Case Study

Of a project I led at a previous employer

$15M in Cost Savings (EBIT)

A “green light” that took several years to get the approval.

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Introduction

This is an example of what supply chain modeling can do for you, i.e., reduce your operating costs while improving service to your customers. As you read this, ask yourself if your supply chain was professionally reviewed for optimization strategies. Knight Ops Solutions℠ knows how to optimize a distribution network.

Context

The case study highlights a project I led at a previous employer of mine that took longer to get the "green light" than it did to implement. A green light without neutral third-party recommendations required knocking down silos. Yet, time passed by with missed opportunities for significant cost reductions and service improvements.

Problem

The Company had about a 60/40 mix of factory-direct and distribution network shipments to customers. Customer friction repeatedly escalated on the distribution network side. However, the factory-direct side worked well for larger customers.

Purpose & Scope

This case study reveals at a macro level what it takes to optimize a distribution network. It is an enormous undertaking, and if not done correctly, customer friction intensifies and costs soar.

Importance

Businesses are under pressure to reduce costs while navigating economic uncertainties (i.e., inflation and tariffs). Supply chain and operations are critical competitive advantages for transforming a company's top and bottom-line results.

Roadmap

The overview, problem, solutions, and results sections in this case study should prove to be a quick read, informative, and easy to translate to your business needs.

Overview

The company's shipments to customers (non-factory direct) originated from 20 warehouses across the U.S. Out of these 20, the company managed four locations. Two long-term business partners (reputable distributors) managed the remaining 16 warehouses. After several years of pitching that my team could improve service and reduce costs, the company finally gave the green light.

Problem

Customers were frustrated by the need to purchase products from multiple sources because a single company manufactured the products. The frustration also stemmed from invoices from more than one company that were formatted differently, creating challenges for customers to reconcile invoicing issues. Additionally, customers had to work with more than one company if orders were split and shipped from multiple warehouse locations. Customers also noted that the inventory availability, i.e., inventory service level, varied across the 20 warehouses. Lastly, customers expressed concerns about various lead times throughout the 20 warehouses. From a cost perspective, the fees incurred by the company to utilize the 16 warehouses were higher than what I knew my team could do at a lower cost if we insourced the network.

$15M Saved (EBIT)

This project was implemented as part of my professional work experience at an industry-leading manufacturer of major home appliances. Out of respect for one of my previous employers, I will limit the number of items that I quantify in the results paragraph.

A key element of success was collaboration and thorough project planning.

In-house production priorities had to be established (same for outsourced products). This became complex, considering an inventory buy-back from one of the distributor partners.

From an inventory readiness perspective, I had a plan broken down and prioritized by wave of delivery to the new DC facilities by SKU and quantity. As a team, we executed flawlessly.

Minimal Project Headcount

The largest distribution network project for the Company, dating back 25 years.

For the planning and execution of this project, I was the:

- Business lead,
- Project manager, and
- I.T. professional.

My SQL computer programming skills carried the weight for analytics and supply chain modeling, considering an understaffed project team for a project of this size and scale.

I put together a “dream team” on the distribution side to execute the new facility start-ups. They crushed it.

As for Outbound Transportation, my Transportation Director was a mission-critical team player who brought the trucking side to life.

Lastly, a financial analyst did an outstanding job confirming that cost savings were legitimate.

Solutions

Improve Sales Forecasting:

- External & internal customer collaboration

Conduct Supply Chain/ Distribution Network Modeling:

- Developed internal mechanisms for “what-if” scenarios, including service, cost, and space consumption
- Seven Distribution Centers in the U.S. best met the requirements for service and cost, including lead-time to customers
- Confirmed with a freight partner that ran my data through their Supply Chain Modeling software, same results as internal mechanisms built

Customized Inventory Planning:

- Plotted all forecast sales/ shipments
- Provided my Demand Planners with the by SKU details for the inventory required by location

Commercial Real Estate:

- Site selection
- Cost Negotiations
- Local labor/ talent pools

Results

$31M in savings by eliminating the 16 warehouses managed by two distributor partners, leaving the four locations managed by the Company (Chattanooga, TN, Ontario, CA, Indianapolis, IN, and Dallas, TX).

Opened three Distribution Centers (DCs) in key geographic locations (Denver, CO, Algona, WA, and Pottsville, PA), Denver alone had $1M freight savings to avoid shipping out-of-zone

+$20M outbound freight savings by eliminating trucks passing in the night and out-of-zone shipments

Customer feedback: significantly reduced lead time, availability improved significantly, and invoices to reconcile from one company.

Next Step - - Move the Chattanooga DC to Atlanta for shorter freight hauls to customers in Florida and for imported products via the Port of Savannah.

External Customer Collaboration

Order Desk Integration

Opened and stabilized three distribution centers within three months, one facility per month for three consecutive months, to be prepared for peak season.

I was on site for the first two facility go-lives. The first facility (Denver) offered a small surprise. The percentage of will-call was higher than anticipated, including the method of payment local customers were accustomed to. After calling the Company's Corporate Controller, we took care of those customers. Going forward, I collaborated with the Sales team and customers to reset payment method expectations.

A few years later, after I transitioned into a new position within the Company, the Chattanooga DC moved to Fairburn, GA (south of Atlanta).