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Airport operators' quest for efficiency

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**How airports can
focus operational
improvement efforts
on their addressable
drivers of cost**



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Executive summary



Today's airports are increasingly complex operations, requiring excellence across a broad and diverse set of capabilities and the management of many different stakeholders. Increasing service expectations (from both passengers and airlines); regulator-imposed constraints on aeronautical charges; and the need to fulfill a national, regional, or municipal development role mean that airports are continually challenged in a drive for efficiency, service quality, and passenger growth. Being able to focus operating expenses and investments on the capability areas that matter most is critical to meeting these challenges.

Only activities representing essential capabilities that differentiate an airport — that give it a unique and sustainable winning position in its market — deserve significant investment. These activities, after all, allow an airport to deliver its unique value proposition. By contrast, capabilities that are necessary to keep the airport running but that don't make a big difference to airlines or passengers should be handled as efficiently as possible. Finally, activities and capabilities that don't provide a significant operational benefit and that aren't differentiating from an airline or passenger point of view should be cut back or eliminated.

Benchmarking operating cost performance across airports can be a valuable tool in the quest for efficiency. However, the analysis needs to account for the inherent differences in airports' operating environments. For instance, local labor costs can vary across comparator airports, and a terminal infrastructure design can give some airports inherent operating cost advantages (or disadvantages) over the short and medium terms. The good news is that once these differences are accounted for, cost benchmarking can be very valuable, providing perspective and illuminating areas of the operations that are ripe for improvement.

One way that airports can get a sense of which costs are essential is by breaking them down into four groups using our ISSR framework: inherent, structural, systemic, and realized costs. Management can do something about all of these costs in the long run, though the near- and medium-term opportunities are generally found within systemic and realized costs.

Generating profit is a part of the airport operator's job

The global trends toward airport privatization and the increased participation of private operators are gaining momentum as many governments tighten their belts and look for ways to run local airports more efficiently. In many parts of the world, private financial investors are now looking at airport infrastructure as a generator of a stable, long-term income stream. This is leading to a transformation in how airports pursue operations excellence.

If they are to maximize returns, airport operators will need to address several big challenges. First, they have to find a way to thrive in often tightly regulated environments. The second challenge for private airport operators is keeping up with constant changes in the provision of air travel itself. These changes include the needs of mobile Internet-enabled passengers, the increasing sophistication of on-site retail models, diverse airline business models, and the ever-changing security protocols for passenger and cargo screening. These are all changes that force airport operators to make investments, adjust established processes, and refine their management of passenger flows.

For airports to effectively manage their financial returns in the face of all this, it is essential that they develop a clear understanding of their operating costs, and how those costs align to their defined essential capabilities and to their larger strategic objectives. This, indeed, is the crux of the challenge. With this kind of clarity, airport operators can improve their chances of meeting regulatory and market requirements, achieving operational excellence, and delivering sustainable positive financial returns, year after year.

It is essential to understand how operating costs align to capabilities and strategic objectives.

The first question: How well is an airport doing on costs today?

The big challenge for airports is ensuring that the money they're spending is supporting capabilities that differentiate them within their market. Companies need to invest in capabilities that are critical to their market success, and reduce or eliminate their spending in areas that aren't differentiating from the perspective of passengers and airlines.

The best way for an airport to know how well it's doing in this regard is to make detailed comparisons of its operating costs with those of other airports. This is much easier said than done, however. Airports that are alike superficially — handling about the same volume and mix of passengers and the same number of daily flights, and doing so with roughly the same number of runways and terminals — may still be operating within wildly different regulatory regimes and labor markets. They may also have strikingly different demand profiles — some serving experienced business travelers and others serving leisure travelers, some being connecting hubs and others being only points of origin or destination, some concentrating on long-haul flights and others on short-haul flights. Airport executives and regulators sometimes ignore these differences, leading them to unsophisticated conclusions about where various airports stand in terms of productivity and operating cost efficiency. Indeed, simplistic regulator conclusions based on the unsophisticated benchmarking of other airport operations can undermine the economics of airport operators and worsen service levels to airlines and passengers.

Airports are increasingly run like other businesses in their need to earn positive financial returns. In some other fundamental ways, however, airports are unique. When other businesses see an opportunity to become more efficient by moving some function to a new location, they can often just go ahead and make the change. That is, a manufacturing company can move a plant closer to consumption centers to reduce distribution costs, or transfer the assembly of finished goods to a country where labor is cheap. Airports don't have this flexibility; they can't adjust their location to benefit from differences in distribution or labor costs, or take advantage of

Airports don't have flexibility; they can't adjust their location.

more favorable tax or sourcing environments in another country or city. In this respect, airports are largely stuck with what they have.

