It is our hope that the research and analysis brought forth in this document will enable airlines to chart a new course for profitability.

Business model improvements are expected to grow out of either necessity or strength.

Methodology

The findings in this report are based on interviews that were conducted with senior airline executives from 21 airlines by our research partner, Frost & Sullivan. Participants included executives from the marketing, finance and strategy domains, as well as CEOs of several carriers. We wanted to ground our findings in success, so before we selected airlines to interview, we assessed carrier performance to identify airlines with revenue and profit growth from 2007 to 2010 that placed them among the top 40 percent of global carriers. After our initial findings were developed, we reached out to additional airlines to test our hypotheses and to understand the challenges faced by carriers across all levels of performance.

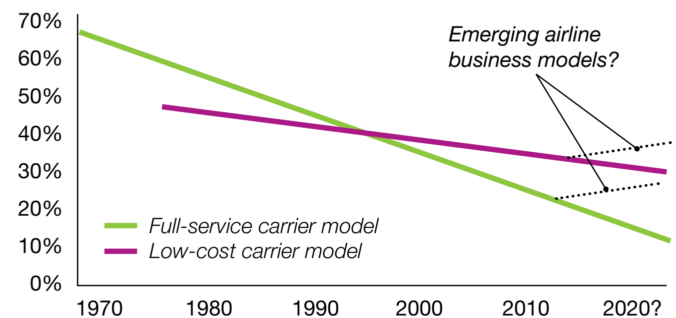
A (cost of) capital conundrum

The former CEO of United Airlines once observed that the airline industry has "systematically failed to earn its cost of capital."[2] An analysis by the IBM Institute for Business Value of the marginal economics of the airline sector across regions confirms this unfortunate reality. Between 2005 and 2009, the average capital costs for the industry were between 5.5 and 7.5 percent, but the calculated return on invested capital for the sector was 4.5 percent.[3] These results are an improvement over similar estimates by the International Air Transport Association (IATA) for 2001 to 2004, but, because average borrowing costs also increased, the industry was in no better position at the end of 2009 than it had been at any point since 1996.[4]

Unfortunately, the story that many global airlines are not returning their invested capital is not new; Warren Buffet joined the company of many academics and analysts when he quipped that, "If capitalists had been present at Kitty Hawk…" there would not be an airline industry today.[5]

In previous economic downturns, many carriers were propped up by political support and direct subsidy. In today's difficult economic environment, however, governments around the world can no longer be the "lender of last resort." While favorable restructuring initiatives and carrier combinations that might not have been allowed to proceed in boom years might continue, without the backstop of government support, almost all carriers will see their cost of capital continue to rise (see Figure 1). Without course correction, even carriers that generate the same percent returns year over year will not survive in this environment.

Airline business model evolution



Source: IBM Institute for Business Value analysis, Carrier business model analysis based on IATA estimates in 2009.

Figure 1: **Almost all carriers will see the cost of capital increase.**

Growth overshadows all

For each airline, success or failure is determined by a unique mix of circumstances and decisions. The question is which of these matter the most? Precise answers are specific to each carrier, but understanding how these factors impact carriers reveals many important truths about viability of the prevailing airline business models.

Not surprisingly, some variables that define an airline's circumstances are more highly correlated to success than others. Regional economic growth rates had the most positive impact on the carriers we interviewed, more so than such factors as the reported level of government support, relative tax burdens and competitive intensity. Airlines that operate in high-growth regions realized higher revenue growth and more robust profitability (see Figure 2).

Carriers in our study operate in economies with widely divergent economic growth rates

Underlying economic growth in the airline's primary service region and country

Less than 2% GDP growth

2-4% GDP Growth

More than 4% GDP growth

But the most successful carriers operate in high growth economies

*On average, operating in a high growth economy was **29%** more common for the top five financial performers than for the bottom five*

Several carriers from low-growth economies performed well financially

In high growth markets supply often struggles to keep pace with demand so prices remain abnormally high

High growth markets create consumers who are less price sensitive

Source: IBM Institute for Business Value analysis, Our survey and correlation analysis on reported profitability performance 2012 n= 22 Q04, Q05: "What portion of revenue is generated from people living in your country (4) region (5)?", Growth scores assigned based on GDP growth rates by country and region based on data from the CIA Factbook, 2010.

Figure 2: Top performers are more likely to operate in a country or region with high economic growth.

