The Top Supply Chain Trends that Will Impact Supply Chain Management in 2018

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Supply chain leaders will face 2018 with uncertainty and opportunity. Digital technologies are becoming more prevalent in basic supply chain functions, and changes in legislation are likely to spur dramatic changes that will result in the need to reevaluate supply chain strategy in both domestic and international locations. Similar to the supply chain maturity curve of technologies, as explained by Steve Banker of Forbes, supply chain managers should consider how top supply chain trends will influence operations in the coming year.

This white paper, “The Top Supply Chain Trends that will Impact Supply Chain Management in 2018” is the second in our overall industry trends white paper series. In total Cerasis, a transportation management solutions company, will release 4 industry trends white papers focusing on Manufacturing, Supply Chain, Logistics, Transportation Management, Freight, and Procurement.

In this white paper, in the first section we will discuss the non-technological trends supply chain managers must know and then will hone in on the technologies that will impact the supply chain in 2018. We hope you enjoy this white paper & learn a few trends that will prepare you for excellence this year.
Although the shift to a digital supply chain and those underlying supply chain technologies driving the move towards a digital supply chain is what grabs the most headlines, it is still vital that supply chain executives and practitioners understand the non-technology fundamentals and trends that will supplement the investment in technology in order to gain maximum ROI and track more closely towards desired outcomes. Let us first explore the 13 key areas of supply chain trends supply chain managers must know in 2018.

1. **Data-visualization Will Shorten Delivery Times**

   Okay. Let’s face facts. Data visualization is technically a technology, but it is so much more than that. Data visualization can be applied to any supply chain process that presents users with information enabling the immediate adjustment of operations or sharing of information. In other words, the simple act of providing reports to executives and upper-level managers could be considered a form of data visualization, and better reporting will be a fundamental improvement in supply chains throughout 2018, explains [Craig Guillot of Supply Chain Dive](https://www.supplychaindive.com/articles). Having more information will enable faster decision-making and help supply chain entities take advantage of value-added services and jobs, including services offered by third parties.

2. **Supply Chain Managers Will Focus on Increasing Perfect Order Deliveries**

   As explained by [Kushal Nahata via Supply Chain Management Review](https://www.supplychainmanagementreview.com/), supply chain managers will put added pressure on employees, drivers and other individuals within the supply chain to increase perfect order delivery rates. Perfect orders are just that, perfect. They are the percentage of orders delivered to the right place, at the right time, in the proper condition, in the right package, with the right documentation, to the right customer, with the correct invoice and in the correct quantity.

   Although the industrial average sits at 84% today, that represents a 16% of all orders could result in customers choosing to shop with a competitor, as well as 16% of orders going through an extensive returns process. Instead of diverting more resources to returns management, supply chain managers should focus more on increasing the perfect order percentage, getting it right the first time, not the second or third time.
3. Sustainable Practices Will Be a Leading Focus of Supply Chain Executives

Supply chain executives will also increase focus on sustainable practices, reducing waste and improving efficiency throughout the entire supply chain. In the logistics aspect of the supply chain, this equates to better monitoring and adherence to guidelines governing drive time, fuel use, deadhead and more.

4. Service Supply Chains Will Dominate the Market

Consumers using e-commerce solutions are also moving away from purchasing entirely new products, opting for more refurbished products and components to keep existing products working in good condition. This is the service parts supply chain, and it will see great resurgence in the coming year. Supply chain executives should ensure an existing service part supply chain can handle incoming demand from consumers. If consumers are forced to shop with a competitor for service parts, they are more likely to continue purchasing new products and making repeat orders with your competitor.

5. Supply Chain Management Will Finally Have a Standard Certification Process

Supply chain management has been a very complicated topic in recent years, and it seems like the number of platforms and services available has expanded exponentially. Every system is different, but this is merging into a single cohesive set of systems that can be integrated through the Internet of Things (IoT). As a result, supply chain management is approaching the point of having a defined standard certification process created. This will help encourage effective, efficient deployment of new systems and services, while helping to curb the existing skills gap. If potential employees, students and interested parties can pursue a certification, they are more likely to pursue it as a career option.
6. The Role of Social Media in Supply Chain Management Will Increase

Supply chains have used mobile technology for years, but 2018 will see increased use of social media accounts and marketing tools to increase supply chain management effectiveness. Since consumers sharing negative or positive product information through social media has a direct impact on cells, it is only natural for supply chain managers to look at social media use in greater detail. As a result, supply chain entities will begin using social media as a primary means of connecting with consumers, beyond traditional online, browser or app-based shopping experiences, says Supply Chain 24/7.

