

Schedule Reliability, On-Time Performance and the Brand: Time for System-Optimized Self-Help

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As a Fleet, Resource and Economic Planner at American in 1981, I anticipated that implementing fortress hubs and Eagle-branded commuter/regional flying would drive congestion costs, further complicating the problem and challenge of running an airline reliably and on-time, impacting the service quality based on which business clientele, in particular, exhibit preferences.

In the 35 years since then it has amazed me how many top airline managers will argue for and agree to fund huge increases in capital and operating expenditures on customer experience and 'look and feel' issues. These include items like aircraft interior retrofits, menu upgrades, uniforms, club upgrades, gate furnishings, changes to loyalty program structure and metrics. Yet, these same opinion leaders fall silent, absolutely silent -- no opinion or decisive action taken whatsoever -- on the value of trying to, and actually succeeding at getting their customers where they want to be, on-time, reliably and consistently -- 'six sigma' level Completion Factors and A0 absolute on-time arrival. Yes, there may be one or two exceptions, but I will explain further on why even those are hideously expensive ways to 'solve' the industry's number one brand performance and potential competitive advantage/differentiation issue.

I argue that schedule Completion Factor ('CF') and A0 (absolute On-Time Arrival Performance) are the core attributes of 'Perceptibly Superior Service' that has the best and most durable leverage on attracting, retaining and switching/acquiring the high frequency interaction, premium fare customers airlines fight over. These are the 1% of customers that represent 20% of revenue at staggeringly high yield premiums, and the 10% of customers that represent 40% of revenue at generous yield premiums, as one top industry manager related.

Customers seek out and remain loyal to reliability and on-time performance, and so do employees, since it greatly simplifies their lives. They get to work, to their next trip, do their jobs successfully and go home reliably and on-time. And when customers like the service, they don't take out their airline failure-amplified frustrations on those around them -- employees and other customers (vis. recent air rage in close quarters articles).

There are some performance attributes that leverage the brand, and others that absolutely define the brand. Schedule CF/Reliability and A0/On-Time Arrival Performance are two such, leveraging and defining the brand, for good or bad, wherever on the network the experience occurs -- mainline or regional carrier, domestic or international, online or code-share/alliance. What matters is the brand of ticket purchased, not the operating carrier's identity.

But you have to wonder, based on the 'ballpark' attempts we have recently seen to stake out this turf. Where is the brand leverage or definition on a competitive performance objective like: 'statistically, no worse than third of the four largest airlines, (and oh, by the way, only) on domestic mainline service'? In

other words, 'same old, same old', statistically indistinguishable by customers on any given flight from the rest, and poorer on the half of domestic trips that are regional-operated? Benchmarking at its worst.

Why have many air travel consumers, who can rationalize the value of their time, utility and productivity, enlisted their own lift to avoid the scheduled service quagmire? NetJets and the royal barge for the win.

For the rest of us, it's just waiting around to see which – if any -- airline will take the necessary, bold and affirmative steps to 'fix the factory'. Don't just yack about it every year at an analyst conference, or publish a weak, highly qualified 'guarantee', followed by a slow walk to 'no worse than the rest' service quality.

There was a recent and highly charged debate within the industry that completely misses the point:

Q: Should an airline wait for a passenger who is 1 minute late to the gate? Some say let the Captain decide. Others disagree. Costs, revenue, performance reviews and progressive discipline are at stake!

A: Not 'Yes'. Not 'No'. Rather, 'It depends', based on the real time, 'day-of' calculation of a system-optimized, call it 'Dynamic' or 'Smart', DO/AO for each and every flight.

- Why leave on time, consciously leaving passengers, cargo and revenue behind, with a flight plan that arrives 'early' to no gate availability, followed by endless taxiing or (paid) minutes in the 'penalty box', only to block in 'late'?
- Why wait to depart 'on time' when all passengers, cargo and revenue are secured onboard and winds aloft mean a longer than expected (paid) block time and late arrival?
- Why allow a late departure to cascade into the next flight(s) on the day's line of flying, when a maximum effort turning the aircraft and a 'low and fast', higher ground speed flight plan can progressively erase any AO deficit?
- Instead – it has never been easier – why not use all the 'day-of' 'big data' in hand, in real time, optimized at the system level, considering aircraft, connecting and follow-on flights and revenue, and communicate the rationale to station, aircrew and passengers?
- Every 'Dynamic' or 'Smart' DO/AO must, from a logistics perspective, be system-optimized (system over 'silo'). An absolute dictate OR purely local/individual seat-of-the-pants decision will be inferior, potentially very costly from revenue and cost perspectives, even when individuals think they know best ('silo' over system).
- In fairness to those who think they (and sometimes do) 'know better', the airline does have to move to real time 'day-of' system optimization to improve on local/individual decisions or blind dictates, which are often no better than no decision at all.

