AlixPartners

Enterprise Improvement
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The new operations playbook part two

FOOTPRINT FITNESS: RIGHTSIZING FOR BETTER SERVICE AND STRONGER GROWTH

Rightsizing your company's physical footprint can lay the foundation for better cost competitiveness, less complexity, better access to new markets, higher service levels, and improved capital management—while shaving as much as 15% off recurring costs.

It's an article of faith among senior leaders and investors at many goods-producing companies: to meet their customers' ever-rising expectations, innovation, and new product rollouts are not enough. Finding ways to get products into customers' hands faster is just as important. The quest for greater speed to the customer becomes mired in complexity characterized by proliferating stock keeping units (SKUs), excess assets and capacity, overlapping distribution points, and piles of unsold inventory.

Untangling such systemic complexities is a complex undertaking that is nonetheless vital to sustaining the business. What we have learned through our experience with clients in a wide range of industry verticals is that it's often a good idea to start the tasks of complexity reduction by rightsizing the company's physical footprint. Many senior executives might consider that counterintuitive, even a risky approach, because they equate rightsizing initiatives with increased lead times, greater distance from customers, and worst of all, reduced service levels. In fact, though, companies that make smart choices about which SKUs to prioritize, which capacities to develop, and what inventory to maximize can right-size their physical footprint while actually increasing service levels.

At many companies, fewer distribution points add up to simplified, more effective management and better service. Concentrated inventories enable companies to improve fulfillment rates and reduce stock-outs. And agile deployment of third-party logistics (3PL) providers can make distance from the customer a far less pressing concern than it once was. A streamlined physical footprint also disciplines company management to invest precious capital in the right locations and hence improve return on investment. Consider it an exercise in trimming fat before building the solid muscle that can power growth. By eliminating excess capacity and its associated fixed operating expenses, companies can free up cash to invest in growth initiatives that are likely to be more sustainable than alternative approaches.

Successfully rightsizing a business's fixed assets can be a complex process and requires thorough financial, analytical, legal, and overall business expertise. Companies can master the process by following a methodical approach structured around two crucial metrics: 1) the company's asset intensity, and 2) the value of goods it produces or distributes relative to the volume of goods shipped (the value-to-volume ratio). This approach applies to companies across a wide variety of industries (see figure 1).

FIGURE 1: DISTRIBUTION OF COMPANY TYPES BY ASSET INTENSITY AND VALUE-TO-VOLUME RATIO

	HIGH ASSET INTENSITY	LOW ASSET INTENSITY
HIGH VALUE-TO-VOLUME RATIO	• Pharmaceuticals • Aerospace & defense equipment • Automobiles and components • Semiconductors • Primary metals • Construction, mining, and forestry machinery • Railroad rolling stock	• Computers and electronics • Industrial equipment • Leather and allied products • Machinery • Furniture and related products • Cosmetics
LOW VALUE-TO-VOLUME RATIO	• Petroleum and coal products • Chemicals • Textiles • Asphalt and cement • Pulp/paper	• Packaging • Commercial printing • Cut-and-sew apparel • Retail bakeries • Food and staples (manufacturing and retail) • Beverage and tobacco • Book printing and binding

Depending on the industry, a structured approach to right-sizing the asset footprint typically yields a 10 to 15% reduction in total manufacturing and distribution costs. Better yet, a well-executed rightsizing program can stimulate the growth that enables investors and executives to reach strategic and operational objectives, including:

- improved customer service levels;
- reductions in working capital;
- higher yields on invested capital;
- a more dynamic and collaborative supplier network; and
- an expanded presence in the marketplace.

THE CASE FOR FOOTPRINT OPTIMIZATION

Five powerful trends have converged in recent years to make the case for footprint optimization all the more urgent.

