10 Tips from the Experts for Success in Supply Chain Design

The requirements for success for global supply chains have changed. Here’s some quick yet powerful advice to help you design a thriving and truly differentiating supply chain.
A Quick Story...

Once upon a time, way back in the technology dark ages (sometime before Y2K), supply chain models had to be created by hand. As technology progressed, spreadsheets were used alongside calculators and adding machines, but it was still pretty much a manual process done once a year – or less.
These days, developing markets aren’t just places where we can get skilled labor at low prices. These markets are increasingly our best opportunities for growing market share and revenue.

Many emerging markets have young working-age populations with increasing buying power. For example, the bulk of India’s population is under 44 and that trend is predicted to continue through 2030.

United States consumers account for 25 percent of the world’s spending, but are now outspent by their counterparts in Brazil, Russia, India, and China.

Chinese millionaires are younger than their American counterparts. Contrary to popular understanding, most of them made their wealth in private markets, not state-owned businesses.¹

However, the competition from emerging markets is also increasing. In many businesses and buying situations, a supplier based half-way around the world will be considered just as seriously as the manufacturer down the street.
You Need to Work Smarter, Not Harder

The right supply chain design can help you get products to your customers faster and at a lower cost. It can help you tap into new markets. It can help you fend off those competitors from countries you’ve never heard of. In fact, many successful organizations see their supply chain as a secret weapon in their bid for market leadership.

“Market conditions change quickly and opportunities pass by quickly. We need to be first on the ground, introducing new innovations into the market.”

—Brian Streu, Manager, Supply Chain Design, Whirlpool Corporation
As a provider of supply chain design software, it’s tempting for us to focus on the technology. But, as we’ve seen time and again in the customers we’ve worked with, it takes more than great software to be successful.

In this ebook we’ll share 10 supply chain design tips that can help you avoid common missteps and begin to position your supply chain as your greatest competitive advantage.
Tip 1: **Standardize Processes**

When Henry Ford reinvented manufacturing with the assembly line, he did so by turning automobile manufacturing from a one-off project into a series of repeatable processes. A few more innovations like just-in-time (JIT) inventory and TQM helped make today’s automotive manufacturing plants the model of efficiency. The key is repeatable, standardized processes that can be applied no matter the make, model, or color of the end product.

Because your supply chain designers will be building models to answer diverse what-if questions, the more you can standardize processes—and tools—the more efficient you will be. This includes standardization across divisions and geographies.
When it comes to supply chain design, there are often more questions than answers. The 80/20 rule often applies. Eighty percent of the value to the organization comes from 20 percent of the answers. Prioritizing the questions you model will allow you to keep your workload manageable by helping you focus on first things first.

As you score possible projects, it can also be helpful to map them on a quadrant. This allows everyone to easily see which projects provide the greatest impact for the lowest possible effort. In the graphic below, the project in yellow is a likely high-priority candidate, since the savings are high and the complexity is low.

From there, project prioritization moves clockwise around the quadrant with those in the lower left-hand quadrant often not making it onto the project roadmap.

Tip 2: **Prioritize the Questions**

“The key is not to prioritize what’s on your schedule, but to schedule your priorities.”

–Stephen Covey, author of 7 Habits of Highly Effective People
Tip 3: **Aggregate when Possible**

Global, diverse organizations often have multiple supply chains for different geographies and businesses.

The tendency in many organizations is to plug all the available data into the model at as granular a level as possible. Often, the headaches of going this level of detail outweigh the benefits. You need to identify the unique drivers within your product group or region. Beyond that, you will often find similarities that will allow you to develop a baseline model that applies across the various business units.

One of the keys to proper aggregation is making sure that the different paths in your supply chain are clearly represented. If any two paths are alike, there’s no need to keep both. This will allow you to define which products and demand nodes to aggregate and which to keep detailed, and will guarantee the optimization engine will evaluate all possible combinations that are relevant.
Tip 4: Make Sure You Have the Right Data

The 80/20 rule applies to data, too. Eighty percent of the value is going to come from 20 percent of the data. Unfortunately, the other 80 percent of less valuable data is often outdated or just plain wrong.

Before you start collecting data, ask yourself these key questions:

- Is the data accurate?
- Is it current?
- Is this data directly related to the questions we are trying to answer?
- If not, is it valuable enough to offset the cost and effort to collect it?
- Is it worth recalibrating the current project timeline?

