

CAN ONE SITE PACK ENOUGH CUSTOMER SERVICE PUNCH?

YOU COULD DO A LOT FROM ONE DISTRIBUTION SITE. BUT FINDING THAT LOCATION REQUIRES MULTIPLE CONSIDERATIONS, BOTH QUANTITATIVE AND EMOTIONAL.

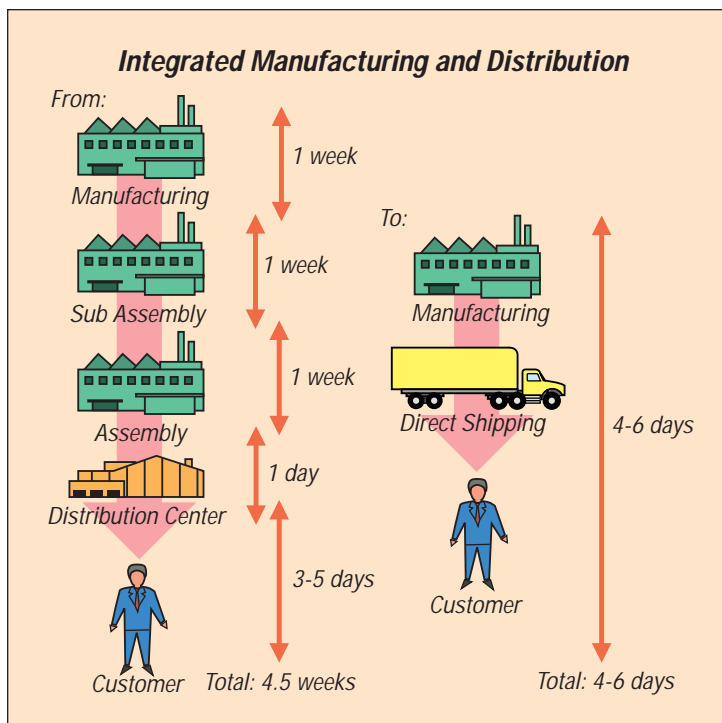
By Thomas A. Moore and George Hutchinson

Figuring out where to locate a central distribution center (DC) is easy—all you have to do is determine the magic number of days between order receipt and shipment that will satisfy customers' everyday needs for shipment lead-times. Unfortunately, most of us aren't magicians, and this "magic number" is well concealed behind many layers of questions.

Layer one: can a central distribution center meet the needs of customers and potential customers, and can it withstand the challenge of competitors? A company will gain little in establishing a single central DC unless it understands what its customers, present and future, really expect in terms of service.

One valuable tool in achieving this validation is a structured face-to-

face questionnaire which reveals customers' key cost and service drivers. If asked, most customers will naturally claim the magic number to be "next day." It's wise to structure the questionnaire to determine customers' actual replenishment cycles



Proximity to customer should be measured in time as well as miles. The more links in your supply chain, the more time can separate finished product from your customer. In designing or redesigning your distribution network, keep in mind how your company's distribution needs will change as your industry's technology, your company's product offerings, and your customer base will change. A total-supply-chain cost approach looks at fixed facility costs, inbound and outbound freight costs, and the cost of inventory, order fill, and labor.

and learn what delivery standards their other suppliers are meeting. For example, next-day shipping may not be necessary for a product the customer orders on a regular monthly basis. Inventory will almost always be on hand to cover a few shipping days.

and projected savings. The modeling of such actions should incorporate professionally developed exit strategies and the net cost of disposing of current facilities. If the leases on current properties are expiring at the same time, you're in luck, but of

As in other aspects of a business relationship, fair and open negotiation of realistic expectations is possible if approached in the right way.

Define your resources.

Two considerations are critical in this process: labor and real estate. In today's tight labor market, it can be difficult to find even "low-skilled" distribution workers. You need to assess realistically how you will meet this challenge. A variety of skills is required for any successful distribution operation. Can your company recruit and effectively train "skilled" workers in a new location, or should you invest in moving current employees to a new facility?

