Manufacturing Footprint Optimization

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Chances are, your competitors are quickly rightsizing their manufacturing footprint in response to today's deteriorating global market conditions. Improving operations within facilities is likely not enough. In order for companies to be competitive in this economic environment as well as going forward, manufacturing footprint optimization (MFO) will need to be a strategic priority.

What Exactly Is MFO?

In short, it is a way to dramatically reduce costs and improve operations by optimizing a company's manufacturing footprint. This optimization could include any combination of equipment moves, volume transfers and plant rationalizations. When implemented effectively, MFO drives major, measurable improvements in operating and financial performance.

MFO also allows companies to significantly reduce supply chain cost and complexity, increase utilization and improve EBIT. In today's economic climate, it is especially important for companies to appropriately address their footprint, including any overcapacity issues, while they prepare for the eventual recovery.

Oftentimes, however, companies make costly mistakes when attempting to improve their footprint without employing sound MFO principles. This typically results in only modest value creation, since hidden opportunities go uncovered (e.g., some facilities may be closed that really shouldn't be while other facilities that should be closed remain open).

For example, companies may focus on closing those facilities that have negative or declining EBIT, when this could be due to other factors such as product mix and customer proximity.

Overall, a good MFO methodology can be categorized into 3 distinct phases: (1) strategy development, (2) implementation planning and (3) execution.

Strategy Development

In the strategy phase, companies need to develop a customized, dynamic financial model for the purpose of measuring several MFO scenarios.

This model serves as the core analytical engine — it helps ensure optimal decisions and predictable financial results. It captures the full range of footprint cost-drivers at the facility, line and shipment levels. Furthermore, it enables rapid scenario analyses and decision-making, with input from the company's management team.

The criteria for footprint moves include both "hard" and "soft" items. The "hard" criteria include fixed-cost impact (e.g. facility rationalization), variable-cost impact (e.g. wage arbitrage) and one-time transition costs (e.g. personnel costs). The "soft" criteria include plant productivity, strength/depth of the plant management team, plant experience with certain technology and availability of skilled labor.

In addition to the core MFO project savings, a useful initiative to run parallel to the strategy development is to identify (usually intuitive) "quick hits." The results of these initiatives are fast, savings that don't rely on a full project.

When the MFO model is completed, the project team can begin designing and testing multiple network options. Each option is defined by inputs (i.e. what is produced where and when) and resulting outputs (i.e. unique P&Ls and cash flows).

The final step in the strategy development is to get senior management and/or board approval on the best MFO option for the company to pursue.

Implementation Planning

The implementation-planning phase involves dedicated program management and pre-announcement planning.

The program management team has several responsibilities including agreeing upon an overall program management structure; developing a weekly cadence; monitoring risks and issues, and ensuring they are resolved at the appropriate levels; coordinating across functional areas; and providing clear visibility into progress and results.

The typical starting point of the implementation planning phase is the high-level, sequenced plan of equipment moves, volume transfers and plant rationalizations that come directly from the approved strategy. In this phase, the program management team takes this plan and develops more detailed planning.

Other key components in this phase include: communication planning, personnel-transition planning, detailed work plan development, budget development, inventory planning (for equipment transfers), facility planning (building infrastructure) and regulatory planning (tax, permits, environmental).

Execution

In this final phase, the program management team should manage the overall work plan to ensure that improvement initiatives are tracked and results delivered — on-time and on-budget. The value of dedicated, experienced resources during execution can be measured in terms of the efficiency (e.g., time savings) in which

the project achieves full run-rate savings. It is not uncommon to achieve significant monthly savings through MFO; therefore, it is prudent to align the right resources to achieve full run-rate benefits as quickly as possible. A month delay is a month lost, not deferred.

Functional “deep dives” should also be conducted to monitor and drive execution, and to ensure all relevant issues are addressed and elevated (to senior management) as necessary. Deep dives should cover areas such as finance, labor relations, engineering, purchasing, quality, logistics, rigging and customer communications. For example, in a deep dive focused on rigging, the goal would be to conduct a comprehensive sourcing process in order to obtain the best quality, lowest cost provider for all equipment moves.

Finally, various scorecards should be utilized to ensure on-time, on-budget implementation. Typical scorecards include a financial tracking tool, milestone matrix, personnel transition tool, production and inventory tool, and logistics compliance scorecard.

Complexities, Challenges, and Critical Success Factors

In spite of the detailed planning, all MFO moves will involve a certain level of complexity — from union issues to stringent testing requirements to cross-border relocation. However, a significant amount of cost risk is typically eliminated simply through cross-functional teamwork between the various functional leads.

In addition to the inherent complexity, there are also several challenges that companies should be aware of when implementing MFO. Some of these challenges include:

- Developing broader labor strategy — relevant when dealing with union facilities.
- Implementing tight controls on financials to meet or exceed budget, and to avoid additional costs without corresponding mitigating savings.
- Monitoring and addressing status of critical employees — substantial risk exists in following “business as usual” processes.
- Streamlining testing requirements to avoid long delays in the move timeline.
- Ensuring customer communications are conducted in a timely manner to avoid surprises and/or unanticipated delays.
- Enforcing logistics plan including transition to alternative modes of transportation (e.g. rail) in a timely manner.
- Identifying and capturing purchasing opportunities.

There are several critical success factors required in order to effectively implement MFO — true support and active leadership from the company’s executive level; an integrated program-management team that drives the process; dedicated, focused people from the company to provide necessary analytical support, drive results and ensure successful project execution; and frequent communication between all involved parties (company and customers, closing/receiving facilities and suppliers)

to ensure smooth operations throughout.

In summary, it is critical now more than ever for manufacturing companies to effectively optimize their footprints. MFO, when successfully executed, will not only unlock breakthrough value but also enable companies to win against their competitors in today's hyper-competitive world. It should be a key element of your "must-do" plan.

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