

AVIATIONWEEK & SPACE TECHNOLOGY



TOP-PERFORMING AIRLINES Stars and Survivors

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EXCLUSIVE**



PHANTOM WORKS Flight-Test Surge

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In the Zone

Rankings show that smaller airlines are more likely to be peak performers

Adrian Schofield Washington

Call it the sweet spot—that stage in an airline's life cycle where its size is perfectly suited to its market and business plan. This high-performance window can be narrow, and once a carrier moves beyond it, it may never again see the same level of success.

Aviation Week's Top-Performing Airlines (TPA) study highlights the carriers that are currently in this elusive zone. And the inescapable conclusion is that almost all are smaller and exploiting a particular niche. In today's airline industry, bigger is not necessarily better.

This year important changes have been made to the TPA rankings. Instead of grouping airlines by business model and examining each category separately, they have been divided into tiers by size. This allows the same scoring formula to be applied to all airlines, inviting comparison between the best in each tier.

The results of this comparison are

revealing. The overall Top-10 list is dominated by airlines in the medium and small categories. Nine of the 10 fall into these brackets, and only one—Singapore Airlines (SIA)—is in the largest tier. While SIA is once again the best large carrier, it is the relative newcomers like AirAsia that are upstaging the giants.

"It seems to be there is a sweet spot for high performance," says Bryan Terry, a member of the TPA council of advisers (see box). "If you grow past a certain point it improves your viability, but it doesn't necessarily improve your overall performance."

The advisers regard Southwest Airlines as an example of a carrier that has moved beyond its ideal size range. It is no longer an upstart, and growth opportunities are much harder to find, says Raymond Neidl, a TPA adviser. Terry notes that some of Europe's largest low-cost carriers may be the next to reach the same inflection point.

This dynamic obviously has ramifications for the big airlines that are attempting to lift their performance by merging into ever-larger combinations. So far, there is little evidence in the rankings to suggest that this is working. "There are economies of scope and scale up to a certain point, beyond which they diminish," observes TPA adviser George Hamlin.

It is partly because of their size that the most successful smaller airlines can take advantage of market niches. Adviser Craig Jenks says their niches can be based on geography, market segment or product range. As Hamlin says, these carriers are thriving by "figuring out what they are and what they can do, instead of trying to be all things to all people."

Another feature of this year's TPA study has been a general decline in scores, which are predominantly based on full-year 2011 data. In the large-airline tier, all but one of the 21 carriers saw their scores drop, with All Nippon Airways (ANA) the sole exception. This reflects a tough industry environment.

The smaller carriers toward the top of the rankings are much better equipped to thrive in such conditions, says Jenks. "They can take advantage of the non-growth of the larger players during downturns." He notes that these airlines are more agile, make decisions faster, and can adapt capacity more quickly.

Neidl says the major carriers could



First-ranked AirAsia was particularly strong in the TPA study's financial health and earnings performance categories. Learn more about the Top 10 carriers' scores on our iPad Zinio edition or at AviationWeek.com/tpatop10.



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see big gains when the global economy strengthens, and could be best equipped to leverage an improving industry environment. Terry, however, stresses that the comparative strength of the smaller airlines is no flash in the pan. TPA data show they also feature prominently when carriers are ranked by average score over five years.

The overall weakness in TPA scores from 2011 reinforces the International Air Transport Association's view that 2010 was the peak of the current market cycle. Higher fuel prices and Europe's economic woes are obvious culprits, and major carriers in particular are being affected by a soft cargo market.

Jenks says the continuing growth of the large Persian Gulf carriers is also

TOP 10 OVERALL RANKING BY TOTAL SCORE

RANK	COMPANY	TOTAL SCORE
1	AirAsia	81
2	Air Arabia	78
3	Ryanair	78
4	Hainan Airlines	77
5	Allegiant	77
6	TransAsia Airways	72
7	Vueling Airlines	72
8	Copa Airlines	71
9	Singapore Airlines	70
10	WestJet Airlines	69

Source: TPA Study

a challenge for the mainline airlines. These carriers are not represented in the TPA study because they are privately owned, but they still cast a giant shadow over the results. Emirates, Etihad and Qatar are dominating certain one-stop international markets such as India-Europe and are pushing into more long-haul city pairs.

