The Foundations of Operational Excellence

How to Create Your Company's Ultimate Process Playbook

Written by: Gregg M. Schoppman, Partner, FMI Corporation

Operationally superior engineering and construction (E&C) firms continuously implement changes to processes and procedures to make sure they're operating at the highest level.

Creating an operationally superior E&C firm, whether you're a general contractor or a specialty trade contractor, takes diligence, continuous review, and constant changes to processes and procedures.

Often companies that embark on such an undertaking end up with a manual or process document and feel like they can stop there. But doing that initial work is just the beginning.

In our first article about the best practices that define operationally superior organizations, we discussed preconstruction and the importance of reviewing processes, even when companies are profitable. In the second part in our series, we talked about best practices on jobsites or in the field to improve productivity, safety, and customer satisfaction. Here we discuss how to make sure you're reviewing processes and procedures to improve and implement best practices.

Leveraging Processes for Continuous Improvement

One of the biggest mistakes companies make is relying too much on stodgy operational manuals, rich with processes but light on depth and real solutions. For instance, there is an overreliance on checklists. You can't just follow a list to truly be operationally superior. You do need procedures to guide you, but you can't just check a box. Checklists are just one piece in the overarching process.

Processes are not perfunctory steps that can be pencil-whipped, but rather tipping points for real problem-solving.

Workers must be trained to see the checklists, steps, and processes as prompts on what to examine and where to start questioning if the work will accomplish the goals. You have to put thought into where you are in the project and what needs to happen next to deliver a successful outcome. Every action has a reaction, and these steps within the checklist should be prompts to help managers and superintendents alike to proactively anticipate issues and challenges.

Consider the concept of the handoff meeting. How often have managers run through this checklist, knocking items off with relative ease? Plans — check. Specifications — check. Submittal — check. It can't just be about specifications or plans, but rather the intricacies of the plans, the challenges of the specifications and, ultimately, how the team will craft a winning strategy.

Best-in-class organizations understand the definitions of production, productivity and profitability. More importantly, they recognize that while there are some similarities, these three words are not equal.

Going through the motions is not enough. You need to think, ask questions, and articulate solutions. Leaders need to hold workers accountable for thinking through the work.

Production is defined as total output. It doesn't consider the resources it takes to generate the outcome or product. For example, a crew installs 1,000 feet in a day. If 10 people were assigned to the job, this might be a high level of production — but it might not be the most efficient way to accomplish the work.

Productivity, the total output divided by the total input, measures how effectively a project is being completed. At some point you can have too many people on a jobsite, and their output suffers from lack of space or other resources. There may be a law of diminishing returns for having excess resources on a project.

That same pipe crew may be able to install 1,000 feet of pipe with only four workers, improving productivity and leaving workers available for another job.

Profitability is money made on a job, but that isn't always a direct result of better productivity. If a mistake is made in the estimation stage of a job, the actual crew doing the work may be productive, but the job still generates a loss. This speaks to a company's ability to manage a job from bid to completion. However, companies that fail to characterize the successful transitions from phase to phase can mask errors and ultimately fail to recognize where the true inefficiency lies.

Operationally superior organizations understand the difference among these three concepts and pay attention to all of them. They have different measures for success for each, maximizing their resources and making sure projects are profitable throughout the job cycle. Most importantly, they do not use them interchangeably or synonymously, but rather in a targeted fashion to describe superior performance.

There is an operational playbook that is used to manage projects. It guides them and provides structure but also allows for true project strategy.

Great companies have a playbook to provide the structure to make sure everyone is working in the same manner, and outcomes aren't left to chance or individual preferences. Standard operating procedures or operations manuals are used to hold people accountable to how work is done and ensure consistent quality and outcomes. Most importantly, an operations manual must be viewed as a series of guardrails and guidelines, not optional practices.

We sometimes use the example of Starbucks to illustrate this concept. You can walk into any one of the more than 33,000 stores in 80 countries and get the same cup of coffee. It can be tweaked to individual preferences, but essentially, the product is the same because everyone understands the desired outcome and utilizes the same procedures. In construction terms, that is the difference between having 12 project managers working from their own playbooks versus following one standard procedure manual for jobs.

Any processes and procedures must be updated with regularity to ensure they are germane and applicable to new trends, niches, clients, and workflow.

