

Supply Chain Brief: Compare the Progress of Your Digital Supply Chain Roadmap

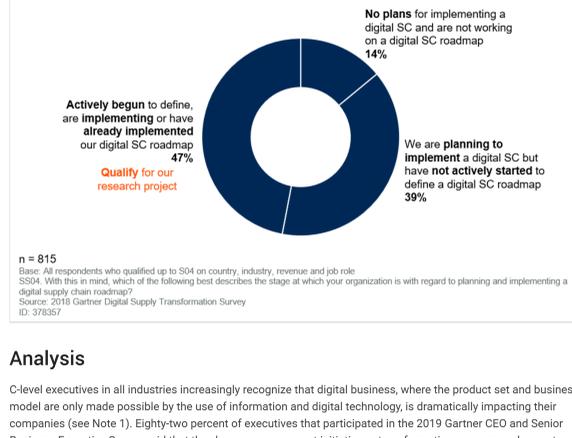
Published 15 October 2019 - ID G00378357 - 11 min read

Most supply chain organizations have not yet defined a digital roadmap, although the majority of C-level executives have digital initiatives. Supply chain leaders must define a digital roadmap that improves the current business but will also align to new digital business models.

What You Need to Know

The 2018 Gartner Digital Supply Transformation Survey suggests that fewer than half of the companies have actively begun to define, are implementing, or have already implemented a digital supply chain roadmap.¹ This is despite chief supply chain officers (CSCOs) ranking digital among their top five priorities (see "Toolkit: The Top 7 Imperatives for Every CSCO in 2018"). Another 39% plan to implement, but still have not actively started to define their roadmap. This research will help supply chain leaders to assess and compare their own progress versus others that are pursuing a digital supply chain roadmap (see Figure 1).

Figure 1. Stages of Planning and Implementing a Digital Supply Chain Roadmap



Analysis

C-level executives in all industries increasingly recognize that digital business, where the product set and business model are only made possible by the use of information and digital technology, is dramatically impacting their companies (see Note 1). Eighty-two percent of executives that participated in the 2019 Gartner CEO and Senior Business Executive Survey said that they have a management initiative or transformation program underway to make the business more digital. (See "2019 CEO Survey: The Year of Challenged Growth.")

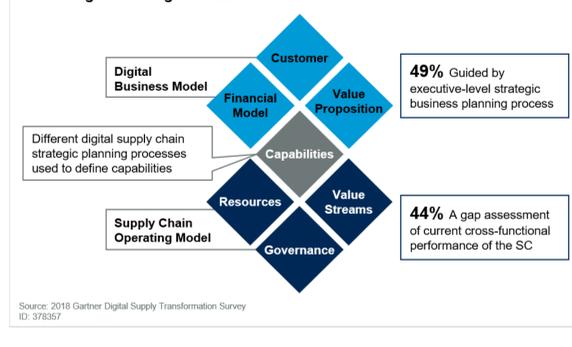
Despite this executive priority, fewer than half of supply chain organizations have actively begun to define, are implementing, or have already implemented a digital supply chain roadmap. The 14% that have no plans to do so – and even the 39% that have not yet started – risk falling behind their competitors in the race to embrace digital business.

We defined a digital supply chain roadmap in the survey as:

A digital supply chain roadmap is the process of defining the current state, and putting in place a migration plan and timeline, to reach a desired future-state digital supply chain. The roadmap prioritizes the projects and tasks to be executed to evolve from the current state across critical dimensions that include business process, technology, organization, skills, data and performance measurement.

- Within that group:
- Only 49% indicated that their digital supply chain strategic planning process is primarily driven by an executive-level strategic business planning process, which defines business requirements that then translate into the required digital SC capabilities. (See Figure 2.) This group is more likely to be defining digital supply chain capabilities that will support executive plans for future business models.
 - Another 44% said their digital supply chain planning process is primarily driven by a gap assessment of current operational performance of the entire cross-functional SC but not primarily dictated by an executive-level business planning process. This is certainly critical to improving the current operation. However, this raises a concern that planned digital supply chain capabilities may not support the future vision of digital expected by corporate executives.