1 THE RESURGENCE OF US MANUFACTURING AND WAREHOUSING IS DRIVING UP RENTAL COSTS

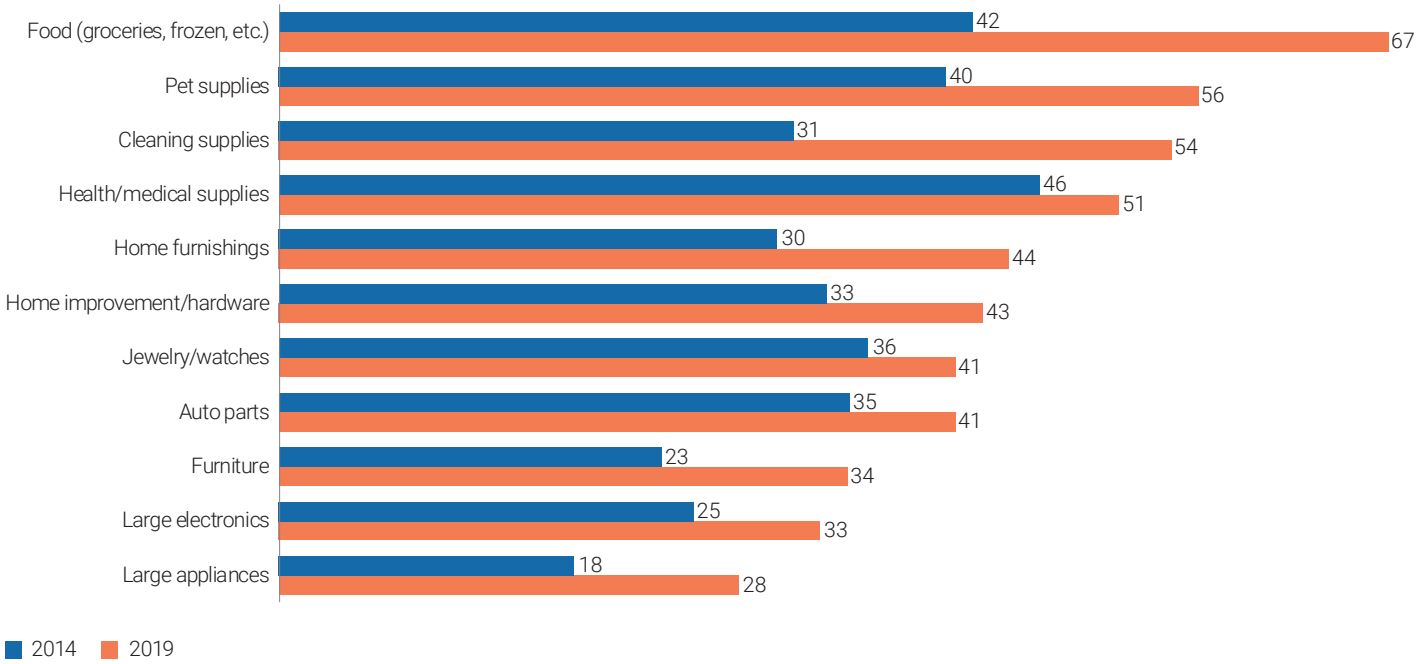
Under pressure from tariffs, US companies are repatriating supply-chain and manufacturing operations, boosting US manufacturing employment by 1.5 million jobs since 2011, according to the Bureau of Labor Statistics. The resulting decrease in available US industrial space has sparked double-digit rent increases, according to recent analyses from CBRE Econometric Advisers. That squeeze ratchets up pressure on asset-intensive companies to use space more efficiently.

2 RISING CUSTOMER EXPECTATIONS EXPOSE THE SHORTCOMINGS OF CURRENT FOOTPRINTS

Heavyweights like Amazon, Walmart, Best Buy, and Home Depot have set the standard for customer delivery times, and customers now expect comparable service levels from other businesses. According to AlixPartners' latest home delivery survey[1], consumers expect delivery within about four days, compared with 5.5 days in 2012, and that expectation extends to bulky and complex products such as furniture and large appliances, which make up an increasing share of online orders (see figure 2 and 3). Customers demand comparable levels of service from those retailers' downstream suppliers, as well as from players in such industries as auto parts, consumer packaged goods, oil and gas, and packaging products, to name just a few. As companies adapt to those customer expectations, the focus of manufacturing and distribution footprint design has shifted from products to customers.