Conversely, carriers operating in more stagnant economic conditions tended to underperform relative to the other airlines in our study. At the extreme, the top five financial performers in our sample were 29 percent more likely than the bottom five to operate in a country or region with high economic growth.[6]

As mentioned, some factors that experts often attribute to carrier success do not play as big a role as was previously believed. For example, government subsidies have long been thought to significantly contributors to high performance of some leading airlines. Yet, none of the top carriers in our study reported receiving aid. Of the carriers we interviewed, only 18 percent of them say they expect or have received any external support, and most of these carriers posted financial results significantly weaker than the strongest performers.[7]

Collectively these findings provide insight into the decisions and conditions that help the leaders in the industry attain financial success. They do not, however, reveal what might be possible if forward-thinking carriers adopt alternative business models. Hopefully, a few carriers will be able to leverage these findings to improve performance. However, with measured steps toward more innovative business models, more carriers will have the potential to achieve the results needed to chart a new course for the airline industry as a whole.

Some factors commonly attributed to carrier success do not play as big a role as previously believed.

Shades of grey and hints of black

For decades, airlines were segregated into two dominant business models: full-service carriers and low-cost carriers. This distinction served its purpose for many years, but today the line of demarcation between these two business models is blurring. Ryanair, which in many ways epitomized the so-called low-cost carrier model since its inception in 1985, has been stretching the classic low-cost carrier definition with its three attempts in six years to acquire Aer Lingus, a carrier that, itself, has shed the shackles of the full-service model.[8] Etihad's participating share in Air Berlin and Lufthansa's involvement with Germanwings also run counter to traditional airline business model labels.[9]

In many ways, the dissolution of the full-service versus low-cost distinction makes sense. Since the dramatic growth of low-cost carriers in the late 1990s, most full-service carriers have worked tirelessly to reduce corporate overheads and operational costs. At the same time, the cost structures of many low-cost carriers have increased significantly. Simple point-to-point networks have given way to more complex and costly hub-based models, and once-new aircraft eventually require increased maintenance expenditures, which help bring cost structures into alignment.

Perhaps the most compelling reason that low-cost and full-service carriers now share many attributes is that neither model in its purest form is a perfect match to customer needs. While carriers of both types developed strategies to work around their inherent limitations, neither model was set up to capture all types of demand. Customers with little schedule flexibility often find few suitable options with low-cost carriers because low-cost carriers are so prevalent in some markets. Similarly, full-service carriers often sacrifice profitability through deep discounts intended to capture customers with more flexible travel needs.

The disconnect between market demand and the go-to-market approaches used by most carriers is in the basic capabilities that define an airline. Most airlines developed a set of capabilities optimized to manage operational aspects of the business. Over time, carriers have added sophisticated yield-management practices to their core capabilities. Unfortunately, many airlines still lack the necessary marketing skills – such as those employed by retail, telecommunications and other industries – that enable them to efficiently identify and match offerings to customer preferences. More alarmingly, many carriers lack the necessary commitment to develop customer-focused products and services, and are instead focused on improving efficiencies within and between the confines of the current customer experience.

At the same time, a number of carriers spend time and money delivering and developing capabilities that have little or no direct impact on customers. Consider, for example, the path top recruits take within the airline industry, as compared to other customer-facing businesses. Where an airline might direct the energies of a top graduate toward operations management or network planning, a typical high-technology company or life sciences enterprise would be more likely to channel this talent toward more customer-facing functions, such as research, product design or product development.

Many airlines today would be well-served to emulate the customer-focused practices that have been carefully cultivated in other industries. Retailers, for example, have online distribution capabilities that capture details about a shopper's specific context, including where he or she has been shopping, purchase history and what the customer has browsed for (on and offline) but not purchased in previous visits. This information is used to forge a stronger bond with the buyer and to offer relevant real-time promotions and advertisements, crafted specifically for the preferences of that individual customer. To get a more complete view of the customer and identify shopping patterns and behavior, some retailers even exchange information with others along the retail value chain.

Carriers could also benefit from the brand-management capabilities of the consumer packaged-goods industry. Airline executives frequently bemoan the “commoditization” of the industry’s offerings, yet many packaged-goods companies effectively market products that are the very definition of commodity. These companies invest heavily in brand development and fiercely protect the brand identities of their products By comparison, airlines invest relatively little in their brands. And when they do, it is often without the consistency and focus needed to make the most of those investments.