7. Flexible Processes and Elastic Systems Will Replace Traditional Supply Chain Management Strategies

Lean processes are standard in supply chains, including logistics, but 2018 will see a gradual transition to elastic logistics. This includes flexible solutions that allow the logistics infrastructure to meet market fluctuations, and it serves as a safeguard for established companies looking for a way to stay competitive as more startups increase. Furthermore, pressure on carriers and the transportation industry will result in greater use of elastic logistics methodologies, so supply chain managers must be willing to change and adapt.

8. Omnichannel Supply Chains Will Become Standard

Omnichannel is perhaps the biggest of the 2018 supply chain trends. 2018 will see more supply chains pursue omnichannel strategies, eliminating inconsistencies and disparate systems and creating a cohesive, shopping experience for consumers. Although consumers may see a single stream of products, this represents a major change in the basic principles behind which supply chains operate. Existing systems will need integration, and checks must be installed throughout existing processes to ensure orders are fulfilled appropriately, says Steve Banker of Forbes.
9. Companies Will Focus on Integrating the Long Tail of Supply Chains to Incorporate all 2018 Supply Chain Trends

The long tail supply chain will also see big changes throughout 2018. According to Talking Logistics With Adrian Gonzalez, due to the complexity of integrating the so-called long tail of suppliers, carriers, customers and other trading partners, companies have followed the 80/20 rule to keep costs down. However, new systems and standards will effectively reduce these costs. Instead of focusing on a small portion of the top-moving products, supply chains can focus more on the 80% of products that their competitors tend to ignore. In addition, companies will begin the process of focusing on offering effective, efficient product returns and liquidation services. Better returns management and reverse logistics are essential to keep pace with the growing demand for e-commerce.

10. Supply Chains Will Use More 3PLs

As explained by Amy Wunderlin of Supply & Demand Chain Executive, capacity will be a major driving force behind innovation and change in supply-chain in the coming year. Capacity is already tight, and the driver shortage is only expected to worsen. Rather than paying sky-high rates and feeling helpless, supply chain entities can double down efforts during negotiations by partnering with third-party logistics providers (3PLs). In addition, greater use of 3PLs, which usually offer better benefits, pay and freight rates than national carriers, may help actively reduce spikes in freight rates.


Across the supply chain, the skills gap is quickly becoming a major problem. While much of the debate focuses on the driver shortage, it is important to note that the driver shortage is a subset of the skills gap. The next generation simply is not interested in positions within the supply chain, so supply chain managers will need to take steps to attract new, fresh talent to their organizations, and since talent is key to effective procurement management, says Marc Wins of Procurement Academy, manufacturers will need to locate talent well-versed in digital technologies and systems to ensure a continuous flow of inbound products.
This is the solution to the skills gap. Companies will be looking for younger, motivated talent throughout 2018, and they will be offering unique benefits, such as paid training, tuition reimbursement and mentoring programs to encourage more people to pursue careers within the supply chain. Incentive programs and continuous feedback from upper-level management can also help encourage retention and attract new talent.

12. Supply Chain Networks Will Respond to Potential Increases in Tariffs

The Trump administration has made no qualms about its disinterest in existing trade agreements, favoring a policy that brings manufacturing and supply chain positions back to the US. However, the possibility of complete withdrawal from existing free-trade agreements is a source of great concern for supply chain leaders. As the agreements that cover international trade grow and adapt in the coming year, supply chain networks will need to respond to regulations that may arise. Of all of the 2018 supply chain trends, an increase in tariffs or a backing off of existing trade deals is not yet fully known and hard to plan for.

Tariffs may increase, and fines or penalties for businesses that do choose to source operations overseas may become reality. In response, supply chains will increasingly focus on moving operations back to the US throughout the remainder of the year, also known as reshoring, as well as fine-tune overseas operations and negotiate new service level agreements (SLAs) with their respective partnering companies, explains Steve Banker of Forbes. Restructuring of basic business processes is also likely in light of the passage of the tax cuts and jobs act.

13. Supply Chains Will Go Digital

2018 will be the year in which more supply chains abandon older supply chain management strategies and principles in favor of digital processes and technologies. According to Wunderlin, supply chain entities will develop specialized teams to focus on innovation and better ways to deploy digital technologies.
In addition, more companies will continue to invest in innovation, and in a recent survey, 94% of supply chain respondents cited competency in technology as a distinguishing factor when considering outsourcing supply chain processes, including the use of third-party logistics providers (3PLs).