Many of the organizations we work with start with a data clean-up effort. In the meantime, they still get value from their supply chain design by prioritizing those projects for which they already have current, accurate data. Adopting a supply chain design platform with integrated data management helps cleanse and blend data for future analyses. Design is a long-term competency; devote time to getting clean and accurate data, which is a key ingredient for success in subsequent projects.
Tip 5: **Align the Project with Available Skills**

Every now and then, a world-class athlete decides to try his or her hand at a new sport. As great an athlete as they may be, when the talents don’t match the sport, performance usually falls short of expectations.

Unless your team’s skills match the requirements of your project, you won’t get world-class results either. Fortunately, the career of the supply chain designer is generally longer than a world-class athlete, so there is time to learn new skills. For the best results, match your project to your available skills and continue to develop and reward new skills on the team.
Tip 6: Bring Stakeholders Together Up Front

Supply chain design projects can have many stakeholders. It’s vital to bring everyone together for a strategy workshop to work through the objectives of the project and get buy-in. Holding this workshop before you even start to gather data can save you significant rework in the long run, and help ensure projects align with business goals.
Tip 7: Define Specific Goals for Supply Chain Design Efforts

“We want to double our revenues in five years.”

This is the kind of goal that may get tossed out on the table at the beginning of your strategy session. But, what does “doubling revenue in five years” look like?

There are a lot of ways to increase revenues. To model the type of supply chain you’ll need, you need to dig in and ask questions. Do they plan to enter new markets? Add new products lines, which may require new channel capabilities? Add channels? Expand existing channels? What are the constraints? i.e. what aspects of supply chain network structure or policies may not be changed? The answers to these questions inform the assumptions you will make.
In any supply chain project, you’re going to be evaluating a number of alternatives. These are the “what if” questions. For example:

- What happens if we remove a layer in our distribution model?
- What happens if we open a distribution center in Europe?
- What happens if we ship by rail instead of by truck?

Within each of these alternatives you will need to make certain assumptions about elements such as demand, costs, etc. To ensure your model is robust enough, you also need to understand how sensitive each of your alternatives are to the assumptions.

In optimization the result is the mathematically correct answer, but not necessarily the one you can implement. To get to the implementable answer, you need to test out variability on assumptions and key variables, to make sure that the design is robust enough to be implemented. Implementation is key, because it allows the design team to have accountability for the benefits they bring to the business.
Tip 9: **Execute Facility Capacity Studies**

During the last recession, capacity wasn’t much of an issue for many businesses. But now, with the economy rebounding and leadership setting aggressive growth goals, capacity is once again on the table.

Assessing existing capacity within your supply chain gives you the baseline you need to determine how much of an increase in throughput you can handle and what additional capacity you will need to add. It makes no sense to model 2020 throughput with 2015 capacity.

“The thinking that got us to where we are is not the thinking that will get us to where we want to be.”

—Albert Einstein
Tip 10: Create a Roadmap

Success is not a destination. It’s a journey.

All successful supply chain design projects require planning. How will you get from where you are today to where you want to go? What are the checkpoints you will use to ensure you’re still on the right path? What kind of equipment and skills will you need to acquire along the way? These decisions should begin with assessing your current supply chain design maturity level and building a roadmap to get you where you want to be to meet company goals.

If you’re like many of the organizations we work with, you’ll find you learn just as much from the milestones in your roadmap as you do from your final results. These “rest stops” on your journey are a great time to meet with stakeholders and reassess the project’s progress and the validity of the original plan.

It’s critical to remember that your roadmap includes not only the project but also the implementation afterwards, and the accountability for the benefits, as part of the overall project cycle.
Take the Next Step toward Better Supply Chain Design

EBook: Four Steps to Creating Your Supply Chain Design Development Plan
Assess your current design maturity level and prepare the strategy, people, processes and technology to get you where you want to be

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- Named to the Deloitte Fast 500 for five consecutive years
- 50% of Fortune 500 companies have designed their supply chains with LLamasoft
- LLamasoft has supported over 2,000 supply chain design projects

**About Miebach**

Miebach is a supply chain focused consulting, engineering, and advisory firm. Our LLamasoft Center of Excellence supports both owners and non-owners of the software across the full spectrum of supply chain design and transformation. Twenty-three locations in 21 countries enable us to offer precise global solutions based on a deep local business understanding. When working with Miebach clients benefit from an integrated approach to logistics, having one partner support them with a seamless transition from strategy to execution.

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