With all these factors to contend with, particularly the fuel-price surge, the surprising thing is that the TPA results did not dive more sharply, the advisers say. Compared to previous years, carriers "handled this fuel-price crisis relatively well," says Hamlin.

TPA adviser Michael Dymont ob-

Continued on page 46



Copa Airlines is a good example of a smaller carrier punching well above its weight. Copa is ranked highest of the Latin American carriers, eighth overall and fourth most-improved.

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SINGAPORE AIRLINES



JOEPRIESAVIATION.NET

Rank: 1st, revenues greater than \$6 billion
Sales (12 months through

March 2012): \$11.8 billion

While it still led its tier, persistent economic softness in Asia-Pacific markets weakened Singapore Airlines' (SIA) results significantly. Its total score was down by 23.8 points, or 25%, compared to 2010's restated results. Most of the carrier's category scores fell by double digits, with nearly 50% of the overall decline due to deterioration in the earnings performance category. High jet fuel prices affected SIA's performance markedly, but passenger and cargo yields also came under much pressure, particularly during the first nine months of the airline's fiscal year ending March 31, 2012. SIA has struggled to realign capacity with softer passenger and cargo demand throughout the year, although in February it announced plans to cut its freighter capacity by 20%.

GARUDA INDONESIA



KEITH GASKELL

Rank: 6th, revenues of \$2-6 billion
2011 sales: \$2.8 billion

Garuda Indonesia is this year's comeback story, achieving a 16-point gain in total score that represents the biggest improvement of any category or region. Few other Asia-Pacific airlines managed to increase their scores. Garuda's initial public offering in early 2011 helped provide the financial impetus for a major increase in seat capacity and an ambitious growth plan. Expansion was in turn rewarded with strong passenger demand in 2011 and a solid revenue stream that easily outpaced operating expenses—a winning combination that triggered impressive gains in the TPA earnings performance and financial health categories. Not surprisingly, Garuda also earned a Top-10 ranking among Asia-Pacific carriers (see chart, p. 47).

RANK	COMPANY	12 MONTHS ENDING	REVENUE (\$ millions)	TOTAL SCORE
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REVENUES GREATER THAN \$6 BILLION

1	SINGAPORE AIRLINES	Mar. 12	11,848	70
2	ALL NIPPON AIRWAYS	Mar. 12	17,891	68
3	QANTAS AIRWAYS	Dec. 11	13,532	64
4	DEUTSCHE LUFTHANSA	Dec. 11	33,079	60
5	SOUTHWEST AIRLINES	Dec. 11	15,658	59
6	INTERNATIONAL AIRLINES GROUP	Dec. 11	20,890	58
7	CATHAY PACIFIC AIRWAYS	Dec. 11	12,641	55
8	UNITED CONTINENTAL HOLDINGS	Dec. 11	37,003	53
9	AIR FRANCE-KLM	Dec. 11	33,943	48
10	US AIRWAYS GROUP	Dec. 11	13,055	48
11	TURK HAVA YOLLARI	Dec. 11	7,062	48
12	CHINA SOUTHERN AIRLINES	Dec. 11	13,499	47
13	TAM LINHAS AEREAS	Dec. 11	6,976	47
14	AIR CANADA	Dec. 11	11,740	47
15	AIR CHINA	Dec. 11	14,442	47
16	DELTA AIR LINES	Dec. 11	35,115	45
17	AMR CORP.	Dec. 11	24,022	44
18	SAS	Dec. 11	6,382	43
19	THAI AIRWAYS INTERNATIONAL	Dec. 11	6,265	42
20	KOREAN AIR	Dec. 11	11,078	40
21	CHINA EASTERN AIRLINES	Dec. 11	13,093	39

