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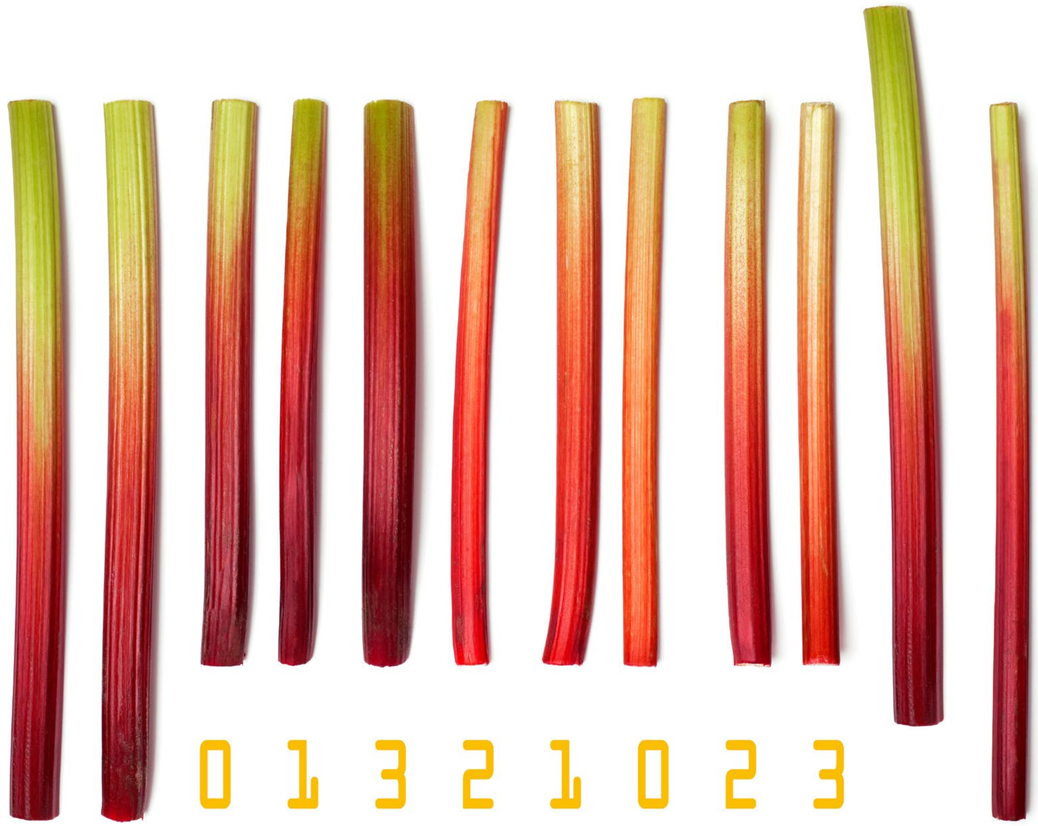
DRIVE YOUR OWN DISRUPTION



Is your supply chain in sleep mode?
New IT can turn the supply chain into a powerhouse of top-line growth—if it's targeted effectively and strategically deployed.

IS YOUR SUPPLY CHAIN IN SLEEP MODE?

New IT can turn the supply chain into a powerhouse of differentiating, top-line growth—but many Chief Supply Chain Officers simply aren't stepping up to their strategic responsibilities.

In a digital era, it should be easier than ever to deliver the hyper-personalized, customer experiences that create value and keep competitors at bay. New IT—Big Data Analytics, Artificial Intelligence (AI) with techniques like machine or deep learning, Blockchain, 3D printing, and Robotics—can help manage supply chain complexity, accelerate responsiveness, and speed time to market.

A supply chain thus reinvented is a next-generation supply chain: smart, connected, living and agile, with the customer at the heart of everything it does. Such a supply chain is also the foundation of an intelligent, Industry X.0 business, which embraces constant technological change—and profits from it.

A supply chain empowered by new IT is, indeed, the key to competitive advantage in the digital age.

Blockchain solutions have the potential to allow multiple stakeholders secure access to the same information and promises to save the freight and logistics industry hundreds of millions of dollars annually. Recently tested by a consortium comprising AB InBev, Accenture, APL, Kuehne + Nagel, and a European customs organization, the solution can reduce the requirement for data entry by up to 80%[1].