FIGURE 2: ONLINE BUYERS ARE INCREASINGLY SHOPPING NEW PRODUCT CATEGORIES SUCH AS GROCERIES, MEDICAL SUPPLIES, AND HOME FURNISHINGS

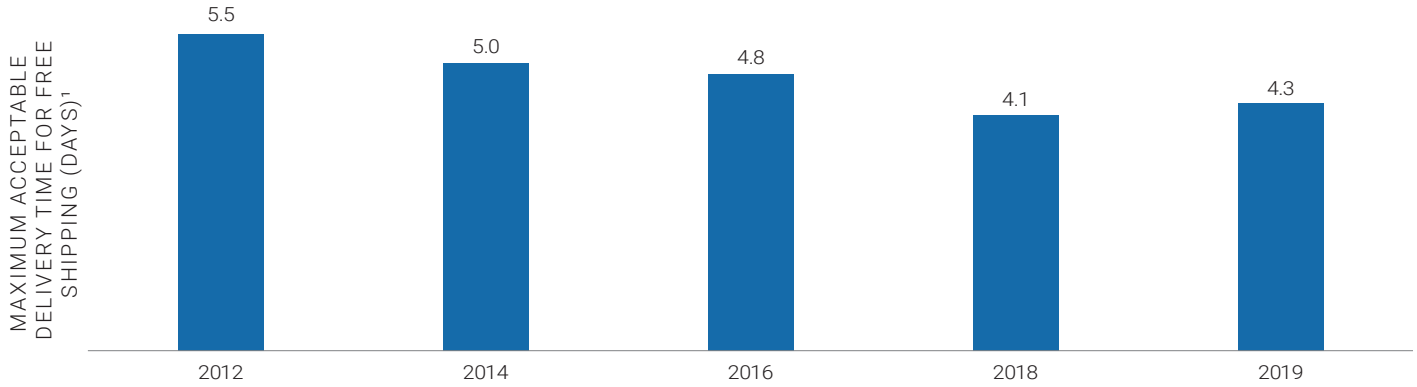
Number of survey respondents that had purchased a product category for home delivery



https://emarketing.alixpartners.com/rs/emsimages/2018/pubs/EI/AP_Top_Trend_in_Shipping_Mar_2018.pdf

FIGURE 3: CONSUMER EXPECTATIONS FOR SPEED OF HOME DELIVERY

Q: When buying an item for delivery, what is the maximum delivery time you are willing to accept in order to receive FREE Shipping?



1. Data shown in the chart is the weighted average of maximum acceptable delivery time for free shipping

3 RISING FREIGHT EXPENSES ARE DEPRESSING MARGINS AND RESHAPING DISTRIBUTION NETWORKS

Truckload costs for US businesses have been trending steadily upward, increasing 2% annually over the past five years, according to AlixPartners' research. The increases take a particular toll on companies that ship high volumes of relatively low-value goods, such as food manufacturers.

