

# FOOD PRODUCTION EXPERIENCE CASE

Building Up Throughput and Organizational Efficiencies in a Successful, Family-Owned Business



Side-by-Side with Production, Maintenance, Warehouse, Finance, and Human Capital







## EXPERIENCE CASE | Food Manufacturing

Building Up Throughput and Organizational Efficiencies in a Successful, Family-Owned Business

## A Global Food Producer Emerges From A Single Family Shop

Our client, a family-owned American manufacturer, has been in the food production and distribution market for more than 50 years. The organization has grown from a little shop located in the neighborhood of Little Havana in Miami, where the spices were blended and bottled by hand, to nearly 50 production lines distributed across 6 different manufacturing facilities, along with a state-of-the-art warehouse and shipping facility, and over 500 employees companywide.

The firm currently produces, markets, and distributes over 400+ products—including spices, herbs, cooking essentials, ready-made blends, food colorings, marinades, sauces, nuts, seeds, toppings, baking needs, edibles, teas, and specialty food items. The organization has grown beyond Miami, with its highly-sought-after food products sold across the United States along with more than 70 countries.

Over the years, the company has developed a very strong brand and high-value reputation. They are praised, by both customers and employees alike, for offering high-quality products at very competitive prices—all while competing with larger, well-capitalized food conglomerate brands.

# Pinpointing the Best Opportunities with a Trapped Value Analysis

The fast, extensive growth experienced by this family business, especially intense over the last few years, generated a host of different problems. The top three most concerning to the Company President and Owner were: 1) uncontrolled overtime, 2) production capacity constraints, and 3) employee skills enhancements. These growing pains all needed to be addressed quickly and definitively—while preserving the healthy, very supportive, and energetic company culture the organization has cultivated over the years.

To isolate next-level capabilities and opportunities, the firm asked Catalyft to conduct a Trapped Value Analysis (TVA) and develop a practical implementation plan, aimed at allowing the team to get their operations under more control, ramp up throughput by empowering employees, and improve margins. The TVA Roadmap set the foundation for the missing capabilities, processes, skills programs, and tool sets needed to support accelerated growth.

## **Collaboration Objectives**

Experiencing high growth over the past two years without the time and bandwidth to adjust the organization to the new level of sales, the firm had several near-term and longer-term goals tied to our engagement:



### Food Manufacturing

#### Case Synopsis

• Collaborating with a well-run, 50-yearold, family-owned food manufacturer to boost productivity, throughput, and cost controls

#### **Client Profile**

- \$350+ million revenue firm
- Private, family ownership

#### Engagement

- 3-week Trapped Value Analysis (TVA)
- 30-week engagement

#### **Operational Benefits**

- Improved Overall Equipment Effectiveness (OEE) by 70%
- Implemented production best practices for a 16%+ throughput improvement across product lines
- Streamlined production process
- Upgraded performance metrics and visibility

#### Organizational Benefits

- Implemented visual factory elements and processes including kanban system on lines, production staging, single minute exchange of dye (SMED) line change-overs, and warehouse layout & flow
- Developed and implemented work order process initiated by quick response (QR) codes
- Built up talent management program with an emphasis on production, maintenance, and supervisory skill sets
- Developed 5 e-learning modules to support continuous improvement

#### Financial Benefits

- Reduced overtime by 39%
- External warehouse cost savings
- Generated a 5.9 to 1 Return on Investment (ROI)



- Remove capacity constraints by improving line speeds via Overall Equipment Effectiveness (OEE) thus improving productivity and reducing heavy reliance on overtime
- Embed next-level capabilities (Production, Maintenance, Warehouse, and Human Capital) to drive a doubling of growth within two years
- Increase EBITDA by 50% within two years

## Our Engagement: Fast Growth, the Right Way

After the TVA Roadmap was agreed to and objectives were tied to tangible pathways and timelines, our collaborative approach allowed the company to begin seeing improvements as soon as Project Week 3 when the two highest capacity-constrained lines began to show increased productivity and corresponding throughput improvement. Additional line optimization improvements were added in 2-week phases, implementing newly-developed tools and behavioral changes required to reach the desired performance levels.

