



## Building a bimodal supply chain

*Connecting supply chain efficiency and growth*

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Today's business leaders expect a lot from their supply chains – efficiency, growth, operational improvements, innovative ideas and disciplined cost management. Unfortunately, most strategies focus only on improving supply chain efficiency. Explore the importance of a new approach that delivers on all fronts – the bimodal supply chain.

Imagine you have two supply chain strategies to choose from – one based on efficiency; the other on growth. Which do you follow? Unlike in Robert Frost’s famous poem *The Road Not Taken*, supply chain managers have historically NOT taken the road less traveled, instead opting to follow the more common efficiency-based path.

Taking the road too frequently travelled has proven to be a mediocre strategy when streamlining individual supply chain processes. While a focus on efficiency has traditionally assisted with the identification of risks within functional domains, provided supply chain stability and helped with bottom line focus, efficiency gains did not meet expectations. With today’s business conditions being more complex and volatile than ever before, continuing down an efficiency-focused path is likely to lead your supply chain directly to a dead end. A new era is upon us.

*“Two roads diverged in a yellow wood,  
And sorry I could not travel both  
And be one traveler, long I stood  
And looked down one as far as I could  
To where it bent in undergrowth; ...”<sup>1</sup>*

**Robert Frost**

The rapid growth of the digital world – from the Internet of Things (IoT) to big data to evolving technologies – means innovation is needed. Supply chains have to become faster and more responsive to remain successful. Kevin O’Marah, Chief Content Officer, SCM World, explains that “Digitised supply chains mean blending better demand sensing using data analytics, cloud computing and machine learning with faster, more personalised supply response employing 3D printing, advanced robotics and digital supply chain.”<sup>2</sup>

To create these digital supply chains we must connect data, process and people in a whole new way. That doesn’t mean abandoning current supply chain practices by the side of the road. In fact, it means doing exactly what Frost wished he could do in his poem – travel both paths. Because as it turns out, most CEOs want it all: growth, efficiency, operational improvements, innovative new ideas and disciplined cost management. All of which leads to improved profit and higher customer satisfaction levels.

*“Like electrification in the early 20th century, digital is reshaping where,  
how and when work gets done.”<sup>3</sup>*

**Kevin O’Marah**

Chief Content Officer, SCM World

The problem is, balancing efficiency and innovation within your supply chain can often seem like trying to drive two cars in opposite directions, at the same time. The way forward lies in learning how to successfully innovate within your supply chain. That is how to drive both cars simultaneously. That is how to create a supply chain based on reliability and agility. That is a *bimodal supply chain*.

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<sup>1</sup>Frost, Robert; Untermeyer, Louis; *The road not taken: a selection of Robert Frost’s poems*, New York: H. Holt and Co., 1991

<sup>2</sup>O’Marah, Kevin, *Digitisation: embracing change with agility*, Beyond Supply Chain blog, September 16, 2016

<sup>3</sup>O’Marah, Kevin, Chief Content Officer, SCM World, September 16, 2016

## Defining bimodal

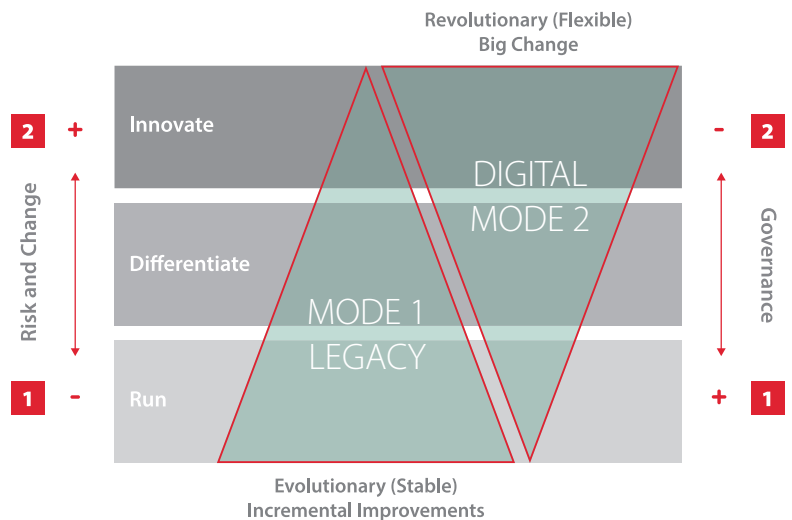
Bimodal – its simplest definition is something which has two distinct modes. When it comes to supply chain, those modes are related to efficiency and growth. Research firm Gartner, most often credited with coining the term ‘bimodal supply chain’, describes the first mode as one based on cost-saving measures. Mature businesses need predictability, accuracy and reliability. The focus in mode one is on maintaining the status quo and managing day-to-day operations while finding ways to reduce overall cost structure. Mode two is all about breakthrough innovations. This is what’s needed for businesses to break into new markets or launch cutting-edge solutions. Mode two focuses on experimentation and driving revolutionary changes in how supply chains adapt to new risks and opportunities.<sup>4</sup>