In considering real-estate issues, you need to consider the overall impact of relocation in terms of current costs

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Warehouse Labor Costs by State

STATE	AREA	HOURLY WAGES	ANNUAL PAYROLL	UNEMP. INSUR.	WORK. COMP. RATE	TOTAL COST	ANNUAL COST PER WORKER
Louisiana	Central LA	\$8.72	\$19,194	\$131	7.73%	\$1,484	\$22,248
Louisiana	New Orleans	\$8.14	\$17,914	\$131	7.73%	\$1,385	\$20,774
New York	Albany	\$10.76	\$23,672	\$287	8.49%	\$2,010	\$27,745
New York	Nassau	\$12.51	\$27,511	\$287	8.49%	\$2,336	\$32,197
New York	New York	\$11.44	\$25,165	\$287	8.49%	\$2,137	\$29,476
New York	Rochester	\$11.44	\$25,165	\$287	8.49%	\$2,137	\$29,476
New York	Utica	\$8.82	\$19,407	\$287	8.49%	\$1,648	\$22,797
West Virginia	Parkersburg	\$8.53	\$18,767	\$232	3.56%	\$666	\$21,075

Labor rates can vary as much as 15% among regions in the US, as illustrated in this chart from the Bureau of Labor Statistics. These costs include base wage data, worker's compensation, and benefits. Additional information can be downloaded from the Internet at <http://stats.bls.gov/dolbls.htm>.

course, this seldom happens in real life. In most cases, you will need to consider the cost implications of subletting current facilities, buying out lease obligations, and selling owned properties.

It may be cheaper to stay in some sub-optimal sites than move to an "optimal" new site and leave owned buildings idle. Similarly, your CFO may be very interested in whether you would take a gain or loss from the sale of existing properties, so a valuation probably makes sense, too.

Subletting can also have hidden cost consequences that should not be overlooked. For example, few distribution managers know the potential tax and accounting losses associated with subleasing. Other factors include holding and disposition cost. All of these costs must be added to the "hurdle cost" for a new distribution plan.

Other questions to address include:

- Does the balance sheet strongly dictate owning or leasing?
- Can you get out of the properties you have?
- Is the market for your current sites hot or cold?

It's wise to involve a business real-estate pro early in this process. Clearly, you should try to avoid a broker who is interested only in his sales commission (there are

many such people out there). Consider hiring an objective, outside advisor who can provide a realistic, informed view of the tradeoffs you face. As most people who have faced these decisions will tell you, it is worth the investment.

Identify potential locations.

As in *Casablanca* and old detective movies, managers approaching this challenge tend to "line up the usual suspects." Among the obvious criteria to consider in choosing a site is the distance between your new facility and its customers. Sometimes it's easy to forget to measure distance in both miles and time: traffic congestion, delays in clearing Customs, or new highway or airport construction as a result of rapid growth may result in the new distribution network serving customers less effectively than the old one, at least initially.

Other considerations include proximity to major carriers, tax and investment incentives from local and state governments, and flow of inbound shipments from key suppliers. It is difficult, but important, to determine how your company's distribution needs will change as your industry's technology, your company's product offerings, and your customer base will change. If you serve, or intend to serve, all of North America

rather than just the US, you will obviously be affected by NAFTA. If your customer base extends to all industrialized countries, or developing countries, you need to take this factor into account as well. Locating in a foreign trade zone can have huge implications on duty rates, imported equipment, and inventory taxes.

Quantify and model costs.

Getting a handle on the cost/benefit tradeoffs of moving to a single central DC has been made easier in recent years by the development of several powerful modeling tools and analytical techniques. While this brief article cannot cover these in detail, it is worthwhile to be aware of what is available:

- A total-supply-chain cost approach looks at not just fixed facility costs and inbound and outbound freight costs, but the cost of inventory, order fill, and labor:

- Objective guides to transportation rates (e.g. Czar) can be helpful. While parcel and air rates have a remarkable consistency among carriers, in the case of less-than-truckload freight, each carrier has inherent lane biases built into its rate structures.