Saying that benchmarks can be misleading in comparing airport operations does not mean that benchmarks shouldn't be used. On the contrary, they should be used, and in many cases they already are. In the United Kingdom, the Civil Aviation Authority has used airport operating cost benchmarking to help it set recent price cap determinations. Many other airport regulators — in Europe and beyond — also make use of benchmarking.

The challenge however, is that benchmarked airport operating costs must be adjusted for costs that are *circumstantial* — including the airport's location, its layout, its mix of airlines, the range of destinations it serves, and the regulatory environment in which it operates. With these differences taken into account, benchmarks become much more meaningful and yield more telling comparisons.

Of particular value are benchmarks with a lot of functional specificity, such as aircraft turnaround times, average waiting times in security lines, and different customer service-level metrics. With the circumstantial differences accounted for and with the use of these more functional benchmarks, airport-to-airport comparisons can provide perspective, give directional reassurance, and illuminate areas that might benefit from cost reduction or service enhancement efforts.

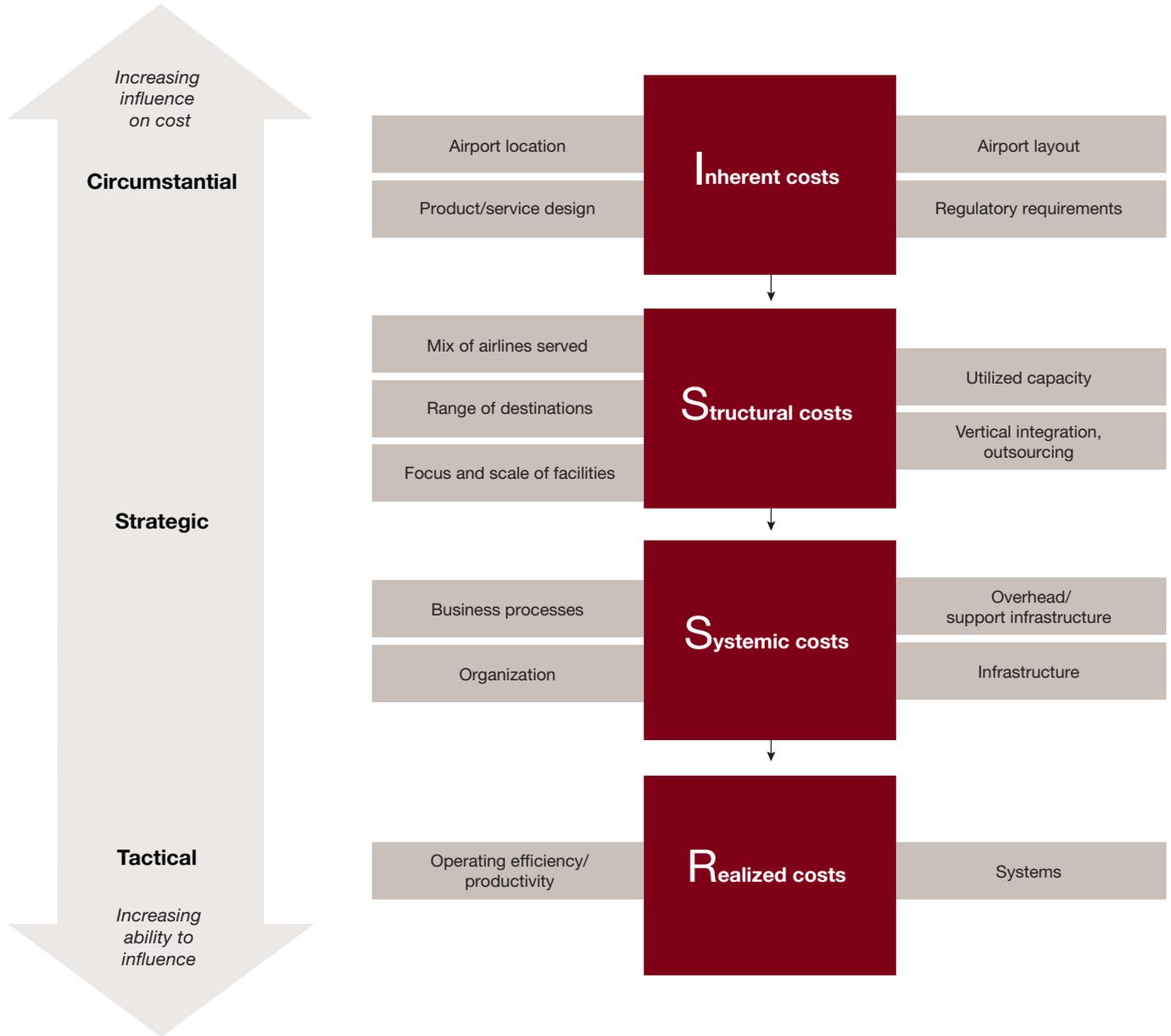
Back in the ISSR: A framework for evaluating costs

To help companies see their costs for what they are — circumstantial and hard to change versus tactical and more malleable — Strategy& uses a framework called ISSR (see *Exhibit 1, next page*). The acronym stands for inherent, structural, systemic, and realized costs, and can be used to get a high-level picture of how an airport's expenditures break down.

