

PACKAGING MANUFACTURING EXPERIENCE CASE |

Procurement and Production Capability- Building



Accelerating operational performance and
cost containment in packaging





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Growing Through Add-Ons

Our time with a fast-growing, Private Equity-owned flexible packaging manufacturer focused on three main areas of improvement: procurement cost control, tech-enabled productivity, and forecasting & planning analytics. With sizeable costs falling into materials and labor components, we focused on building up the team's ability to control procurement spending, to make the most of their labor talents & equipment investments, and to manage their inventory through timely calibration analytics. While embedding these in-house capabilities, the team needed to develop a long-term continuous improvement culture, too.

The State Of The Firm

This firm started out as a flexible packaging division of a much larger conglomerate. After our Private Equity (PE) partner successfully orchestrated a carve-out with existing Management, they quickly added another flexible packaging firm a year after the initial carve-out settled.

With two prior successes working together, our PE partner asked us to look into their newly-combined portfolio firm they had held for 2 years. With the recent packaging add-on, the firm's US-based footprint included 2 production locations — with additional acquisitions anticipated in the near-future. The two divisions were now under a single parent with established management; however, they had very distinct products, different end-user markets, and their own home-grown business practices. The divisions operated in their own isolated worlds—using business practices created well before PE ownership entered the picture. Both were nicely attuned to customer needs and packaging trends (such as design aesthetics, environmental concerns, innovative materials, etc.); however, internal practices were overdue for optimization. The firm needed an infusion of analytics, process standardization, easy-to-use control tools, and practical training for increasing responsibilities.

When EBITDA growth started to slow, we were called in to understand where unexplored opportunities were hiding and the magnitude of change needed to get the firm back on track.

Understanding Opportunity | Trapped Value Analysis

To isolate new capability opportunities and define changes needed to grow EBITDA, we partnered with Management and a PE Operating Partner on an initial 4-week analysis. Scrutinizing key business functions (current procurement process & practices, Sales & Operations Planning, day-to-day operational performance, and technology usage) and deploying diagnostic surveys (respondents included suppliers, customers, and employees), we isolated the EBITDA-impacting opportunities tied back to operational and organizational constraints getting in the way of progress. With insights in hand, we sat down with our PE partners and



PACKAGING

Case Synopsis

- Building in cost controls and building up tech-enabled productivity capabilities across Sales, Procurement, Production, Maintenance, and Inventory

Client Profile

- **\$300M** U.S.-based flexible packaging manufacturer serving healthcare, food, telecommunications, and construction markets
- Private Equity ownership
- Firm originally a carve-out of large conglomerate and combined with another add-on packaging acquisition

Financial Results

- **14%** reduction in procurement costs
- **15%** reduction in inventory carrying costs
- **18%** reduction in labor costs

Operational Results

- **26%** increase in productivity
- **15%** reduction in waste and scrap
- **17%** increase in equipment uptime
- **32%** increase in planning accuracy

Organizational Benefits

- New Sales & Operations Planning (S&OP) capabilities, collaboration process and tool set
- Improved Inventory turns, data integrity, and calibration analytics
- Upgraded procurement process, negotiation training, spend control tools, and cost trend reporting
- Customized, easy-to-interpret visual factory cues on shop floor
- Improved maintenance services and work order system
- Embedded Continuous Improvement culture, constraint analysis tool sets, standard operating procedures (SOPs), and "Lessons Learned" knowledge management repository



Management to design and develop an Implementation Roadmap for accelerating EBITDA growth using the most promising levers surfaced during our Trapped Value Analysis. The collective team agreed this Implementation Roadmap outlined the best chance to accelerate performance in the near-term while building up longer-term organizational capabilities needed to keep paying dividends. With everyone in agreement and rallied around the Implementation Roadmap, we transitioned from analyzing the opportunity to fixing the issues.

Nagging Legacy Issues

The Trapped Value Analysis uncovered several performance constraints held over from the integration of the two packaging companies. The firm was working with legacy business practices — examples included passive procurement department responsibilities, reactionary maintenance programs, limited operating process standardization, and out-of-date data sets used to manage inventory levels. The team had no formalized Sales & Operations Planning function to tie resource planning and labor scheduling together with increasingly complicated sales demand. Most departments toiled away daily doing what they've always done — focused on their own understanding of job responsibilities without the benefit of training or any formalized way of sharing successful cost concession strategies, productivity enhancements, or emerging customer trends amongst the broader team.

While everyone worked within their own bubbles of influence to get the customer orders out, there were coordination and collaboration misses (Sales with Production, Procurement with Production, Inventory Management with Procurement, and Production with Maintenance). Within Production, shift changes produced more questions than they answered. Production schedules were not planned tightly enough to take advantage of equipment changeover opportunities. Machine Utilization averaged less than 50% due to downtime. Meanwhile, Maintenance worked in an ad hoc fashion — wrestling with equipment screaming the loudest or broken down on shift. This "firefighting mode" was crowding out Maintenance Management's capacity to properly develop work instructions for key equipment, provide active support for their team, and even check off the preventative maintenance plans they knew would help them to break out of this exasperating cycle.