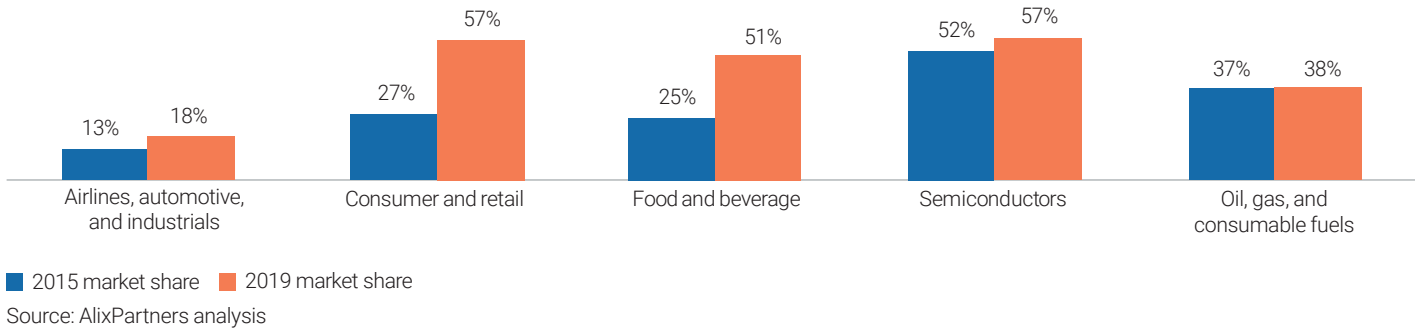
4 LABOR SHORTAGES ARE DRIVING UP COSTS

Labor costs have climbed sharply in the past five years amid shortages of both skilled and unskilled workers, according to the Bureau of Labor Statistics. The shortages have complicated efforts to attract and retain semi-skilled manufacturing workers.

5 CONSOLIDATION IS AGGRAVATING OVERCAPACITY AND LOWERING UTILIZATION RATES

Our research reveals a 'consolidation effect' in play across a wide range of industrial sectors. It's a byproduct of the M&A-driven growth in global market share of the top 10 companies in various sectors over the past five years (see figure 4). As the top global players continue to absorb the fixed assets of their acquisitions, utilization rates of industrial production capacity have retreated to less than 80%, according to Federal Reserve data.

FIGURE 4: 2015 VERSUS 2019 MARKET SHARE OF TOP 10 COMPANIES BY INDUSTRY



Source: AlixPartners analysis

NOW IS THE TIME FOR FOOTPRINT RIGHTSIZING

Although optimal footprints vary widely, depending (among other factors) on a company's geographic and competitive position, two specific attributes are often key to determining the most effective footprint strategy: 1) a company's asset intensity, and 2) the ratio of the value of goods produced or distributed to the volume of goods shipped (the value-to-volume ratio).

Asset intensity: A measure of the amount of industrial assets required to operate an industrial facility. A business that requires a significant amount of fixed assets to efficiently operate a manufacturing plant or distribution center require is said to be asset-intensive.

Value-to-volume ratio: A measure of the value per unit of finished goods that a company produces or distributes relative to the volume of shipments of those goods. A low value-to-volume ratio tends to indicate that the company incurs relatively higher freight costs as a percentage of revenues. Hence, a beverage manufacturer would usually benefit from locating plants or distribution centers close to key customers to minimize freight costs. By the same token, a pharmaceutical manufacturer with a high value-to-volume ratio would likely benefit from operating multiple small-scale operations in widely distributed locations (see figure 5).

The matrix below offers a high-level overview of how footprint strategy will vary depending on a company's degree of asset intensity.

FIGURE 5: TYPICAL FOOTPRINT STRATEGIES FOR VARIOUS COMPANY TYPES

	HIGH ASSET INTENSITY	LOW ASSET INTENSITY
HIGH VALUE-TO-VOLUME RATIO	• Centralized locations to maximize economies of scale and Center of Excellence (CoE) expertise • Manufacturing plants located to maximize comparative advantage, such as access to skilled labor, key suppliers, or proximity to key customers • Investment in flexible manufacturing capabilities	• Multiple locations with single or multiple product categories • Focus on scope—product customization and SKU complexity • Proximity to lower labor-cost geographies • Access to key input materials • Investments in automation to reduce proportion of direct labor costs
LOW VAULE-TO-VOLUME RATIO	• Hub-and-spoke model to contain capital investment, while balancing freight and manufacturing costs • Focus on scale economies • Proximity to key customers • Access to key input materials • Investment in flexible manufacturing capabilities	• Distributed locations to reduce outbound freight to customers • Focus on scope—product customization and SKU complexity • Proximity to key customers • Proximity to lower labor-cost geographies • Investments in automation to reduce proportion of direct labor cost