Transformation – turning captives into consumers

Defending the home turf

For real business model transformation to occur, airlines will have to reexamine how they approach the market. Many airline executives recognize the structural flaws that constrain the prevalent business models in the industry, but seem to fail to recognize these same shortcomings within their own organizations. This misperception may explain why so many carriers continue to defend their existing business models, when, in fact, defense should only be employed by a handful of the most successful carriers in the least-contested markets. Decisions about which strategies to employ are rightly based on assessments of the magnitude of the threats and opportunities in a given market, as well as the presumed likelihood that a given approach will bring about the desired results. Accordingly, more significant threats and opportunities lead to progressively more change-oriented strategies. If history is an accurate predictor of future industry behavior, too many carriers will continue to underestimate the threats and opportunities in the market and continue to defend their existing business models.

In an effort to improve scale economies, carriers will continue to pursue mergers. While this tendency is easy to justify based on well-established economic theory, industry data shows that these mergers rarely lead to the financial boon that theory suggests. More research is needed to understand why so many airline combinations produce less value than initially anticipated, but a review of past mergers suggests that, especially for carriers with large, complex operations, size itself may make profits harder to come by.[10]

Another defensive strategy involves changing share within target markets. This generally consists of less permanent changes, such as shifting capacity from one market to another. In periods of moderate stability, routes and destinations that make only meager contributions to profitability are justified under the theory that network size and reach draw in larger number of customers and, thus, increase volume on more profitable routes. In lean times, however, such arguments are deemed too speculative, so carriers often scale back on potentially network-enhancing investments. Carriers can elevate this tactical change to a strategic opportunity by systematically testing the applicability of this theory while conditions are favorable by adjusting capacity to less profitable routes and measuring the changes in profits across the network. Most airlines would be well served to abandon defensive postures altogether and, instead, refocus on customer-centric strategies that align offerings with customer preferences and provide new, integrated services to travelers.

More significant threats and opportunities lead to progressively more change-oriented strategies.

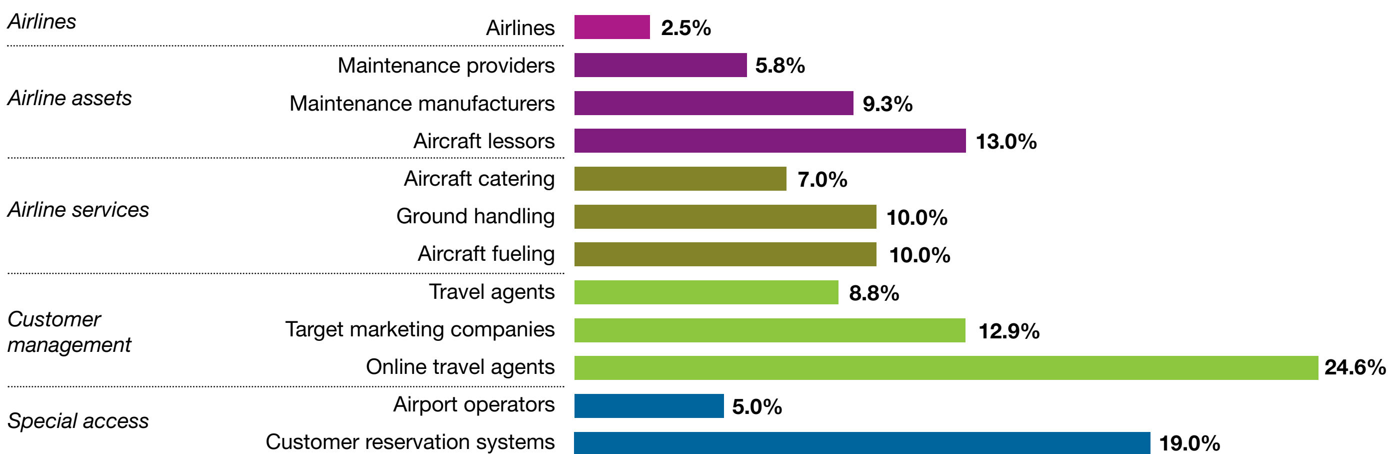
Innovate and exploit the travel value chain

Carriers seeking to improve their position should look toward building innovative business models that either extend the scope of the airline or limit exposure to market volatility. While riskier than the conservative approach, this path offers significantly more upside potential.