Figure 2. Use of Executive Direction to Guide the Digital SC Strategic Planning Process



It is an important objective to run a more efficient supply chain based upon current business needs. However, it is essential to understand where your business is going in the future and to define what capabilities the supply chain must put in place to meet future digital business needs. Then, a digital roadmap must be put into place to enable the capabilities that will deliver against those future business needs. (See "Digitizing the End-to-End Supply Chain: A Guide to Using the Matrix Framework.")

The time horizons for roadmaps within that group of 47% vary as well. Long time horizons typically indicate a more strategic view, while a shorter time horizon indicates a company is focused on near-term benefits.

Our survey found:

- The majority of companies (42%) that are planning or actively implementing digital supply chain roadmaps define a time horizon of one to three years for their roadmaps.
- Thirty-four percent have a very short time horizon of 12 months. Such a short time horizon for a roadmap makes it difficult to align supply chain initiatives to a longer-term executive vision.
- Twenty percent of companies push their time horizon to three to five years. Less than 5% look out five to 10 years for their roadmaps.

Our research with companies in the Gartner Top 25 Supply Chain indicates that many strike a balance of both long- and short-term roadmap horizons. They establish a long-term vision that aligns supply chain to business strategy, while pursuing a more short-term roadmap that will deliver incremental value.

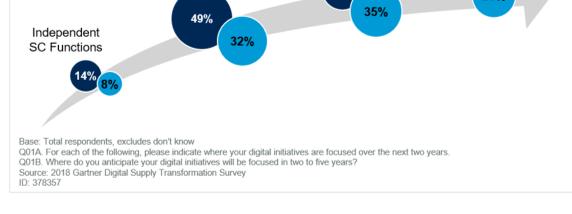
Digital Roadmap Initiatives Currently Focus on Integrating Supply Chain Functions With Support for New Business Models Increasing in the Future

As CSCOs and heads of supply chain strategy prepare for digital business, their challenge is how to prioritize and define which digital initiatives to pursue. They have many considerations, including business needs, technology maturity and the maturity of their organizations.

While corporate executives are concerned about digital disrupting their business models, only 16% of survey respondents with active digital supply chain roadmaps are actually working to support new business model designs over the next two years. Most companies (49%) are focused on integrating disconnected supply chain functions, while 21% are beginning to integrate with business functions outside of the supply chain, such as sales or customer service. (See Figure 3.)

A major shift will occur in the next two to five years, however, when 25% of companies that have deployed a digital roadmap expect to support new business model designs. More than one-third will also begin to integrate with business functions outside the supply chain.

Figure 3. Focus of Digital Initiatives Over the Next Two Years and in Two to Five Years



Organization and Governance Impact Digital Supply Chain Transformation Success

Challenges to deploying a successful roadmap include how to secure appropriate resources and how to prioritize. One reason companies struggle with this is because their governance approach leans toward prioritizing near-term benefits and overlooks driving more long-term strategic projects forward.

For example, a digital supply chain roadmap should include evaluating a mix of innovative emerging technologies, along with technologies that have already been more adopted in the marketplace. Yet, a majority of companies struggle to convert innovations to real value. Roughly 81% say it's challenging to scale new experimental innovation into operational production use.

3M is an example of one company that takes a balanced approach to pursuing emerging and more adopted technology in parallel on its roadmap. With multiple manufacturing plants, the manufacturer has opted to standardize on its ERP foundation, but it is simultaneously experimenting with emerging technologies. While building a solid digital foundation with ERP, 3M recognizes the opportunity to use digital technologies to connect to outside partners. Deploying cloud technology enabled better supplier visibility to demand inside the company, allowing for improved integrated business planning. In addition, 3M is experimenting with emerging technologies like machine learning, robotics and IoT to identify defects in manufacturing operations. (See "Gartner Supply Chain Top 25 Results for 2019" and "Video: End-to-End Visibility – the 3M Story.")

Adopting innovation is a risk that can be overruled when management and governance focus on closing existing process gaps.

So what are the governance characteristics of successful companies? The 2018 Gartner Digital Supply Transformation Survey found that:

- Aligning executive-level business governance to the digital supply chain roadmap leads to greater success. For organizations where this alignment was selected as being very important, the odds of their digital supply chain initiatives exceeding business objectives substantially were up by a factor of nearly four.
- It is crucial to not pursue digital in a silo. Those that aligned their digital supply chain initiatives to other supply chain improvement roadmaps were nearly three times more likely to say they were exceeding business objectives.