- **Inherent costs:** These are determined by the nature and design of the airport and the industry itself. The nature and design includes where the airport is located, the number of runways it has, the regulatory regime under which it operates, and the products and services it is able to offer (including lounges, retail services, and large-scale cargo warehousing). These are strategically critical issues that have a significant impact on costs but are often outside the near- and medium-term control of management.
- **Structural costs:** These are determined by the type of business the airport engages in and how it provides its services and products. This includes the mix of airlines served by the airport, whether it operates at constrained capacity rate levels (at potential bottleneck points, such as landing slots, gates, and check-in desks), and the extent to which it maintains its own staff versus outsourcing different activities and operations.
- **Systemic costs:** These involve the organization, processes, policies, and infrastructure the airport uses to manage its product and service delivery. They include people management processes, overhead, and the technologies that support the business.
- **Realized costs:** These are a function of how well the airport handles its operation and work practices. They are tactical in nature, making them easier to increase or decrease than inherent and structural costs.

ISSR can be used to get a high-level picture of how an airport's expenditures — circumstantial versus tactical — break down.

Exhibit 1
The ISSR framework, applied to airports



Source: Strategy& analysis

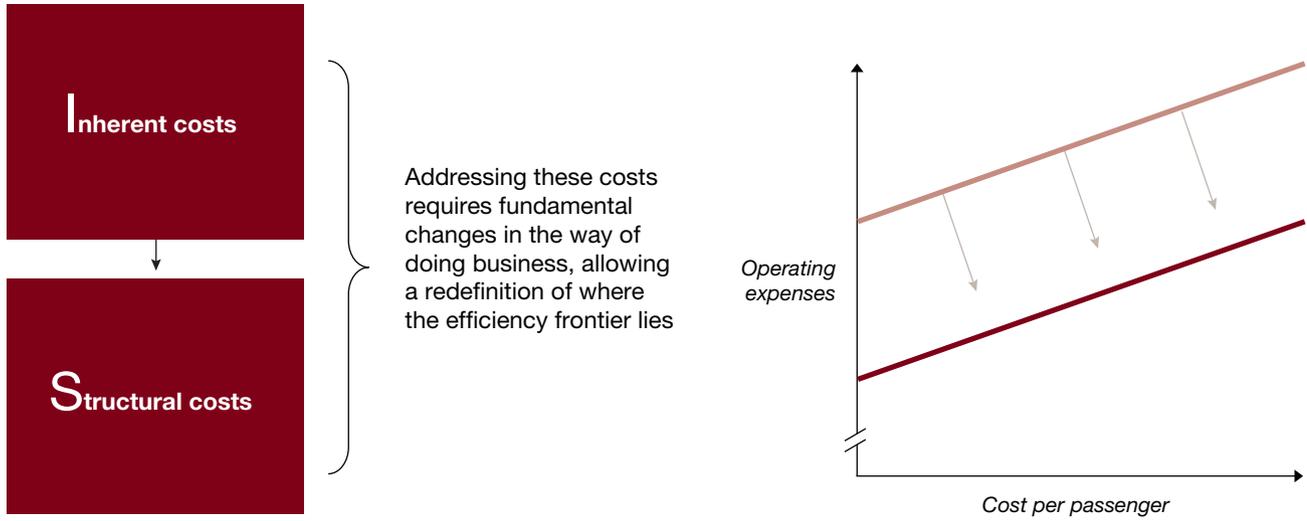
One way to think about the four categories of costs is to show the different ways in which they can affect efficiency. Using the theoretical concept of an “efficiency frontier,” we would say that investments in and adjustments to inherent and structural factors have the biggest potential impact on efficiency (as measured by operating expenses per passenger). For instance, the building of a new terminal facility — which could allow an airport to significantly increase its passenger capacity — can lead to a step change in an airport’s productivity. Depending on the design of the terminal and what goes into it, it could also lead to an enhanced passenger experience. Such a change would allow the airport to be more efficient (operating at a lower cost per passenger), whatever the number of total arrivals and departures (*see Exhibit 2, next page*).

