A distribution strategy should balance fixed costs of distribution centers with transportation costs.

A logistics company struggling to manage its high transportation costs

The firm (LogCo) provides distribution services for mid-to-large sized industrial materials at numerous locations spread across the United States. Transportation was expensive and often required custom packaging and handling. While customers were loyal, they were beginning to complain about high prices and low levels of service being provided. There was worry within LogCo that customers would find alternatives. LogCo realized that it needed to increase efficiency, review it's regional stocking strategy, and determine how many locations it truly needed.

Misalignment between regional supply and demand

Upon review of its inventory and transportation, LogCo realized a huge misalignment between regional demand and regional supply. For example, an abundance of orders from the west coast shipped from east coast locations. This resulted in huge increases in transportation costs and an inefficient use of storage space. LogCo realized that it needed to rebalance its network and ensure that items were placed in regions that matched their demand. Moreover, they realized that regions needed to be created based on transportation costs from that location and not just customer preference or pure proximity.

Balancing fixed costs with transportation costs

At a higher level, LogCo was also unsure whether it needed to maintain all of its locations. While more locations could lead to a decrease in transportation costs, it would also result in higher fixed costs. To determine the optimal number of distribution locations, LogCo needed to balance its fixed costs with transportation costs while ensuring that it had ample storage space to meet customers' needs.

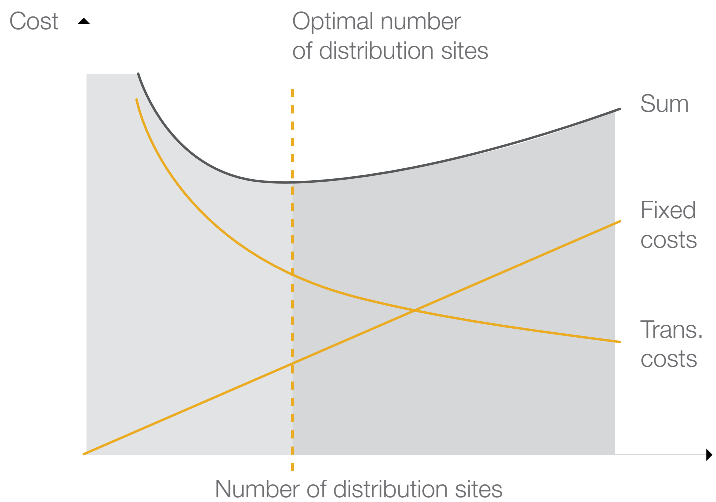

Figure 1: **Trade-off between fixed costs and transportation cost savings. The optimal number of distribution sites is the minimum of total fixed and transportation costs.**

Regionalization

To minimize overall costs, LogCo optimized its fixed costs and transportation costs to come up with the ideal number of distribution sites. In some areas, distribution centers were eliminated or turned into smaller satellite locations. LogCo then adopted a regionalization approach to match customer locations with distribution sites based on transportation costs. It then worked closely with customers and distribution centers to ensure items were placed at locations that matched their regional demand.

Results:

LogCo realized over $140M in benefits by realigning distribution regions and optimizing the number of distribution sites.

Does your organization need to review its distribution strategy? To learn more, contact us at contact@ wilsonperumal.com