Taking such an approach, however, involves becoming more customer-focused and moving outside the traditional parameters of service. Carriers bullish about their position in the air service market and optimistic about the growth prospects for the travel market they serve may choose to increase their exposure. Adjacent areas of the travel value chain, such as agency sales, travel marketing, and ground services all offer more attractive financial prospects than core air transportation services (see Figure 3).

Few customers are interested in traveling just from one airport to another, but could be well served with integrated travel services. In our Airline 2020 study, we explored the interesting opportunities associated with servicing the end-to-end travel needs of customers.[11] For that study, we conducted a focus group with travelers to test their reaction to an airline-driven solution that would help a traveler take control of his or her itinerary by controlling each journey segment with a sophisticated application that works across airlines, ground services companies, airport authorities and hotels. We found that travelers expressed a strong interest in some version of this solution – even if they were unclear about how they might pay for this privilege.

Estimated return on invested capital for select airline related sectors



Source: IBM Institute for Business Value analysis, ROIC data from IATA Value Chain Profitability report 2005, Motlyfool "Do These Airlines Pass Buffett's Test" 2010, Seeking Alpha "Expedia Is Insanely Cheap" 2012, Morgan Stanly "Internet 2012 Outlook: Worlds Collide" 2011.

Figure 3: Adjacent areas of the travel value chain show more return on invested capital than airlines.

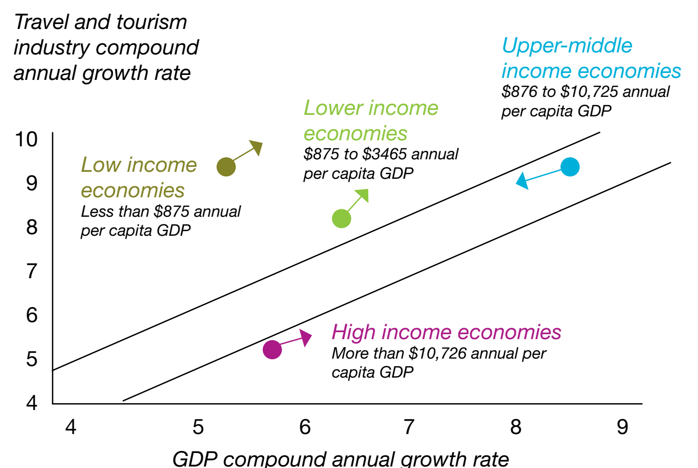
Other possibilities include extending the airline loyalty program into "pure commerce." Qantas, for example, boasts an ecosystem of more than 400 merchants/partners. Airline customers can elect to pay for products and services from these partners with any combination of cash and travel points. An online product catalog of partner offerings is a growing source of revenue for the company.[12]

Another possibility for airlines wishing to limit exposure to the volatile air services market is to pursue an asset-light business model that focuses on brand control. Most airlines try to control all aspects of operations, maintenance, marketing and distribution. But looking only to control the brand is also a viable strategy. Indeed, many esteemed online retailers employ this approach. Airlines operate asset-intensive business models, but the few that have managed to reduce non-current assets have achieved measurably better outcomes. Asset-light carriers tend to provide non-core passenger services using partner networks and non-owned service providers. Further, an asset-light structure may also be more appropriately aligned to capture high growth among traditionally underserved economic segments (see Figure 4).

Ryanair is one example of an asset-light business model that maintains lower levels of working capital compared to most other airlines.[13] The company strives to maintain relatively low levels of working capital by limiting both customer services (such as ticket changes and advanced seat assignments and frequent flyer points) and the complex corporate functions that are needed to support these services. Being asset light is not the only factor that contributes to Ryanair's impressive financial performance, but it certainly helps to maintain high margins, even when the economies they serve are in turmoil.

Airlines that innovate their business models are apt to experience less volatility and declines in customer satisfaction. They position themselves to increase revenue and, if exploring other areas of the travel value chain, enjoy more control over the customer experience. They feature less complexity and are often able to increase both profits and stability. The leaner corporate structures that accompany these business models typically generate more favorable returns for shareholders.

Travel and tourism industry growth vs. economic growth by income segment



Source: IBM Institute for Business Value analysis, Travel and Tourism Competitiveness Index, 2006, Growth estimates from CIA factbook 2011.