Jane Barrett, Group Vice President, Gartner explains it like this: “In mode one, supply chains must continue to focus on efficiency and operational excellence – the traditional operational caretaker. In mode two, in parallel, you must be able to experiment, fail (fast), innovate and embrace new crazy ideas. This needs different people, incentives and culture. You must hire data scientists and sociologists, experiment with drones and other smart machines, harness unstructured data and design e2e connected processes like never before. Analytics must become embedded and mainstream.”<sup>5</sup>

Both modes are required to close the growing divide between what the supply chain provides and what the enterprise needs. Both are key to achieving success in an increasingly complex and global environment.

Innovative new digital initiatives need to run alongside the traditional analog business. And simply devoting an occasional meeting discussing how to propel your supply chain into the future will not lead to success – a more significant commitment is required. As Christy Pettey, Director of Public Relations, Gartner, explains, “Bimodal requires an ongoing, sustainable approach, with the goal of driving digital to the core of the business.”<sup>6</sup> This innovation center needs to be an entirely separate entity within your supply chain. This team of creative thinkers must have the freedom and flexibility to explore new ideas outside the often rigid constraints of maintaining day-to-day efficiency.

“In most enterprises, scattered mode-two capabilities already exist, and to become bimodal most chief supply chain officers (CSCOs) can harness significant pockets of capability already in the enterprise,” says Stan Aronow, Research VP, Gartner. “Mode two, however, is not only about agility or experimentation. Building a sustainable mode-two capability is about fostering a culture and governance that encourages open thinking and leverages creative talent in a way that balances disruptive innovation with the needs of the business.”<sup>7</sup>



Source: Stiffler, Dana; Barrett, Jane; Hofman, Debra; Johnson, John, Disrupt or Be Disrupted - Defining the Bimodal Supply Chain, Gartner, December 30, 2015.

<sup>4</sup>Pettey, Christy, *Innovate Under Every Condition: The Bimodal Supply Chain*, Gartner, May 17, 2016

<sup>5</sup>Barrett, Jane, *Build a Bimodal Supply Chain and Take Charge of your Digital Future!*, Gartner, October 1, 2015

<sup>6</sup>Pettey, Christy, May 17, 2016

<sup>7</sup>Pettey, Christy, *Leading Supply Chains Do Three Things Well*, Gartner, May 4, 2016

Mode one is focused on accountability and cost savings. It's about the day-to-day running of the business. Mode two is innovative and dynamic. It's heavily outcome driven. Mode two has more risk and change. Mode one, more governance. Fast and slow. Traditional and revolutionary. That's bimodal.

## The risks of staying stationary

The risks of ignoring this digital shift and keeping your supply chain with only a single mode are rising. If you're not also innovating within your supply chain and continually looking for ways to combat the obstacles outlined below (and more!), you're going to be left behind.

### **Consumer demands rising**

Companies like Walmart, McDonald's, Panera and Chipotle are already changing the way their supply chains work to keep up with growing consumer demands.<sup>8</sup> From free shipping to 24/7 ordering to ensuring sustainable, environmentally friendly goods – customers' requests are driving businesses adopt new processes and practices.