By contrast, addressing systemic and realized factors moves an airport’s operating costs closer to the current point of maximum efficiency — that is, closer to what we’re calling the efficiency frontier (*see Exhibit 3, page 13*). Setting up continuous improvement programs for frontline processes such as passenger security and trolley management, streamlining decision-making processes, leveraging back-office shared-services centers, and creating a more flexible work culture with responsive labor scheduling are all examples of changes that can improve operating efficiencies within the limits imposed by an airport’s inherent and structural cost factors.

Without a change in inherent and structural cost drivers, there will be a limit to an airport’s ability to drive productivity beyond a certain threshold. Simply put, without longer-term capital projects or a large-scale strategic reorientation, some costs will remain out of reach.

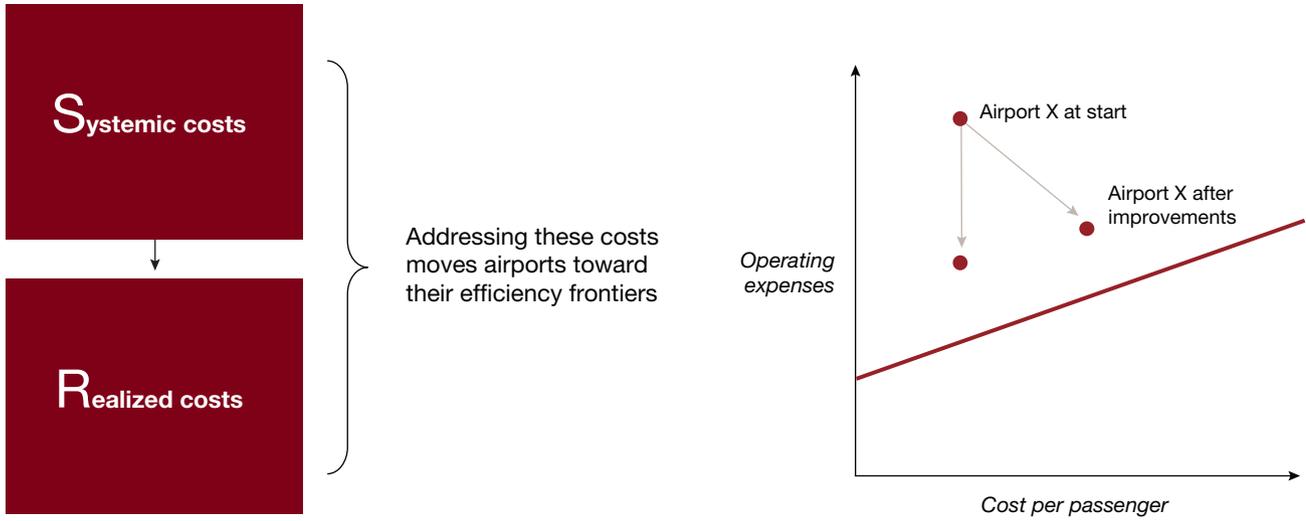
Investments in and adjustments to inherent and structural factors have the biggest potential impact on efficiency.

Exhibit 2
How airports can improve their efficiency frontiers



Source: Strategy& analysis

Exhibit 3
How airports can move toward their efficiency frontiers



Source: Strategy& analysis

Putting the framework to use

To get a sense of the impact that circumstantial factors can have on airport efficiency, Strategy& analyzed 24 European airports, using readily available public data. When adjusted for circumstantial factors — which, in the case of this analysis, means treating every European airport as though it had the same inherent costs as airports in the United Kingdom — airport efficiency (as measured by operating expenses per passenger) changes, sometimes dramatically (see Exhibit 4, next page).

To see how an unadjusted benchmark can be misleading, consider two airports, one in a highly developed country and another in a less developed country. Superficially, the two airports might be a lot alike. For instance, they could both have similar annual passenger volumes and operate with similar terminal infrastructure. A straight comparison of operating cost per passenger might suggest that the airport in the less developed country is more efficiently run. But that calculation could easily ignore differences in local and site-specific labor and utility costs — differences that could be sizable. Indeed, it might be that if you adjusted for these factors — that is, if you normalized the comparison — the airport in the less developed country would no longer come out as the more efficient. Instead, it might have a ways to go to become as efficient as its counterpart in the highly developed country (see Exhibit 5, page 16).

This analysis suggests there are three steps to making effective use of airport benchmarking data.