Stitch Fix, the US-based online clothing retailer, has leveraged the machine-learning capabilities of AI (and the expertise of its human stylists) to predict fashion trends and maintain its position as an industry pioneer.

80% reduction seen on data entry requirements when testing the Blockchain solution.

Stitch Fix: using AI for competitive advantage

Stitch Fix offers a subscription clothing and styling service with a difference. Customers don't actually shop for clothes; instead, they fill out style surveys, provide measurements, offer up Pinterest boards, and send in personal notes. Machine learning algorithms digest all of this unstructured information, which is then communicated to the company's workforce of more than 2,800 fashion stylists, because human judgement is still needed to make sense of it all.

Say a customer wants a new pair of jeans, which are notoriously tricky to fit to a person's individual measurements. The algorithm finds jeans that other customers with the same inseam decided to keep—a good indicator of fit. The stylist then picks the "right" jeans for the particular customer, taking account of their notes, or the occasion for which they're shopping. The stylist can also include a personal note with the shipment, fostering a relationship that Stitch Fix hopes will encourage even more useful feedback.

Speed matters, as does accuracy. To enable fast decision making, the screen on which the stylist views recommendations also shows additional relevant information: the customer's apparel and feedback history, measurements, and tolerance for fashion risks. The recommendations are tuned to reduce the amount of time a stylist spends searching for items in vain. Furthermore, the system can test for bias by varying the information the stylist sees. Indeed, by measuring the impact of modified information in the stylist interface, the company is developing a systematic way to measure improvements in human judgment.

One of the great benefits Stitch Fix sees from collecting and analyzing so much data is an ability to predict trends. The company's engineers are developing machine learning classifiers to find trends by using the simple yes-or-no decision that a client makes when they buy an item or send it back. An "auto styler" that could be used to sort inventory and improve customer selections automatically is also in development.

And Stitch Fix is leveraging AI to develop brand new styles, born entirely from data. Modeled after the process of natural selection in biological evolution, "genetic algorithms" start with existing styles that are randomly modified over the course of many simulated "generations." Over time, for example, a sleeve style from one garment and a color or pattern from another will "evolve" into a whole new shirt[2].

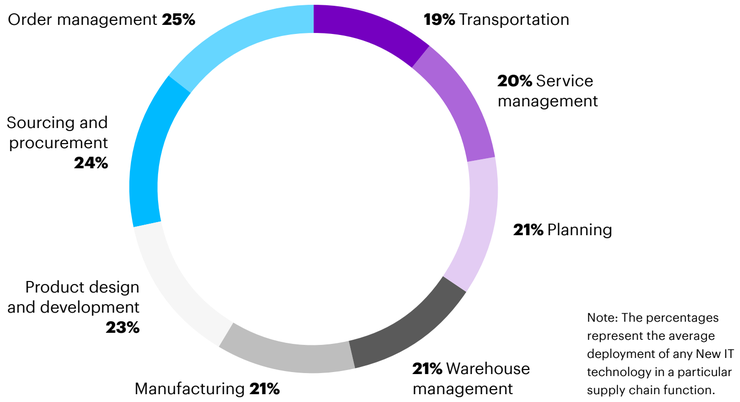
An "auto styler" that could be used to sort inventory and improve customer selections automatically is also in development.

A MISSED OPPORTUNITY

When Accenture recently surveyed supply chain leaders across a wide range of industries and geographies to discover how they are embracing new IT, we found that despite widespread appreciation of the potential of new technologies, many are struggling with adoption and building the digital workforce—and as a result they are still leaving significant value on the table.

True, executives across industries are enthusiastically applying new IT tools, technologies and platforms along the supply chain as a whole (see Fig. 1).

Fig. 1 – Intensity of adoption of 'New IT' technologies, tools and platforms is uniform across the entire supply chain



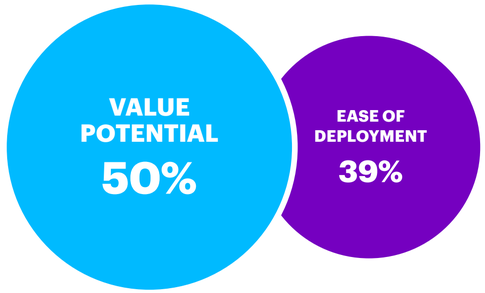
The tendency in almost all industries to combine Industrial Internet of Things (IoT) technologies with either Big Data Analytics or machine/deep learning indicates the strength of interest in turning the supply chain into a platform of networked value creation (see Fig 2).