REVENUES \$2-6 BILLION

1	RYANAIR HOLDINGS	Mar. 12	5,767	78
2	HAINAN AIRLINES	Dec. 11	4,065	77
3	WESTJET AIRLINES	Dec. 11	3,105	69
4	ALASKA AIR GROUP	Dec. 11	4,318	66
5	EASYJET	Sep. 11	4,387	65
6	GARUDA INDONESIA	Dec. 11	2,830	60
7	TRANSAT A.T.	Jan. 12	3,720	59
8	AIR NEW ZEALAND	Dec. 11	3,554	58
9	AEROFLOT RUSSIAN AIRLINES	Sep. 11	4,235	56
10	VIRGIN AUSTRALIA	Dec. 11	3,688	55
11	JETBLUE AIRWAYS	Dec. 11	4,504	54
12	SKYWEST	Dec. 11	3,655	53
13	LAN AIRLINES	Dec. 11	5,585	52
14	AVIANCATACA HOLDING	Dec. 11	3,823	51
15	FINNAIR	Dec. 11	3,145	48
16	REPUBLIC AIRWAYS HOLDINGS	Dec. 11	2,876	47
17	EVA AIRWAYS	Dec. 11	3,862	47
18	CHINA AIRLINES	Dec. 11	4,499	45
19	EL AL ISRAEL AIRLINES	Jun. 11	2,009	43
20	JET AIRWAYS (INDIA)	Mar. 11	3,190	39
21	ASIANA AIRLINES	Dec. 11	5,065	35
22	GOL LINHAS AEREAS INTELIGENTES	Dec. 11	4,048	34
23	AIR BERLIN	Dec. 11	5,881	33
24	MALAYSIAN AIRLINE SYSTEM	Dec. 11	4,463	11

RANK	COMPANY	12 MONTHS ENDING	REVENUE (\$ millions)	TOTAL SCORE
REVENUES \$250 MILLION-2 BILLION				
1	AIRASIA	Dec. 11	1,462	81
2	AIR ARABIA	Dec. 11	663	78
3	ALLEGIAN'T TRAVEL CO.	Dec. 11	779	77
4	TRANSASIA AIRWAYS	Dec. 11	308	72
5	VUELING AIRLINES	Dec. 11	1,192	72
6	COPA HOLDINGS	Dec. 11	1,830	71
7	REGIONAL EXPRESS HOLDINGS	Dec. 11	269	68
8	AER LINGUS GROUP	Dec. 11	1,792	67
9	SPIRIT AIRLINES	Dec. 11	1,071	65
10	CEBU AIR	Dec. 11	679	64
11	ICELANDAIR GROUP	Dec. 11	680	55
12	KENYA AIRWAYS	Sep. 11	1,108	54
13	HAWAIIAN HOLDINGS	Dec. 11	1,650	53
14	NORWEGIAN AIR SHUTTLE	Dec. 11	1,879	51
15	AEGEAN AIRLINES	Dec. 11	930	50
16	PAL HOLDINGS	Mar. 11	1,539	49
17	CHORUS AVIATION-JAZZ AIR	Dec. 11	1,683	48
18	ROYAL JORDANIAN AIRLINES	Sep. 11	939	48
19	AIR MAURITIUS	Mar. 11	576	48
20	SHANDONG AIRLINES	Dec. 11	1,496	45
21	PINNACLE AIRLINES	Sep. 11	1,233	37
22	TIGER AIRWAYS HOLDINGS	Dec. 11	396	30
23	MERIDIANA FLY	Sep. 11	865	28
24	SPICEJET	Dec. 11	767	21
25	PAKISTAN INTERNATIONAL AIRLINES	Sep. 11	1,485	13
26	CYPRUS AIRWAYS	Dec. 11	295	10

NOTES:

Publicly traded airlines only. Scores range from 1 to a maximum value of 99. The methodology for these rankings can be found on page 49.

Aviation Week Intelligence Network subscribers can go to: AviationWeek.com/awin/TPA for expanded rankings tables that break out each airline's scores in the five categories. Extensive data pages for each carrier can also be accessed, as well as additional analysis and tables. These include a universal rankings list, full year-on-year score change list, and five-year average score rankings.

AIR ARABIA

Rank: 2nd,
revenues of \$250 million-2 billion

2011 sales:
\$663 million

In terms of annual revenues, Air Arabia is ranked 66th out of the 71 carriers scored in this year's TPA study. But what the airline lacks in size it more than makes up for with a strong financial position and solid operating performance. Air Arabia ranked second overall in total score, trailing AirAsia by just three points but topping all carriers in the TPA study's five-year average score rankings. Like other successful low-cost carriers, Air Arabia has established joint venture franchises in other countries—Air Arabia Egypt and Air Arabia Maroc, in Morocco. Persistent geopolitical turmoil in the airline's core operating region, however, will continue to test this management team and provides a challenge to maintaining its impressive performance.