Figure 4: **Industry shocks have motivated cost cutting in recent decades, but how might cost structures need to change if lower income segments represent a growing share of future travel revenue?**

Disrupting to create consumer affinity and demand

The most aggressive carriers have the opportunity to evolve the innovative approach even further, creating a business model that is truly disruptive. These organizations will expand scope by entering adjacent markets, will use commerce to transform the traveler experience, will further limit market exposure through an asset-light strategy and will coordinate with partners to offer customers enhanced services using a platform-based business model. With focused business model innovation, airlines may be able to extract revenue from new sources and extend into higher-margin business domains.

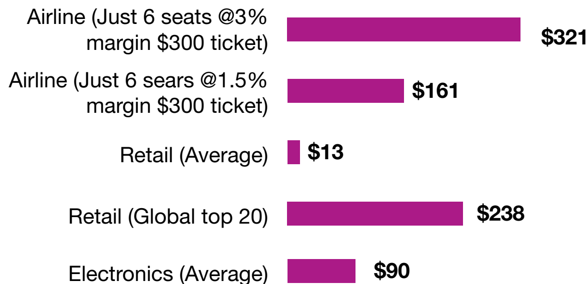
Recognizing the correlation between revenue diversity and financial performance, some carriers will continue to explore new sources of revenue. In our study, the top five airlines were nearly 20 percent more likely to realize revenue from new markets, new customers and non-ticket sales than the bottom five. In the future, new revenue will more likely grow from new services and new sources, not merely from charging customers higher fees for services that were once part of the standard customer experience.

Captivity is currently exploited by most airlines currently exploit captivity through ancillary revenues, such as baggage-handling fees. These revenues are not expected to maintain the high-growth rates of the previous decade, but may well continue to be a source of customer dissatisfaction. Few airlines manage to maintain high satisfaction while extracting significant fees for such services.

Disruptive thinking with respect to sources of revenue can transform the customer experience by developing the potential of other non-transportation services. Airlines traditionally expect customers to spend most of their time onboard in the seat they purchased, but interesting possibilities are revealed to the carrier who is willing to question this assumption. Might the harried business traveler in an economy seat be willing to pay a fee for access to a fully connected onboard office to complete a project or have a short conference call? Would a weary traveler pay for a few hours in a flat bed, even if he or she were not able to justify a seat in a premium cabin for the entire flight?

With focused experimentation and fleet reconfiguration, an airline may discover a more optimal mix of airline and partner provided onboard services. Given the wide variability in per-seat financial returns, an airline may realize additional revenue by dedicating space now consumed by a few of the least profitable seats to higher-return commercial interactions (see Figure 5).

Relative annual gross margin per square foot



As a result of high operating expenses and razor thin profit margins, most airlines underperform retail on profit per square foot adjusted basis

What might a leading retailer be willing to pay for access to 35 square feet of “retail space” onboard an aircraft?

