

CASE STUDY

Forecasting The Future

How taking control of their data empowered one company to predict the future



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The Business of Bulk Landscaping Goods

As a primary supplier of bulk landscaping goods for major home improvement retailers across North America, our client's business was characterized by a few key things:

DIVERSE PRODUCT OFFERINGS

The product line covered a wide array of bagged and bulk goods, including: *top soil, grass seed, mulch, fertilizers, and various landscape stone products.*

100+ PRODUCTION FACILITIES

Not only did the client have **111 production facilities** - all widely distributed across the U.S. and Canada - but the role of each facility varied depending on which products the facility specialized in.

HEAVILY SEASONAL DEMAND

The vast majority of orders were fulfilled during the Spring season, when demand for landscaping goods is at its highest for retailers.

IN-HOUSE LOGISTICS

Almost all logistics were handled by our client's seasoned, yet small, in-house Operations team.

The Ops team worked far in advance to lay the groundwork for peak season, based largely on the sales forecasting reports provided to them.

Challenge(s)

Despite constant efforts to improve the accuracy of their sales forecasting processes, our client found themselves in a similar predicament year after year — smack in the middle of peak season, scrambling to cover massive inventory shortages in certain areas, stuck with too much inventory in others, scrambling to fill in the gaps.

Their sales forecasting methods carried such a high degree of inaccuracy that the client often found themselves cannibalising profits in order to simply fulfill demand.

The difference between projected demand and actual demand frequently surpassed 25%, and at times, produced projections that were off by as much as 50%.

As the business grew, so did the costs of inaccurate forecasting.

The fallout created major challenges in many areas of the business, including: *inventory, labor, logistics and operations*.

Inventory Challenges

PERISHABLE INVENTORY

If not sold, perishable products such as grass seed or mulch had to be disposed of at the end of year.

LIMITED SPACE

Inventory storage space was limited, and over-forecasting product that didn't sell created unnecessary additional strain.

RAW MATERIAL ALLOCATION

When demand didn't match expectations, materials used to manufacture in advance were wasted. Costs were further compounded when the raw materials could have been allocated for a product that *did* sell well.

Labor & Logistics Challenges

PRODUCTION

Unpredictable spikes in demand for certain products meant that production teams found themselves frequently working overtime in order to fulfill demand - this was especially true for facilities that were responsible for more specialized products.

OPERATIONS

When a plant wasn't able to meet demand in one region, Operations went into damage control mode. Budgets often fell by the wayside as the team did whatever they could to fulfill outstanding orders.

TRANSPORTATION

Shipping costs were already a major expense, but costs skyrocketed as product and inventory had to be reallocated, often cross-country, with very little notice.

Software & Operations Challenges

As is often the case with fast-growing companies, our client was "locked in" with a custom ERP solution that couldn't scale with them as they grew. Their software was consistently falling short in two key areas:

DATA COLLECTION

With locations all across North America, consistent and accurate collection of data was an ongoing struggle for our client.

Departments and teams were independently collecting and processing data, but there was no process for adding data into the shared ERP software.

When sales teams needed to create forecasts, they often sought out external sources of data in an effort to bridge the gap. However, the external sources being used were missing large swathes of vital information, which in turn, created major blindspots in sales forecasts.

REAL TIME INTEGRATION

Information that was being successfully gathered was not easily accessible by people in different parts of the company (i.e. corporate headquarters struggling to access production facility information).

The lack of visibility into overall operations and costs made it extremely difficult for the company's leadership team to make strategic decisions for the business overall.

Key Deliverables

Our client knew they needed better sales forecasting, improved insight into the data being generated across their organization, and a trusted partner to help them accomplish the project.

Here's what we accomplished together:

CUSTOM SOFTWARE BUILD

We built a fully custom sales forecasting software solution designed specifically to dramatically improve forecasting accuracy through automation.

Technology: Ruby on Rails, JavaScript

DATA RECOVERY AND PROCESSING

During the discovery phase of our project, we uncovered large quantities of data that had been created by various teams, but was not being entered into the company's shared ERP solution.

Our team was able to gather the data, and tackle the complex work of cleaning, processing and inputting all of it. We were even able to help the client fill in major information gaps by retroactively interpreting older data.

This process helped us craft a much more accurate picture of previous and, therefore, future demand.

INTEGRATION WITH ERP

With an existing ERP solution, we designed the forecasting tool so that we could directly tie the finished software into the existing ERP solution. Users could continue to use the tool they knew, but with the new features they needed.

CONNECT HUMAN AND SOFTWARE OPERATIONS

We helped our client conduct extensive user testing to not only test our software, but also to identify operational gaps in the field.

We discovered several points in boots-on-the-ground logistics processes where new workflows would need to be introduced. From there, we helped leadership identify what features (or fixes) employees on the ground needed to successfully adopt the new tools and workflows.

After fine-tuning the software and processes, we automated a significant portion of the data collection and distribution process.

Results

After implementing our forecasting solution, the average difference between projected and actual demand **dropped from 25% to just 5%**.

The overall impact of improved sales forecasting was huge.

AUTOMATED DATA COLLECTION

The software improvements created an opportunity to also improve workflows for production facilities. With minimal effort from boots-on-the-ground employees, the company's leadership was able to drastically improve the quality and consistency of the information being collected.

REAL TIME INSIGHTS

By creating a flow of information between software used by on-the-ground production facilities and corporate headquarters, we radically improved visibility into operations updates and costs across the board.

INVENTORY WASTE REDUCTION

The resulting 21% average increase in forecast accuracy led to an 80+% (90+ in certain extreme cases) reduction in inventory waste.

OVERTIME REDUCTION

The increase in forecasting accuracy dramatically reduced the need for overtime in production facilities.

Also, the corporate Operations team saw a significant reduction in long (12+ hour) "damage control days".

MAJOR FREIGHT SAVINGS

Unexpected long distance freight hauls were nearly eliminated, which drastically reduced transportation costs and made cost projections much more accurate.

Want results like these, too?

Let's talk