PAUL DENTON/AIRLINERSGALLERY.COM

ALLEGIAN'T

Rank: 3rd,
revenues of \$250 million-2 billion

2011 sales:
\$779 million

Allegiant is a niche carrier that steers a different course from the other U.S. airlines in the TPA study. Non-competed city pairs, secondary airports and low fares comprise the core elements of a very successful business model. Allegiant sees itself as a travel company that happens to run an airline, and it has been a leader in finding new ancillary revenue sources. Besides being top-ranked among North American carriers, its operating performance places it third overall on the TPA study's five-year average score rankings. The airline's most revealing metric, however, can be found in its management of passenger demand. Allegiant's load factor was 88.6% for 2011, second only to Virgin Australia's.



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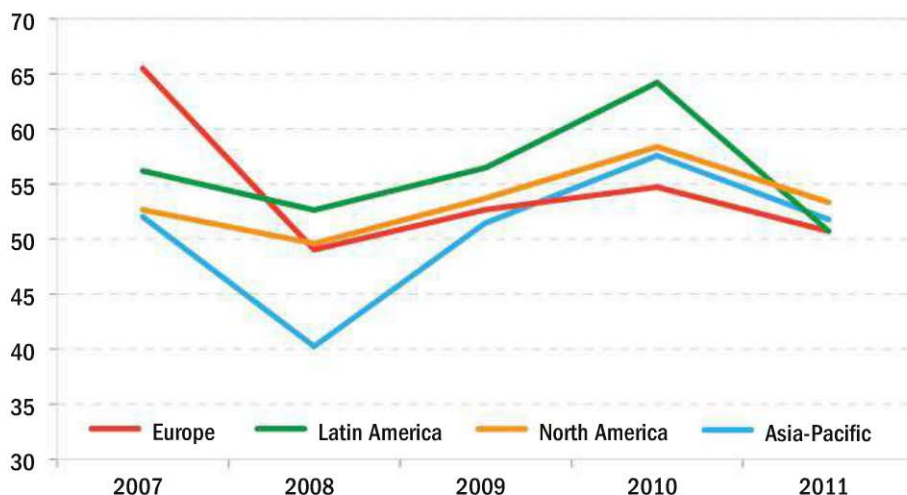
serves that when oil prices spiked at \$147 a barrel in 2008, “airlines were bleeding to death and there was no capacity discipline, but today it’s a remarkably different picture.” This is one area where consolidation has been a positive for the industry, says Terry, and the proliferation of cross-border joint ventures has also helped keep a lid on capacity.

Jenks, however, notes that capacity discipline has not been uniform, and it has been more apparent in some regions than others. It is still much more noticeable in North America and Europe than in the Asia-Pacific region, for example.

This is part of the reason why the fortunes of the airline industry vary from region to region. Asia-Pacific and Latin American airlines have generally seen the most dramatic score declines in this year’s TPA study, with North American and European airlines not falling as much.

Downward Dip

Median total TPA scores by region, 2007–11



Source: TPA Study

The Asia-Pacific region offers the most stark contrast in performance between the mainline giants and smaller low-cost carriers. For example, Malaysia yields both the top-

ranked carrier overall, AirAsia, and the bottom ranked, Malaysia Airlines. AirAsia is a prime exhibit of an airline finding its sweet spot, and it could be in that zone “for a number of years,”



All Nippon Airways bucked the trend in the large-airlines tier, the only one in this category to record a year-on-year score increase.

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says Terry. The carrier still has good growth opportunities, but it has also shown that it is willing to drop routes if they do not pan out—a sign of good management, says Hamlin. Jenks notes that AirAsia is following a multi-base strategy that is also succeeding for highly ranked smaller airlines such as Air Arabia, Allegiant and Vueling.

SIA once again tops the rankings in the large-airline segment, as it has done for seven of the last eight TPA studies. But its score has dropped by 23.8 points from the previous year (historical scores have been restated to reflect the change to a universal formula). Cathay Pacific has also traditionally been one of the strongest performers, but it declined by 20.4 points this year and has fallen to seventh in its segment.

