

CASE STUDY

500 Basis Points of EBITDA Improvement Achievable in 12-15 Months

Client

- \$640MM valuation
- Manufacturer of fans, water heaters, ranges, window coverings and other HVAC equipment for the recreational vehicle market
- 4 divisions and 1 distribution center
- Target exit date in 12-15 months
- Some divisions growing, some not

Challenge

- How to aggressively capture value and stay on track for a 12-15 month exit. The operating partners knew that if they could quickly identify and act on the right value creation opportunities, they could significantly affect multiples in short order

Solution

- Conduct diagnostic, identify & quantify improvement priorities, develop & implement go-forward plan
- Identify full potential for production, product design, and distribution on base costs of \$390 million
- Optimize layout and processes to achieve full potential regarding to cost to serve

Results

- \$13 million / 500 basis points of improvement in EBITDA worth \$90 million in value creation
- 130 areas of savings across four sites
- Value added / value engineering projects worth \$7 million
- 61 operational improvement worth \$5.8 million

PE-backed portco accelerates value capture by prioritizing the right improvements to set the stage for aggressive value creation. Diagnostic identifies \$90 million in EBITDA achievable with supporting go-forward implementation plan.

When exit dates are looming on the horizon, PE firms seek to aggressively create and capture value before the sale. While there is a sense of urgency to make the final push, operating partners must be realistic about what can feasibly be accomplished in the remaining months.

We recently helped a PE firm that was looking to sell a portfolio company within 12 months to view its value creation opportunities based on the number of months it would take to complete.

Any projects requiring more than nine or 10 months to implement were left off the table. This allowed the operating partners to identify feasible projects instantly and more easily pick-and-choose the right opportunities that added up to the desired value in the allotted amount of time until exit.

We worked together to quickly evaluate a total of 130 different operational improvements, back-office process improvements, and VA/VE opportunities across five sites. This included a workable improvements bridge to realize \$13MM+ in savings over the next year with an estimated EBITDA impact of approximately 500 basis points.

Identifying Project Areas of Focus

The work began with a five-week diagnostic. TBM’s team spent one week in each of the portfolio company’s five locations (4 divisions and one distribution center) identifying and quantifying improvement priorities. We analyzed each category across savings levers. Everything was on the table including supply-led improvements (buying better) and operations-led improvements (processing and distributing better), and value added / value engineering improvements (designing better). (See Fig. 1).