Professionalization Of The Firm

Working collaboratively with Management across 50 weeks, the Implementation Team designed, developed, and stood up several standardized processes, management controls, new analytical capabilities, and role-specific employee training. Several key operational and organizational levers implemented included:

Sales & Operations Planning (S&OP) Process with Capacity Planning Tool - As a newly-assimilated firm, the in-house team needed much tighter communication between Sales and Operations to plan for demand, understand customer requirements, schedule orders, sequence products on production lines, and forecast labor & equipment production capacity. Crucial review meetings were structured to ensure the firm sensed demand coming their way, departmental representatives were empowered with newly-defined roles in the S&OP Review, and the team practiced a disciplined approach to navigating demand peaks and troughs with data.

To match labor and equipment capacity with demand, we developed



Catalyft Team's Past Experiences

25+
Packaging
Engagements
(Collective Team)

10
Spend Categories Optimized
(Procurement Engagement Avg.)

45
Weeks
(Procurement Engagement Avg.)

\$400M
Company Size
(Historical Avg.)

4.7 to 1
Packaging
Return On Investment
(Historical Avg.)



an in-house Capacity Planning tool for Management to model resource needs for every shift. This tool was crucial to balancing workloads, scheduling the right amount of talent, and ensuring overtime was planned. The Capacity Planning tool allowed Management to weigh options for every shift, using data, and select balanced crewing levels to meet customer expectations (while controlling labor cost).

Procurement Process Optimization — In this engagement, Procurement savings generated the lion’s share of the financial benefits and was a crucial component to perpetuating the savings well beyond our project timeline. The Implementation Team worked with Procurement — a very dedicated, hard-working but undertrained group — to ensure their incumbent supplier relationships were the most advantageous for the firm. They focused on 10 key spend categories across 2 savings waves. Transportation modes included: Rail Car, Truckload (TL), Less Than Truckload (LTL), and Maritime Shipping. Through the engagement, the firm developed a standardized spend analysis process with a customized modeling tool, a comprehensive contracts review process with a “Lessons Learned” component to share contract structure insights. Additionally, key supplier surveys were conducted to deeply understand intervening variables influencing Procurement processes (like comprehensive vendor offerings, outside perceptions of the firm, work flow protocols, data exchanges & information snags, and expert ways to tighten up supplier relationships).

The implementation team designed, developed, and conducted a Procurement training program to work in tandem with the firm’s now-standard process and tool sets. The program entailed spending analysis methods, indexing sources, S&OP responsibilities, negotiation training (in-person, on conference calls, and via web meetings), and supplier relationship management parameters (data requests, shared reports, supplier review meeting cadence, and constructive feedback disclosure). Taking the collective lessons within the firm and layering in our own expertise, the engagement empowered the in-house team to contain costs, better understand their influence on spend categories, practice comprehensive negotiation methods, and rely on data-backed insights to drive next steps.

Production and Maintenance Excellence —The firm’s path to productivity started with a more robust S&OP process using updated work-to-time relationships for labor and equipment capacity modeling. Yet, we all knew it’s following through on the plan, course-correcting quickly, and incorporating new insights that truly contained cost. Models must come to life. With production labor comprising the majority of the workforce here, the Implementation Team worked with Management to provide the shop floor with: a balanced workload, the right level of talent for each shift, KPIs that tied back to their Capacity Planner, just-in-time materials staging, and pithy shift change meetings to ensure each supervisory team was properly set up for success.

Furthermore, the Implementation Team sequenced production work based on takt time (matching the rate of customer demand for packaging orders) rather than on capacity to produce goods. This cut down overproduction problems (wasted space, risk of damages, materials stock-outs, etc.) Another important contributor to improved production flow involved revamping product changeovers. The Team applied Single Minute Exchange of Die (SMED) principles to production lines to dial in reasonable time periods needed to switch over production across categories, shared standardized changeover techniques for key equipment, ensured parts and tools were ready-at-hand, and trained the team on the latest changeover optimization techniques.