The problem for SIA is finding areas where it can still expand profitably, says Jenks. Terry points out that many of Asia's traditional leading airlines are running out of organic growth options, which could be one factor behind the

increasing number of low-cost subsidiaries and joint ventures in the region.

A major reason for the success of airlines such as Singapore, Cathay and the Taiwanese carriers has been their location on the doorstep of the Chinese market. But now their connecting flights between China and the rest of the world are coming under more pressure, says Jenks. The Gulf carriers have increased their presence in China, and Dymont notes that the Chinese carriers themselves are gaining ground. The region's low-cost airlines are also making inroads.

Another factor hurting Cathay, Korean Air and some of the other Asian majors is that they are more heavily reliant on cargo, says Terry. High fuel costs tend to depress cargo demand more than passenger traffic, so this hits these airlines harder.

There are some larger airlines that are flourishing in the Asia-Pacific region, however. ANA, for example, achieved a score increase that pushed it up to second in the large carrier list.

ANA obviously benefitted from rival Japan Airlines' recent foray into bankruptcy protection, but both carriers are seeing gains from restructuring and extensive cost cuts. "They've rationalized their business models, as airlines in the U.S. and Europe have

TOP 10, EUROPE

RANK	COMPANY	TOTAL SCORE
1	Ryanair	78
2	Vueling Airlines	72
3	Aer Lingus	67
4	EasyJet	65
5	Deutsche Lufthansa	60
6	Int'l Airlines Group	58
7	Aeroflot	56
8	Icelandair Group	55
9	Norwegian Air Shuttle	51
10	Aegean Airlines	50

Source: TPA Study

TOP 10, ASIA-PACIFIC

RANK	COMPANY	TOTAL SCORE
1	AirAsia	81
2	Hainan Airlines	77
3	TransAsia Airways	72
4	Singapore Airlines	70
5	All Nippon Airways	68
6	Regional Express	68
7	Qantas Airways	64
8	Cebu Air	64
9	Garuda Indonesia	60
10	Air New Zealand	58

Source: TPA Study

TOP 5, LATIN AMERICA

RANK	COMPANY	TOTAL SCORE
1	Copa Airlines	71
2	LAN Airlines	52
3	AviancaTaca	51
4	TAM	47
5	GOL	34

Source: TPA Study



done, and are doing what most [in their region] are not," Dymont says. In contrast, other Asian carriers are still more focused on market share than "rationalization and efficiency," says Jenks.

Latin America is another region where the larger airlines have seen a dramatic decline in TPA scores. These carriers have been hurt by economic weakness in many Latin markets, particularly Brazil's, the region's largest. Aside from domestic headaches, Brazil's carriers find it increasingly difficult to compete with overseas airlines on international routes, says Jenks. For example, China is now Brazil's top trading partner, but the Shanghai-Sao Paulo route is dominated by Emirates, he says.

Many airlines in this region are also taking a while to digest mergers, Neidl notes. But he stresses that the mergers will eventually make these carriers much stronger, particularly the LAN/TAM deal.

Copa is again the standout among the Latin American airlines, and this year is ranked eighth overall. In keeping with the global trend, one of the smallest carriers in the region is outshining its larger rivals.

The Panama-based airline benefits from a geographical location which makes its hub ideal for connecting traffic between the U.S. and Latin America. It still has "multiple areas of really profitable growth potential," says Neidl. Most importantly, Copa has proven it can keep its operating margins high while growing rapidly.

North American airlines had a relatively good year in 2011, the TPA advisers say. The major carriers saw score declines, but not as much as their peers in other regions.

The large U.S. airlines are still working to streamline themselves after a round of consolidation. So it remains to be seen how much stronger the mega-carriers will be when the mergers are fully absorbed.

While it is uncertain if being bigger helps, having fewer players certainly does. Particularly if American Airlines and US Airways merge, the industry will be reduced to a "rational level where the airlines can get an adequate return on investment," says Neidl.

Neidl projects the U.S. carriers are set to have a better year in 2012 than they did in 2011. Financial reports show that Delta Air Lines in particular has seen a surge over the last two quar-

ters. Concerns over the U.S. economy persist, but most of the majors should continue to be profitable even if fuel prices climb above current levels, says Dymont.