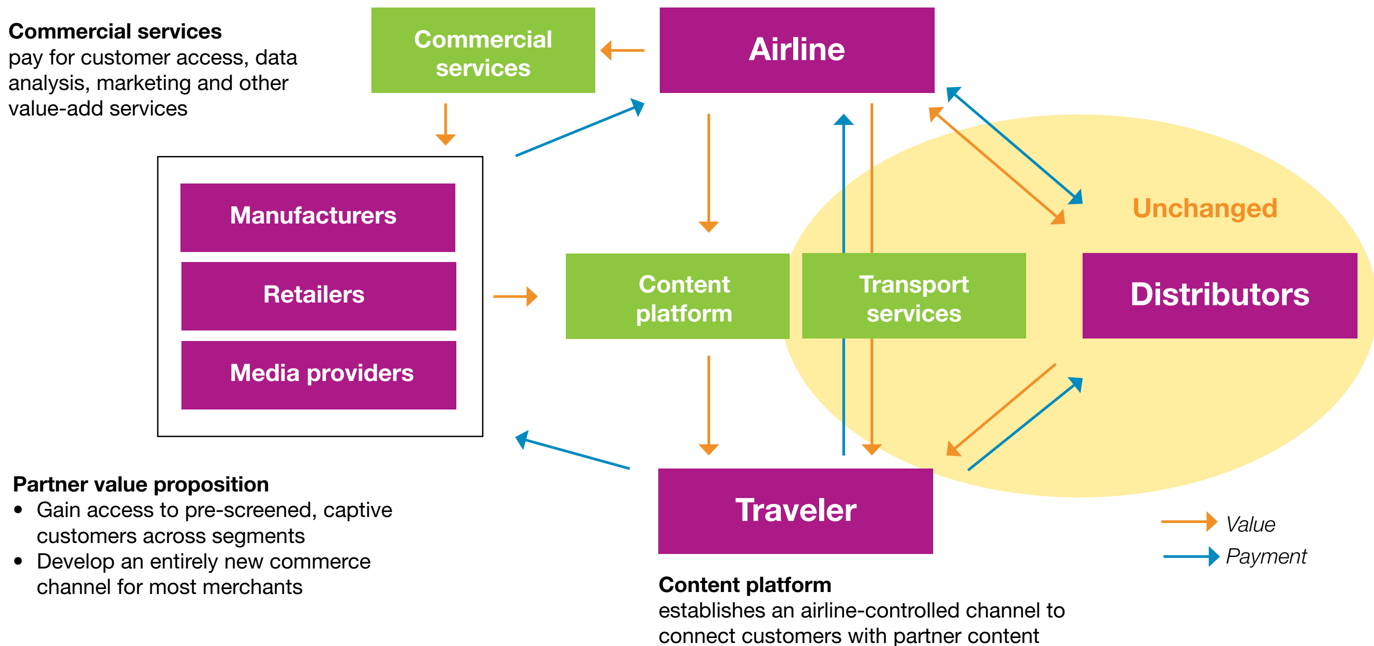
Source: IBM Institute for Business Value analysis, “Ranking the top 20 retail sales chains” RetailSails 2011, Warehouse data were used to calculate square footages for non-store singularityhub.com 2012.

Figure 5: **Compared to the gross margins of various retail subsectors, airlines generate relatively modest amounts of profit per square area.**

In this way, retail partners willing to pay for access to an airline's captive customers may become a valuable new source of revenue. Airlines also have an opportunity to employ a platform-based business model of the sort used with great success by companies like Google and many others (see Figure 6).[14] By controlling the means by which customers access other valuable services, Google succeeds by extracting payment from a mix of both customers and partners who wish to access the desirable services they have assembled. Airlines can apply this concept by assembling a select group of partners and merchants and granting access to their content and merchandise while they are onboard. Like Google, airlines could package commercial services for sale to partners who wish to be a part of the airline platform. Also, airlines could exercise exclusive control over the physical device air travelers use to transact business with members of the airline commerce community.

Relatedly, Delta Air Lines may be breaking the confines of the one-sided business model with its recent acquisition of an oil refinery. The stated objective of the airline is to lower fuel cost with decreased variability and by eliminating the "crack spreads" that refiners charge for their services over and above the cost of refining crude oil. Additionally, the acquisition may enable Delta to pursue new revenue streams by selling refined fuel to other airlines. Similar efforts to generate revenue from competing carriers worked well within the maintenance outsourcing domain.

Proposed airline business model



Source: Institute for Business Value.

Figure 6: **With focused business model innovation, airlines may be able to extract revenue from new partners and extend into higher margin services using a platform model.**

Another tactic that has worked well in other industries might be a fit for carriers that wish to expand on the principles set forth in the innovative approach. A more complete form of the asset-light model would be for an airline to extend the brand-only operating structure to its logical conclusion by becoming a franchise operator. In this scenario, an airline might elect to oversee the management and delivery of a select few functions, such as brand management, technology support and employee training, and leave the more operational aspects of the business to franchisees. The airline franchisee and franchisor would likely choose to coordinate on the fulfillment of corporate functions, such as marketing, loyalty, customer data management and a host of shared services (such as finance, HR, and procurement), but the basic model would enable an airline to model the basic structure of the franchised hotel.

Overall, the disruptive path will take an airline in one of two new directions whereby new sources of revenue and value are developed to produce decidedly non-airline results. Airlines can implement a platform-based business model in which they generate revenue from partners who pay for access to their customers. Or they can use a model where they extract value directly from those customers who regard the airline as an in-flight shopping and entertainment venue, where they can easily purchase media, services, and merchandise.