Step 1: Select structurally comparable airports

- Similar traffic volumes
- A similar mix of business (low-cost vs. premium airlines, business vs. leisure passengers, long-haul vs. short-haul flights)
- Comparable infrastructure (number of runways and terminal configurations)

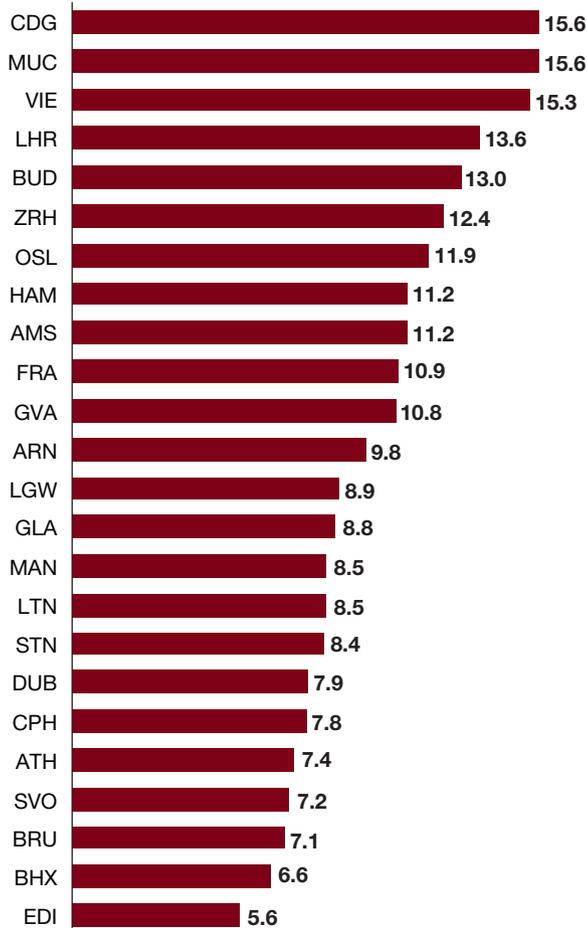
When adjusted for circumstantial factors, airport efficiency changes, sometimes dramatically.

Exhibit 4

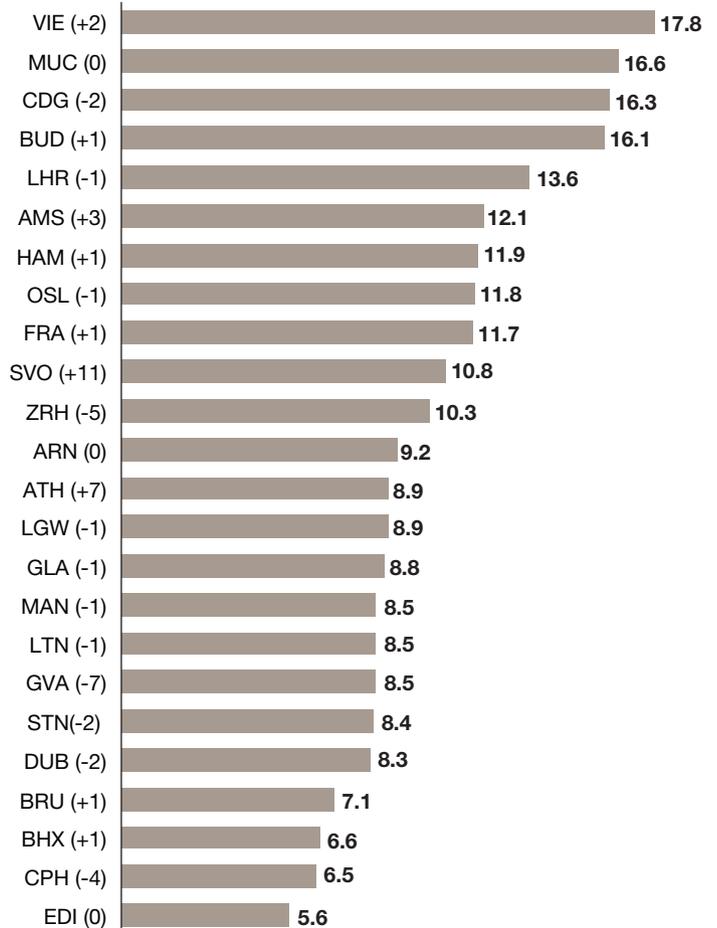
Comparing operating efficiency across selected European airports

Operating cost per passenger (in £), 2012/2013*

No adjustment



Factor adjusted to U.K. Position change shown in ()

