

Unlock Operations Excellence for your plant:
A Plant Manager's Handbook

A man with a beard, wearing a dark blue jacket over a light-colored shirt, is looking down at a tablet computer he is holding with both hands. He is standing in a warehouse or industrial setting, with blurred shelves and lights in the background. The image is partially obscured by a dark circular overlay on the right side.

According to *McKinsey*, an operationally excellent team spends **50%** of their time on value-added activities compared to an industry average of **25%**.

Operational Excellence is the most aspired goal for many industries. It brings together many diverse aspects of an organization to ensure the overall strategy, quality, budget, and resources are in sync. At the outset, operational excellence always involves one or both of the below:

1

Optimizing existing human, capital, time, and technological resources at the very least, to meet operational and service expectations.

2

Finding new and improved ways to leverage those resources to continuously enhance existing products, services, market share and operating margins.



Operational excellence decoded for the plant manager:

As a plant manager, you are aware that operational excellence can improve the uptime, enhance resource efficiency, expedite shipment deadlines, increase throughput and lower maintenance and production costs. You continuously plan to manage your plant operations to achieve the above to finally exceed customer expectations.

But does continuous fire-fighting bring you closer to streamlining your plant operations?

**Ask
yourself these
questions to
introspect**

- 1 Do you struggle to keep up with increasing customer demands and varying operating conditions around your plant?
- 2 Do you constantly chase time schedules and shipment delivery dates to ensure expectations are met?
- 3 Do you strive to streamline factory operations to reduce overtime and related expenses?
- 4 Do you dedicate more time and effort than required on inline re-work, predicting and eliminating operations bottlenecks?
- 5 Do you have full visibility of your data to support dynamic operations decision making?
- 6 Do you spend too much time in procuring operations reports from multiple disparate systems?
- 7 Do you have a single window to view your entire resource allocation to deploy manpower across assembly lines?
- 8 Do you wish to have a better control over operations activities?
- 9 Do you wish to eliminate a major percentage of the industrial wastage in your production processes?

If the answer to most of these questions is “yes”, you may be facing operational bottleneck issues.



Are operational bottlenecks hindering your path to excellence?

Operational bottlenecks within your process can inhibit the smooth, continuous flow of materials through the production flow resulting in overstocking of inventories, thus preventing growth, productivity and throughput. Effective bottleneck management, from pure financial standpoint, helps reduce inventory, which in turn reduces operating costs and increases operational revenue and profitability. Further, it helps you achieve your operations targets with ease.

Bottlenecks can take various forms across industries and as the plant manager you need to be aware of the following bottlenecks and their impact:



In parts manufacture and assembly lines, the workforce or manpower tend to be the rate limiting factor in many steps and managing bottlenecks is often a matter of managing people – by appropriate staffing and task leveling.



In process plants, throughput in most manufacturing steps is limited by equipment capability, not by labor. With equipment rather than operating labor being the bottleneck, throughput limitations can't be resolved by bringing in additional labor or by scheduling overtime. And since many process plants run around the clock on a 24/7 schedule, scheduling extra shifts is not the answer.

It is important to understand that managing the bottleneck in either scenario, is a matter of optimizing the performance of the bottleneck resource itself, protecting the bottleneck from upstream and downstream problems, and optimizing bottleneck scheduling.

What is stopping you from running optimum operations?

As an operations manager, you are in a unique position to influence how your company responds to the various fluctuations happening in your industry right now: varying customer demand, complex manufacturing trends, and technology advancements.

However, you could be facing certain challenges in leading your production teams to continuously deliver high-quality products on-time, every time.



Varying customer expectations

The goal of a well-executed operational excellence strategy is to exceed customer expectations by improving plant operations and processes. However, meeting customer demands each time with so many variables impacting delivery schedules may be a tough goal for plant managers. Further, with digital transformation in the spotlight, your customers will always be on the lookout for anything that can give them what they need faster, better and cheaper.



Disconnected operations systems

Operations managers work with several tools and platforms, most of which produce data at great speed. However, many times these systems run on their own accord and fail to talk to each other. This prevents managers from having a single version of reality to get a holistic view across the supply chain value stream, thus hindering overall operational excellence.



Lack of operations control

Control may seem like a challenge at times, but for some plant managers, complete control is possible only through visibility. When you have real-time visibility into what is actually happening with production, you can do what you need to do to gain and retain control. Further irregular equipment maintenance and lack of procedures or lack of proper execution can create bottlenecks which need to be addressed.



Reactive & manual approaches to reporting

Most of the time, plant managers are on a set back due to the existence of obsolete, manual, and reactive approaches to identifying and prioritizing resolutions – which leads to further loss of precious time. This also prevents managers from automating real-time decision making processes which can instill operational efficiencies from the core.