Lessons from the front lines of the retail revolution

In key aspects of the business transformation outlined in this document, retail companies offer the best window into future airline business models. Like many airlines today, the retail sector in the mid-to-late 2000s was beset on all sides by both new and traditional competitors, just as consumers were feeling the squeeze of tightening economic conditions. New technologies continued to bring better, more accurate price comparison data to the hands (and handhelds) of customers, and online retailers were making it easier for customers to avoid traditional bricks-and-mortar stores altogether.

Many retailers responded to these manifold challenges by pulling the traditional levers of change. Some firms used mergers to increase scale, and others made less permanent adjustments to their cost curves by contracting or expanding their physical store networks. But the real changes, the ones that are transforming the industry and creating new leaders in the sector, have come from the bold few who made business model innovation a top priority.

When many retailers were undertaking cost-reduction measures aimed at preserving the traditional retail business model, a few leaders were experimenting with new ways of extracting value from partners, interacting with customers and building loyalty. Fundamental business model changes put these leaders in a position to extract revenue and lasting value from partners. Where laggards strove to cut their way to advantage, the leaders made customer-generated data and partner interests a source of customer engagement and financial strength.

What lessons do leading retailers offer airlines in the throes of their own transformation journey? Here are just a few suggestions:

- Perspectives on partners – suppliers with retail operations (e.g., wireless service providers) can be a source of revenue and can enhance the customer experience. Airlines may add revenue streams by selling physical and virtual space to partners.
- Uses of customer generated data – product reviews may draw customers away from electronic storefronts, but in the physical environment, such information helps put the cost convenience trade-off into perspective. Airlines might retain customer attention by integrating traditional online customer reviews and social media-driven suggestions into their websites.

With either of these approaches, an airline can position itself as a customer destination, where customers seek out and enjoy air travel in much the same way they enjoy a cruise ship or a luxury hotel.

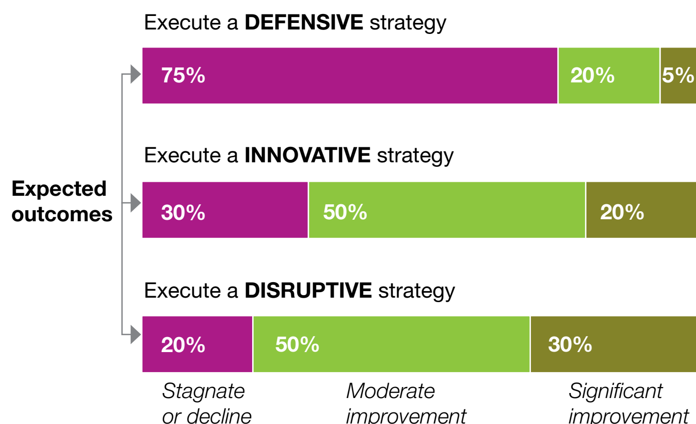
Where next?

Though many carriers will not recognize the urgent need for business model transformation, a few carriers will lead the industry with fundamental change over the next few years. Many airlines will try – in vain – to use defensive strategies to protect the current business model. While some carriers in high-growth regions will succeed with this approach, most will produce sub-par results that investors may not support or accept.

Some carriers will bend the boundaries of the prevailing business model to produce new outcomes. By altering the scope of services and their exposure to market risks, such as entering adjacent travel spaces or becoming more asset-light, some carriers will implement innovative business models and succeed in ways that have not yet been seen in the airline industry.

A few airlines will shatter the current business model to produce radically new outcomes and directions. With a mix of commerce capabilities, unique cost structures, the "airline as a destination" and variations on a platform-based business model, these carriers will take the industry to new heights. Determining where each airline should be in business model transformation will require an assessment of its current state and the setting of a strategic course grounded in an understanding of weaknesses, strengths and constraints, as well the enterprise appetite for risk (see Figure 7).

Potential airline business model transformation outcomes



Source: Institute for Business Value.

Figure 7: **Setting a strategic course must be grounded in an understanding of weaknesses, strengths and constraints and the enterprise's appetite for risk.**

The ideal course of each carrier is defined by its current position and desired performance. To set an effective course for their customers and stakeholders, each airline will need to understand the opportunities and threats in its primary markets. This understanding is essential to setting a go forward business model and strategy that works.

Airlines must understand how their current capabilities fit within the context of their desired trajectory and business model. Carriers should conduct a capability audit to identify key gaps between its desired operating model and its current capabilities. Some of these gaps will require cut backs and changes, but others will require innovation-focused investments.

