



PRODUCT LINE & SERVICE DELIVERY

MANAGEMENT OPERATING SYSTEM (MOS)



February 2018 Spotlight

Management Operating System (MOS): Why Every Company Needs One for Performance Improvement

About Us

Synergetics is a privately held New England-based Management Consulting firm established in 1975. With office locations in the US and UK, Synergetics operates internationally and employs over 150 professional analysts, consultants, project managers, and subject matter experts.

As one of the largest "Implementation Consulting" organizations, Synergetics has completed over 1,600 business process engagements across nine distinct verticals to build more than \$8B in bottom line profitability and improve overall operating efficiencies. Synergetics works with a diverse client portfolio of leading industrial and service corporations across Private Equity, Small and Medium Enterprises, and Fortune 500 Companies.

With customized services and solutions, Synergetics performs hands-on detailed management, financial, and operational assessments to develop and deliver specific cost savings and revenue enhancement initiatives.

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"Synergetics was a good partner for Atrium in the extension of our change management initiatives. We were extremely pleased with the collaboration — from assessment, design, implementation of process improvements, and the follow-up. Synergetics quickly mapped out a best practices approach for our manufacturing business, MOS, and performance measurement model. They engaged the team from operators, to line managers / supervisors, and to senior leadership for an efficient execution and implementation. We realized results in cost control, productivity improvements, improved operational efficiencies, and quality."

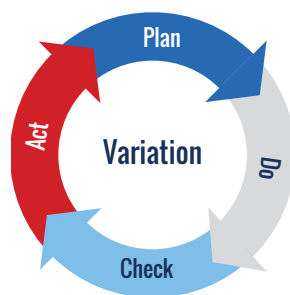
Dan Kohler, Exec VP
Atrium Innovations Inc



INTRODUCTION

The focus of this Spotlight article centers on improving a business's operational performance, and how **implementing a Management Operating System can best measure steps throughout the production process for increasing efficiency.** As every business typically has some type of MOS, many are often lacking in range and rigor. It is important for a company to step back and evaluate its MOS maturity and success at creating value. An effective system improves communication, decision making, customer service, quality and overall performance to reduce waste and drive down costs. If not, changes must be made.

In the broadest sense, an MOS is set up and based upon a methodology that utilizes a set of tools and standards specific to a process to **create value and drive results, all the while increasing efficiency** and performance improvement. It is based on the **Plan, Do, Check, Act** Improvement Cycle, and having such a process in place is key to maintaining a company's long-term viability.



Over the next few pages, we will further define an MOS and its role in operations, the importance of each step in the process flow, and how to set-up and implement specific to the particular business. The last section will highlight an actual engagement describing a successful implementation, results achieved, and the impact for a growing organization.

MOS: FURTHER DEFINED

Having a Management Operating System in place aligns staff and management at all levels with a **consistent focus on performance and Continuous Improvement.** It provides timely information against "standardized," or key, indicators for each business component that allows for immediate, corrective action to be identified and implemented. Having such a system operational fosters enterprise-wide communication and creates transparency, as **it integrates People, Process, and Product across all business components.**

Key Qualities That Define a Management Operating System

- ✓ Consistent and effective management and control over operational processes
- ✓ Components for planning, assigning and following up on work production, quality, and other key performance indicators
- ✓ Specific behaviors and skills desired for effectively managing individuals and teams → setting expectations
- ✓ Visualized targets compared to current situation
- ✓ Work towards agreed upon targets, allowing direct corrective actions to be taken
- ✓ Promotes resolution of performance issues as they occur
- ✓ Contributes greatly towards standardizing processes
- ✓ Provides the foundation for Continuous Improvement