Fig. 2 – Top New IT currently deployed, by industry

AEROSPACE & DEFENCE	CHEMICALS	CONSUMER GOODS & SERVICES
• Autonomous vehicles • Internet of things (IoT) and connected devices • Machine Learning/Deep Learning • Industrial Internet of Things (IoT) platforms • Blockchain	• Internet of things (IoT) and connected devices • Industrial Internet of Things (IoT) platforms • Machine Learning/Deep Learning • Robotics • Cybersecurity	• Internet of things (IoT) and connected devices • Blockchain • Big Data Analytics • Industrial Internet of Things (IoT) platforms • Social Media
EHT & COMMUNICATIONS	**FINANCIAL SERVICES**	**HEALTHCARE**
• Cloud • Machine Learning/Deep Learning • Big Data Analytics • Industrial Internet of Things (IoT) platforms • Internet of things (IoT) and connected devices	• Cloud • Machine Learning/Deep Learning • Big Data Analytics • Cybersecurity • Internet of things (IoT) and connected devices	• Autonomous vehicles • Machine Learning/Deep Learning • Industrial Internet of Things (IoT) platforms • Internet of things (IoT) and connected devices • Cybersecurity
INDUSTRIAL EQUIPMENT	**LIFE SCIENCES**	**PUBLIC SERVICES**
• Robotics • Internet of things (IoT) and connected devices • Autonomous vehicles • Cybersecurity • Custom manufacturing	• Cloud • Industrial Internet of Things (IoT) platforms • Machine Learning/Deep Learning • Internet of things (IoT) and connected devices • Big Data Analytics	• Internet of things (IoT) and connected devices • Industrial Internet of Things (IoT) platforms • Machine Learning/Deep Learning • Cognitive Computing • Robotics
RETAIL	**ENERGY**	**UTILITIES**
• Internet of things (IoT) and connected devices • Cybersecurity • Industrial Internet of Things (IoT) platforms • Machine Learning/Deep Learning • Social Media	• Industrial Internet of Things (IoT) platforms • Internet of things (IoT) and connected devices • Augmented Reality (AR) • Virtual Reality (VR) • Cybersecurity	• Social Media • Industrial Internet of Things (IoT) platforms • Internet of things (IoT) and connected devices • Machine Learning/Deep Learning • Cloud

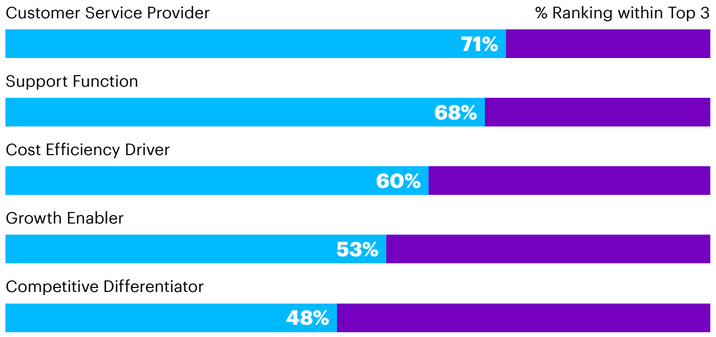
Indeed, when it comes to their reasons for deploying new IT, the power of digital technologies to unlock trapped value is critical for half of our respondents; ease of deployment comes a distant second (see Fig. 3).

Fig. 3 – Unlocking value outweighs ease of implementation as a reason to deploy new IT



Yet although 71% of supply chain leaders believe that by the end of 2020 the supply chain will be a key driver of better customer service for their organizations, almost as many (68%) continue to see themselves largely as a support function. Only 53% view the supply chain as a growth enabler; significantly fewer than those still prioritizing the pursuit of cost efficiencies (see Fig. 4).

Fig.4 – By the end of 2020, what role will the supply chain function play in your organization?