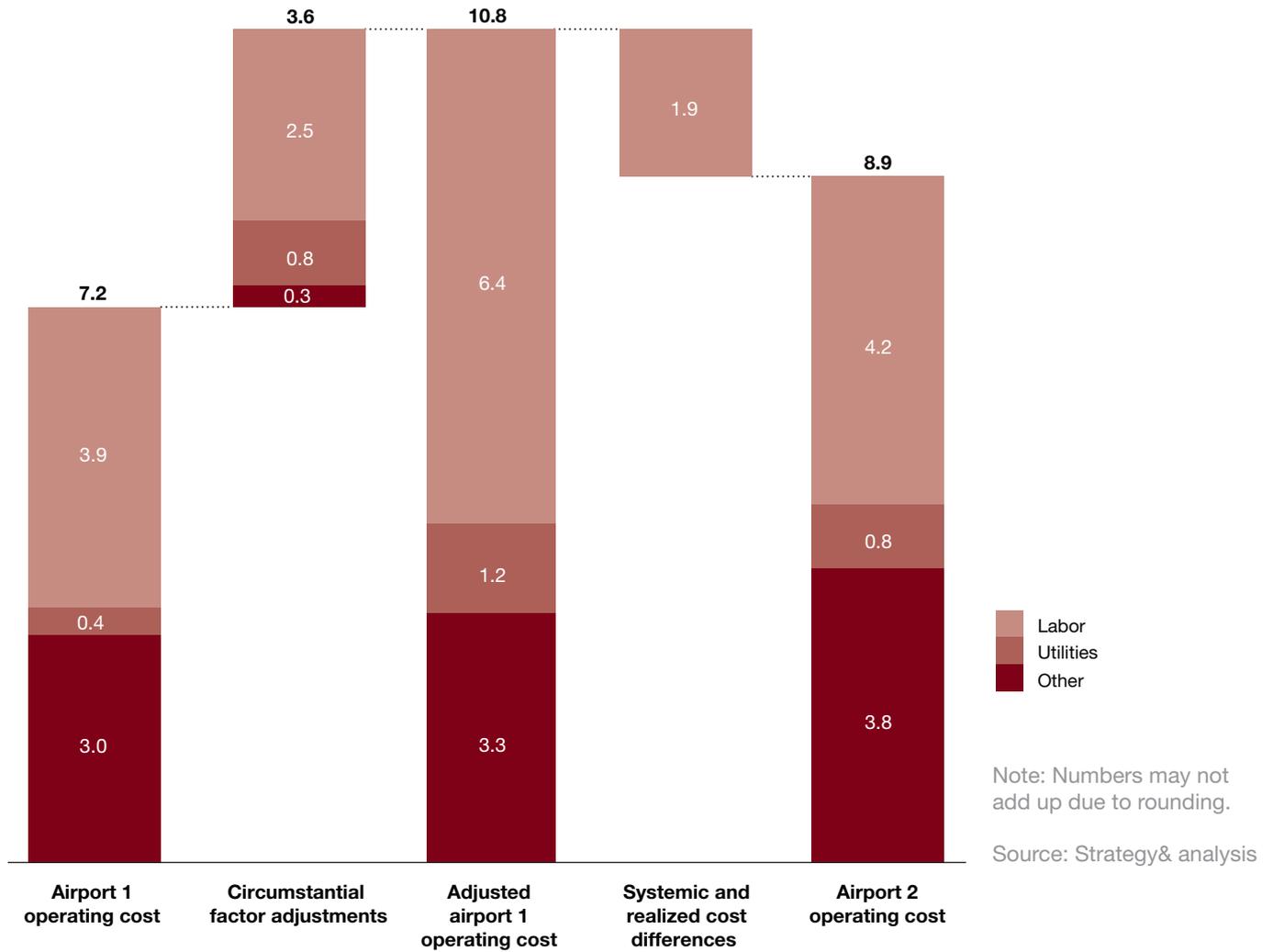


* BRU, BUD, DUB, EDI, LTN, MUC, and STD are all based on 2012 results; other airports use 2013 results.

Source: Airport annual reports; Strategy& analysis

Exhibit 5
Fine-tuning the comparison across two airports

Operating cost per passenger (in £) in real terms



Step 2: Adjust for the inherent cost differences

- Isolate labor costs and adjust for labor market differences
- Isolate utility costs and adjust for local-market energy rate differences
- Remove noncomparable activities such as retail operations

Step 3: Focus operational improvement efforts on the systemic and realized drivers of costs (the costs about which management can do the most in the short term)

Making cost adjustments within a strategic context

An airport looking for ways to lower its operating costs should work from its strategy out. That is, it must start with an understanding of the unique value propositions it has in the market, or with its essential capabilities that allow it to perform certain activities better than others. To be sure, airport strategy choices are strongly influenced by their circumstantial (inherent and structural) factors. However, there are still many ways in which airports operating under similar inherent conditions can choose to compete.

For example, there are major world cities served by two or three (or even more) airports. One of the airports may position itself as the premium international hub. Another may be hub-like functionally but cater to airline customers using low-cost carrier models. A third may be a sort of commuter airport — good for short-haul flights into and out of the city.