Key drivers for maximum operational excellence - Your plant checklist

Data-Driven Insights for Planning & Forecasting

As a plant manager, you tend to have multiple sources of information and may find it difficult to depend on a single source of truth. In the absence of data that can tell you the real facts, you could easily get lost with the overwhelming amount of information at hand. It is therefore important to eliminate confusion to create accurate quarterly and annual plans and forecasts.



Your checklist:

- Leverage shop floor data to create a single window of truth for reporting.
- Have customizable dashboards readily accessible at anytime for ease in reporting.
- Depend on data and nothing else for unbiased operations.

On-time shipment delivery

Your efficiencies are finally measured only on how you met the delivery commitments made to customers. Customers want their orders on time in the least expensive manner and inventory shortages, quality failures, or lack of budget for overtime will only create hindrances along the way.



Your checklist:

- Minimize common operations errors that threaten production timelines with built-in error-proofing.
- Keep track of fluctuating customer demands, trends and priorities.
- Buffer for unplanned resource limitations including labor, inventory, machine downtime.
- Expedite operations fees and overtime.

Lesser rework with greater control

When you are in control of your factory operations, you are aware of the slightest derailment in quality and process deviations. However, dynamic manufacturing conditions make it tougher for managers to attain 100% control over all processes at all times. Lack of adequate control can significantly affect the speed to market as well. Methodical planning, continuous waste elimination and complete visibility of your operations value chain can help here.



Your checklist:

- Leverage existing data to enhance uptime and overall equipment effectiveness by predicting bottlenecks on time.
- Get continuous access to real-time reports for a holistic view of your quality of operations.
- Ensure adequate equipment maintenance and repairs at all times.

Automation for higher throughput

Automating a manufacturing operation directly increases the production rate and labor productivity which results in greater output per hour of labor input. Also, investment in the right automation tools can help reduce labor costs, boost quality of operations, decrease manufacturing lead time and provide greater worker safety. It is also a fact that the cost of automation is much lesser when compared to the risks of not automating critical processes in a plant.



Your checklist:

- Introduce automation for critical functions like processing, assembly, inspection, or material handling.
- Use automation effectively for enhanced worker morale and productivity.
- Deploy automated processes especially for higher quality with greater consistency in the manufacturing process.



The powerful role of AI on your shop floor

Operational bottlenecks have always been a challenge for operations managers especially since the causes are complex and not readily visible. Finding and fixing problems such as scrap accumulation, time-consuming rework and cost-intensive quality control as quickly as possible on the production line is important. This is where operational tools equipped with AI can help. These analytical platforms can help tackle the industrial waste problem due to unexpected bottlenecks and achieve the much desired yields and improved quality.

As AI takes over the manufacturing scene, several operations managers are already effectively using artificial intelligence and machine learning to solve specific problems in production, helping fellow operators improve uptime, optimize production and more.

At ThroughPut we are helping operations managers breakthrough bottlenecks that prevent growth - all of this using existing data and AI-driven technology.

ThroughPut's ELI is a fully-automated, scalable, enterprise-ready Kaizen Artificial Intelligence product that enables operations managers to achieve unprecedented productivity and operational excellence. ELI helps you meet your supply chain goals and objectives by tracking-down those ever-shifting bottlenecks, efficiencies, and areas of waste across your dynamic operations for true end-to-end visibility across the entire supply chain value stream, leveraging all your existing data sets.

In conjunction with Microsoft Azure, ThroughPut is rolling out our new operational excellence ELITE SaaS Application that enables anyone to instantly generate a Quality of Operations report using their existing data to discover areas of quality improvement, thus reducing uncertainties along the value chain.

For early BETA access to the ELITE SaaS Application, please *subscribe* here and enjoy unlimited efficiencies.





About ThroughPut Inc.

ThroughPut Inc. is the Artificial Intelligence (AI) Supply Chain pioneer that enables companies to increase output, quality and profitability through bottleneck elimination. ThroughPut's Supply Chain AI Product, ELI, includes the only Bottleneck Management System (BMS) that utilizes existing enterprise databases, such as ERP, MES, IMS, TMS, WMS, PLC, EAM, POS, CRM, SCADA and other data systems, to solve the bottleneck problem across global supply chains today. ThroughPut's systems are designed by Fortune 500 geo-market logistics leaders and Silicon Valley analytics and domain experts with decades of experience in the space. ELI thinks like an operations manager and automatically provides domain expertise, insights, and recommendations in real-time, which current static Business Intelligence and Analytics tools do not effectively capture. ThroughPut's dynamic insights include real-time resource allocation recommendations, granular root causes, and operational process stability analysis. ELI enables process improvement experts and operations managers to reduce cycle times and operational unpredictability across some of the most advanced process industries, including automotive, manufacturing, oil & gas, transportation & aviation, chemical processing, energy, and others.

To Know More

- ✉ Sales@throughput.ai
- 🌐 www.throughput.ai
- 📍 2100 Geng Rd #210,
Palo Alto, CA 94303