

# Top 3 Supply Chain Trends for 2018

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2018 will see a continuation of overarching trends with a few surprises thrown in. Last year saw yet more growth for the warehouse supply chain industry. A growing dependence on e-commerce signals increasing pressure. Digital Commerce 360, citing recent Forrester data, believed that, by 2022, e-commerce will account for around 17 percent of all U.S. retail sales. This number is a sharp revision up from the less than 13 percent stated in the 2017 edition of the report. Given this increase, it is not unreasonable to assume Forrester is downplaying the potential of e-commerce yet again.

However, the demands on the supply chain go well past just an increasing number of users. Technology is advancing at a rapid pace and companies are struggling to stay cutting edge. The increasing performance advantages will continue to fuel technological adaptation across the industry. It is vital that, in their dash to compete, companies remember that most every new piece of hardware has downsides as well, which can be dangerous if not properly handled.

## Hiring Smart to Stay Ahead

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Warehouses have an employee problem that needs to be addressed before it goes critical. According to the Bureau of Labor Statistics, the median age of workers in the transportation and warehousing industry is over 45. Warehousing and storage isn't much better, at 38. In both cases, the smallest age bracket was also the youngest, the 16-19 year range.

On one level, this is not a problem as many companies need smarter employees, preferably ones fresh from college with degrees and experience on newer mechanics. However, these numbers were also small - in some cases rivaling the amount of employees 65 and older.

More troubling is the news regarding employee retention. Other data from BLS indicated that warehouse employees are leaving at a troubling rate. These tend to be the younger staff who see opportunities for better pay and hours elsewhere.

Companies wishing to avoid an aging workforce need to spend more on employee hiring, training and retention. This will help avoid the worker shortage before it happens.

## **Preparing for the 24-Hour Continuous Workforce**

New technology is enabling a more productive generation of workers: robots and smart tech. These machines do not need to sleep, eat or ever take a sick day. Currently, robots in the warehouse are limited to devices that sort and stack shelves. However, advancements in material robotics will push machines into a more central role.

Other factors to note are the rise of driverless cars and drones for delivery. While driverless vehicles are still evolving, new data suggests that the programs are already safer than human operators. A RAND Corporation study showcased that driverless car distrust is already more driven by prejudice than data. Driverless cars do not need to be perfect to be an improvement.

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increasing warehouse automation can lead to improved productivity and reduced costs.

While their implementation would radically enhance shipping, drones are poised to reduce delivery time even further. Amazon Prime Air is already boasting delivery times of 30 minutes or less using its aerial technology. As drones become more prevalent, it is unknown just how dramatic this speed increase will be.

Arguably the largest problem facing both initiatives now is state legislatures, which have uneven laws in place to regulate the technology.

## **Securing Big Data**

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The industrial internet of things is empowering a new level of data collection and reaction. Companies are getting insights instantly instead of having to wait weeks or months. Devices are wirelessly connected and increasingly used warehouse automation software lets managers correct mispicks as they occur, before resources are wasted and reputation damaged.

However, this plethora of technology can be dangerous if not properly protected. Unencrypted networks with unlimited access are disasters waiting to happen. Symantec's Internet Security Threat Report 2017 reported a worldwide increase in cyberattack frequency and ambition. Criminals know that companies are being pushed to innovate quickly and are rushing in to try to poke holes in network infrastructure. Unless warehouses want to join the hospitals and governments frequently now in the news, appropriate security measures must be taken.

Hiring a team of IT specialists - or at least one focused exclusively on cybersecurity - will help eliminate these problems. Ensure that each device that has access to the network is either company owned or company controlled and set up security measures that only allow certain specialists to have access to the whole system.

The year 2018 will be shaped by evolving technology and society trends. Some curves cannot be anticipated but most are reflections of longer patterns.

Technology will become more mobile, more advanced and more automated - there is no evidence of a trend shift here. An aging workforce will get older and, unless some bubble of the economy bursts, younger workers will continue to not be attracted to warehouse jobs. Cybersecurity, no longer a sub-sector, will increase its importance.