An airport's chosen strategy or "way to play" determines the differentiating capabilities it needs to sustain or develop. Capabilities that may be important, depending on the market position the airport is trying to occupy, are value-added passenger services, shorter minimum connection times, deep passenger insights, retail services, ground connectivity, digitization of the passenger experience, regulatory engagement, and airline collaboration/key account management. Few airports have the need or the ability to do all of these things equally well; the important thing is to know what's important to your strategy and then to develop the capabilities to succeed in those areas.

Successful organizations (in the airport sector and elsewhere) typically concentrate their investments on three to six capabilities that allow them to meet their strategic objectives; more than that, and the organization tends to lose focus (*see "Two airports, two ways to play," next page*). This capability focus helps identify where investments — including capital investments — will generate superior returns, and where expenditures may not produce anything of value. The organization, especially at senior management levels, is able to

Successful organizations typically concentrate their investments on three to six capabilities.

Two airports, two ways to play

	<i>Airport A</i>	<i>Airport B</i>
Strategic objective	To be a regional airport operator in a less developed country, serving primarily low-cost airlines	To be a major city hub airport in a highly developed country, serving primarily full-service carriers for regional and long-haul destinations and significant transfer volumes
Examples of capabilities that might be essential to meet the strategic objective	<ul style="list-style-type: none"> • Gate allocation/management (turnaround speed) • Security (for high volume of carry-on/leisure travel) • Asset flexibility (facilitating low-cost carrier sharing and usage) • Process standardization 	<ul style="list-style-type: none"> • Premium service offerings • Mall management • Capital development planning and management • Resilience for events such as heavy weather, and passenger welfare if planes are grounded and passengers are stranded (regional airports don't have to worry as much about these capabilities, since passengers tend not to use them for connecting flights and are thus less likely to get stranded there) • External stakeholder relations, including with regulators, airlines, and unions

make decisions faster. At the highest level, this has implications for the airport's operating model, from how it is organized to its embedded processes and to who has decision rights.

With this strategic focus, it becomes much easier for airport operators to see which costs are justified — and if there are any activities that can be cut so that investment funds can be redirected into more important areas. We generally encourage management to organize costs into three groups (*see Exhibit 6, next page*).

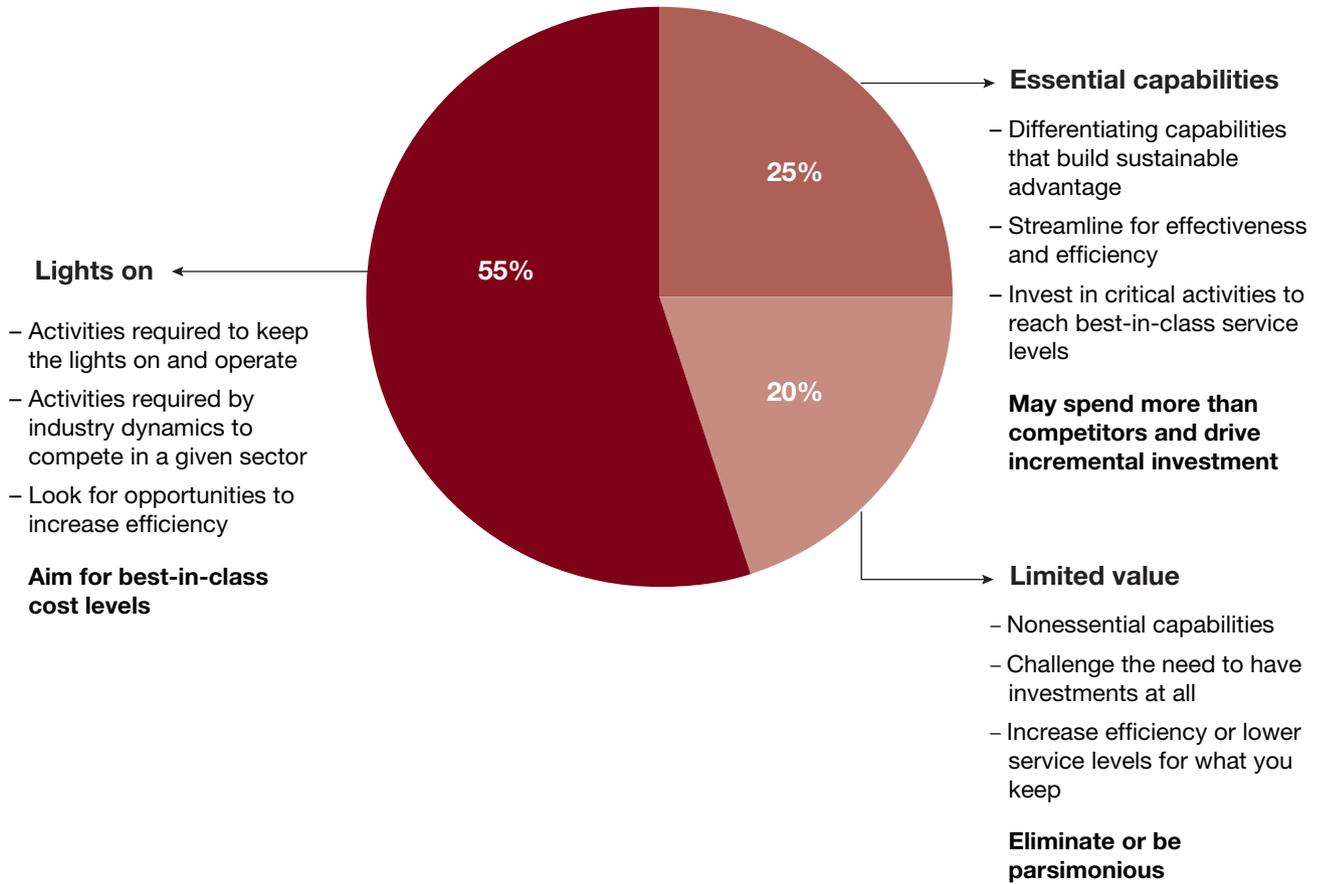
“Lights on” costs: These include activities and expenditures associated with the basic requirements of an airport's operation and business. (To operate, you need to have the lights on.) Many of the activities performed by support functions fit into this category, such as budgeting, accounting, recruitment, training, purchasing, and IT support. Since these activities do not differentiate the airport, the focus should be on ensuring that they deliver the necessary level of internal/external service expected of the industry as efficiently as possible. Competitor benchmarking — acknowledging circumstantial drivers of cost differences — is a powerful way to determine the level of efficiency achieved in these activities, as they will be strategically common across the industry. Airport operators should focus on minimizing these costs, since they are, in effect, “hygiene” factors — things that will be missed if they are absent but that, in and of themselves, don't confer competitive advantage.