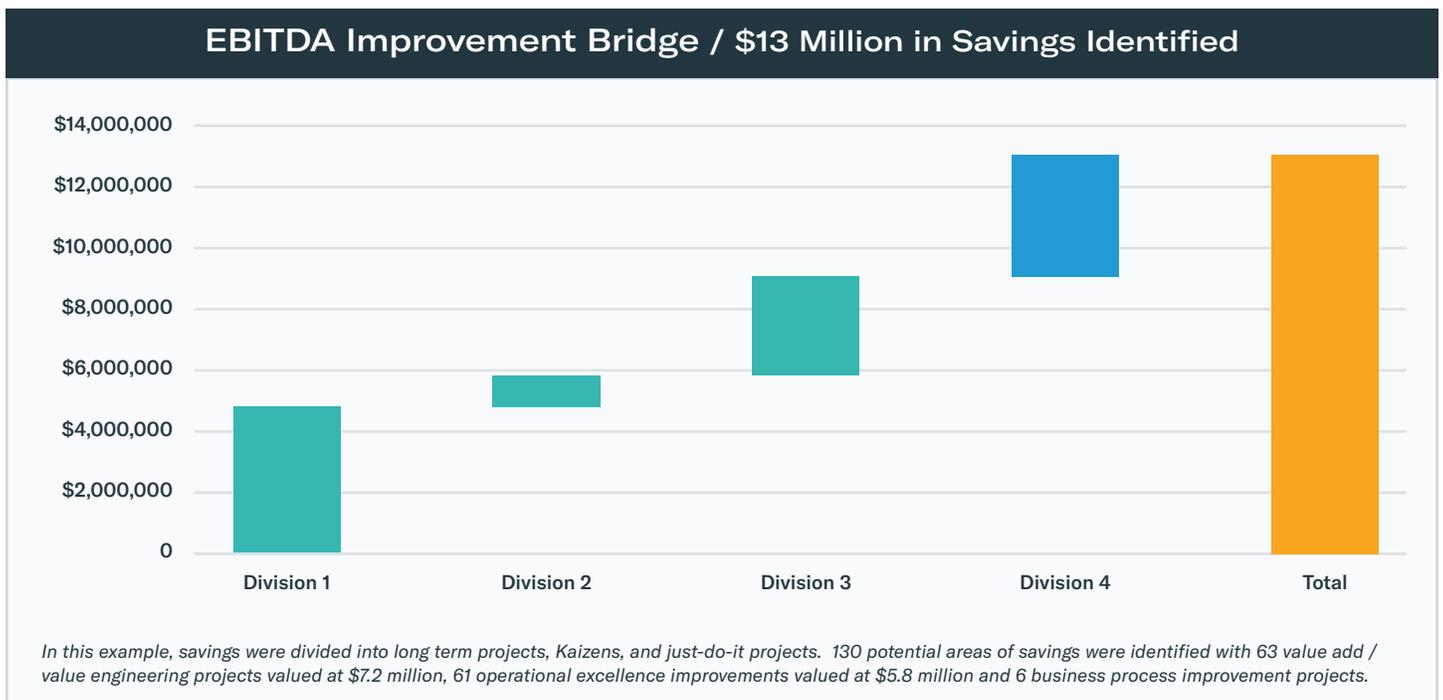
FIGURE 1

“Buy Better” (Supply Led)		Project Areas of Focus		
		“Spent Better” (Operations Led)		
Best Practice	Volume Allocation	Demand Control & Compliance	Specification	System Cost Reduction
<ul style="list-style-type: none"> Negotiate prices Revise terms & conditions Manage price risks 	<ul style="list-style-type: none"> Consolidate (local, regional or global) Vendor development Use sourcing networks 	<ul style="list-style-type: none"> Control demand Enforce compliance 	<ul style="list-style-type: none"> Part specification Value engineering 	<ul style="list-style-type: none"> Value chain – Total Cost of Ownership Collaborative improvement Optimize value-add in supply chain

We then identified full potential and created a bottom-up view to focus on immediate benefits. Our analysis started with actual performance and identified initiatives that would close the gap to full potential. We then identified and eliminated non-controllable factors that would make it impossible to achieve a “theoretical” full potential.

We then presented an EBITDA bridge that identified \$13 million in savings achievable within 12-15 months. (See Fig. 2). This included an analysis showing the return and feasibility of as many as 130 potential projects.

FIGURE 2



We divided the projects across the four manufacturing sites and grouped them into three key categories:

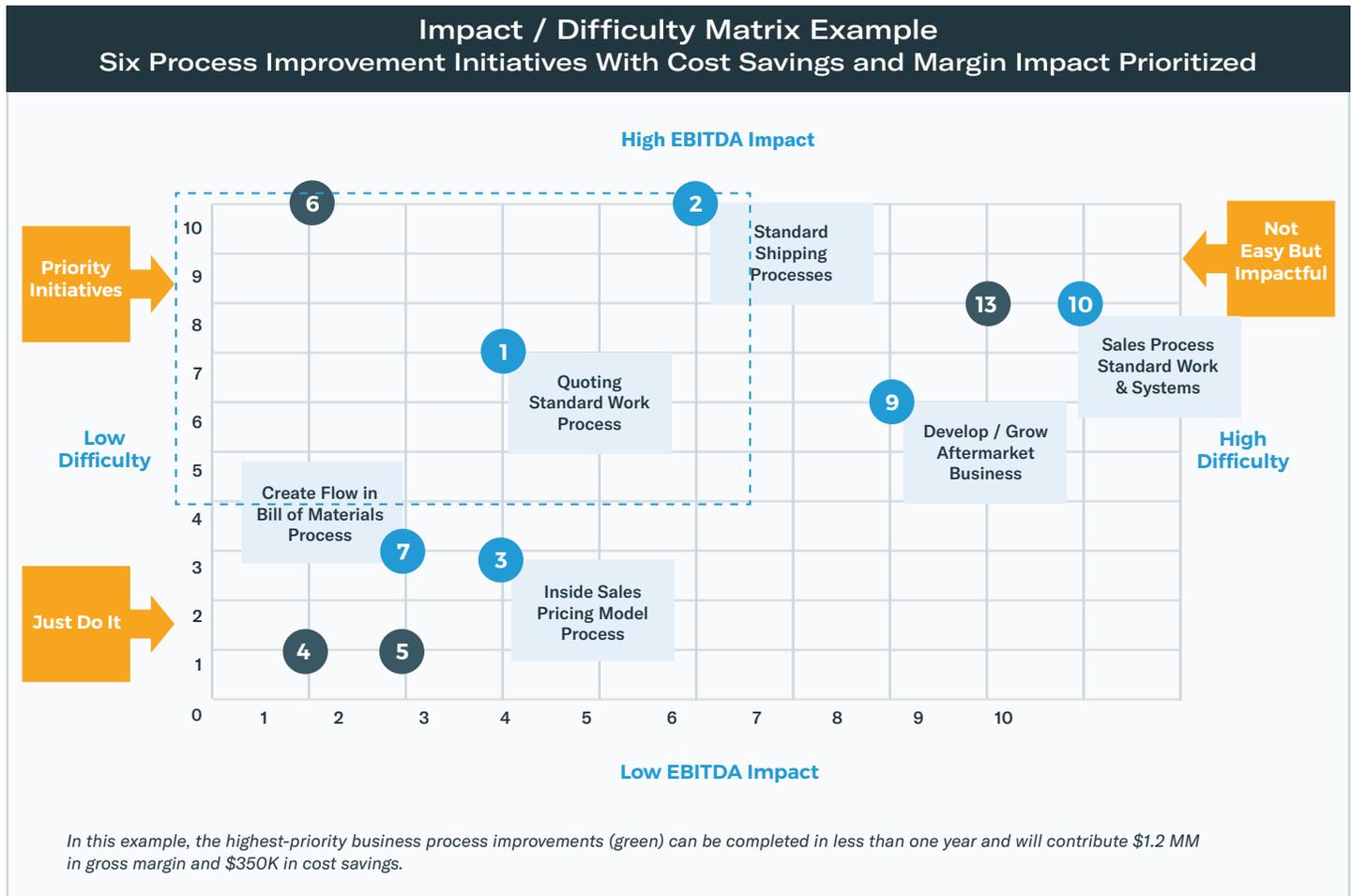
Impact	Projects	Category	Detail
\$7.2 Million EBITDA Impact	63	Value Add / Value Engineering	<ul style="list-style-type: none"> • Often overlooked by PE firms because it involves fundamentally changing the way a product is designed or altering the components and materials used. • Included quick wins such as screw counts or removing plastic bags from a component. • Represented significant opportunity for margin improvement.
\$5.8 Million EBITDA Impact	61	Operational Improvement	<ul style="list-style-type: none"> • Spanned processes across the portco from floor line balancing to SMED / Changeover and distribution and shipping. • Optimized layout and workflow to lower cost to serve as much as possible while identifying the right metrics to track and ensure productivity and efficiency.
\$350K	6	Back-Office Administrative Processes	<ul style="list-style-type: none"> • Developing sales processes standard work and systems. • Often the most challenging due to the resources and skill sets required.
\$13 Million	130		

