Forbes
INSIGHTS

Digital Supply Chain—
Are You Leading the Pack?

LESSONS FROM COMPANIES THAT DERIVE THE MOST VALUE FROM THEIR SUPPLY CHAINS

Contents

Introduction

The supply chain has come a long way since the days it functioned mainly as a tool for resource management, logistics and optimization. Today's digital technologies enable the supply chain to attain situational awareness and context-sensitive decision making. In this way, it becomes customer-driven, personalized, agile and responsive. This digitized supply chain not only increases efficiencies but also leads to improved customer experience and revenue growth.

"It's a wonderful time for supply chain professionals to stand up and become part of the corporate strategic agenda," says Laurel Junk, chief supply chain and procurement officer at Kaiser Permanente.

To thrive in this brave new world, companies will need to adopt an agile digital supply chain, which can efficiently address shifts in both supply and demand. Such a supply chain is simultaneously:

- **CONNECTED:** Enabling communications among interconnected devices, systems and processes
- **INFORMED:** Leveraging the expanded information sources available in today's world
- **SMART:** Incorporating high-speed, in-memory, advanced analytics to drive real-time insights
- **AUTOMATED:** Adopting robotics and other automation technologies to improve productivity and reduce costs

As products, consumer experiences and business operations propel companies to adopt an increasingly digital-first mind-set, those companies that aggressively and thoughtfully embrace digital supply chains will have a significant competitive advantage over less agile competitors.

This report, based on a global survey of 490 top supply chain executives, as well as in-depth conversations with half a dozen of them, reveals current and future trends in supply chain digitization. The analysis of the survey revealed a small group of companies (9%) with the highest levels of digitization across their supply chain strategy, planning and execution. We refer to them as "progressives" and compare their performance with the rest of the companies surveyed. This comparison reveals significant benefits of higher levels of supply chain digitization maturity.

> "It's a wonderful time for supply chain professionals to stand up and become part of the corporate strategic agenda."
>
> **LAUREL JUNK**
> **Chief Supply Chain and Procurement Officer,**
> **Kaiser Permanente**

Throughout the report some numbers may not add up to 100% due to rounding.

Top Trends

The next two years will see the inflection point in how the digitized supply chain drives competitive advantage and growth. A small number of companies (9%), the progressives—that is, companies with the highest levels of supply chain digitization maturity—are already moving ahead of the pack in terms of supply chain digitization and reaping tangible rewards. Others need to catch up or risk falling further behind.

The progress will depend on adopting a unified technology approach. The companies that will continue to achieve the best results are those that actively invest in a comprehensive digital strategy. Almost two-thirds of the progressives have already adopted such an approach.

To function in a connected, informed, smart and automated way, the supply chain will be further and further embedded into every other function. Currently two-thirds of the progressives have integrated their supply chains into functions such as finance, procurement or marketing.

The objectives of the digitization of the supply chain will keep moving from the nuts and bolts—agility, resilience and smart processes—to focus on the ultimate objective, which is satisfying the customer. This is how a majority of progressives already see the role of their supply chain.

Top leadership will play an integral role in the success of the supply chain digitization, which is becoming an enterprise-wide transformation. At this level, the support from the very top, including the CEO, is invaluable. Currently more than three-fourths of progressives have CEOs for whom the supply chain sits among the top three issues on the agenda.

Continuity of investment in supply chain digitization will continue to be key to achieving optimal results. The progressives have recognized this: They have had the highest levels of investment over the past two years and plan to continue over the next two years.

The Supply Chain of the Future

We are still in the early stages of supply chain digitization—only around one-third of top supply chain executives surveyed by Cognizant and Forbes Insights believe that their companies have achieved high maturity of digitization of their supply chain in either strategy, planning or execution. As noted above, only 9% have high levels of maturity across all three areas. There is impatience and a sense of urgency about getting more done. More than 70% of executives, mostly those whose companies are behind in digitization, are not fully satisfied with the pace of digitization of the supply chain.

The level of prioritization and adoption of digital transformation depends on the strategic positioning of companies. We have divided the companies that we surveyed into four distinct groups: Premium-priced/luxury products/services; Best-value products/services; Lowest-cost products/services; and Niche products/services. Throughout this report we will be pointing out the differences in the maturity of their supply chain digitization based on strategic positioning.

Starting with which strategies they currently prioritize, the four groups of companies begin to fall into two categories. For Best-value and Lowest-cost companies, digital transformation is a much bigger strategic priority (40% for both) than it is for Premium or Niche companies (26% and 27%, respectively). The reason they are more focused on strategic transformation as a priority now is that Best-value and Lowest-cost companies are behind Premium and Niche companies in terms of the maturity of their supply chain digitization. Because of that, Best-value and Lowest-cost companies are much less satisfied with the pace of digitization. "If they do not make huge strides now, they will be left further behind," says Girish Dhaneshwar, an AVP and leader with Cognizant Business Consulting's supply chain practice.

