RIVERLOGIC

CASE STUDY: A GLOBALLY KNOWN SNACK-FOOD GIANT

Balancing Complex Trade-offs with River Logic

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SUMMARY

What do you do when you can't meet demand for your most profitable product, because you're working with constrained capacity? You get prescriptive.

With the power of River Logic, this snack-food giant is now able to allocate the right demand to the right location at fewer overall hours than before. They discovered it was more profitable to reduce material and transportation costs while increasing the number of changeovers across their nationwide network. On initial optimization runs, they found $332k in cost savings per week, in addition to a few million in opportunity costs due to freed up inventory. The hard savings remain unmatched by any other tool they had been using.

INITIAL VALUE WITH RIVER LOGIC

$332,000

IN COST SAVINGS
PER WEEK

MILLIONS

IN ADDITIONAL
OPPORTUNITY COSTS FOUND

COMPANY
OVERVIEW

This customer is one of the largest snack-food/convenient food manufacturers in North America. It has over 20 plants, around 30 platforms, over 100 processing lines, and a few hundred packaging lines. In addition, it has nearly 200 destination stations that are either retailers or distributors.

20	**PLANTS**
30	**PLATFORMS**
100+	**PACKAGING LINES**
100+	**PROCESSING LINES**
200+	**RETAILERS AND DISTRIBUTORS**

THE **CHALLENGE**

This U.S. snack-food giant was meeting lessthan *90%* of demand for one of its most profitable product portfolio categories — let's call it Product Family A. ***To produce products within Product Family A, two of the steps in their manufacturing process had limitations:***

PRODUCT FAMILY A ***LIMITATIONS***

1 **They could only ever get 35% o their raw material into the appropriate shape to produce the products in Family A.**

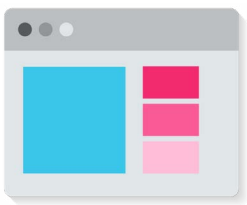
2 **They also had to slow down one o the steps in their manufacturing process to further process Family A.**

Prior to using River Logic, the company was doing what most other manufacturers do: **using gut feel and 20+ spreadsheets with data from sourcing, production, finance, sales, and transportation to determine where to produce which products, with no visibility into the forward-looking financial impacts of their decisions.**

In addition to the 20+ spreadsheets, they used the following tools:

A solution suite from a major ERP vendor

A point optimization solution

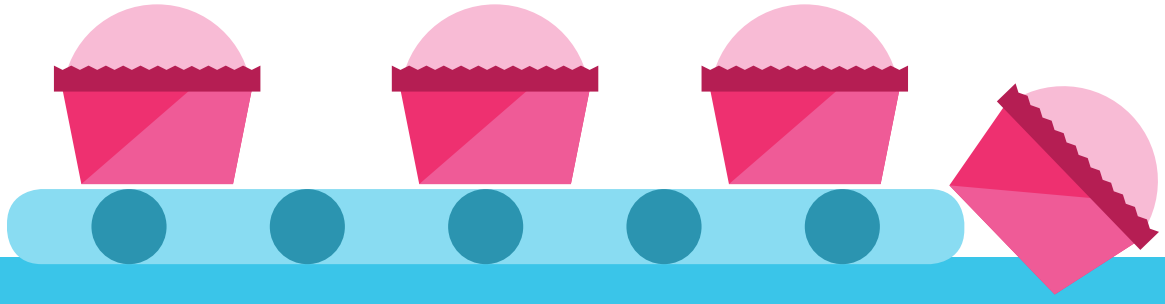


A well-known network design tool

Their assumption was that transportation costs would outweigh producing only certain products at certain plants. Therefore, the company had decided to make every product at every plant in order to meet demand for Product Family A.

Like more than 50% of companies today, the problem with this approach is that **corporations have limited or no ability to measure cross-functional trade-offs**. For complex supply chains operating in a dynamic market, the inability to access intelligent data impedes insights to the best courses of action. Even more so, actions aren't tied to financial impacts, and companies end up under-performing in the long run. In the case of our snack-food giant, they were:

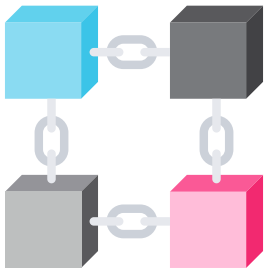
- DRIVING **UP COSTS**
- UNABLE TO **RELIEVE CONSTRAINED CAPACITY**
- FAILING TO **MEET DEMAND**
- MISSING OUT ON **MAJOR PROFIT OPPORTUNITIES**