It is not enough for supply chain managers to invest in technologies available today. They must take a proactive step in watching for technologies on the horizon, such as drones and autonomous trucks, or their competitors will quickly siphon customers away.

The state of the global supply chain will evolve dramatically throughout the remainder of 2018. Supply chain managers refocus their efforts to increase adherence to perfect order metrics and leverage marketing capabilities and capacities to their fullest potential. Supply chain management may not resemble standard processes of today by the time Christmas comes around, but supply chain managers that learn more about expected top supply chain trends can successfully navigate the treacherous waters of a strained industry.

Change will flow throughout all supply chains in 2018, regardless of products or services offered. Meanwhile, the push toward e-commerce is growing, with more than $100 billion in growth expected over the next seven years. Supply chain managers and executives should be mindful of these 2018 supply chain trends as the year progresses if they hope to stay competitive.

Supply chains will continue to grow more complex and interdependent as 2018 progresses. The days of operating as an individual company are ending, and supply chain managers must look for ways to partner with other companies to avoid going broke. Of course, they have an arsenal of technology solutions at their disposal, so let’s now look at the top supply chain technology trends that will allow supply chain managers to combine these more broad trends in order to thrive in 2018.
What About the Role of Technology in Affecting Supply Chain Success in 2018?
The type and capabilities of supply chain technology is expanding, and technology will only grow more important in effective supply chain management in 2018. From the increased demand to data-driven decision-making through the industrial Internet of things (IIoT) to the use of cloud-based technologies, supply chain technology will advance light years in the coming months. Supply chain managers and leaders need to understand which technology trends will be the dominant forces of change and continuous improvement in the coming year.

Supply chain technology is a difficult, exhilarating topic to cover in detail. The supply chain technology stack comprises hundreds, if not thousands, of individual technologies, and there really is no limit to how much these transformative supply chain technologies may expand within the next 12 months. Supply chain managers will focus on several key supply chain technology implementations or considerations which will impact consumer spending habits, consumer-business interactions and performance measurement. Let’s take a look at 11 areas that supply chain managers will want to monitor in 2018.
1. The IIoT Will Be Standardized

According to Amy Wunderlin of Supply & Demand Chain Executive, the use of the IIoT will continue to disrupt standard procedures. However, the IIoT still contains many roadblocks, such as poor integration, difficulty accessing system data, problems leveraging data through analytics systems and more. In addition, how much data can be collected, processed, handled, stored and analyzed will add new demands to the supply chain, such as space for servers, increased use of energy and labor hours to manage data. Moreover, companies are currently working on developing standard best practices for using the IIoT, which should precede the development of regulatory standards through legislation. If anything, the recent repeal of net neutrality indicates supply chain managers will be forced to reevaluate use of IIoT technologies and develop strategies to overcome potential setbacks that arise from problems with Internet service providers (ISP).

2. Blockchain Technology Will Emerge in Greater Detail

According to Greg Kefer of Supply Chain Digital, blockchain technology will be another driving force in supply chain management throughout 2018. Blockchain has the potential to provide 100-percent visibility into all operations, processes and transactions, but actual deployment within existing supply chain systems is not yet possible. Regardless, blockchain technology will continue to drive additional engagement between IT vendors and chief information officers (CIO) throughout the coming year. In fact, blockchain technology is expected to permeate up to 33% manufacturers and retailers for its use in product tracking within the next three years, reports Craig Guillot of Supply Chain Dive.

Blockchain technology does have potential problems: the so-called bubble in the value of cryptocurrency. However, the basic premise behind the technology can help ensure compliance with the drug supply chain security act, the food safety and modernization act and other regulations.
3. Supply Chain Visibility Becomes an Independent Technology

Aside from the obvious benefits gained in visibility deriving from blockchain technology, the concept of supply chain visibility will become its own technology in 2018. Instead of an afterthought, supply chain managers will look at visibility from a proactive standpoint. They will develop new systems and processes to gain greater visibility, and this will require the hiring of data scientists as well. The discussion of hiring practices in 2018 is incomplete without touching on the skills gap, so supply chain managers must effectively transform hiring practices to include data scientists and compliance experts that will work together to drive overall compliance within an organization.

4. New Devices and Mobile Systems Will Become Integral to Supply Chains

New smart devices are being released every day, from voice-controlled systems to tablets with faster processing capability, and the systems will become integral to supply chain management and operations in the coming year. As explained by Steve Banker of Forbes, smart devices are actually growing smarter, with more companies seeking to use advanced supply chain technologies such as artificial intelligence, mixed reality, machine learning, or augmented reality in existing systems and operations.