This difference in maturity by strategic positioning reveals that Best-value and Lowest-cost companies are realizing the crucial role of their supply chains, and they are eager to improve them. Throughout this report we will discuss differences in the role of the supply chain among companies with different positioning strategies.

Of course, digitization itself is not an end. The ultimate goal is to derive the most value from the supply chain. And this is not yet the case for a majority of companies. Less than a quarter of survey respondents believe that their supply chain currently generates optimal value and is utilized to its full potential. Even those companies that have high levels of digitization of their supply chains do not believe they are there yet. Only half of them say that they currently derive all the value they can from their supply chains.

In this report we take a forward-looking view. We do not view the supply chain narrowly as planning/demand/execution/visibility. While these elements need to be in place and functioning smoothly in a connected, informed, smart and automated way, they serve as a foundation for using the supply chain to create new business models, gain competitive advantage and create value.
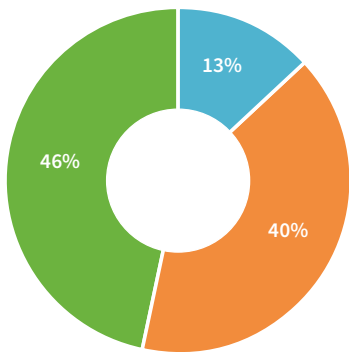
Maturity Levels

We have divided survey respondents into three groups, based on their supply chain maturity:

- **The supply chain progressives** are those who have achieved high levels of maturity digitizing across supply chain strategy, planning and execution. They are a small group, only 9% of all survey respondents.

- **The supply chain runners-up** have achieved high or moderate levels of maturity across strategy, planning and execution, but none is at the highest levels for all three areas. They constitute 31% of the survey respondents.

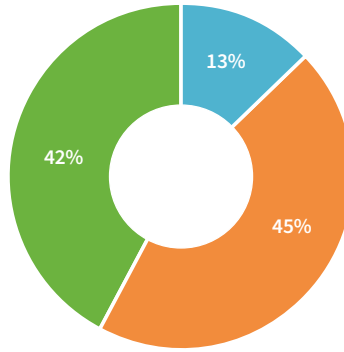- **The supply chain up-and-comers** are lagging

in digital transformation across the three areas of the supply chain or have transformed to a small extent. They constitute 59% of our sample.

An analysis by strategic positioning reveals that Premium and Niche companies are further along the maturity curve than are the Best-value and Lowest-cost companies. The level of supply chain maturity correlates with the evolution of customer experience. Premium and Niche companies embraced the trend of creating new customer experiences based on data-driven customer profiles. Once customer expectations emerged, the supply chain followed with digitization initiatives to meet them.
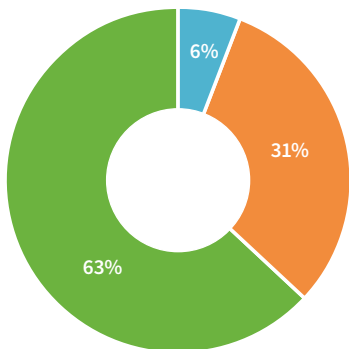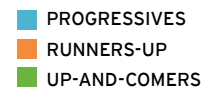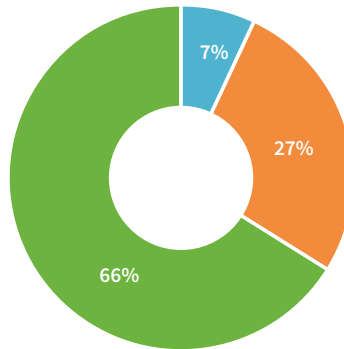
PREMIUM-PRICED/LUXURY PRODUCTS/SERVICES

13%
40%
46%

NICHE PRODUCTS/SERVICES

13%
45%
42%

BEST-VALUE PRODUCTS/SERVICES

6%
31%
63%

LOWEST-COST PRODUCTS/SERVICES

7%
27%
66%

■ PROGRESSIVES
■ RUNNERS-UP
■ UP-AND-COMERS

Our analysis of the supply chain progressives, runners-up and up-and-comers reveals that digitization of the supply chain pays off. The supply chain progressives achieve far better results than the rest:

- The progressives see better revenue increases from supply chain digitization. Forty percent have seen a revenue increase of 10% or more, compared with 22% for runners-up and 12% for the up-and-comers.