As is always the case with airlines, execution trumps strategy. Developing a strong strategy is the first step on a journey to a new future. Executing on that strategy requires the development of a comprehensive roadmap to guide the transformation process.

Be among the first to receive the latest insights from the IBM Institute for Business Value. Subscribe to IdeaWatch, our monthly e-newsletter featuring executive reports that offer strategic insights and recommendations based on IBV research: **ibm.com**/gbs/ideawatch/subscribe

Access IBM Institute for Business Value executive reports on your tablet by downloading the free "IBM IBV" app for iPad or Android from your app store.

The right partner for a changing world

At IBM, we collaborate with our clients, bringing together business insight, advanced research and technology to give them a distinct advantage in today's rapidly changing environment. Through our integrated approach to business design and execution, we help turn strategies into action. And with expertise in 17 industries and global capabilities that span 170 countries, we can help clients anticipate change and profit from new opportunities.

Author

Steve Peterson is the global Travel & Transportation leader for the IBM Institute for Business Value. He has worked as a strategy consultant to airlines and travel companies since 1998 where he focused on operations, marketing, distribution, and cost reduction initiatives across the travel and transport sector. Steve can be reached at *steve.peterson@us.ibm.com*.

Sponsor – This study was made possible by the IBM Global Process Service (GPS) team, whose contributions, leadership, creativity, and support proved invaluable in the development and distribution of this study. More information about the GPS team can be found at http://www-935.ibm.com/services/us/en/it-services/ibm-global-process-services.html.

References

1 IBM, Frost & Sullivan Airline Business Model Study. IBM Institute for Business Value. 2012.

2 Glen Tilton, Air Transport World, "United's Tilton: Industry 'deserves better, not different'" May, 2009

3 IBM Institute for Business Value analysis.

4 "Value Chain Profitability." IATA Economics Briefing No. 4 June 2006, 2005-2009 estimates from IBM

5 Southwest May Be Best In Class But No Reason To Own Airline Shares" seekingalpha, April 2012. Also: "Scheduled airlines continue to find it difficult to cover their costs in highly competitive conditions."Professor Kenneth Button, George Mason University.

6 IBM, Frost & Sullivan Airline Business Model Study. IBM Institute for Business Value. 2012.

7 Ibid.

8 Clark, Nicola. "Ryanair approaches Aer Lingus for a third time." *The New York Times.* June 20, 2012. http://dealbook. nytimes. com/2012/06/20/ryanair-approaches-aer-lingus-for-a-third-time/

9 Clark, Nicola. "Ethiad and Air Berlin form an alliance." *The New York Times*. December 19, 2011. http://www.nytimes. com/2011/12/20/ business/global/etihad-and-air-berlin-form-an-alliance.html; Kaminski-Morrow, David. "Lufthansa acquires budget arm Germanwings from Eurowings." Flightglobal.com. December 8, 2008. http://www. flightglobal. com/news/articles/lufthansa-acquires-budget-armgerman-wings-from-eurowings-319886/

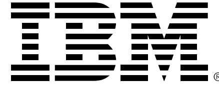
10 Peterson, Steve. "Airlines 2020: Substitution and commoditization." IBM Institute for Business Value. December 2010. http://www-935. ibm.com/services/us/gbs/thoughtleadership/ ibv-airlines-substitutioncommoditization.html

11 Ibid.

12 IBM Institute for Business Value Analysis, Qantas.com 2012

13 IBM Institute for Business Value analysis.

14 Ibid.



© Copyright IBM Corporation 2012

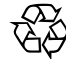
IBM Global Services
Route 100
Somers, NY 10589
U.S.A.

Produced in the United States of America
November 2012
All Rights Reserved

IBM, the IBM logo and ibm.com are trademarks or registered trademarks of International Business Machines Corporation in the United States, other countries, or both. If these and other IBM trademarked terms are marked on their first occurrence in this information with a trademark symbol (® or ™), these symbols indicate U.S. registered or common law trademarks owned by IBM at the time this information was published. Such trademarks may also be registered or common law trademarks in other countries. A current list of IBM trademarks is available on the Web at "Copyright and trademark information" at **ibm.com**/legal/copytrade.shtml

Other company, product and service names may be trademarks or service marks of others.

References in this publication to IBM products and services do not imply that IBM intends to make them available in all countries in which IBM operates.



Please Recycle

GBE03531-USEN-00