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Modern vs. traditional solutions for supply chain challenges

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Insight from Andrew Johnson, CEO and founder of ShelfAware.

Today's industrial suppliers and consumers want real-time visibility and granular consumption data to make key strategic decisions about how they manage complex supply chains.

It is every plant manager's worst nightmare — your facility is humming along and then, in an instant, something important breaks. Your team rushes to get the machine humming again but the shelf that usually holds the crucial repair part is bare. As a result, the plant is shut down until a supplier can rush in the repair part.

The traditional system of inventory management worked for a while, but in the turbulent future leveraging automation and the Internet of Things (IoT) is changing the way suppliers and consumers manage complex MRO supply chains.

Historically, component suppliers have been forced to send sales reps on the road with clipboards and calculators to spend hours or even days physically counting products on their customers' shelves to manage inventory. To go deeper into this problem and potential solutions we need to take a look back at the traditional vendor managed inventory systems and their shortcomings.

VMI – lost in time

VMI is an inventory management technique in which a supplier of goods, usually a distributor, is responsible for optimizing the inventory held by their customer. Designed to streamline inventory management and order fulfillment, VMI is a proven inventory management model that has been used for decades, shifting onsite responsibilities to suppliers or third parties.

But not much has changed since the 1980s when barcodes began to be introduced as a more efficient data

collector. The most common industrial offerings usually include a combination of supplier provided onsite labor, barcoded inventory, bin management, and vending machines.

As labor continues to get more expensive and harder to find this outsourcing of inventory management will continue to grow. While many have tried to innovate this space, its many complexities make it a very difficult undertaking. With so much committed capital and an army of humans in trucks, it is very hard for industrial companies to look past the plastic bins and dated coil pack vending machines to see the digital future.

The future solution is certainly out there, but where do we start? There are a lot of buzz words floating around the industry, and innovators are quick to tag their products with hype-words like AI, digital, and machine learning to ride the wave into the market as the next big solution. Avoiding these charlatans to find a practical solution can be difficult.

Here is what buyers should consider when seeking to optimize their managed inventory needs and get past the archaic models of the past.

Features of an effective digital VMI solution

Let’s start with a process that if flexible enough to retrofit current business models. While it is tempting to swing for the fences and implement a broad solution, giant projects rarely succeed and often do more harm than good. Instead, let’s focus on innovating incrementally and starting at the beginning.

Where does the inventory come from? Our suppliers, of course. Let’s consider starting the innovation conversation with them first at the genesis of the inventory’s life cycle—the logical starting point for innovation in the supply chain.

- Consider a digital VMI that is anchored in a web-based application. This software eco-system is more scalable and provides more transparency and visibility to all involved. Another key feature of any good digital VMI software is its ability to stand alone, providing the operation of a lean supply chain without the need to integrate with supplier or consumers operating systems. Integrations should be viewed as a bonus, not a requirement for a return on investment.
- Avoid complex hardware systems. Although the idea of a system using high-tech cameras to monitor the plant sounds cool, complex hardware deployments are not practical in most industrial facilities without serious investment in the underlying facility infrastructure. The long-term maintenance of that equipment adds an additional layer of challenges. Instead, keep the hardware deployments simple and minimalistic.
- Consider long term adoption on the factory floor. Any process that inserts even a little friction into the act of consuming inventory on the plant floor is doomed before it even begins. Effective digital VMI platforms provide for a magical user interface that promotes long term adoption on the factory floor. Providing a solution that can track the consumption of thousands of inventory packages in seconds, ensuring broad user adoption, is a must. One such magical data collector is RFID (Radio-Frequency Identification)—a technology that is seeing massive adoption in the retail sector right now and poised to do the same in the industrial space.
- Consider systems that have an eye toward the future. In other words, if we adopt a solution for one inventory supply chain and it is successful, how do we scale the success to the next supply chain?

Wouldn’t it be nice if you could adopt one system that would allow other key suppliers to join? A platform that is open to all and promotes collaboration between key product vertical suppliers is ideal.

Key takeaways about effective digital VMI solutions

1. The adage “Go big or go home” does not apply to industrial supply chain innovation. In reality, a small start is your best bet for big innovation.
2. A healthy appreciation for current process complexities will inform your decision on future improvements and lends itself to flexible solutions.
3. Avoid the one-off solutions. Instead, think about the future need to scale any successful innovation to another supply chain or supplier.