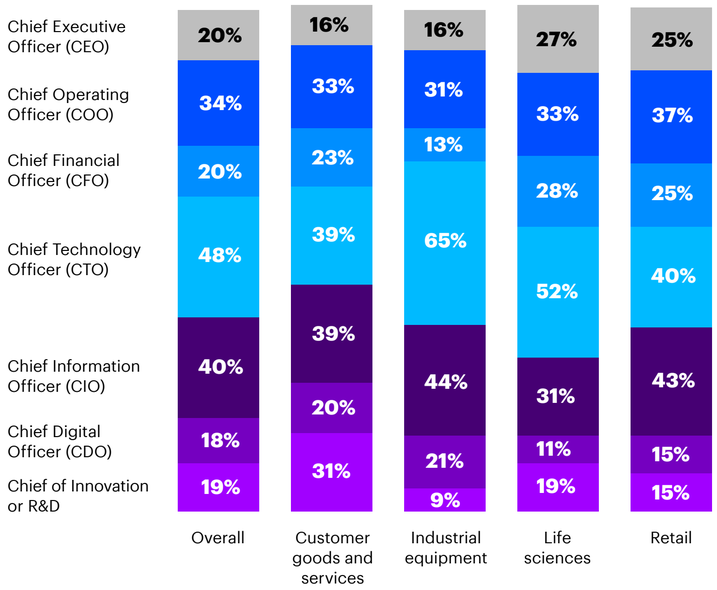


A STRATEGIC DISCONNECT

In short, the full, value-driving potential of a digitally reinvented, next generation supply chain still eludes many Chief Supply Chain Officers—and it's pretty clear why. They are just not working strategically with the right people in the C-suite.

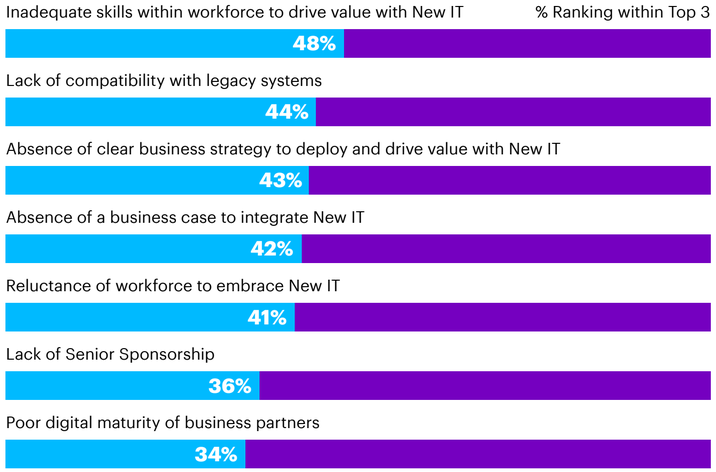
More than 80% identify the Chief Information Officer or Chief Technology Officer, not the Chief Executive Officer, Chief Finance Officer or Chief Operating Officer, as key stakeholders, for example (see Fig. 5): a serious strategic oversight given the critical role of the Chief Finance Officer in technology investment decision-making, and the rapidly developing role of the Chief Operating Officer as architect of the flexible operating model and extended, end-to-end processes.

Fig. 5 – Primary stake holders in organizations deciding new IT investments



This strategic disconnect between supply chain and C-suite can have negative consequences. At many enterprises, the business as a whole simply doesn't see the supply chain as a driver of differentiation and aggressive growth. Chief Supply Chain Officers, meanwhile, blame the absence of a clear business strategy, together with an inadequately skilled workforce, and incompatible legacy systems for their function's failure to drive value (see Fig.6).

Fig.6 – Please identify the top three challenges your company is facing while creating value with 'New IT' technologies across the supply chain



LEADERSHIP, LABOR AND LEGACY

If, however, Chief Supply Chain Officers were to work with the C-suite to resolve these three core challenges, they could forge a new strategic partnership with unprecedented value-driving potential.

Here's how.

Leadership

To build a new and productive working relationship with the business, align with business strategy, and turn the supply chain into a competitive differentiator, Chief Supply Chain Officers need to create conviction in the C-suite, and particularly with those executives responsible for long-term digital investment: the Chief Finance Officer and the Chief Operating Officer.

The relationship-building process starts by filling gaps in Chief Supply Chain Officers' own thinking; reaching out to teams across the business (and beyond) to discover how they are deploying new technologies to drive value, and then identifying the specific supply chain areas where new IT could power both efficiencies and new growth.

Armed with concrete success stories, Chief Supply Chain Officers can build authentic and compelling value scenarios that will help the C-suite reach informed and meaningful technology investment decisions.