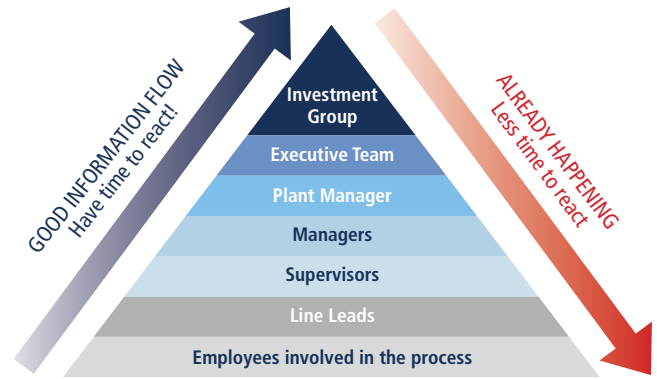


MOS: Who & When

The organization as a whole must be involved in all aspects of the company's MOS in order for it to be successful. This involvement would include:

- choosing conceptual purpose / components in the planning phase;
- incorporating tools/best practice methodologies for standardization in its design phase;
- implementing system measures and following all requirements;
- assessing effectiveness and improving upon areas where deficiencies are noted; and
- adopting it as a culture committed to quality and Continuous Improvement.

While Senior Leadership must set the direction for the company from the top, everyone must then support and manage the operation from the bottom up.



Although it is to the company's benefit to adopt and implement an MOS and its principles early in a business's lifecycle, it is never too late. It should always be changing and reinventing itself. But once established, it is important to devote resources to the Continuous Improvement of that process, rather than focus all resources on a new process.

MOS: A Summary of Key Points

What MOS IS

- Methodologies and tools for managing any operation, function, or process
- A structured approach to forecasting requirements and controlling outcomes
- Visibility to issues that hinder performance and scalable growth
- Enablement for Continuous Improvement

What MOS IS NOT

- **Not** a substitute for problem solving, decision making, or corrective action
- **Not** an undue burden for managers and staff to utilize
- **Not** a software application
- **Not** a canned solution that is easily implemented and sustained

BREAKING DOWN AN MOS TO ITS ESSENTIAL ELEMENTS

It is easy to see that the MOS cycle diagram resembles that of the PDCA Improvement Cycle, but we have added the additional "step" of *Forecast* to enter and begin the process. Areas such as Sales & Marketing, Demand Planning and Supply Chain are all examples that would also be integrated within an MOS.

When it comes to developing and utilizing a Management Operating System, we are more likely to associate it with a manufacturing or production line, where we also see LEAN methodology applied, along with maintaining / switching out equipment, and measuring labor efficiencies. However, an MOS can also be designed and implemented for other non-production areas, where following processes and comparative benchmarking data are just as relevant. **Projects centered on SCM / Procurement / Strategic Sourcing / Distribution, Capacity Planning, Scheduling, or a process involving sales orders, are all areas that would easily utilize an MOS.**



FORECAST

Having the ability to Forecast helps management plan for the future, relying mainly on past and present data along with analyses of trends. A production facility must know what product to make and when, particularly if there are multiple production facilities and/or if a production line has to adjust for changeovers if manufacturing more than one product. Forecasting starts

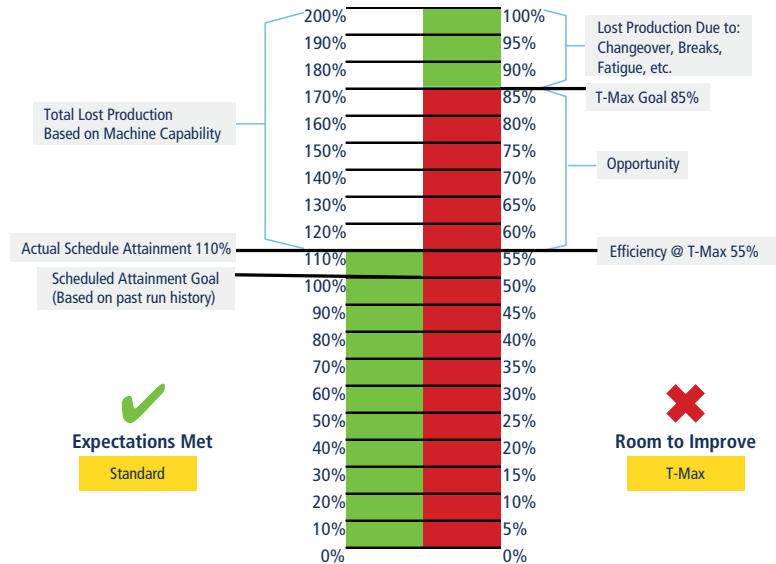
with certain assumptions based on management experience, knowledge, and judgment. **A Forecast needs good, reliable data to be of any use in the planning phase of the MOS.** Accurate production standards within the item master are critical to determining capacity, labor requirements and establishing an effective shift structure in any production-oriented environment.