Once the operations manual is created and in use, it's time to review it. Many of our clients complete the implementation process and think that's the end. But operationally superior organizations are constantly reviewing their processes and procedures to find ways to better serve clients, improve efficiencies and make sure they're finding productivity improvements. There is a continued evolution in process management that mirrors the applications on a smart device (1.0, 1.2, 1.3, etc.).

Monitoring Key Metrics

Earned value allows project managers to objectively measure project performance. For our contractors, we take into

consideration the estimated units and hours versus the actual units and hours to determine if the project is on track or behind.

Productivity is monitored daily. The concept of earned value is the gold standard by which these contractors measure efficiency.

The advantage of earned value is that it focuses on the most important variables for project success, allowing project managers to quickly and accurately understand the current state without distractions and extraneous metrics. Ultimately, earned value gets to the heart of performance by charting efficiency and effectiveness.

The second critical advantage is that it's easy to show graphically and disseminate across the organization and the field in terms that are easy for everyone to understand. For example, telling a field supervisor he or she has $20,000 of work to do may not resonate as much as articulating the work as having 2,000 feet of pipe to lay or 2,000 hours of install left.

Productivity performance is shared throughout the project team with the emphasis on controllable items such as productivity rates and earned value.

Operationally superior organizations focus on demystifying what is being measured and how people are held accountable for jobs. The entire team needs to understand a few core metrics such as productivity and earned value. These are measured transparently and shared across the field and office teams. If nothing else, a little healthy competition — draped in safe performance — isn't a bad thing.

Project records are maintained with constant rigor and follow the firmwide policy or playbook to ensure precedence and consistency.

This might sound simple, but knowing where files are kept and having access to them ensures everyone can easily follow the processes and procedures you've worked to develop and implement.

Superior organizations have a level of standardization across teams so that projects can be quickly handed off and are easily understood by anyone.

This helps if there's turnover, and it is especially important for documenting large, complex projects.

The Discipline Is in the Details

Having standard processes and procedures needs to extend beyond the project level down to how you manage the details that go into each project. This includes equipment utilization and general conditions on jobsites.

Firms that use equipment — rented or owned — focus on utilization. Regardless of who owns the equipment, the usage is scrutinized, and if a piece is not being used, it is taken off rent to avoid excess charges and costs.

Part of process discipline is understanding why equipment is being used, how often and the business case for owning versus renting. Would upgrading or utilizing a different piece of technology reduce downtime? How often is equipment idle?

You need to have good utilization on jobsites, and when items aren't in use, they should be properly stored or leased to another contractor. Having discipline managing equipment signifies a clear understanding of your processes and helps ensure productivity is maximized.

Empowering your employees to ask critical questions extends to this level of detail. Should a piece of equipment be owned or leased? Employees need to be empowered to think critically, continuously review usage, and propose alternative management strategies.

Project general conditions are monitored and married to the overall schedule on a routine basis to ensure the burn rate matches the allotment.

Take stock of what is going on around the jobsite to make sure you're not eating into your margins by not diligently monitoring fixed costs.

For example, review your general conditions. Do you need two office trailers to complete the punch list? Could some of your people and equipment be utilized on another project more quickly to improve efficiency?

This is especially important for large projects that often get extended. It's easy to leave everything in place until the job is finished, but those costs could hinder your efficiency and erode margins.

Focus on Continuous Improvement

The easiest place to start on continuous process improvement is developing a playbook or standard set of practices. Once those have been implemented for a period of time, review and assess if they're working.

Empower your project managers, superintendents, and field workers to think critically, ask questions, and truly evaluate jobs for efficiencies and productivity. Reporting clear and easily comprehensible metrics will help everyone recognize where improvements can be made.

Operationally superior organizations are constantly evolving and adapting to changing conditions with clear goals and ways to measure progress.

About the Author

Gregg M. Schoppman is a partner at FMI Corporation, management consultants and investment bankers for the construction industry. Schoppman specializes in the areas of productivity and project management and leads FMI's project management consulting practice. Prior to joining FMI, Schoppman served as a senior project manager for a general contracting firm in central Florida. He has completed complex construction projects in the medical, pharmaceutical, office, heavy civil, industrial, manufacturing, and multifamily markets. Schoppman has expertise in numerous contract delivery methods, as well as knowledge of many geographical markets. Contact Schoppman at gregg.schoppman@fmicorp.com.

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