As with other regions, in North America the smaller niche airlines are the stars. The Top-10 list for the region features no fewer than eight carriers from the medium and small tiers (see chart). Allegiant is the best in the region and fifth overall. Spirit Airlines boasts the second-highest overall score improvement, with its westward expansion into new markets obviously paying off.

Southwest Airlines is still the highest-ranked of the large U.S. airlines, but it also had the second-highest score decline of any North American carrier. While this is partly due to Southwest's acquisition of AirTran Airways, Southwest also faces serious challenges. It has reached a transition point, Neidl says. It is no longer a niche carrier owing to its nationwide presence, and has limited domestic growth opportunities. This is why Southwest is turning to markets in the Caribbean and Mexico.

In Europe, the larger low-cost carriers may soon find themselves with the same dilemma as Southwest. Ryanair and EasyJet are both standouts in the TPA study, with Ryanair third overall, but growth in Europe is becoming much harder, says Terry.

Ryanair's ability to outperform the industry is likely to diminish as new market opportunities become more scarce, the advisers say. Jenks points out that EasyJet is "going up the product and complexity ladder" to try to penetrate business markets, while "Ryanair's DNA is not suited for that."

The European majors, meanwhile, have dropped in the TPA rankings. International Airlines Group (comprising British Airways and Iberia) and Lufthansa both saw their scores decline by 7-8 points, and Air France-KLM was down 9.5 points.

The Gulf carriers are having a much greater effect on the European airlines than those in North America. However, Terry says the European majors "can point their fingers all they want at the Gulf carriers, but I would say their own governments are doing them more harm." New passenger taxes, night flight restrictions and emissions penalties are major handicaps for the industry in Europe, he notes. ☉

TOP 10, NORTH AMERICA

RANK	COMPANY	TOTAL SCORE
1	Allegiant	77
2	WestJet Airlines	69
3	Alaska Air Group	66
4	Spirit Airlines	65
5	Transat A.T.	59
6	Southwest Airlines	59
7	JetBlue Airways	54
8	Hawaiian Holdings	53
9	United Continental	53
10	SkyWest	53

Source: TPA Study

MOST-IMPROVED AIRLINES, YEAR-ON-YEAR

RANK	COMPANY	Y-O-Y SCORE CHANGE
1	Garuda Indonesia	16
2	Spirit Airlines	16
3	Vueling Airlines	9
4	Copa Airlines	4
5	TransAsia Airways	3
6	Regional Express	3
7	Allegiant Air	3
8	All Nippon Airways	2
9	Aegean Airlines	2
10	WestJet Airlines	2

NOTE: Includes airlines with total scores greater than 50.

Source: TPA Study

BEST FIVE-YEAR AVERAGE SCORE (2007-2011)

RANK	COMPANY	AVERAGE FIVE-YEAR SCORE
1	Air Arabia	88
2	Singapore Airlines	79
3	Allegiant	78
4	Ryanair Holdings	76
5	AirAsia	75
6	Hainan Airlines	71
7	Copa Airlines	66
8	Aer Lingus	65
9	WestJet Airlines	65
10	Deutsche Lufthansa	64

Source: TPA Study

How It Works

Playing field leveled for the TPA study

All carriers in the Top-Performing Airlines (TPA) study are now scored using a single algorithm. Prior-year results have been restated to reflect this. The scoring methodology represents a composite of five performance categories (and their contribution to total score):

Liquidity (20%), scored using a series of metrics measuring cash and equivalents available to fund current operating requirements; implicit borrowing capacity computed from a percentage estimate of unencumbered asset collateral to debt; and unrestricted cash reserves per available seat mile.

Financial Health (30%), based on assessments of solvency, current ratio, fixed-charge coverage, mix of debt and equity capital, operating income margin and debt service coverage.

Earnings Performance (30%), based on metrics measuring earnings momentum and earnings quality from cash flow margin and year-on-year changes to unit revenue and operating cost.

Fuel Cost Management (10%), from a string of metrics measuring cash flow (Ebitdar) and year-on-year changes to liquidity and solvency against the average annual cost of Jet A fuel.

