

Supply chain digitisation: improving efficiency, agility and customer experience



Supply chains all over the world are joining the digital movement.

With the advent of technological advancements, a new interest is developing for innovative solutions to be integrated into daily operations, to solve some of the everyday problems manufacturers face.

From inconsistent forecasting to lack of transparency, unorderly flow to siloed autonomy; the supply chain is subject to a host of challenges with the potential to disrupt, delay, and ultimately lose customers.



78% businesses report that organisational siloes and legacy systems were the **top impediments**¹



74% say that the number of entities in the supply chain has increased in the past **3 years**²



95% agree that discrepancies between supply chain entities have **increased**³

Traditional supply chains are evolving toward a more connected, smart, and highly efficient ecosystem.

Digitising has the potential to increase visibility as well as agility, and enable businesses to anticipate problems ahead of time. A proactive response ultimately means that businesses can answer customer demand quicker, and is a major area of focus for businesses across the manufacturing spectrum:

Automotive (**20%**) and Electronics (**14%**) have the largest share of digital champions. Consumer goods (**6%**), Industrial manufacturing (**6%**) and Process industries (**6%**) are lagging significantly behind.⁴

The 8 key elements of supply chain digitisation

Manufacturers that can coherently piece 8 eight elements together can expect to realise significant benefits; from improved flexibility, efficiency and customer service, to reduced operating costs.



Integrated planning and execution - by seamlessly connecting all parties involved, businesses can manage unplanned disruption, and cut costs through process automation and execution.



Procurement 4.0 - digitising procurement can significantly alter the talent and tools needed and transform the the procurement function leading to lower costs and faster delivery throughout the chain.



Logistics visibility - Constantly updated and reliable transportation information can reduce workloads and improve customer satisfaction.



Smart warehousing - the aim is to improve safety and efficiency by automating all warehousing activity.



Efficient spare parts management - dramatically reduce spare parts inventories and costs. Customers will experience greater uptime for critical equipment, since issues are anticipated and parts arrive much quicker.



Autonomous & B2C logistics - driverless vehicles and robotic innovations will increase roles in transporting goods; resulting in faster and more reliable deliveries, reduced labour costs, human error, and emissions.



Advanced and prescriptive supply chain analytics - can provide decision making support to supply chain managers, even acting autonomously on simple decisions to actively modify the supply chain.



Digital supply chain enablers - once a strategy is determined, companies must implement key capabilities to execute including: processes, organisation and skills, performance management, partnering, and technology.

Revenue and cost saving potential

Using the 8 key elements as a guide to better connecting their supply chains, manufacturers can improve efficiencies - translating into higher sales volume and cost savings:

Companies with highly digitised supply chains can expect efficiency gains of **4.1%** annually, boosting revenue by **2.9%** a year⁵

Revenue at "fully integrated" organisations is outpacing non-integrated companies by **20%**⁶



Process automation results in up to **20%** savings⁹

Companies embracing digital strategies are boosting revenue by more than **9%**, market valuation by more than **12%**, and profitability by over **26%**⁷

UK manufacturers expect to double income from digital content, services and solutions by **2023**⁸

Time gains

The main aim of digitising the supply chain is to create transparency for all parties involved.

It not only results in cost saving, but it also enables businesses to respond quicker in real time and speed up processes across the chain; ultimately improving the customer experience.



43% manufacturers believe supply chain digitisation increases just in time sourcing and reduces order-to-stock¹⁰



Nearly **1/3** of businesses expect digitisation to lead to more decentralised warehousing in order to shorten delivery times¹¹



Boeing developed its two most recent airframes using all-virtual design, reducing time to market by more than **50%**¹²

Big Data benefits

Integrating data across the entire supply chain can significantly reduce delivery lead times, and optimise logistics and inventory management. Information exchanged rapidly also boosts the agility of the entire chain, enabling much closer integration with customers.

72% of businesses say that big data is capable of delivering strong improvement effects in the supply chain over the next three years¹³

52% supply chain managers see clear reductions in outbound inventory through Big Data analytics¹⁴



45% expect to see improvements in batch size optimisation through Big Data analytics¹⁵

43% expect to see reduced supply chain management risk through Big Data analytics¹⁶

More than **25 billion** devices will be connected to the Internet of Things (IoT) globally, including consumer and manufacturer devices¹⁷

Technology as a key player

From cloud services and sensors to Big Data and nanotech, advancing technologies are driving digital trends for supply chain transformation.

New solutions are developing at a fast-pace, disrupting the manufacturing industry on multiple fronts:

Today's supply chains are multi-faceted and extremely complex. While digitisation is no easy feat, manufacturers who want to compete on a global scale and secure future success must start implementing these changes now.

Those that get there first will gain a competitive edge in the race to Industry 4.0, unlocking many opportunities along the way to realise new business models and potential revenue streams.



73% of supply chain professionals are investing in Big Data technology - ahead of cloud-based apps at **63%**, IoT at **54%**, blockchain at **51%**, and machine learning at **46%**¹⁸



45% of supply chain managers see ePlatforms as playing a major role in the **optimisation** of their supply chains delivery times¹⁹



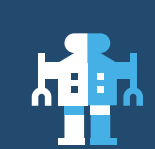
+80% of supply chain managers expect the **integration** of IT systems and data to offer significant, high, or very high potential for improvements²⁰



65% of supply chain managers expect to see strong flexibility benefits from supply chain digitisation in the next **3 years**²¹



80% executives consider **digital manufacturing** and design to be a major driver of competitiveness²²



15% of warehouse executives cite implementing autonomous robots as a top priority between **2017** and **2020**²³

Sources:

¹Air Cargo News ^{2,3,7}MPO ⁴PWC ⁵Strategy & PWC ⁶Cerasis ⁷RMS 360 ⁸PWC ⁹CapGemini ¹⁰Cerasis ¹¹At Kearney ¹²McKinsey ^{13,14,15,16,18}At Kearney ¹⁷Cerasis ¹⁸Supply Chain Digital ^{19,20,21}At Kearney ²²Forbes ²³Cerasis