PLAN Without knowing company baseline data and expectations, it is hard to develop a plan for success. A comprehensive strategic plan would factor into **the organization and management of Machines, Manpower, Methods, Materials, and Money.**

When planning for production as an example, the organization must be aware of its capability and capacity across all facilities and lines. **One measure, among others, is that of Theoretical Maximum (or T-Max)** — the output capacity of a machine according to the Original Equipment Manufacture Specifications (OEM's).

When a line has more than one machine, it creates bottlenecks or “pinch points” in the process, which will then reduce the line’s overall T-Max to that of the smallest value of the machines. By finding a product specific T-Max, a company can better understand its opportunities to reduce waste.

Although T-Max is one example of a Plan activity, others would include creating activity lists and process observations, volume projections and capacity planning. Staffing models based on estimated FTE and predictive staffing requirements would allow for proactive staffing optimization.

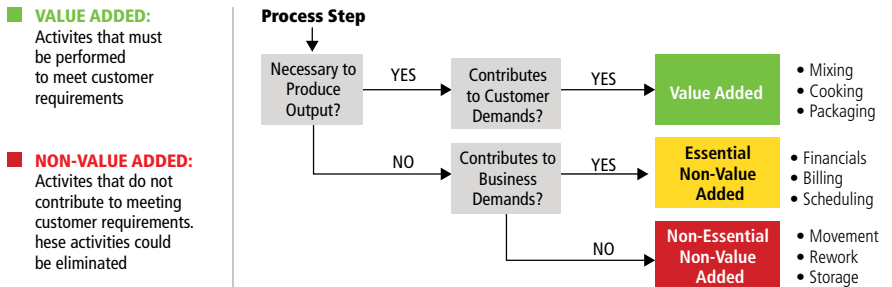


Using T-Max helps to:

- Quickly compare actual to planned / expected performance or output
- Uncover lost/down time highlighting issues for management to address
- Hold people accountable for running at the correct or specified speeds
- Understand equipment utilization and develop action plans to raise volume capabilities to help balance or increase the output of each line

ASSIGN Once a plan is developed, it must be communicated to all employees, and daily meetings will help deliver the message. There are tools like Standard Work and Roles / Responsibilities Identification that help standardize and set expectations. Assessing and developing a skills flexibility matrix, plus establishing baseline values for target setting and measuring productivity/performance, are key metrics that must be clear and communicated to everyone.

FOLLOW UP / REPORT Follow-up and reporting back to departments on their progress with reliable, accessible data during the day is key to improving performance. Because visual management is an important part of MOS, it allows for the system to quickly show the status to anyone that stands and observes. Recording and comparing, then sharing the results with staff, gives everyone something by which to gauge performance and productivity during process-related steps.



ACT / CHANGE When opportunities and non-value activities are identified through the MOS and comparative dashboards, Action Items need to be developed to address production loss and improve overall line efficiencies through process improvement. **Being able to put these plans together to continuously improve is a great value-add of MOS.**

Metrics and KPIs, along with scorecards which also record Individual Performance Reporting (IPR) feed a scorecard balanced with productivity and quality measures. Root Cause Analysis is often performed on more challenging Action Items that may affect one or more processes. This methodology with comparative tools has proven effective as part of the front-end process of a Continuous Improvement program for identifying and executing on opportunities.