Partnering With Packaging



Key Points:

- ⇒ Collaboration with Private Equity and Management
- ⇒ Extending In-House Team's Reach
- ⇒ Trapped Value Analysis Output
- ⇒ Implementation Roadmap Development
- ⇒ Sales & Operations Planning (S&OP) Build-Up
- ⇒ Easy-to-Interpret Dashboards
- ⇒ Production and Maintenance Excellence
- ⇒ Procurement Capability Professionalization
- ⇒ Analytics-Based Inventory Control
- ⇒ Continuous Improvement Cultivation



Due to heavy use of equipment with all the permutations of machine settings, Maintenance was heavily involved with implementing these new changeover techniques. Yet, their influence on increasing uptime and machine utilization did not stop there. With Maintenance, the Implementation Team developed easy-to-update downtime logs for key equipment to capture slowdown and breakdown patterns. In addition to increased uptime, the logs helped with allocation of the Maintenance team's time, more efficient and effective Preventative Maintenance (PM) work scheduling, and more proactive Continuous Improvement efforts built into day-to-day performance. Additionally, the Implementation Team enacted a more practical work order process—incorporating updated work estimates, simplified work instructions, more useful maintenance trend analysis, and specific tactical maintenance supervisory training. Production and Maintenance interactions took on a more productive, respectful tone. Uptime improved.

Analytics-Based Inventory Control - With Procurement, Sales, Operations, and Maintenance practicing on working in synchronicity, the Implementation Team tackled several inventory control opportunities. While Inventory Management had a tight control on finished goods and an improving grip on work-in-process (WIP), they needed a better handle on materials (aluminum foil, paperboard, laminates, coatings, colorants, etc.) and accessories (caps, labels, shipping boxes, etc.). Focusing on aligning inventory control parameters with customer demand, the Implementation Team developed Economic Order Quantity (EOQ) formulas for key materials and accessories where applicable—including minimum / maximum inventory control limits and reorder points. By establishing and testing a custom EOQ technique, the firm improved inventory holding cost consciousness (components included storing costs, damaged goods costs, additional moving labor costs, and security costs). Additionally, inventory-related KPIs and easy-to-interpret, visual inventory signals were displayed at key workstations. These changes ensured risks surfaced quickly and Management took actions shortly thereafter to minimize cost escalation.

The Results

Through our collaboration (comprised of a 4-week Trapped Value Analysis followed by a 50-week Implementation Engagement), this packaging firm generated a 14% reduction in procurement costs over baseline, a 15% reduction in inventory carrying costs, and 18% reduction in labor costs (fully-loaded wage rates and overtime) supported by strengthened labor and equipment productivity increases trending at 26% improvement over baseline.

More importantly, the packaging firm now had the standardized processes, customized tool sets, and a highly-coordinated, professionalized team spanning across Sales, Procurement, Production, Maintenance, and Inventory Management. Data analysis, hypothesis testing, and agile implementation techniques were woven into the team's "day job". Rather than thinking of Continuous Improvement as a series of isolated, special events, the in-house team developed a healthy mentality for impacting Continuous Improvement in their everyday decision-making and normal course of managing the firm.

Considering operating indicators and financial results, we knew the engagement was successful. Yet, the most powerful proof was the fact that the in-house team took their newly-developed capabilities and continued to build upon them — after the Implementation Team had moved on — finding ways to get better well beyond our time together.



Our Way of Collaborating

Identify



2-4 meetings at no cost

- Discussion of issues
- Alignment around probable causes
- Framing of analysis scope

Qualify



3-6 weeks at cost

- Qualify opportunities with Operational Due Diligence (ODD)
- Quantify anticipated results
- Initial engagement design
- Key meetings: Launch, Opportunity Review, Solution Review, and Final Framing of analysis scope

Modify



4-8 months

- Final engagement design
- Execution of engagement design
- Realization & measurement of results
- Ownership & sustainability

Office Locations

NYC

One World Trade Center
Suite 8500
New York, NY 10007
212 220 3897

CHI

444 West Lake Street
Suite 1700
Chicago, IL 60606
312 260 9907

MIA

200 South Biscayne Blvd
Suite 2790
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305 925 8112

SFO

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Suite 2710
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415 636 7999

TOR

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11th Floor
Toronto, ON M5J 2N8
647 725 9662



Our Services



Enterprise Excellence

- Integrated Operational Performance
- Sales & Marketing
- Human Capital
- Margin Growth & Cash
- Information Technology Transformation



Operational Turnaround

- Cash Conservation & Liquidity Generation
- Contingency Planning
- Development, Review, & Implementation of Cost Reduction Initiatives
- Interim & Crisis Management
- Operational Reorganization



Organizational Analysis

- Mergers & Acquisitions
- Organizational Readiness Appraisal
- Trapped Value Analysis & Resolution Approach
- Our Commitment to Community — Pro Bono Advisory Services for Small Businesses & Education



Key Statistics

Clients' Historical Return On Investment (avg.)
4.8 to 1

Team's Collective Engagements (total)
1,496

Specialists: Years In Consulting (avg.)
21

Subject Matter Expertise (SME) Network (total)
900+

Team's Historical C-Suite Executives Roles (total)
39

Team's Career Training Sessions Delivered (total)
4,935

Supply Chain Cost Savings (avg.)
19%

Working Capital Unlocked For Reinvestment (avg.)
21%

Tech-Enabled Productivity Increases (avg.)
27%