Asset Utilization (10%), determined from the ratio Cash Flow Return on Investment, providing computation of an economic (versus book or GAAP-based) internal rate of return on inflation-adjusted operating assets of an airline.

Ratios Assigned to Performance Categories

The scoring algorithm was compiled from a selection of 18 ratios assigned to one of the five performance categories.

Ratios grouped within their respective performance categories were calculated over a 10-year period (2001-10), weighted and then subjected to a compilation procedure that generated preliminary values for total score and each of the five categories. Ratios were then assigned coefficients supporting the preliminary values to complete the scoring algorithm.

Data Adjustments


Bankruptcy and reorganization-related gains/charges, mark-to-market asset impairment write-downs, gains/losses from fuel-related derivatives and other non-operating transactions have been excluded from all Ebitdar (cash flow) computations.

Further Review Opportunity Gained from Methodology Design

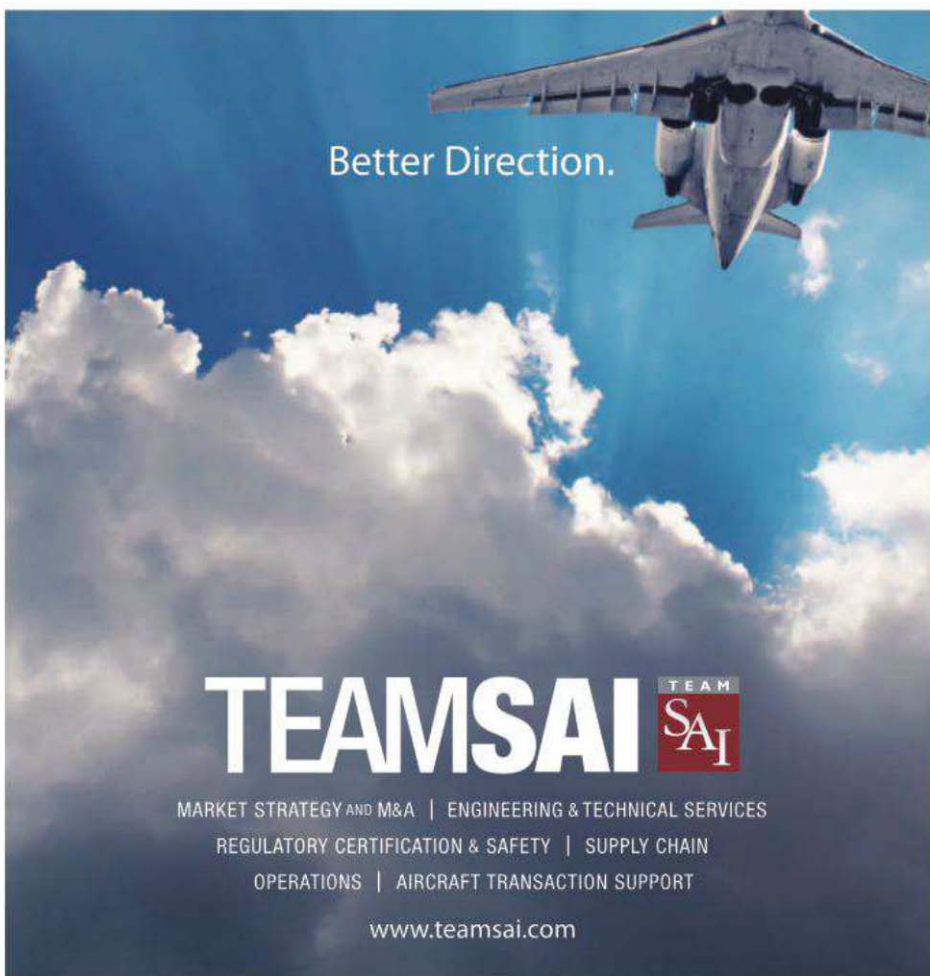
In addition to facilitating company rankings, total score and results for the five performance categories can also be interpreted as percentiles of performance for fiscal 2011 compared to results of all carriers in the TPA universe over the prior 10 years. A score of 85, for example, indicates that a company's performance is within 14 points of the best result earned by TPA-scored carriers during the 2001-10 period. Because of this arithmetical transformation, however, performance category results (adjusted for percentage contribution) will not sum to total score.

