

5 HIDDEN COSTS IN ATTEMPTING TO DO YOUR OWN CUSTOMIZATION

Manufacturing operators are, by their nature, a confident, “can-do” bunch. Don’t mistake their confidence for hubris or arrogance – they’ve earned every stripe they wear and can justify that confidence with solid, factual examples of process improvement, cost reductions, and delivering the highest quality consumer goods to retail against compressed timelines, external delays, and wildly inaccurate forecasts. They have, as the saying goes, “done so much with so little for so long that they are now qualified to do anything with nothing.”

But that confidence can sometimes be a manufacturing organization’s downfall – particularly when it comes to product customization. Product customization, loosely defined as any changes that are made to a product between the end of the manufacturing line and the retail shelf, often represents upwards of 30% of a Fast Moving Consumer Goods (FMCG) company’s annual sales. And that number grows every year.

The problem is that when customization challenges are brought to the product supply organization for feasibility, those justifiably-confident manufacturers too often step up and declare “we’ve got this!” and the customization project is sourced “in house.” This practice creates a number of potential pitfalls, ranging from relatively minor delivery challenges all the way up to catastrophic impacts on the manufacturer’s base business. But regardless of the success or failure of the specific customization project, one thing is almost universally consistent: the total delivered costs exceed even the most conservative cost estimates.

These common “blown budgets” aren’t due to negligence or lack of planning on the part of those aggressive operations leaders. The projects invariably looked good on paper or they wouldn’t have gotten approved. Instead, missed customization budgets are almost always caused by several hidden costs of customization that only the most experienced customization experts can identify.



SPACE

Customization projects require significant square footage, proper product flow and more storage than both the base products and packaging components combined. Customized products are almost always “fluffed up,” meaning the customized finished good has more volume – usually in the form of air and corrugate – than the base products. Customization lines are often manual and slow, requiring long conveyor runs, several feeder conveyors, product staging areas, and trash handling areas.

Even when properly estimated, the space rarely comes at zero cost. Product and equipment may need to be moved, requiring forklift driver time, mechanic or technician time. Relocated product and equipment is often put on storage trailers or into temporary warehouse space, both coming with high price tags. And once the project is completed, all of those moves must be reversed adding more cost.

OVERTIME



Bloated manufacturing organizations simply don’t exist today. FMCG margins are so thin and retail pressures are so high that manufacturing teams are as lean as ever with limited bandwidth for additional projects. When customization opportunities are presented, there are no Special Projects teams waiting around for something to do. The solution is usually to work longer hours. That demand flows straight down the org chart and ends up creating significant, unplanned overtime for the most expensive hourly employees in the building: mechanics, material handlers, equipment operators, quality technicians, etc...



LABOR MANAGEMENT

As previously stated, customization projects are usually very labor intensive and most manufacturing plants are not set up to handle massive spikes in plant headcount. A plant which usually employs 100 associates on a given shift may need to figure out how to handle hundreds more during a major customization initiative.

Is there adequate parking? How big is your breakroom? Do you have enough tables, chairs, and lockers? Do you have enough microwaves to allow 200 people to heat up lunches on a 30 minute lunch break? Can your security process and staff handle the hundreds of incremental personnel entries and exits each shift? How many paid minutes of labor will you incur each day while your temporary labor staff walks from their remote parking lot to the corner of the building where you've decided you're going to perform customization? Each of these questions - and there are dozens more - requires additional spending in order to be able to answer yes.

PRODUCTIVITY LOSSES



Driving operational efficiency on a mostly manual customization line with temporary line workers is very different from driving efficiency on an automated or semi-automated line. It requires years of specific experience that today's high speed, automated manufacturing experts don't possess. It can take weeks of continuous operation to understand the nuances of manual assembly work and most customization projects don't last that long. By the time an operator without specific manual line efficiency improvement experience masters the process, the project is over and the next project, with a whole new set of challenges, starts up. The cycle continues...



THE **BIG** ONE: CORE BUSINESS DISTRACTION

The biggest hidden cost of trying to do your own customization is usually the hardest to identify. It's often not even apparent until weeks or months after the customization event has finished. That cost is the impact of reduced focus on your base business while your operations teams are focused on your one-time customization event. Imagine what even a 5% reduction in operating efficiency would cost your business. An unavailable mechanic, a short-staffed line, a delayed decision from a distracted supervisor, an inexperienced operator being forced to step into a role vacated by someone focused on customization - all contribute to those devastating base-business losses.

Decision Time

Now that you understand some of the hidden costs of customization, how can you better make decisions to meet your business' customization needs? Simply by knowing the total delivered costs of your internal customization option will allow you to better compare your external options. Some basic whiteboard math demonstrates this easily...

Without knowing hidden costs:

The whiteboard shows a comparison between 'IN HOUSE' and 'OUTSOURCE' options. The 'IN HOUSE' section lists: LABOR = \$10/HR x 40% MARK UP = \$14/HR; HEADCOUNT NEEDED = 25; LINE SPEED = 30/MIN. A horizontal line separates this from 'COST/PIECE = \$0.194/PIECE', which is circled in red. The 'OUTSOURCE' section lists: CPG QUOTE = \$0.22/PIECE, also circled in red. A large red 'X' is drawn over the entire whiteboard content.

<u>IN HOUSE</u>	
LABOR = \$10/HR x 40% MARK UP	= \$14/HR
HEADCOUNT NEEDED	= 25
LINE SPEED	= 30/MIN
<hr/>	
COST/PIECE	= \$0.194/PIECE
<u>OUTSOURCE</u>	
CPG QUOTE	= \$0.22/PIECE

Wrong Decision: **BRING IT IN HOUSE!**

Knowing hidden costs:

The whiteboard shows a comparison between 'IN HOUSE' and 'OUTSOURCE' options, including hidden costs for the 'IN HOUSE' option. The 'IN HOUSE' section lists: CLEAR OUT SPACE NEEDED = \$600; MAINT., QL, SUPERVISOR + OT = \$3500; OEE LOSS (20%) = \$2900; INFRASTRUCTURE = \$900; RETURN SPACE = \$600. A horizontal line separates this from 'AMMORTIZED OVER ENTIRE VOL. = \$0.11/PIECE'. Below that, 'TOTAL IN HOUSE = .11 + .199 = .384'. The 'OUTSOURCE' section lists: CPG QUOTE = \$0.22/PIECE, which is circled in red.

<u>IN HOUSE</u>	
CLEAR OUT SPACE NEEDED	= \$600
MAINT., QL, SUPERVISOR + OT	= \$3500
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AMMORTIZED OVER ENTIRE VOL.	= \$0.11/PIECE
TOTAL IN HOUSE	= .11 + .199 = .384
<u>OUTSOURCE</u>	
CPG QUOTE	= \$0.22/PIECE

Right Decision: **OUTSOURCE IT!**