Airlines are a classic, network, logistics business operating within a first-come, first-served separation service environment (FAA, NAV Canada, and ANSPs generally). Exactly because the separation service environment is first-come, first-served (other than for declared emergencies), airlines must help themselves and 'pre-sort' their real time flight arrivals (while enroute) and departures (nearing taxi clearance time) to get the arrival and departure sequencing and timing correct and aligned with the airline's business needs, considering other demands on the service environment. 'Self-help' is long overdue.

In other words, shuffle your deck of cards (flights) as you wish and hand them to FAA, don't just force them to play '52 pickup', which contributes to making airlines operate a one sigma business in a six sigma world. It has never been and will never be FAA's 'job' to optimize any airline's let alone every airline's 'day-of' flight operations. FAA ATC provides separation services, does it well, but does not and will never know each airline's unique 'day-of' business issues, or rules by which to broker and optimize.

Nor will 'NextGen' (expensive equipage, costs under-estimated, benefits overblown, and delayed, delayed, delayed) ever achieve what airlines have demonstrated -- and had demonstrated for them -- what self-directed 'NowGen' approaches can deliver today, right now. Airlines need to 'just do it'. No new avionics required.

One carrier did engage in self-help, for almost ten years. Is it any coincidence that Delta -- a carrier that implemented 'Operation Clockwork' in 2005 then began using a commercially available, off-the-shelf arrival flow management and optimization software program at Atlanta in 2006, later expanding to Detroit and Minneapolis -- was the first carrier to publish a service guarantee? Even though Delta quickly retreated from 'Clockwork' and recently elected to no longer use that particular optimization software, what did Delta learn and what does it now do manually, that emboldens them to formalize a guarantee? The answer may, sadly, be 'add spares and block time', a time-tested but hideously expensive (in CAPEX and operating costs) alternative to real time, 'day-of' system optimization (which reduces CAPEX and operating costs).

Delta found at Atlanta/Detroit/Minneapolis and US Airways/US Express were shown in an FAA-sponsored demonstration at Charlotte, the system optimization benefits in each case validated by independent reviewers, that managing and stabilizing aircraft flows -- eliminating randomness and variability -- reduced delays, reduced block times and time in the terminal area, and expanded airport handling rates and capacity. Each program operated with FAA's full knowledge, unimpeded, while actually reducing ATC system complexity and controller workload.

Managed, airline-optimized, honest-brokered 'day-of' aircraft flows result in improved A0 on-time performance while reducing Block Times, reducing fuel, operating and capital costs, and providing perceptibly superior customer utility, service and preference, both at single carrier dominated and multi-carrier hubs. Forcing out block time can allow airlines to monetize latent aircraft utilization as revenue flying or as avoided CAPEX. The same goes for surplus 'just in case' gates, ground service equipment and related manpower. Those are all checks that airlines can cash, right now.

Airports can cash these checks, too. For airports, managing flows makes full use of landing and takeoff capacity that typically exists forward in time -- but spoils today, due to lack of real time flow management. The way to increase productivity and throughput, reduce delay signatures, and reduce landed weight rates is for airports is to host airline-centric business-rules based flow management, both for single airline dominant hubs and in an honest-brokered multi-airline terminal environment. Airports could also think about offering a new 'best equipped/best served'-like 'most efficient capacity usage' tier of more attractive rate/price points for the most compliant airlines. Think of the economic productivity gains that would result from 'fixing' perennially delayed NY/NJ, Chicago or LAX TRACON-area airports.