TPA Project Manager Michael K.

Lowry—formerly a senior executive with aerospace and airline companies and an equity analyst—is editor/publisher of *AirWatchReport*, an airline credit advisory service (AirWatchReport@aol.com).

Calculations are based on the latest operating results reported for fiscal years ended no later than March 31, 2012. Where possible, companies with fiscal year-ends prior to Dec. 31 have been scored, using interim quarterly data, to the calendar year-end. Raw information is provided by database vendor Standard & Poor's (which, like Aviation Week, is a division of The McGraw-Hill Companies). For non-U.S. companies, income statement data have been converted to U.S. dollars on an averaged, annual basis. Balance sheet data have been adjusted to year-end currency conversion rates. 

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Technology May Lead to Top Performers



Bryan Terry is a director for PwC Transportation and Logistics, and a member of the TPA council of advisers.

Assuming the hypothesis that most top-performing airlines outgrow their “sweet spot” is true, what steps can airlines take to maintain a competitive edge?

With growth, it becomes incrementally more difficult to select which aircraft to acquire, determine what markets to serve, maintain operational excellence, improve the travel experience, establish personal connections with customers and retain brand value. And perhaps the most difficult attributes to preserve and enhance in conjunction with growth are employee relations/company culture. In short, the law of economies of scale transitions to the law of diminishing returns.

While each challenge requires a tailored solution, a common force for good is technology. However, while the customer experience has benefited from a continuous investment in technology, a majority of airline operations remain dependent on legacy systems rooted 25 years in the past.

Managing and operating an airline is among the

“While each challenge requires a tailored solution, a common force for good is technology.”

most complex and technology-dependent of business activities. Airlines were once at the forefront of computing advancements. The industry’s launch of computerized reservation systems in the 1960s was universally recognized as a technology innovation milestone. Subsequent mainframe-based applications to handle maintenance, ground and flight operations were considered state-of-the-art in their time. Airlines were “big data” well before that term came into prominence.

A common attribute of consistently top-performing airlines is a continuous and disciplined fleet management and renewal strategy. Yet, while the time it takes to address a chronically underfunded technical infrastructure is similar to that which is required to modernize an aging fleet, few airlines have a similar commitment to a continuous technology renewal strategy.

For many airlines, this has created an environment where critical functions like reservations, departure and network control, crew and revenue management, maintenance and engineering and loyalty programs are at the mercy of aging systems that are unconnected,

expensive to maintain, difficult to enhance and subject to failure. Growth only compounds these difficulties.

Additionally, airlines have not always focused on mining their enterprise data, allowing rich sources of collected information to go untapped. Many frequent-flier programs have membership numbers and customer information that would be the envy of the largest social media sites. Likewise, many airlines are among the world’s largest e-commerce sites. And with next-generation aircraft, airlines have a hundred times more data to digest compared to legacy aircraft.

A wave of maturing technologies, including cloud computing, in-memory computing, social media, business intelligence, predictive analytics and enterprise mobility offer airlines new capabilities. They provide an unprecedented opportunity to harvest, connect, process and deliver data and previously hidden information cost effectively to improve real-time operations, managerial agility and profitability.

Application of these technologies and capabilities can produce game-changing results for airlines, including a truly personalized connection to passengers and other customers, the identification of new markets and more profitable routes, discovery of untapped earnings potential of loyalty programs, accelerated recovery from disruptive operation events, optimization of crew resources, and increased maintenance productivity.

Despite the significant impact of technology on performance, airlines on average spent only 1.57% of revenue on technology in 2011, according to industry-owned SITA’s annual IT survey, which is in line with recent historical levels. (SITA pioneered international telecommunications for the air transport industry.) In addition, while passengers are benefiting from the current wave of investment in improving the customer experience, this often comes at the expense of core underlying operating systems.

Past generations of airline executives developed a healthy skepticism toward additional investment in core technology. This was justified given the risk and expense, difficulty in quantifying returns, and a why-fix-it-if-it-isn’t-broken mentality.

However in an intensely competitive industry, today’s leaders may find that a disciplined technology renewal strategy and an open mind to new capabilities can produce attractive returns on investment, operational improvements and a better customer experience. ☺

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