Case example

A FOOTPRINT FIT FOR THE FUTURE

We worked with a leading supplier of specialty building materials to right-size its operations. The company was built through acquisitions that left it with a legacy network of more than a dozen manufacturing locations and nearly 20 distribution centers in North America. Each location operated well below capacity, and inefficient intercompany transfers incurred avoidable costs. Although the company's manufacturing equipment and processes were not asset-intensive, its mix of stock keeping units and product types made it difficult to calibrate the ideal capacity and location of its assets. And a previous attempt to consolidate the company's footprint and stand up regional centers of excellence had the unintended consequence of expanding the volume of intercompany transfers.

We worked to balance fixed overhead costs against total delivery costs, with the aim of ensuring one-day delivery to the company's largest customers. At the same time, we worked with the client to reduce working capital and distribution requirements while expanding the company's presence in high-growth markets. We're now helping the company implement a plan to reduce its future manufacturing footprint to fewer than 10 plants and cut the number of distribution centers to single digits.

Case example

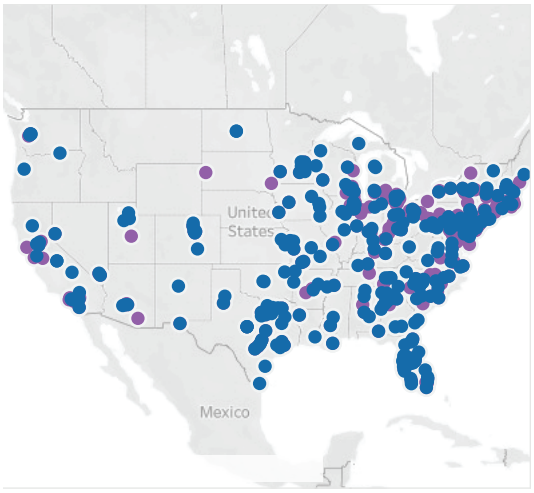
WHEN MORE IS MORE

Sometimes footprint optimization means expanding the company footprint, not paring it back. Consider one company we worked with, a private label manufacturer of consumer products. Our client was pursuing a three-year initiative to improve cost competitiveness as a springboard to strategic growth in key markets and customer segments. We helped the senior leadership formulate and implement a footprint optimization program to advance that strategy.

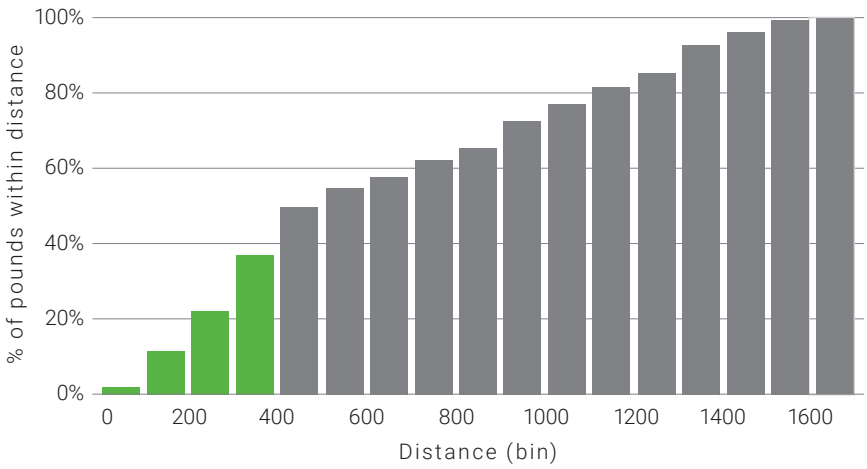
The company's footprint had consisted of two distribution hubs tethered to three manufacturing plants. Excess capacity in the distribution hubs led to operating inefficiencies. Moreover, the limited number of distribution centers meant the company could not assure one-day delivery to most of its customers, severely hindering its ability to achieve promised service levels.