Continuous Improvement and Focus Teams

Examples of comparative tools/scorecards

Pareto Chart

Fishbone Diagrams

Histograms

5 Why's

CASE STUDY

Synergetics has performed hundreds of MOS Implementation Projects for varied-size companies, from small single facility businesses to multi-national firms with a large geo footprint and several thousand employees. This project overview illustrates one such recent success story with a leading international name brand food and contract manufacturing company, and with whom Synergetics has had an extended relationship for many years. The company has mainly grown by acquisition, where "new" facilities across several locations have been brought onboard, requiring process standardization and MOS implementation.

KEY POINTS

Background

With the recent M&A of a food manufacturer with six locations and 2,000 employees, Synergetics' client company ("CoPac One") called on them to help integrate and standardize operations. This combination of assets, staff, and capabilities presented several opportunities to improve process and revenue efficiencies. Synergetics had initially been introduced to CoPac One through previous work engagements with the current CEO and CFO prior to their joining CoPac. Each knew that it would require structure, accountability, measured results, and plant sustainability with solid training programs to remain successful.

From a previous engagement a few years earlier, Synergetics had helped CoPac One to develop and implement a company-wide MOS program (MOS-A), and were to now roll out MOS-A to all new locations. Synergetics and the project team had brought in plant managers and supervisors for a two-week training boot camp, where they learned MOS-A terminology and metrics used for measuring production line performance. Additionally, a toolbox of about 50 operational techniques and programs for improving a plant's performance had been developed.

Implementation

Blitz Teams were assembled at two of the six new plants (Facility 1 & 2), which operated 3 shifts per day at a minimum of 5 days per week. Teams were comprised of key staff from production, maintenance, sanitation, continuous improvement, and management areas. Focus during the project was to install MOS-A structure and discipline across all aspects of plant operations. Objectives to achieve in cost reductions and improved efficiencies included the following areas:

- ✓ Throughput (continue operations through breaks / lunch)
- ✓ LEAN Manufacturing Methods Implementation
- ✓ Change in Line Layouts & Process / Material Flows
- ✓ Labor Reductions (achieve via observation, time-work studies, line balancing, comparative work capacity expectations)
- ✓ Shop Floor Management
- ✓ Change-Over Reduction Practices
- ✓ Organizational Redesign

These efforts identified several problem areas, and each was addressed with specific action plans. All improvements tied directly to MOS-A implementation, emphasizing the utilization of T-Max principles and KPI's.

The Results

Over a 10-week period, **Blitz Team results exceeded expectations, realizing annualized savings of over \$2M through efficiency improvements, line balancing, increased equipment uptime, and staff reductions.** Facility A attained staff reductions of 14 employees per shift, while B was able to reduce 11 employees per shift. By adjusting work schedules to accommodate staggered breaks and lunch periods, both plants realized continuous operations during all shifts. **Addressing this issue alone resulted in a 9.4% improvement in plant production throughput. Savings identified through collective efforts exceeded \$20M over a 2-year period across the company.**


The Impact

Management teams in facility locations received training on all aspects of MOS-A where everyone, every day, has input into raising plant performance. Each plant management team, now held accountable to attain certain plant / shift performance measures, utilizes tools to help their facilities reach performance levels exceeding 85% of T-Max. Their consistent high level of performance has driven them to be a leading producer of several name brand food lines, in addition to being recognized as a well-respected contract manufacturer and packaging company within the industry. Leadership knows that training is key, as they use all tools in the MOS-A Toolbox for increasing efficiencies, **leading to a company culture built on Continuous Improvement.**

FOR MORE INFORMATION

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