- The progressives also see higher profitability increases. Thirty-eight percent have seen an increase of 10% or more in operating margins, compared with 20% of runners-up and 12% of the up-and-comers.

- The digitization of the supply chain significantly improves risk mitigation for 60% of progressives, 30% of runners-up and only 8% of up-and-comers. Progressives' digital supply chains are better at mitigating risks of all types, including geopolitical, third-party, weather-related, or plant and manufacturing risks.

- The progressives generate more value from their supply chains. Fifty-three percent of progressives currently utilize their supply chains to their full potential, compared with 27% of runners-up and 16% of up-and-comers.

How to Derive Maximum Value From Your Supply Chain

To find out how progressives achieve higher revenues and profits, more effectively mitigate risk and generate more value from their supply chains, we analyzed their approach to the technology, goals, leadership and investment in their supply chain digitization. The findings point to lessons that can be applicable for all companies that want to bring their supply chains to higher maturity levels.

UNIFIED TECHNOLOGY APPROACH

Technology is a double-edged sword. It enables the digitization of the supply chain, but it is also among organizations' top challenges with supply chain digitization. Often, dissatisfaction is not with a particular technology, but with how it is integrated and networked as part of the unified system.

Therefore, the most progressive companies adopt a comprehensive approach to digitizing their supply chain. A majority of them (62%) actively invest in a comprehensive digital strategy rather than looking at technologies selectively. More of the runners-up and up-and-comers tend to consider separate technologies or are still researching their options.
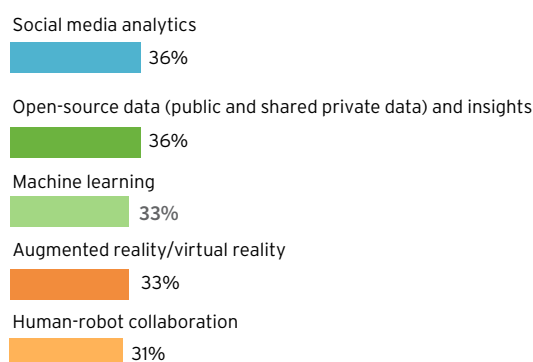
The types of technologies that companies are utilizing depends on the factors driving their business and customer expectations. Conversations with supply chain executives reveal that they rely on multiple, different technologies for their supply chain digitization. (See box on p. 8.)

There are differences in the types of technologies used by the level of maturity. Progressives are likelier to use more advanced technologies or approaches, such as social media an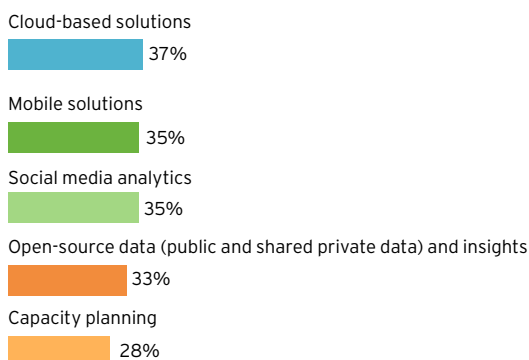alysis or open-source data. Runners-up and up-and-comers are most focused on cloud-based and mobile solutions, which may be seen as building a foundation for the next generation of technologies (see chart).
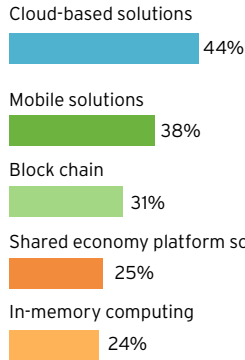
CURRENTLY UTILIZED TECHNOLOGIES

PROGRESSIVES

Social media analytics
36%

Open-source data (public and shared private data) and insights
36%

Machine learning
33%

Augmented reality/virtual reality
33%

Human-robot collaboration
31%

RUNNERS-UP

Cloud-based solutions
37%

Mobile solutions
35%

Social media analytics
35%

Open-source data (public and shared private data) and insights
33%

Capacity planning
28%

UP-AND-COMERS

Cloud-based solutions

44%

Mobile solutions

38%

Block chain

31%

Shared economy platform solutions

25%

In-memory computing

24%

NAVISTAR: A FIVE-STEP TECHNOLOGY APPROACH

Josef Kory, vice president of supply chain at Navistar, boils down the digitization of the supply chain to five main technology-related areas:

Predictive analytics. The company is leveraging data to improve its demand-forecasting process by aligning its forecasting system with its retail inventory management system to prevent outages. This initiative led to a 30% reduction in back orders. It also analyzes prior back orders and forecast errors to improve the results.