Current state footprint: ~36% volume within 400 mile radius of current serving distribution centers

Baseline map



Baseline pounds within distance

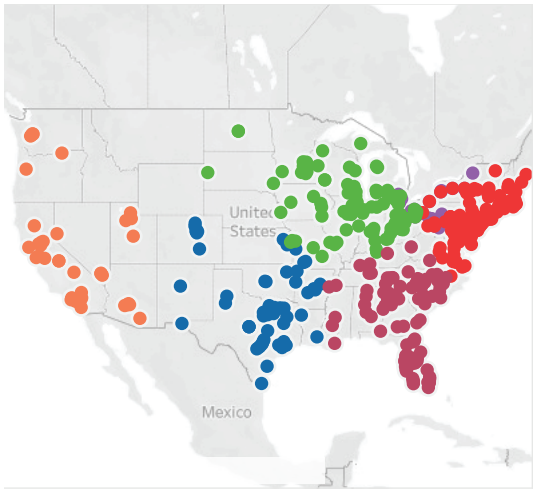


We worked with company executives to develop and assess multiple footprint scenarios, finally arriving at a design that expanded the number of distribution hubs from two to five. With more distribution centers in the network, the company will be able to guarantee one-day delivery to nearly 90% of its customer base.

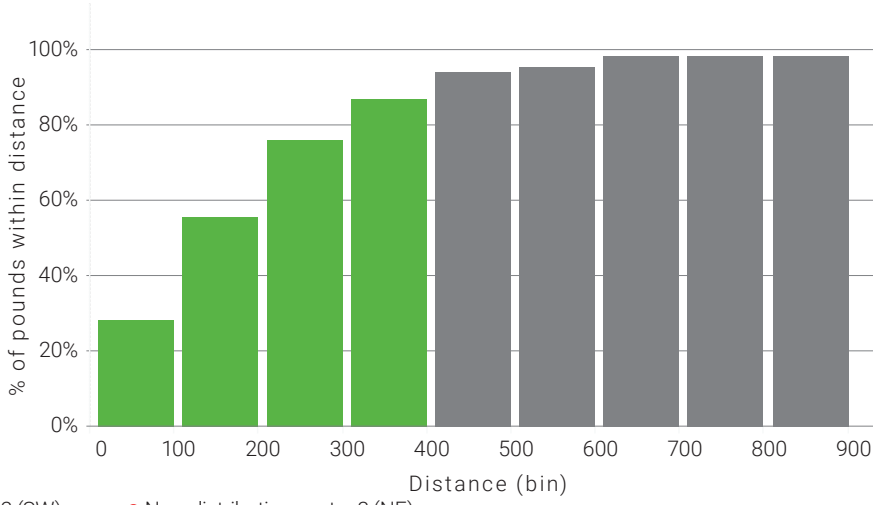
To contain costs and improve productivity while the company migrates to the redesigned footprint, it has outsourced some of its warehousing operations to a 3PL provider and installed a best-in-class warehouse management system. The future footprint promises not only to dramatically improve the company's cost advantage but also to expand the company's access to key customer segments in high-growth regions.

Future state footprint: ~90% volume within 400 mile radius of future serving distribution centers

Scenario map



Scenario pounds within distance



Distribution center 1 (Canada only)
Distribution center 2 (SW)
New distribution center 3 (NE)
New distribution center 4 (MW)
New distribution center 5 (SE)
New distribution center 6 (W)

IN SUMMARY: DESIGN FOR GROWTH

Companies in search of funding for their growth initiatives too often overlook their fixed asset footprint, which can generate sustained value through rightsizing. Rightsizing can also mitigate operational complexity and help companies turn powerful macroeconomic and cyclical trends to their advantage.

Because rightsizing the asset footprint involves a complex balancing of multiple factors, we recommend grounding the rightsizing plan on two key metrics, the company's asset intensity and value-to-volume ratio. From that perspective, companies can perform multifactorial scenario analysis, subjecting each scenario to cost-benefit and ROI calculations to arrive at the optimal footprint—a footprint that reduces costs as it advances strategic goals.