The key actions required included kaizen events and targeted projects that focused on:

- Line balancing and cell design
- Set-up reduction
- New product development processes
- Management system enhancement and/or implementation using MDI (Managing for Daily Improvement) in all sites.
- Value add/ value engineering at all sites
- Layout and workflow improvements
- Developing sales processes, standard work and systems

To help visualize impact and priority, we created an impact/difficulty matrix (See Fig. 3), that plotted the EBITDA impact of each process improvement initiative. In this example, the horizontal axis shows the months to implement. We left off any initiative requiring more than nine or 10 months to bring to fruition. At a glance, the operating partners could see the biggest winners—the priority projects falling into the high impact/low difficulty upper left-hand quadrant of the matrix. They could also see their quick wins as well as the initiatives that would require some additional support to execute, but would ultimately be well worth the effort.

FIGURE 3



Relentless Focus On Implementation Speed Is Moving Value In The Right Direction

The final step was to put the improvement projects into action. The PE firm knew it would need help to tackle everything on the list, including some of the highest-impact opportunities. Keys to success have included working at the point of impact to address the low-hanging fruit as quickly and efficiently as possible while outsourcing projects that require more skill and resources.

By doubling up and executing projects in parallel, the portfolio company has already realized some quick wins and is accelerating gains across all of its locations. The PE firm is on track to unlock and realize the full value creation opportunity on schedule.

For those projects that require a more concerted effort, the keys to accelerating the value creation process include:

1. Executing more projects in parallel
2. Working at the point of impact
3. Putting the framework of the solution in place quickly
4. Tracking progress and making it visible
5. Firing on all cylinders

CASE STUDY

Improvement Spotlight: Water Tank Design Simplification Saves \$1.6 Million

Tooling for a high volume water tank needed replacement. The original design was complex and had a higher-than-usual failure rate. Together with the client, we simplified the design, reduced material and labor costs, and reworked the manufacturing process for water leak detection to improve the velocity of the final assembly line.

A kaizen team identified warranty, internal quality and scrap as top issues to address. We divided the water tank improvement process into two phases that took a total of nine months to complete. The total annualized savings from the improvement process was \$1.6 million.

Results of Value Add / Value Engineering Improvements Implemented in Nine Months | 16-Month ROI

Impact	Annualized Savings	Estimated Capital	ROI (Months)
Phase 1	\$843,000	\$835,000	12
Phase 2	\$802,000	\$1,345,000	20
TOTAL	\$1,645,000	\$2,180,000	16

About the Process

We use an 8-step value add / value engineering methodology to ensure that products are designed for manufacturability, assembly, serviceability, and sustainability.

1. Align team on project charter and VA/VE methodology
2. Verify voice of customer and voice of business engineering requirements
3. Evaluate and benchmark competitor designs
4. Evaluate and identify manufacturing process approaches
5. Brainstorm improvements and concept development
6. Prioritize improvements and conduct feasibility evaluation
7. Finalize changes and verify impact on safety, quality, delivery and cost
8. Develop go forward implementation plan

Learn more about TBM's Private Equity Services for Operational Due Diligence and Accelerated Value Creation. [→](#)

Speed wins every time.

TBM specializes in operations and supply chain consulting for manufacturers and distributors. We push the pedal down in your operations to make you more agile and help you accelerate business performance 3–5x faster than your peers.