5. Automation within Advanced Supply Chain Technologies Will Increase

More supply chain entities, including third-party logistics providers (3PLs), manufacturers, transportation providers, reverse logistics service providers, and other business-to-business partners will increase focus on use of automated advanced supply chain technologies. Robotics will be the greatest aspect of supply chain functionality to benefit from automation in 2018. Implementing robots increases productivity up to 30%, and offsets labor shortages. Furthermore, the capabilities of robotics are advancing.
Today’s robots continue to have a more human-like ability to grasp objects, enabling more precise motor movements and the ability to do things on a granular level. Furthermore, using robotic systems is no longer only for the super-advanced. They are easier to program and can be adapted to meet different needs. Throughout the remaining year, robotics will continue to replace repetitive movements within supply chains, and when paired with automated technologies, like drones, they will be key to reinventing standard shipping procedures.

6. **Mass Adoption of the Cloud**

While considering automation, it is important for supply chain managers to remember the amount of processing power necessary to manage automated technologies. Legacy systems and even systems that were new several years ago may not have the processing power necessary to handle the continuous stream of data going in and out of systems. Therefore, more manufacturers will begin adopting cloud-based technologies. More importantly, the speed of migration from analog systems to cloud-based systems will increase exponentially, and more than 80% of supply chains are expected to have some portion reside within the cloud by 2020.

Retailers will also play a big role in the investment into cloud-based technologies as they look to improve prove omnichannel execution. Point-of-sale systems, as well as facilities management systems and inventory management, will become unified within the cloud, which will enable faster replenishment and decrease supply chain costs. In turn, this translates into lower price points for consumers and increased company growth.
7. Companies Will Levy the Power of 3PL-Based Technologies

Third-party logistics providers (3PLs) have been around for several years, and while 3PLs may have existing software suites, such as our very own transportation management system, the Cerasis Rater, many supply chain managers are still implementing in-house technology solutions that have severe capability limitations. 2018 will be the year in which more companies choose to leverage the power of 3PL-based technologies, including transportation management systems (TMS) but also other transformative supply chain technologies like a Warehouse Management System, a Yard Management System, a Labor Management System, all integrated together via APIs connected to the cloud with added extensions to handle automated cycle-counting or network optimization. While most brands have already integrated live system tracking, secure data exchange processes, and visibility and traceability throughout systems, the use of cloud-based technologies will begin to have a major impact on procurement processes as well, says Marc Wins of Procurement Academy.

The increasing power of Amazon will also be a driving force in the push for supply chain managers to adopt transformative supply chain technologies and take advantage of 3PL resources, asserts Amy Wunderlin of Supply & Demand Chain Executive. 3PLs have the technologies in place to handle both inbound and outbound freight management, as well as handle omnichannel order fulfillment, so they are the natural partner for companies looking to combat the Amazon Effect.

8. Supply Chains Will Develop and Take Advantage of Transformative Supply Chain Technologies, like Freight Sharing Apps

As explained by Kushal Nahata via Supply Chain Management Review, supply chains will begin taking advantage of disruptive technologies too. The dawn of drone delivery, having much hype over the last few years, is quickly approaching critical mass. Smart glasses are providing manufacturers and supply chain partners with information without the need to handle bulky order processing systems thru augmented & virtual reality, known as mixed reality, and the use of freight matching apps for full truckload moves are giving supply chain managers more ways to accomplish more without spending more.
It sounds confusing, but these transformative supply chain technologies tend to
generate growth and increased profitability when used across a global scale by
to enterprises with complex supply chains or even domestic companies looking to
gain efficiency which in turn leads to bottom line savings. Since these
technologies, as adoption rates increase across the board, will allow those who
fully adopt them to get out of the weeds of tactics and process, more
businesses will then utilize the strategic mindset afforded by implementing
transformative supply chain technologies to increasingly set services and
products apart, pivoting to a mantra of increasing customer experience. Due to
this focus on the customer, consumers will reward those who have taken the
leap into supply chain technology implementation by making more purchases,
thus increasing revenues. As a result of the increased demand in transformative
supply chain technologies, service providers who either offer the technology
themselves or perhaps work as a consultant to help supply chains implement
these technologies properly, will need to step up their game to meet the desired
outcomes of a fresh batch of new customers. Finally, supply chains who fully
implemented and utilizing these technologies, will have a much stronger
competitive advantage above companies that have not yet invested in such
technologies as well.