Network modeling. The company uses several different software programs for capacity planning, routing optimization and advanced scenario planning. It used them in deciding on a focused factory strategy in terms of building trucks, so heavy trucks and medium-duty trucks are built at different assembly plants. This decision led to a reduction in costs of $10 million to $15 million.

Telematics. Monitoring its vehicle help data and vehicle locations in real time allows Navistar to predict where service parts will be needed across North America. Thanks to telematics, Navistar has improved fill rates for specific customers by 12 percentage points and reduced dwell time for those customers' trucks by 43%.

Risk management. Navistar uses risk management software that tracks data from many sources, both structured and unstructured. The company gets consolidated data on weather, traffic, construction, border-crossing information, port strikes and any terrorist activity. The software overlays the data about the positioning of Navistar's trucks with the data about external factors and alerts the company to any risks.

Digitizing operations. Navistar has created an inventory dashboard that provides visibility up and down the supply chain. It integrates data from production, parts inventories and dealers' inventory management systems. In the future Navistar hopes to also integrate it with the suppliers' inventory.

INTEGRATE. INTEGRATE. INTEGRATE.

The digital supply chain will not yield value if any of its links are broken. In other words, supply chains need to be at the same time connected and informed and smart and automated. Putting together the functional and process integration is the only way to utilize the full potential of the supply chain.

Imagine that you're shopping in a drugstore, and the item you are looking for is not available. How can companies avoid customer disillusionment? The answer lies in the supply chain. The first step is for the connected shelf to transmit that it is missing items. Having been informed of the problem, the

supply chain can use smart analysis and insights to automatically replenish the shelves.

No matter how far-flung, every link of the supply chain needs to be able to communicate in real time when needed. For any omni-channel retailer, it is key to get a strong handle on real-time visibility of inventory across the entire supply chain, says Alex Zelikovsky, vice president, omni-channel solutions and supply chain technology, Bed Bath & Beyond.

"Inventory is fluid," says Zelikovsky. "It's just like water running down a stream. It has to find its own level. It is not forced, but that fluid inventory level has to be clearly understood by all the nodes within the omni-channel supply chain. Retailers have to have strong technology to be able to communicate that through all ancillary systems."

Democratization of data–putting it in the hands of those with the ability to act on it–becomes an empty concept if data cannot be shared, received and acted on. To do that it needs to be fully digitally integrated into the supply chain. The majority of progressives
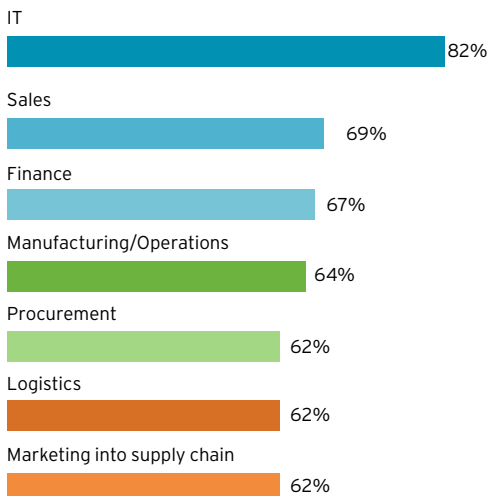
TRANSACTIONS IN THE AGE OF THE DIGITAL SUPPLY CHAIN

Digital in supply chain is opening interesting avenues to address age-old questions on transactional processes. Order to cash and procure to pay are some of the clear examples of how digital technologies, such as cloud-based process platforms and robotic process automation, have the potential to deliver higher process efficiencies and create superior customer experiences.
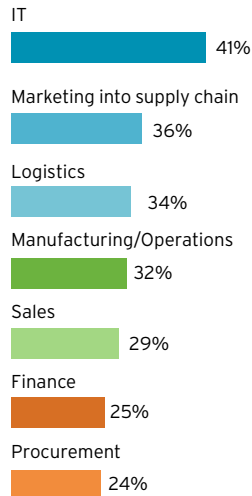
have a high degree of integration across functions (see chart). Especially notable are the possibilities that are opening for the finance function (see box).