We also recommend taking a phased, step-wise approach that extends all the way from strategy development to implementation and is overseen from beginning to end by a program management office (PMO).

PHASE 1

Footprint strategy assessment

- Perform detailed data collection, integration, and normalization
- Baseline current internal/supplier capacity, cost structure
- Clarify core competencies and make-vs-buy strategy
- Assess broader supply market capacity
- Customize, load, and validate the footprint model
- Model, test, and refine footprint/ make-vs-buy scenario(s)
- Select target scenario(s)
- Refine/detail business case
- Develop inplementation roadmap

PHASE 2

Integrated implementation planning

- Develop detailed and integrated transtion work plans
  - Suppliers
  - Facilities
  - Equipment & infrastructure
  - Products
  - Personnel
  - Customers
  - Other constituents
- Conduct risk assessment and develop risk mitigation plans
- Develop detailed transition budgets
- Tailor detailed implementation controls, tracking, and reporting
- Tailor communication templates

PHASE 3

Implementation

- Execute detailed transition work plans
  - Suppliers
  - Facilities
  - Equipment & infrastructure
  - Products
  - Personnel
  - Customers
  - Other constituents
- Manage transition budget
- Perform program management, reporting, and control
- Establish sustainability metrics

This approach enables management teams to invest the time and effort to prioritize tasks and properly resource rightsizing projects, while a rigorous PMO governance structure will mitigate project risks. The entire undertaking is a heavy lift, but rightsizing that footprint can help a company serve customers better while setting it on a sustainable growth trajectory that it might not otherwise attain.

THE THREE ELEMENTS OF FOOTPRINT ANALYSIS

Every footprint analysis starts with three key data sets

DEMAND PROFILE

Sales by geography, key customers, and seasonality; helps leaders identify where demand is concentrated and the velocity and consistency of sales of each SKU.

SUPPLY PROFILE

Locations and operating attributes of the company's plants and distribution facilities, (e.g., space, layout, capacity, staffing, etc.), and flows of goods (from raw to finished stage) within each supply location and transfers among them.

COST PROFILE

Transactional-level data on the activities that connect supply locations (manufacturing plants, distribution centers), to demand locations (individual or aggregated), including costs at the supply locations and costs to move goods between supply and demand locations.

WHERE TO START?

Key questions to ask at the outset of the footprint optimization journey

What are the overriding strategic goals that our company wants to achieve in the next two to three years? Do we want to improve cost competitiveness? Increase or rationalize capacity? Enhance service levels?

1. What are the core activities that differentiate our company and generate strategic value? What do we consider non-core activities?
2. What is our long-term plan to strengthen core activities? What is our long-term plan to manage non-core activities?
3. How do our company's current assets and footprint match up with this long-term plan?
4. What do we require to support the company's growth agenda? Does our capacity or supply network align with the agenda?
5. Where does our company fall short in customer service? Does the shortfall stem from lack of capacity, lack of presence, or both?
6. Do the company's plans extend beyond the next three to five years? How far?
7. How much risk can the company tolerate when managing uncertainty and change?

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ABOUT US

For nearly forty years, AlixPartners has helped businesses around the world respond quickly and decisively to their most critical challenges – circumstances as diverse as urgent performance improvement, accelerated transformation, complex restructuring and risk mitigation.

These are the moments when everything is on the line – a sudden shift in the market, an unexpected performance decline, a time-sensitive deal, a fork-in-the-road decision. But it's not what we do that makes a difference, it's how we do it.

Tackling situations when time is of the essence is part of our DNA – so we adopt an action-oriented approach at all times. We work in small, highly qualified teams with specific industry and functional expertise, and we operate at pace, moving quickly from analysis to implementation. We stand shoulder to shoulder with our clients until the job is done, and only measure our success in terms of the results we deliver.

Our approach enables us to help our clients confront and overcome truly future-defining challenges. We partner with you to make the right decisions and take the right actions. And we are right by your side. When it really matters.