“Limited value” costs: These include activities and expenditures that are neither important to differentiating the airport nor required to operate and function in the industry. These costs often creep in over time and typically include duplicated work or process work-arounds created by problems with “lights on” activities. In some cases, activities are fully outside the airport's domain and do not serve the strategic objectives of the business. Efficiency initiatives should look to challenge the need for these activities — minimizing the level of activity or eliminating it altogether. Asking “What would happen to the business if we stopped this activity?” or “How would our stakeholders and business be affected if we lowered service levels on this?” can help to test and identify costs that have limited value. Choosing to stop a service or activity can be challenging and disruptive, so it sometimes helps to frame the decision as an investment choice. Ask yourself this question: “What essential capabilities could I invest in with the money saved by stopping these other activities, and what impact would that have?” The answer can highlight the value of taking action.

*Ask yourself:
“What essential capabilities could I invest in with the money saved by stopping these other activities?”*

Exhibit 6

A hypothetical look at the breakdown in an airport's costs



Note: Percentages shown are illustrative only.

Source: Strategy& analysis

“Essential capabilities” costs: These include activities and expenditures the business willingly takes on in order to differentiate itself to passengers and airlines — those three to six things the airport does better than any competitor to ensure the uniqueness of its market position. Though even these activities should be optimized, this is the area where investment will produce the greatest return. Cost benchmarking can help determine if an airport is spending sufficiently to differentiate itself from the competition. Even more important is obtaining feedback on whether the capabilities investment is resulting in something that customers value and can’t get elsewhere. Service-level benchmarking and industry performance surveys, such as those carried out by the Airports Council International, are some of the mechanisms that airports can use to see how they’re doing — although commercial success is the ultimate output metric of successful differentiation.

By understanding how activities fit into each of these categories, management can make better-informed decisions about where to invest, cut, or optimize.

Benchmarking can help determine if an airport is spending to differentiate itself from the competition.

Conclusion

Successfully meeting service expectations of regulators, airlines, passengers, and other stakeholders — while optimizing operating costs and delivering positive financial returns to increasingly demanding private shareholders — is no easy task. A critical input is being able to look at comparator and competitor airports in a way that provides a meaningful view of efficiency opportunities. Developing a clear understanding of an airport's essential capabilities and of the costs that are within management's control also provides a greater level of focus to efficiency initiatives. By doing both these things, airport operators are able to create more sustainable, competitive, and profitable operations that deliver on their strategic objectives.

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