In parallel, Maintenance area development and implementation work was carried out, early in the collaboration, to attack downtime. Several immediate interventions included reducing the number of changeovers through better Sales & Operations Planning (S&OP), reducing the duration of change-overs by implementing SMED procedures, and speeding up maintenance service response times. All of which resulted in turning around the reactive vs. preventive maintenance ratio and increasing line availability.

### Key Factors in Building Up Next-Level Production Capacity and Capabilities

To reach the objectives, several key processes and tool sets needed to be enhanced to accommodate the anticipated surge in demand including:

1 | Enhancing planning processes—Starting with line-by-line product scheduling, the team reviewed all aspects of production capacity to determine the biggest opportunities in improving scheduling accuracy. Next, personnel schedules were modified to meet near-term and longterm demand across all shifts. Equipment uptime proved to be an outsized constraint for some lines; so, the team worked on getting Maintenance scheduled with the necessary skill sets to remove the larger constraints across all shifts—not just the day shift. As part of the planning enhancements, preventative maintenance work was layered into planning and scheduling with more realistic, up-to-date details, including planned vs. actual work order standard hours.

Based on productivity improvements, more in-house ingredient blending was brought back into planning (Insourced). Production planning and scheduling improved due to a more coordinated Sales & Operations Planning (S&OP) planning process that incorporated new metrics to keep everyone on track (calculated safety stock and forecast accuracy metrics, for example). Capacity planning now incorporated optimized line speeds, improved Overall Equipment Effectiveness (OEE), Production and Maintenance skills requirements, and inventory modeling (lot sizing and run frequency, for example).

2 | Developing and implementing a customized Performance Integrated Management System (PIMS)—Incorporating existing IT systems and



aligning them with new system elements, the team developed and installed an updated PIMS to provide performance visibility by line, driving productivity, and control costs. As mentioned earlier, special emphasis on Production and Maintenance planning and scheduling was addressed by the team. Shift-by-shift, line-by-line follow-up and reporting mechanisms were introduced, along with prescriptions for corrective actions taken when processes moved out of upper-control limits (UCL) and lower-control limits (LCL). To improve equipment uptime and line availability, turning around the reactive vs. preventive maintenance ratio using downtime registry logs was a novel but vital step in boosting OEE.

Newly-developed metrics included: daily on-time delivery, blending rates, fill rates, and customer service levels. Improved data flow, metrics precision, and easy-to-interpret reporting were put in place for increased accountability amongst functional groups, providing visibility for every shift, and across all lines. The metrics and reporting upgrades helped to pinpoint areas where the team needed more help and the degree of urgency needed to get back on track.

Furthermore, new metrics and reporting elements layered into the PIMS assisted in building up more cross-departmental coordination and communication—without egos and hurt feelings getting in the way of progressing as a unified team.

**3 | Coordinating Production and Maintenance as one team**—With the TVA isolating issues such as overfilling, variances in expected vs. actual pallet weights, line speed variations, and changeover irregularities, the team implemented stronger statistical process controls for Production. More advanced line balancing also increased productivity across the lines. In order for line speeds and line balancing to be optimized, line availability needed a boost. So, the team focused on Maintenance skills (line speed and repair procedures, collaborative PMs, troubleshooting guides, communication protocol with Production, change-over support, etc.). OEE impacts (critical spares kitting, focused PM program, quality controls, etc.) were concurrently implemented to increase the three components of OEE—availability, performance, and quality.

Substantial process changes included standardization of blending, filling and packaging processes. Kaizen events were orchestrated to streamline processes, improve safety controls, refine metrics, and accelerate reporting processes. Visual factory cues were implemented including Andon light systems to signal line status and alert operators when issues arise, kanban staging system on all lines, and errorproofing tool kits. GEMBA walks on each shift were also co-developed and implemented.

