

Supply Chain Management Best Practices



Applying Lean Principles to Warehousing

"Our Lean Warehouse processes follow our customer's demand. The Lean Warehouse goal is to eliminate all waste, increase throughput and bring value to the customer beyond their expectations" *Charles Intrieri*



What is “Lean”:

Lean is simply the elimination of all waste in a company, increasing throughput and bringing value to the customer beyond their expectations. More than that, Lean is a new way of doing business and should be part of the company's' culture.

People become process and problem solvers. Top Management comes to the shop floor and works with shop floor people at gemba (work cell/shop floor) to solve problems and improve processes daily. Lean is daily continuous improvement by people and management and is a never ending journey.

- **People Application:** People can use Define, Measure, Analyze and Control (DMAIC) and Plan, Do, Check Act (PDCA) to solve problems. Value stream Mapping (VSM) is used to improve processes.
- **Top Management Applications:** Management must engage their people and get them invested in Lean initiatives. Top Management and their people must be very disciplined daily. Voice of the Employee (VoE) must be heard daily and ideas implemented.
- **Voice of the Customer:** (VoC) is used to obtain customers pros and cons of your company. Based on this input, significant changes should be made to bring value to the customer.
- **Lean Tools:** Lean tools after you changed your culture;
 - **6S:** sort-set in order-shine-standardize-sustain (most important is to sustain change) and safety.
 - **Kaizen** or Daily Continuous Improvement
 - **Kanban** or Pull Systems from the internal and external customer
 - **Lean Six Sigma: near zero defects quality**

Embracing Lean Warehousing:

Even the most determined business optimist would be hard-pressed not to find a warehousing cost that isn't creeping skyward. From the electricity powering the lights to the labor costs of each order picked, embracing "lean" principles is one of the few proven ways that a company can fight back from its bottom line.

Upholding stagnant concepts such as "*this is the way we've always done it*" will leave your business growth in a similar stagnant rut.

One of the core concepts behind lean is the need to look closely at operations within your warehouse, and never fall into the trap of complacency — *even if things seem functional at the moment*. Costs saved now are capital for unexpected gaps later.

In effect, a properly-executed lean philosophy acts as an insurance policy against every type of rising cost.

Apply Lean to Your Physical Assets:

Imagine you have 10 warehouse racks, but at any given time, you only use shelf space equivalent to 7 full racks. Those large gaps on each shelf aren't hurting anyone, right? In fact, very few warehouse managers would see an issue with unused space. Consider this: *each time one of your employees needs to pick an order's worth of items from the shelves, they need to scan each rack.*

Whether that's an in-depth look from shelf to shelf or a minute's worth of quick glancing, that happens every single time an order is picked. If your warehouse handles 180 orders a day, that's three hours - or more! - of labor wasted on that "harmless" empty space, *every single day.*



Lean Idea: Your physical stock and assets should always be efficiently filled and properly arranged to minimize wild goose chases.

Not only are these chases unproductive for your operational ROI, but they also contribute to frustration and irritability on the part of your workforce

Apply Lean to Your Processes:

Chances are, you have at least one wasteful process that happens every single day in your warehouse. Whether it's a "workaround" for an outdated system your team no longer uses or a failure to rotate stock to reflect current demands, think of these issues as small cracks in an hourglass.

#1: Profile Analysis

The first place to start is creating, or updating, a profile analysis — a description of the mix of products coming in and going out of the warehouse.

- How many pallets are coming into the warehouse?
- Are they single products or mixed products?
- How are products leaving the warehouse?
- Are there seasonal shifts in the product mix?
- Are there market trends driving changes in the mix of products or how they are handled in the warehouse?

The profile drives virtually everything else in warehouse operations — labor, equipment, and layout — so it is critical to have an accurate profile and to keep the profile up to date as the mix of products changes.

#2: Standardize Processes

One of the myths of warehouse operations is the tasks performed every day are simple and do not require a lot of analysis. While that may have been true 50 years ago, today's warehouses are complex mixes of products, people, and equipment; and warehouse managers are more like orchestra conductors, making sure everyone is performing the right process at the right time.

Warehouse processes should be standardized, so all the players know what they need to do. Managers need to document those processes and make them visually available for everyone to see.

- The benefits of standardized work
- Documentation of the current process for all shifts
- Reductions in variability
- Easier training of new operators
- Reductions in injuries and strain
- A baseline for improvement activities

Each day, you only get one flip of that hourglass to make the most out of your company, your warehouse, and your team — so why would you let waste go unchecked when it's so easy to fix?

The key to discovering these bothersome little cracks in the glass is learning how to communicate with your warehousing staff directly, and observing their daily routines with an eye towards improvement.

Are they struggling with large loads and needing to make several trips? Do you see a bottleneck at the packing area? Are scanners difficult to operate or too slow to respond?

These are all issues you can correct with simple equipment improvements or even just shift a table to the right or left on the warehouse floor. The overall goal is to make each trip through your warehouse - whether it's picking, packing, stocking or inventory cycling - as fast, user-friendly and efficient as possible.

Apply Lean to Your Team:

While no worker should be considered a single-task "asset," lean hiring and employee management mean playing to your team's strengths. Again, this is where open communication will serve you well; discussing their likes and dislikes about their responsibilities will help you steer them into positions that will ensure your company maximum efficiency and effort while simultaneously offering them excellent work satisfaction.

This isn't to say you can't assign an employee several tasks, but ensure these tasks add value to the operation.



Lean Idea: Smart allocations with your current staff will support productivity and reduce wasted time.

When making new hire decisions, actively seek candidates that would be a good fit for several positions at the same level and hire candidates with prior lean experience — this will ultimately give you more lean flexibility and hedge against staff retirement or losses.

Apply Lean to Your Supply Chain Partners:

Even though most of their work happens outside your warehouse walls, vendors and logistics providers are important components to reinforcing lean habits. Your systems need to be able to seamlessly integrate with theirs, to the end of utilizing their data and effort whenever possible.

If the works already done and your company can make use of it, that's labor and time you won't have to expend to make things happen. If you're current supply chain partners are resistant to the evolution of your partnership or sharing data, don't be afraid to carefully consider your ongoing partnerships with them. As market demands grow, you'll need scalable support that's poised to help - not hinder - your business goals.

"Lean" is as much a way of life in the warehouse as it is a set system and principles. It's efficient, not stingy or cheap. It aims to streamline the warehouse experience, rather than tie it up with overblown expectations and red tape.

If you're not already practicing Lean concepts and processes in your warehouse, there's never been a better time to start — your company's ability to fiscally compete in future markets may depend on it.



Lean Idea: Take a few tips from the world of Lean manufacturing, and apply them to our world of warehouse management. In other words, what can we do to remove waste from people, processes, and equipment, which can then translate into lower costs? Here are a few tips that might help you with your Lean “journey” to lower warehouse costs and increase profits”

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