Consider for example, Schneider Electric, a leading global specialist in energy management and automation, which has created a dedicated Office of Supply Chain Innovation to accelerate rapid proof-of-concept development for new technologies[3].

Labor

Chief Supply Chain Officers need to build a workforce that embraces core supply chain workers, "liquid" (part-time and on-demand) workers, and AI/Robotics —all working together to drive productivity at speed. Supply chain executives can leverage their C-suite connections to secure support for a reskilling strategy founded on continuous learning. By developing skills in design thinking and algorithm building, as well as the technical ability to use drones, robots and sensors, they can also build self-reinforcing "learning loops". And when in-house skills and assets are inadequate, Chief Supply Chain Officers' C-suite contacts can help them tap into the connectivity enabled by wider ecosystems.

Case in point: Rio Tinto, which has committed AUD$2 million to help its workforce gain the required skills and competencies for smart mining and is working with the Western Australian Government and South Metropolitan TAFE to pioneer a new curriculum for future jobs in the mining industry. The new curriculum, which should commence in 2019, will focus on areas including robotics, data analytics and digital inclusion education, delivered through a range of new industry traineeships and post-secondary courses[4].

Legacy

It's a lot less resource intensive and more impactful to drive agility by digitally decoupling legacy systems than by spending on new, more compatible systems. Supply chain executives can start by decoupling data from their legacy IT systems, replicating it and moving it, in real time, to cloud-based data "lakes" that are accessible to customers. By decoupling applications from their legacy IT infrastructure, they can than create the flexibility to scale new product and service offerings, new businesses and new markets, as well as accommodating diverse application workloads.

Take, for example, the London-based insurance broker Towergate. After 300 acquisitions in 20 years, Towergate had plenty of legacy IT infrastructure headaches. Thanks, however, to one of the financial services industry's most ambitious IT reboots and cloud migration efforts, Towergate successfully connected 4,500 employees, united 300 businesses, and achieved 30 percent annual savings—all within 12 months[5].

DRIVE YOUR OWN DISRUPTION

A few leading Chief Supply Chain Officers are rapidly turning their organizations into Industry X.0 businesses; but too many still aren't approaching the challenge strategically. That needs to change—and fast.

In a digital era, defined by customer relevance, how products and services are supplied to the end user is a key differentiator in ensuring sustained growth. With newer, nimbler competitors setting sourcing and supply standards in more and more industries, supply chain executives urgently need to seize the chance to work with the business, and pivot to next-generation supply chains powered by technologies that enable connectivity, integration and collaboration across a broad ecosystem.

By targeting their investments in these new technologies and working in close collaboration with C-suite leadership, especially the Chief Finance Officer and Chief Operating Officer, supply chain executives can help shape the digitally reinvented enterprises of the future. The time to start driving the disruption of their own function is now.

WHAT IS INDUSTRY X.0?

Industry X.0 is the digital reinvention of industry. By incorporating the core operational efficiencies of its predecessor, Industry 4.0, and leveraging new IT to create new customer experiences, Industry X.0 businesses drive both top- and bottom-line growth.

An Industry X.0 business is:

Smart

Every product and each production process is self-monitoring, data-generating and aware of its ever-evolving business context.

Connected

Communications are end-to-end and multi-directional, while data-sharing among people, products, systems, assets and machines happens in real time.

Living

There is an enterprise-wide cultural capability to act with speed, focus, and agility, to meet needs and seize opportunities.

Learning

Adaptive interactions help create increasingly relevant and valuable user experiences continuously, over time.

Source: Combine and Conquer: Unlocking the Power of Digital (accessible at: https://www.accenture.com/us-en/insight-industry-digital-reinvention)

ABOUT THE RESEARCH

Accenture polled 900 Chief Supply Chain Officers, Chief Operating Officers, Chief Procurement Officers and other supply chain leaders from 12 industries and 7 countries. The survey was conducted during December 2017 and February 2018. All surveyed companies had annual revenues of at least US$1 billion.

Countries:

1. Austria
2. Canada
3. Switzerland
4. Germany
5. UK
6. Ireland
7. US

Industries:

1. Aerospace & Defense,
2. Chemicals
3. Consumer Goods & Services
4. Electronics High Tech & Communications
5 Financial Services
6. Healthcare
7. Industrial Equipment
8. Life Sciences
9. Public Services
10. Retail
11. Energy
12. Utilities

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