- Computerized logistics network and facility location models are essentially powerful calculators which cost out

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shipments to each destination and the corresponding inbound freight, combine this with handling and fixed charges, and provide an "answer." They enable your company to evaluate quickly a variety of DC sites and supply-chain scenarios.

- A comprehensive real estate costing analysis must go beyond the base rent and operating expenses to fully support the decision-making process. Lease vs. ownership positions must be thoroughly evaluated. Both tax and accounting implications of sublease or sale dispositions must be included. Deferred maintenance and facility fix-up costs should be closely evaluated. Most importantly, know that each deal will have its own hidden costs.

- Labor costing and availability analysis is basic and necessary. There is only one unbiased reference for accurate wage data: the US government's Bureau of Labor Statistics. These data can be downloaded from the Internet: <http://stats.bls.gov/dolbls.htm>. In addition to the base wage data, it is important to add such costs as worker's compensation, a benefit which may vary as much as 15% of base wages from state to state. For example, truck driver worker compensation rates are outrageous in many states, prompting carriers to lease their labor in a "friendly" state like Indiana. Unfortunately, warehouses (which are fixed inside a state) offer no such option.

- Tax impact analysis: Every alternative location that varies by municipality, county or state will typically present significant differences in tax consequences. All possible tax consequences, including inventory, equipment, real estate, payroll and corporate income tax, must be forecast. These estimates will provide a foundation for pursuing government programs and location incentives that lower or

fully abate such taxes.

- Utilities rate analysis: De-regulation is creating opportunities for significant cost reductions for major utility users. Relocation projects should include negotiations with utility suppliers to identify cost differences among locations and suppliers.

In addition to the hard facts and figures needed to make the best decision, you have to allow for soft elements. These include:

- Forecast error over a five-year horizon: Simply put, it's hard to estimate what will happen tomorrow, let alone in five years, but an educated guess about the impact of growth on the total cost of a newly selected site is essential to minimize surprises down the road.

- Transportation service: For truckload carriers, how far will they need to drive empty to reach your location? For LTL, parcel and air carriers: how late can carriers pick up in your location and still make the cut-off for departing trucks or planes? Knowing these facts is important to ensure items shipped today really go somewhere other than a carrier's nearby dock to await the next day's consolidated shipments.

- Customer dynamics: While being "customer intimate" might suggest being right next door, customer/vendor relationships suffer a high divorce rate. Customers themselves move, of course; their businesses change; they constantly seek better deals from suppliers. The more flexible your company is in dealing with these changes, the more successful it will be.

- Overall business risk: Are the savings enough to justify the move? One company recently found that it could save both transit time to customers and distribution expense by implementing a single central DC. However, the savings were not enough to offset the

risk to its business incurred by the move. Several categories of risk must be assessed:

1. Hiring a new and unproved work force which lacks your company's "tribal knowledge" (the myths, practices, and customs transferred informally from worker to worker);

2. Shifting management - when key experience or expertise moves on, you must be prepared to take up the slack;

3. Selling down inventory in one place and increasing it in another, a practice which frequently results in less-than-desirable order fill rates;

4. Splitting shipments and thus incurring additional freight costs or alienating customers;

5. Implementing new computer and communications links.

Emotional factors

Even when you have done everything recommended here, the move may not happen. Senior executives become attached to operations they built and managed.

Not long ago, each time the issue of closing old facilities and moving to a centralized DC was raised at the board meeting of a Fortune 100 company, it was rejected until the board member who started the operation retired. After that, it took only days to get approval.

In the final analysis...

Choosing whether to implement a single central DC is complex. That complexity can be reduced considerably if senior management, with the help of experienced experts who have guided others through the process, takes a rational, organized approach. Many have traveled this path successfully before.

In a world of rapidly changing information and logistics technology, it is essential at least to consider such a move.

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