Organization and governance are keys to success in driving digital supply chain transformations. A separate 2018 SCM World Team of Tomorrow Survey, corroborated by a number of interviews with leading supply chain organizations, pointed to the following six key organizational capabilities. Companies need to put these organizational capabilities in place to support successful supply chain digital transformations (see "Designing the Supply Chain Organization in a Digital World"):

- Drive – CSCOs are taking the lead on digitalizing their supply chain. They realize that digitalization is not just a technical project, but is the most relevant transformation in supply chain strategies in a long time.
- Design – CSCOs cannot drive digitalization on their own and need to create a team that can test and learn about emerging digital technologies as they apply to supply chain.
- Organize – CSCOs are planning to create a more centralized supply chain, breaking down functional and regional silos.
- Skill – The necessary approach to specialization is calling for cross-functional skills-profiles that are able to thrive in an end-to-end supply chain organization.
- Technology – The technology approach facilitating centralized, end-to-end organizations passes through a control tower, creating one version of the truth that supports an open and collaborative decision-making environment.
- Operate – The way centralized supply chains operate in the digital world is not dissimilar to what happens in social media. Empowered by the real-time information available through the control tower, supply chain leaders will dynamically group in self-forming teams to address events as they are happening.

Recommendations

Supply chain leaders with a focus on supply chain strategy, leadership and governance (e.g. in digital business should):

- Engage business partners to develop a vision of future digital business models. Take the lead in driving this if others are not.
- Align digital supply chain capabilities to future business scenarios by defining initiatives that simultaneously optimize and transform.
- Communicate to all stakeholders the digital roadmap and its value, and develop a digital workforce and the IT skills to architect a digital supply chain.
- Implement a governance process that aligns digital supply chain to business goals and then ensures execution toward the long-term vision.

Evidence

¹ Digital Supply Transformation Survey. Gartner surveyed organizations between 23 May 2018 and 11 July 2018 to better understand how executives and functional leaders prioritize and organize to define their digital supply chain roadmap, drive their transformation and learn what success looks like.

There were 377 respondents from the U.S. (n = 86), Canada (n = 59), France (n = 60), the U.K. (n = 58), Benelux (n = 5), Australia (n = 40) and Singapore (n = 53). Country, value chain industry, revenue band, and job role quotas were established to enable the comparison and contrasting of key trends:

- Qualifying organizations are large organizations in the retail, healthcare provider, consumer products, chemical, industrial, high-tech and life sciences manufacturing industries. They have at least \$1 billion USD equivalent in total annual revenue for their current fiscal year 2017 (\$500 million USD equivalent and above outside the U.S.). These companies are planning to implement a digital supply chain and have actively begun to define a roadmap, are actively implementing, or are in the advanced stages of their digital supply chain roadmap.
- Qualified participants hold positions or job roles tied to supply chain functions (e.g., planning, sourcing, manufacturing, logistics, customer service, strategy and IT). They are actively involved in defining the plans for implementing a digital supply chain, which would include defining the roadmap by identifying and managing projects, as well as considering and experimenting with emerging technologies as they relate to supply chain.
- Interviews were conducted online and in a native language (English, German or French). The sample universe was drawn from external panels of IT and business professionals. The survey was developed collaboratively by a team of Gartner analysts that follows these IT markets, and was reviewed, tested and administered by Gartner's Research Data and Analytics team.

Disclaimer: Results do not represent global findings or the market as a whole but are a simple average of results for the targeted countries, industries and company size segments covered in this survey.

Note 1

Digital Business Definitions

- A "digital business" is an organization or a unit within an organization whose product set and business model are only made possible by the use of information and digital technology.
- "Digital business" is the operation of a business whose product set and business model are only made possible by the use of information and digital technology.

For further details, see "Four Definitions Make a Digital Business Strategy Process More Effective."

Michael Burkett
Distinguished VP Analyst

John Johnson
Sr Writer

Learn how
Gartner can
help you succeed

Become a Client now >