



How to Think  
Differently About  
Your Business.  
Start asking "What  
If..."

Blinders off. Analytics model helps leaders of a construction materials manufacturer see how they can make more money.

## “What If?” Questions Reveal Multi-Million Dollar Opportunity

A privately held supplier of construction materials with over 1,000 employees recently asked us to assess their distribution network, freight costs and productivity. Working with [River Logic](#), TBM’s [prescriptive analytics solutions](#) partner, we developed an analytical model of their business which incorporated the appropriate costs across 20+ sites.

Their logistics suppliers had already examined their freight costs and they didn’t find any major savings opportunities there. Then we started asking some higher-level questions about their production and distribution strategy. That’s when things got a lot more interesting.

## The Power of “What if...?”

*The ability to get nearly instantaneous answers to “What if?” questions is one of the capabilities that’s often bandied about by analytics solution providers. It’s hard for manufacturing executives to appreciate what that means to them without an example that’s specific to their firms.*

In this case we ran a high-level optimization of their largest division and analyzed the total margin impact of various changes on our client’s business. Specifically, we explored options for the number of sites needed to meet demand and modeled the financial impact of shifting production to lower cost facilities, none of which were running at full capacity. Then we looked at what would happen if they could produce every product type at every facility. They’d never done that before in part because of raw material consistency issues and the high cost of freight to ship products over long distances—but mostly because it’s not the way the industry had ever operated.

The initial analysis estimated an unconstrained potential annual savings of \$11-12 million, even with higher freight costs. That was a “real eye-opener,” as the CEO himself said. “It made us think about whether we were going after the right opportunities, or if there was something bigger that we should be attacking first.”

When presented with such dramatic figures the quick response of many business leaders is to question the integrity of the numbers. Rightly so. No one wants to have their competence called into question. But manufacturing operations are extremely complex and they evolve organically based on assumptions and circumstances that change over time. It’s not unusual therefore to uncover such hidden cost savings opportunities.

Many times, when we work with clients on such a project, the analytical work shows where they need to dig out more information to generate accurate estimates. In this case the credibility of the scenario analysis was bolstered by the close involvement of the company’s lead financial analyst who helped capture and validate all of necessary data.

Our next step was to look at the feasibility of the suggested high-level changes. Instead of an initial assignment to evaluate a distribution network and evaluate freight costs, we shifted gears and started asking more provocative questions around their manufacturing and distribution strategies.

- What if we could consistently produce the same product in multiple locations?
- What if we could produce all of the product in one location and ship it further and still save money?

- What if we shift our focus to driving productivity in higher-performing, lower cost factories instead of trying to get more productivity out of specific plants that are underperforming?
- What if we rethink the number of plants or distribution centers needed?
- What if we look at our freight and production costs holistically—in tandem—instead of evaluating them independent of one another?

Despite the encouragement of every leadership guru, most managers don't really think "outside the box." They look at how they've always done things and then try to figure out how to do them 3-5% cheaper.

Capturing the potential benefits that we found would require a different mindset and a viable execution plan. We looked at our client's constraints and those limitations. They couldn't, for example, instantly start making every product in every production facility. We considered how much time, effort and energy they would have to invest, and what could be realistically accomplished in a given timeframe.

In the final analysis the near-term potential ended up somewhere between \$3-5 million. That target, calculated by running a multitude of what-if scenarios, is a major opportunity for this company. They have already begun to execute some of the plans to realize the project savings.

## **What's the Lesson Here?**

Ask yourself.

1. Do we have the right business strategies in place?
2. Have we gone through the analytics to identify the right courses of action?
3. Do we know which approach will give us the best results as quickly as possible?

Before taking a deep dive into specific productivity savings, it is perhaps better to look at the front of your business from a more holistic perspective by asking what's best for the overall business. What's the best margin opportunity we have to get more EBITDA without really disrupting a specific plant? Instead, look at the entire network—where we produce, how we produce, and how we distribute. It's also important to get key decision makers and data owners involved when building the analytics model. It's important to make sure the data is validated by the leadership team.

Do you know if your current business strategy will deliver the best possible financial results? Wouldn't you like to know? Start asking "What if..."



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