How the IoT Is Providing Lessons for Supply Chain Innovation

We’re in the middle of a massive shift in supply chain management. According to a 2017 Boston Consulting Group (BCG) study, the Internet of Things (IoT) technology market within discrete manufacturing, worth $10 billion in 2015, will be worth $40 billion in 2020. BCG also names automated inventory management as one of the 10 most important use cases driving IoT adoption.

Another interesting statistic from BCG’s study: automated inventory management is one of only three major IoT use cases that touch multiple industries (predictive maintenance and self-optimizing production are the others). While the consultancy views discrete manufacturing as the use case’s predominant industry, process and retail also see benefits.

Put it in context: no matter whether you’re shipping laptops, moving food from the farm to the table or assembling a jet engine, the IoT will soon have a significant impact on how materials move through your supply chain, and will play a major role in meeting your goals. Each business wants to achieve efficiency in picking, packing, assembling or shipping goods.

IoT-enabled sensors are providing data that unlocks a level of productivity never before seen in the supply chain, promoting
rapid growth. So just how broad is the IoT’s impact on logistics? Consider how the IoT affects people and processes across warehouses and factories—and how technology powers deeper insights and continuous improvement, no matter the industry.

**People: Building the Warehouse Superman**

Warehouses and factories have long sought a productivity golden goose—a way to ensure all employees work with maximum efficiency. Despite the proliferation of robots in the warehouse, there are limitations to what robotics can do. Businesses still need humans in the warehouse to tackle more complex processes.

Enter Amazon. The retail giant recently patented IoT-connected warehouse wearables, devices employees can place around their arms to track their movements and help guide them on the most efficient paths through facilities. Although some supply chain professionals have expressed privacy concerns, the message is clear: the IoT can help us collect more granular data than ever before. If Amazon produces these devices, look for manufacturers to employ similar technology soon thereafter—especially in high-risk environments, where they could have a positive impact on employee safety.

**Process: Needle in a Haystack No More**

Both manufacturing and retail environments face challenges regarding inventory accuracy and demand planning. If a manufacturer runs out of a critical engine component, production slows to a halt. Likewise, if a retailer runs out of blue shirts with orders pouring in, shipping will slow and the customer experience will be negatively affected.

Using a system of sensors and RFID tags, the IoT will make manual inventory management virtually extinct. Workers tag products or materials as they’re inventoried, giving the team real-time insight into stock location and supply. This
decreases the amount of time employees spend searching for products, and as supply is depleted, the business knows to order more from its suppliers before a sell-out affects operations. And because the IoT maintains data around supplier shipments, management has an idea of how long the components or inventory will take to arrive.

We Innovate Better Together
IoT users have significantly advanced the technology’s capabilities and availability within a relatively short timeframe, promoting use by businesses large and small. But now that more companies are experimenting with the IoT, it’s important we avoid siloing our developments. When a company achieves a breakthrough using IoT-enabled technology, there’s a wealth of benefits in sharing that development with the world. We may work in different industries, but the same technology grounds our solutions and successes.

To that end, if you’re looking to collaborate on a supply chain project, think outside the box—and outside your industry. You may find that another company, focused on an entirely different product, already has the solution to your greatest supply chain challenge. In turn, you may be able to help them overcome an operational roadblock.

When we work together on IoT solutions, we create outcomes that benefit companies across the supply chain. Let your IoT devices connect more than just your internal systems—let them connect you to the world outside your company.

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