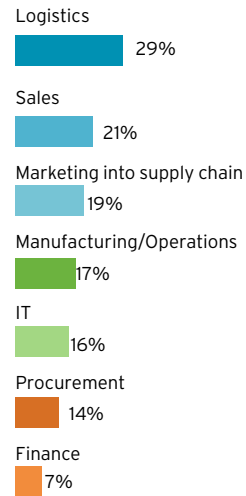**HIGH DEGREE OF DIGITAL INTEGRATION INTO SUPPLY CHAIN**

PROGRESSIVES

IT	82%
Sales	69%
Finance	67%
Manufacturing/Operations	64%
Procurement	62%
Logistics	62%
Marketing into supply chain	62%

RUNNERS-UP

IT	41%
Marketing into supply chain	36%
Logistics	34%
Manufacturing/Operations	32%
Sales	29%
Finance	25%
Procurement	24%

UP-AND-COMERS

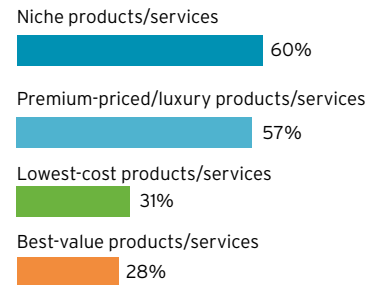|	
Logistics	29%
Sales	21%
Marketing into supply chain	19%
Manufacturing/Operations	17%
IT	16%
Procurement	14%
Finance	7%

AIM HIGH

During the first phase of digitization, efficiency is typically the top goal and the first business outcome. But the supply chain is much more than a money saver. It can create competitive advantage and growth. While efficiency and cost savings continue to be important, as companies grow more mature, their goals expand: They focus more on areas that can give them an edge that will, in turn, lead to higher growth. (See box on p. 11.)

Thus, for the supply chain progressives, cost savings are a lesser priority than they are for runners-up or up-and-comers. (Achieving cost savings is a priority for 38% of progressives, compared with more than half of the other categories.) At the same time, more progressives view the digital supply chain as fulfilling the vision of new business models. For example, 47% of them see a platform business model as a desired business objective of digitization, more than is the case with other companies.

The growth versus efficiency difference also exists among companies depending on their strategic positioning. Premium and Niche companies are much more focused on developing new products or innovating the existing ones, as it is the product or service, and not logistics, that is most important to them. (See chart.)

PRODUCT LINE GROWTH/PRODUCT INNOVATION AS A STRATEGIC PRIORITY

Niche products/services
60%

Premium-priced/luxury products/services
57%

Lowest-cost products/services
31%

Best-value products/services
28%

KAISER PERMANENTE: SEAMLESS HEALTHCARE

"The moment that a product is used on a patient becomes a moment of truth for our supply chain," says Kaiser Permanente's Laurel Junk. It reveals how well the organization is replenishing products and how well its supply chain processes are set up. To help drive this, Kaiser Permanente has directly integrated its electronic medical records system with its ERP.

This integration also allows for, among other things, variation analysis: comparing the price tags for different products used in the same procedures by different doctors, as well as what their ultimate outcomes on care were. The patterns detected by such analysis can lead to efficient and more effective delivery of care. Even if the products in a procedure cost more, better outcomes—such as lower infection rates, shorter surgical times or lower readmission rates—could be more cost effective in the long term.

As healthcare is moving to the home, Kaiser Permanente is looking at capturing data from across the whole continuum of healthcare delivery. The supply chain can have a direct impact on patient satisfaction by enabling home delivery of supplies, such as preoperative kits. QR codes can then help pull up a video about how to apply these supplies. And, after the surgery, technology can trigger delivery of post-operative supplies with information on how to use them. "The supply chain professionals can have some impact on patient satisfaction, and making the whole course of care much more seamless than it has been in the past," says Junk.

> "The moment that a product is used on a patient becomes a moment of truth for our supply chain."
>
> **LAUREL JUNK**
> **Chief Supply Chain and Procurement Officer,**
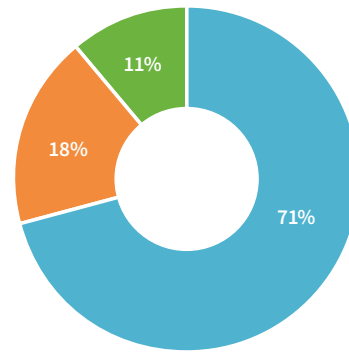> **Kaiser Permanente**