9. Supply Chains Will Transform, Increasing Capacity of Production &
Customer Experience Thanks to Transformative Supply Chain Technologies

How companies interact with consumers will evolve throughout 2018 thanks to
these transformative supply chain technologies. Artificial intelligence (AI) can
help consumers make decisions, and virtual reality has the promise of
revolutionizing how companies design, develop, and produce products. The
same is true with 3-D printing. This fundamental shift will result in increased
competitive advantage among companies that use disruptive technologies, and
cross-platform systems will rise to make existing disruptive technologies
compatible with new and legacy systems, says Kasey Panetta of Supply Chain
24/7. This will create immersive experiences and enable the creation of digital
twins for existing products, services and systems. Imagine a digital world that
mirrors the real world. This gives developers and supply chain partners an
opportunity to experiment with different scenarios and select the solution that
will net the greatest savings and increase profitability.
As a result, supply chains will enjoy an increase in capacity to deliver and meet all desired company outcomes.

**10. Use of AI Will Increase**

An increased ability to use AI will result in greater use of AI. It is a self-fulfilling prophecy, but not the dark images that come from Terminator. AI includes machine learning and deep learning, allowing machines to self-optimize performance and alert managers of potential failures or issues before they occur. In fact, up to 80 percent of companies already use AI, explains Louis Colombus in Forbes Magazine, and 30 percent of companies are planning on expanding AI investments in the next three years. Moreover, this will result in the hiring of AI experts and a Chief AI Officer.

The use of AI will lead to better responsiveness by customer service representatives, and since the technology hinges on automation, order accuracy will increase, which will enable better spend analysis and cost reductions through newer, more advanced analytics, reports Medium. Since up to 79 percent of supply chain managers surveyed cited cost reductions as a top area of concern, investments in and use of AI will increase.

**11. Conversational Platforms Will Drive Supply Chain Collaboration**

According to Supply Chain 24/7, supply chain leaders will start working with conversational platforms in 2018 with greater vigor. Workers will interact with systems by voice, and this technology will make its way to consumer-facing areas, including online shopping environments, brick-and-mortar stores and everywhere else.
CONCLUSION
The State of Supply Chain in 2018 Will Work to Solidify the Digital Supply Chain

The evolution of advanced supply chain technologies shows no signs of stopping, and these trends reflect only a portion of the next generation of technologies that will influence the economy and the day to day lives up those who work in the supply chain.

But, a word of caution for all of those who work in the supply chain: do not get distracted by shiny objects. Technology is a great enabler to get out of the weeds of process, reduce errors, stay strategic, gain a better look at customer feedback in order to increase customer and brand experience. But, if underlying standard operating procedures are not sound or documented where all employees are on the same page, it is difficult to get a return on your investment in that technology.

So what is a supply chain pro to do in order to make sure processes are solid and the right technology is utilized for maximum success? As it gets more difficult to find talent that is both knowledgeable in the supply chain fundamentals and knows technology intimately, increasingly, supply chain executives turn to outsourced partners, like Cerasis, to help navigate this new technologically driven supply chain landscape.

We hope you enjoyed this white paper. Look out for all of the 2018 trend white papers in our resources section and best of luck to all supply chain professionals in 2018 and beyond!
Cerasis, a transportation management company founded in 1997, has always believed in the use of technology to improve process to not only reduce cost but to stay strategic, competitive, and have the ability to use data from technology to continually improve. In fact, one of our core values is just that: continuous improvement of our people process and technology.

We built our Cerasis Rater TMS in 1998, launching it as web-based before Google was even a business. Our (now Army, as our Development Manager, Jerel Byrd calls them) development team are always continually improving the Cerasis TMS, as we know it is vital to have a system that is not only innovative, but sound, secure, and enables those in transportation to do their job all while doing it cost effectively.

Are you using a TMS to help manage your transportation department as a shipper? What are you seeing in the space?

In addition to our transportation management system (TMS), the Cerasis Rater, when you are a Cerasis shipper, you gain access to the following managed services:

- Transportation Accounting to include: Invoice auditing, one weekly invoice no matter how many shipments, and freight payment services
- Comprehensive end to end freight claims management: if your freight is damaged or lost, we will handle the freight claim on your behalf
- Carrier Relations: We will negotiate rates on your behalf and you get better rates thanks to our buying power
- Inbound Freight Management
- Reverse Logistics
- Robust Analytics and Reports
- Small Package/Parcel Auditing
- Small Package/Parcel Contract Negotiation
- Warehousing
- International
- & More!

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