Unfortunately, with a few exceptions, the aviation industry (airlines and large airports) appear to value flow management-related service level improvements, operating cost savings, CAPEX avoidance, and added revenue potential at zero. Airlines, and to some degree airports, act as if 'Our customers tell us that their time, utility and productivity are worth nothing. Ditto the latent potential of our unnecessarily bloated capital base, its utilization and revenue potential.'

Airlines like to talk about expanding product and service differentiation, a la hotel chains - St. Regis up front, Four Points in the back. But the airline industry fails on the most basic issue. Because as it stands, even the most valuable 1%-er customers coddled in their lie-flat cocoons get there late and via overly long and padded block times, sapping their productivity and utility, delivering them late. There is no positive product/service differentiation in a late outcome. Nobody on a late flight gets First Class on-time performance, and surveys show the highest margin customers mark down the experience accordingly.

It's long past time to 'fix the factory'. Top down vision, bottom up execution. Top management has to take the 'leap of faith', establish the objectives and level of commitment, and decide to implement the systematic basis, then challenge the organization with a review of existing processes (and process failure rates), then make it possible for the line to implement the system-optimized 'day-of' solutions, as well as continuously improve processes, targeting far higher success rates (typically, 98+% versus today's 80%). Employees will like this, since it will simplify their lives and reduce the incidence of irate passengers in the terminal, inflight and on the phone.

Some airlines are dabbling with 'home-brew' optimization, others struggling to manage by hand, still others look more like deer in the headlights, hoping that someday, having installed and trained to a panel full of expensive new avionics, 'NextGen' will save them. Won't happen. Numerous airlines have discovered to their dismay that investing in 'NextGen' ADS-B and RNP approaches fleet-wide got them little to nothing in return, except added miles flown due to added FAA structure. 'NowGen' (business rules-based aircraft flow management) on the other hand, would both fix some of the problems and allow them to avoid writing and start cashing checks.

The fact is that no airline-agnostic FAA or ANSP process will save airlines, now or in the future. The reality is it is long overdue for airlines and airports to implement the 'NowGen' of system-optimized self-help – business rules-based aircraft flow management. It is time to move the airline industry toward the

'six sigma' level of on-time performance and quality demonstrated by other successful logistics and process businesses.

A continuation of 1980s level of Completion Factor and On-Time Performance-seeking sophistication -- adding spares and block time to mainline, and more recently mainline-imposed regional carrier schedules -- the root cause of poor CPA carrier performance as identified in several commercial litigations -- will reduce service recovery expenses, but at the much higher cost of driving higher block time, higher operating expenses and requiring more capital to produce the same capacity levels. Not a recipe for financial success.

The 'NowGen' of system-optimized self-help is, first, implement business rules-based aircraft flow management. Drive out variability in on-time performance then sequentially (schedule period by schedule period) reduce block times. With the aircraft flow stabilized, stabilize every other process that touches the now stable aircraft flows (precise ETAs, passenger/ramp processes, ETDs, etc.), and drive out variability in those processes. Keep driving out process variability, and begin to utilize the reduced block times and process times earlier in the scheduling, manpower planning and capacity planning process time horizon.

Results are immediately tangible, and unlike the 1980s brute force method of padding block times and adding spares, 'NowGen' sequentially reduces the cost of schedule, capacity costs, and so improves operating margins, without any assumptions about carrier preference delivering improved PRASM, though there is no doubt in my mind that perceptibly superior service will do just that.

An 85% A0, along with 5-8% reduction in block time (much of it reflected as direct cost reduction), is achievable within 3 years. Recapture of latent aircraft and ground facilities utilization can be taken as reduced CAPEX requirement or as expanded capacity, based on carrier's unique tactical and strategic objectives.

'Phase 1' of the complete solution is (literally) available on the shelf -- business rules-based aircraft flow management, starting with the industry's most accurate ETAs. Get the aircraft flow stabilized first, while performing an internal process review, a few months' effort.

As an airline executive, I always wanted to fight this fire and willingly jumped in when allowed to do so. These days, as a customer, I am forced to experience the fire (often at the very airline for which I am consulting) every time I experience an unnecessary delay, cancellation, etc. What works for me, works for the airline, its investors, employees and customers. I would like nothing better than to leave the industry far better than I found it, in this respect.

Over to you. You know who you are. Get ready to cash some new checks, and avoid writing many others for outdated, overly expensive processes.