CUSTOMER-CENTRICITY

Using the supply chain to deliver on customer expectations is one area that creates competitive advantage and leads to customer loyalty and growth. Amazon's one-day delivery promise on some products requires a supply chain that moves like a fine-tuned machine. (See box on p. 14.)
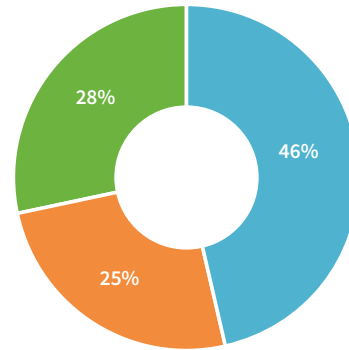
Supply chain progressives focus their digital transformation on the customer. In fact, for the majority of supply chain progressives, the customer is the top trigger of their supply chain digitization (71%), compared with 46% for runners-up and 36% for up-and-comers. Progressives thus start with the desired business outcome as their trigger. Those less advanced are more driven by putting in place foundations to make the supply chain effective, such as creating agile processes and improving data and analytics capabilities.
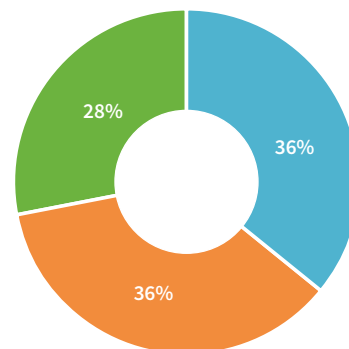
TOP INTERNAL TRIGGERS OF SUPPLY CHAIN TRANSFORMATION

SUPPLY CHAIN PROGRESSIVES

- 71%
- 18%
- 11%

SUPPLY CHAIN RUNNERS-UP

- 46%
- 25%
- 28%

SUPPLY CHAIN UP-AND-COMERS

- 36%
- 36%
- 28%

- ■ BUILDING CUSTOMER-CENTRIC SUPPLY NETWORKS
- ■ PROACTIVELY DESIGNING FOR AGILITY AND RESILIENCE
- ■ ANALYTICS AND SMART PROCESSES

The triggers that lead to supply chain digitization vary also by strategic positioning. Premium and Niche players prioritize customer-centricity, defined as segmentation or needs-sensing, more than Best-value or Lowest-cost companies. That is because, for Premium and Niche players, it is about personalized, high-touch, high-quality service, as they do not operate in the cutthroat-margin environment of Best-value or Lowest-cost mass marketers. That is why the latter focus more on the digital nuts and bolts of their supply chains, making sure they achieve the required efficiencies. (See charts.)

TOP INTERNAL TRIGGERS OF SUPPLY CHAIN TRANSFORMATION

PREMIUM
51%
22%
27%

NICHE
53%
27%
20%

■ BUILDING CUSTOMER-CENTRIC SUPPLY NETWORKS
■ PROACTIVELY DESIGNING FOR AGILITY AND RESILIENCE
■ ANALYTICS AND SMART PROCESSES

BEST-VALUE
38%
33%
29%

LOWEST-COST
40%
36%
24%

MONSANTO: FROM A PRODUCT-FOCUSED SUPPLY CHAIN TO A CUSTOMER-CENTRIC SUPPLY CHAIN

After operating as a manufacturing organization focused on delivering product at the lowest cost, two years ago Monsanto changed its vision. "We decided that we need to bring the customer into the conversation," says Jim Kinnett, vice president of global supply chain and enabling IT at Monsanto. "A farmer should have seamless transactions with us, similar to those of Amazon," he adds.

To this end, Monsanto created an end-to-end visible supply chain, integrating it with R&D and other functions. Insights from data and analytics get connected across the supply chain, empowering people to make faster and more accurate decisions, says Kinnett. Integration bolsters execution. **So far new supply chain solutions have led to a 50% reduction in the time of customer transaction closure, based on 400,000 customer interactions annually around the globe.**

> ## "We decided that we need to bring the customer into the conversation."
>
> **JIM KINNETT**
> **Vice President of Global Supply Chain**
> **and Enabling IT,**
> **Monsanto**

Kinnett sees the industry progressing to drive the customer experience differently and understand every piece of the environment around a customer's farm. **For example, data about soil types, as well as weather patterns, can help decide which are the best grain hybrids or chemicals to use to maximize yields.**

The company is now in the middle of its journey in transforming its supply chain from being product-focused to customer-centric, making it a competitive differentiator. "It's a transformation of Monsanto, not just its supply chain," Kinnett says.

STRATEGICALLY DRIVEN BY THE TOP LEADERSHIP

The supply chain is an enterprise-wide, not a departmental, priority. So, while the supply chain itself falls under the top supply chain executive, its digitization involves all functions. As shown above, all functions need to be digitally integrated into the supply chain. As an enterprise-wide priority, supply chain digitization benefits from support from the very top.

At the early stages, the initiative and drive come from the supply chain executives, but once the digital transformation encompasses the whole enterprise, championship from the top becomes more of the norm.

"One of the top reasons supply chain initiatives fail to take off is lack of C-level commitment," says Cognizant's Dhaneshwar. "The digitization of the supply chain is a big effort that will not happen overnight, which is why CEO support is paramount."