THE SOLUTION APPROACH

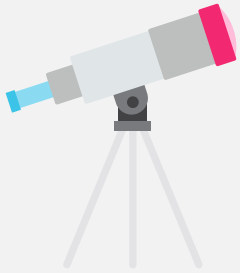
In order to understand how and where to make which products, they needed two things:

Per Product Production &
Distribution Costs



THEY NEEDED TO UNDERSTAND, ON A PER PRODUCT LEVEL, THE IMPACT OF EVERYTHING FROM RAW MATERIAL TO DISTRIBUTION.

Forward-Looking
Financial Impacts



THEY NEEDED TO SEE FORWARD-LOOKING FINANCIAL IMPACTS OF THEIR OPERATIONAL DECISIONS, I.E., THEY NEEDED AN INTEGRATED FINANCIAL AND OPERATIONAL MODEL OF SUPPLY CHAIN.

The customer acknowledged that spreadsheets were making it too difficult to detect the trade-offs needed to meet objectives.

What they sought was an optimization and modeling solution that could represent their end-to-end (supplier to distribution) value chain that could take in data from their existing systems and enable them to see the financial and operational impacts of trade-offs. They selected River Logic as the preferred technology vendor, and, upon implementing a fully validated financial and operational model, they were finally able to balance:

- PRODUCTION **CAPABILITY COMPLEXITY**
- DEMAND **COMPLEXITY**
- COST OF **GOODS COMPLEXITY**
- TRANSPORTATION **VARIATIONS**
- **AND MORE…**

IMPACT

With the power of River Logic, our snack-food giant is now able to allocate the right demand to the right location at fewer overall hours than before. **They discovered it was more profitable to reduce material and transportation costs while increasing the number of changeovers across their nationwide network. On initial optimization runs, they found $332k in cost savings per week, in addition to a few million in opportunity costs due to freed up inventory.** The hard savings remain unmatched by any other tool they had been using. Additional value-adds are listed below:

REDUCED TRANSPORTATION COSTS: River Logic's technology enabled the company to optimize trade-offs between production locations and point of sale.

INCREASED THROUGHPUT RATES: River Logic's technology revealed that optimizing production runs and the number of changeovers increased throughput rates while minimizing production costs.

REDUCED LABOR COSTS: By reducing overall labor costs, fewer production hours were used to fulfill more demand.

SWITCHED TO ON-DEMAND PRODUCTION: The company now produces to demand. Furthermore, they understand how to best utilize capacity that has been freed up from optimizing inventory.

DECREASE IN OVERALL RAW MATERIAL COSTS: The company optimally sources product while considering supplier contracts, costs, geographical variables, and more.

MOVING **FORWARD**

This globally known snack-food manufacturer plans on looking into tactical sourcing (across a one- to 12-week horizon) to ensure raw materials are deployed to appropriate producers.

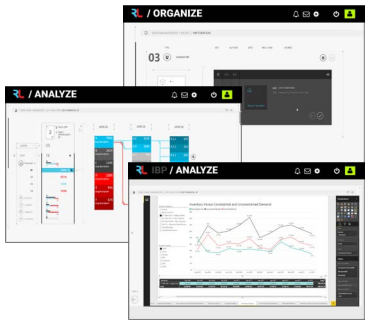
Additionally, they are considering using River Logic for asset strategy planning (1 year out). This would determine capital for new plants, equipment and capabilities. It would aid in the annual operations planning cycle.

ABOUT **RIVER LOGIC**

River Logic has been a global innovator in prescriptive analytics (optimization) since 2000. Its platform — designed for business users — enables enterprise-wide optimization, collaborative planning, and performance management, all delivered through a revolutionary user experience. By understanding how to best utilize cross-functional resources and manage trade-offs, companies make more impactful decisions.

River Logic goes to market primarily through partner organizations like PwC, Deloitte, TBM Consulting, and Microsoft, helping them develop high-value applications that monetize their IP. Recent clients include Unilever, BHP Billiton, the FAA, McKee Foods, Peabody, the Russian Post, and Valero. Typical client value-add ranges from 10% cost reduction to 2-5% of sales in additional profit.

GET **A DEMO** OF **RIVER LOGIC**



INTEGRATED MODELS

OPTIMIZED DECISIONS

PRESCRIBED EXECUTION

GET A DEMO

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