Additionally, the team reviewed the Human Capital support processes impacting productivity and throughput—reinforcing existing healthy practices in alignment with objectives and supplementing the process with missing talent management elements. Several new, impactful upgrades included job descriptions incorporating new process changes for Production and Maintenance areas, updated Production and Maintenance personnel appraisal and coaching process, and a more robust overtime authorization procedure.

4 | Maximizing warehouse and mezzanine layouts —Staging formats were defined and implemented for Blends area; a kanban system was implemented for all Mezzanines. Warehouse procedures, staging processes, and information-sharing were enhanced. Storage locations were more visibly defined and better connected with scheduling.



Team Performance Enablers:

- $\Rightarrow$  Customer-Oriented Focus
- ⇒ Strong Management Supporting Company Culture
- ⇒ Lean Processes and Visual Factory Signals
- $\Rightarrow \ \, \mbox{Maintenance Management Excellence for Equipment Uptime}$
- ⇒ Production and Maintenance Coordination
- ⇒ Collaborative Employee Communication and Engagement
- $\Rightarrow \ \ \, \mbox{Enhanced Sales \& Operations} \\ \ \ \, \mbox{Planning Integration} \\$
- ⇒ Customized Performance Integrated Management System (PIMS)
- $\Rightarrow$  Disciplined Item Rationalization
- $\Rightarrow \mbox{ Metrics Visualization, Timeliness,} \\ \mbox{ and Usability }$
- ⇒ Pragmatic Training and Onboarding Program

The Limble CMMS platform was incorporated into equipment maintenance processes with more modules now fully utilized. Work-inprocess flows, starting from raw material supply from central warehouse to production facility, were improved. With process compliance now measured and more tightly managed, Receiving and Shipping processes improved by incorporating quick response (QR) code usage and an appointments portal. Warehouse layout and equipment locations were tested and reconfigured to reduce wasteful movements, excessive work-in-process, potential mistakes, and safety risks.

Several cost savings impacts stemmed from Warehouse and Mezzanine areas including:

- Elimination of external warehousing needs and corresponding rental and maintenance costs
- Improved forklift move efficiencies allowing savings on forklift maintenance costs and supplemental forklift rentals
- Automated picking initiative targeting inefficiencies and picking mistakes

**5 Skills training and continuous improvement support**—The firm built its reputation on taking care of customers by taking care of employees. So, the Human Capital element of the engagement was more focused on perpetuating the positive culture and trajectory as the team grows. The team considered immediate and longer-term pressures, on employees and managers getting the work done, that come with growth. After isolating processes that could be better, the team embedded several new elements, creating a comprehensive support structure for people across functional groups. Several highlights included:

- Enhanced supervisory skills training driven by five newlydeveloped e-learning modules
- Operator cross-training on cases per pallet, packaging sizes, labeling controls to prevent mistakes, overfills, and excess spending
- Structured, formalized onboarding process—including a new interview framework to assess cultural fit
- Comprehensive job descriptions, pre-arrival communications, orientation sessions, new employee performance feedback, and peer coaches assigned to new hires
- Exit interview feedback loop, now including functional groups, to continuously improve company culture, employee support, and production processes
- Teamwork, coordination, and communication training—focused on understanding the genesis and decision-making steps emanating from the new assembly of metrics

## The Results

Through process improvements, better cross-departmental communication via PIMS system elements, more robust metrics, and timely, supportive training & coaching, the firm was able to achieve the following results (with more improvements around the corner):

- Overtime reduced by 39%
- Overall Equipment Effectiveness (OEE) improved by **70%**
- Throughput increased by 16% overall and continues to climb
- Engagement investment breakeven achieved within the 30-week collaboration duration as planned
- Trending at a 5.9 to 1 project return on investment (ROI)



## OWNER TESTIMONIAL

"The Trapped Value Analysis (TVA) showed us how much more efficient we could be.

The project approach was respectful and celebratory, admiring what we had accomplished, and yet, showing how much more we could do. We have doubled our efficiency and look to improving with item rationalization.

Thank you, Catalyft. Mission accomplished."

Owner and President