Bed, Bath & Beyond's Zelikovsky agrees that the supply chain underlies the performance of the organization. "The supply chain supports omni-channel shopping, and is thus directly tied to customer expectations and revenue generation. In effect, the heads of omni-channel are the CEO and the COO. Omni-channel in itself is not a position. Omni-channel is a mind-set and a cultural shift," he says.

Supply chain digitization is one of the top three issues on CEOs' agendas at 78% of the progressive companies, compared with 54% at runners-up and 52% at up-and-comers. The

focus from the CEO also reflects a new reality: Many companies now operate as an ecosystem of partners, vendors and alliances, which become part of the supply chain.

The prioritization of the supply chain by top executives varies also by strategic positioning, with almost half of CEOs from Best-value and Lowest-cost companies citing the supply chain as one of the top three issues on their agenda, compared with approximately two-thirds of the CEOs from Premium and Niche companies. While not a huge discrepancy, the CEOs from Best-value and Lowest-cost players might want to emphasize the importance of their supply chains. With their narrow margins, any efficiencies or speedier deliveries and product replenishing they can squeeze will give them exponential results.

SUPPLY CHAIN IS AMONG THE TOP THREE ISSUES ON THE CEO AGENDA

Niche
65%

Premium
63%

Best-value
50%
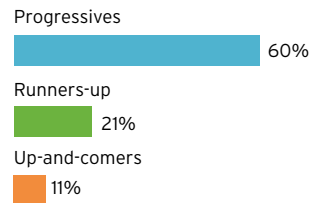
Lowest-cost
47%

INVEST

The pattern of investing in supply chain digitization over the last two years and projected investment over the next two years shows that companies that are the most progressive have made and plan to make the biggest investments. While successful digitization does not solely depend on the amounts spent, this continuing gap between progressives and the rest may mean that some companies are going to be left further behind. Some supply chain executives we spoke with pointed to the difficulties in attracting enough funding for supply chain digitization. Another resource that can be scarce is top talent.

The combination of resources, funding and human talent will determine the success of supply chain digitization. "This requires a change of mind-set," says Dhaneshwar. For many of the supply chain executives who are not digital natives, applying technology tools such as machine learning is a new concept.
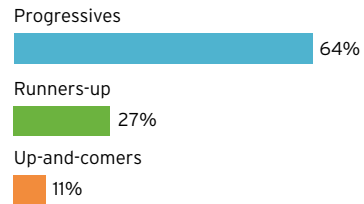
Companies need to use machine learning while enabling frontline employees with intuition to understand what the data is telling them. The solution is in the alignment of human and machine.

SUPPLY CHAIN MANAGEMENT INVESTMENTS

SIGNIFICANT INCREASE: LAST TWO YEARS
Progressives
60%

Runners-up
21%

Up-and-comers
11%

SIGNIFICANT INCREASE: NEXT TWO YEARS
Progressives
64%

Runners-up
27%

Up-and-comers
11%

Next Steps

- **Adopt a comprehensive approach to technology when digitizing your supply chain.** Make sure all the links are connected via unified technology. That means integrating all relevant functions into the supply chain to allow for data flows and visibility.

- **Get the most value from the supply chain.** While efficiency and cost savings are key, make sure to also build the supply chain as a foundation for new business models. Start your digitization with the desired business outcome–and build your supply chain accordingly.

- **Customer-centricity is the most desired business outcome of supply chain digitization.** It requires agility, visibility, and data and analytics. Make sure that you have the nuts and bolts of your supply chain digitization taken care of, and move to the next level– becoming customer-centric.

- **Ensure that your CEO champions the digitization of the supply chain.** Supply chain digitization should be a high-profile initiative within your company. While it can be devised and managed by the top supply chain executives, it requires other C-suite champions.
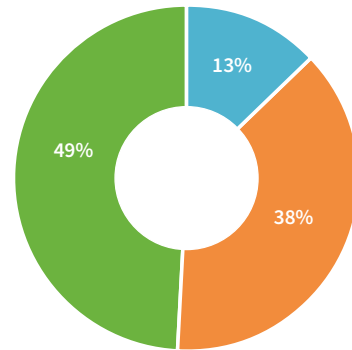
- **Take a comprehensive and long-term approach to supply chain digitization.** Companies that are currently the most advanced are also planning to invest the most in the digitization of their supply chains over the next two years. The gap between levels of maturity is widening, and may soon become insurmountable.
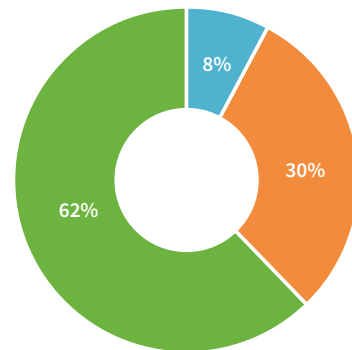
Industry Spotlight

This report is based on a survey of 490 respondents from around the world who work in three sectors: manufacturing, retail and logistics. An analysis of the survey results by sector reveals a strong and consistent pattern in terms of their levels of maturity. Manufacturing comes in first, as the most mature, with the largest group of supply chain progressives. It is followed by retail and logistics. (See chart.)
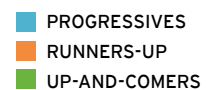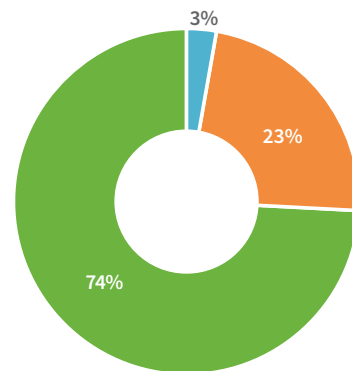
SUPPLY CHAIN MATURITY BY SECTOR

MANUFACTURING

13%
38%
49%

RETAIL

8%
30%
62%

LOGISTICS

3%
23%
74%

■ PROGRESSIVES
■ RUNNERS-UP
■ UP-AND-COMERS

This lead by the manufacturing sector carries over to other areas. Manufacturers are more likely to adopt a comprehensive technology approach to their supply chain digitization, invest more in it and, as a result, reap higher revenue and margins from the digitization of the supply chain.

Cognizant's Dhaneshwar explains the pattern in maturity among industries that emerged from the survey results. Manufacturers are ahead because their proposition centers on the value of their unique products. Therefore, they need to be very focused on innovation. They are also closer to a range of new technologies than many other industries.

Retailers have been upstaged by e-tailers such as Amazon, and need to tackle the complexities of omni-channel shopping and the challenges of the last mile of the supply chain. Bed, Bath & Beyond understands the importance of omni-channel. Zelikovsky explains that the "Beyond" in the company's name has always stood for "beyond the aisle." "We have to be there for our customers, in every channel, creating a seamless consumer experience across the supply chain," says Zelikovsky.

Going down the maturity levels, retailers are putting pressure on the logistics companies to squeeze out savings. The logistics sector is fragmented and operates on tight margins. There are around 200 regional parcel carriers, which provide unique value in their regions and offer speedier delivery on the last mile. The same patterns hold true for other forms of delivery.

While drone technology has not yet been applied for delivery in any significant way, the technology is proving useful for warehouse inventory management. Dhaneshwar notes, "For all industries, investment in supply chain digitization will be successful only when it's approached holistically."

Methodology

This report is based on a survey of 490 global supply chain executives. The biggest group (62%) is from North American companies, followed by Asia/Pacific Rim (19%) and Europe (16%). The executives work in three sectors: manufacturing, logistics and retail. A vast majority (65%) are either C-level or VP/SVP/EVP-level executives. The rest hold director or senior director titles. All executives work at companies with at least $1 billion in revenue, with 23% from companies with revenues of $5 billion or more.

Acknowledgments

About Cognizant

Cognizant is one of the world's leading professional services companies, transforming clients' business, operating and technology models for the digital era. Our unique industry-based, consultative approach helps clients envision, build and run more innovative and efficient businesses. Headquartered in the U.S., Cognizant, a member of the NASDAQ-100, is ranked 230 on the Fortune 500 and is consistently listed among the most admired companies in the world.

Forbes
INSIGHTS

ABOUT
FORBES INSIGHTS

Forbes Insights is the strategic research and thought leader-ship practice of Forbes Media, a global media, branding and technology company whose combined platforms reach near-ly 75 million business decision makers worldwide monthly. By leveraging proprietary databases of senior-level executives in the *Forbes* community, Forbes Insights conducts research on a wide range of topics to position brands as thought leaders and drive stakeholder engagement. Research findings are delivered through a variety of digital, print and live executions, and amplified across *Forbes'* social and media platforms.

INSIGHTS
Bruce Rogers
Chief Insights Officer

Erika Maguire
Director of Programs

Andrea Nishi
Project Manager

EDITORIAL
Kasia Wandycz Moreno
Director and Report Author

Hugo S. Moreno
Director

Zehava Pasternak
Designer

Research
Ross Gagnon
Director

Kimberly Kurata
Senior Research Analyst

Sara Chin
Research Analyst

SALES
North America

Brian McLeod
Executive Director
bmcleod@forbes.com

Matthew Muszala
Manager

William Thompson
Manager

EMEA
Tibor Fuchsel
Manager

APAC
Serene Lee
Executive Director