### **Talent shortages looming**

According to the American Association of Retired Persons (AARP), it is estimated more than 10,000 baby boomers a day are turning 65, a pattern that will continue for the next 19 years.<sup>9</sup> Industry veterans are beginning to retire without suitable replacements to succeed them. This problem is relevant across all industries, and compounded by the fact that many organizations' current supply chain technologies and processes don't support the new level of risk and response management required to address all of the threats facing supply chains. You have an experienced workforce leaving, with the need to not only replace those vacancies, but also drive supply chain process improvements at the same time.

### **Unexpected global events increasing**

From 2014 to 2015 there was a 118% increase in disruptive supply chain events according to data from Resilinc, a leading provider of supply chain resilience and supply chain risk management intelligence and analytics. Resilinc named Typhoon Soudelor, which hit Taiwan in August 2015, the most disruptive supply chain event in this timeframe in terms of lost revenue. The estimated impact was more than \$20 billion, with total recovery time lasting 29 weeks and impacting 2,401 sites.<sup>10</sup> This is just one example of increasing supply chain risk that has made fast response time a critical success factor.

These realities make a bimodal supply chain essential.

*While innovation is the way forward, you can't just flip the switch and implement an entirely new set of supply chain processes.*

## Discovering the right path

Combining stable best practices with innovation-seeking behaviors will help keep your supply chain competitive in the face of mounting supply chain complexities. Focusing only on cost and operating efficiency doesn't allow for continued and sustainable growth. While innovation is the way forward, you can't just flip the switch and implement an entirely new set of supply chain processes. Not if you want those changes to be successful.

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<sup>8</sup>Cheater, Alexa, *Consumers Priorities Driving Major Supply Chain Changes*, 21st Century Supply Chain blog, May 19, 2015.

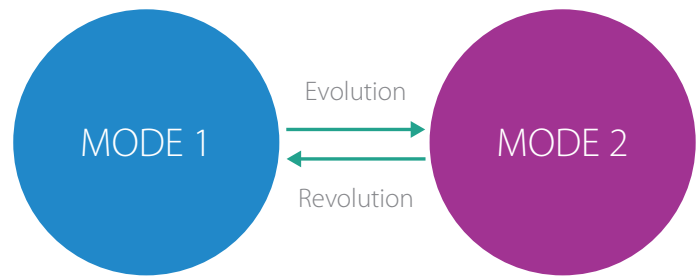
<sup>9</sup>American Association of Retired Persons

<sup>10</sup>Mcavoy, Kaitlyn, *Typhoons, Tianjin Explosions and Factory Fires Made 2015 a Highly Disruptive Year for the Supply Chain*, Spend Matters, February 16, 2016.

So how can you actually accomplish duality between efficiency and growth within your supply chain? How do you successfully manage one supply chain focused on two very different goals? You have to set a new course that can adapt and change, one that keeps you on the roadway when required, but allows you to go off-roading too. It's a delicate process. Veer too much toward efficiency and your supply chain will become stagnant, lagging behind competitors who are keeping pace with emerging technology. Veer too far toward growth and the risks associated with failure climb higher.

Operating a bimodal supply chain becomes a case of revolutionary new ideas becoming the next incremental evolution of your supply chain. Think of mode two as revolutionary. It's about big, fast changes that can lead to huge rewards. But also to huge risks if the implementation fails. You need to have a process in place for structured organizational change management. Mode one is much more evolutionary. Small, incremental steps toward change. You aren't likely to see a big payoff, but you aren't going to bankrupt the company in the process either.

Ensure you give your innovative new ideas adequate time to succeed or fail, but don't be afraid to cut the engine quickly if it's clear you're headed off track. Fail fast. But once you've found success, adapt the new process so it becomes a stable part of the day-to-day operations, the logical next evolution to what you've already been doing. Then it's time to start the cycle over again with another great new revolutionary idea. This is how revolution becomes evolution.



## Discovering the change

According to Gartner, closing the gap between efficiency and growth “requires a new, agile approach to investment in technology, leadership and talent.”<sup>11</sup> While there's no question organizations need to start embracing new and evolving technology, it's those other two investment areas – leadership and talent – that are actually the bigger roadblocks.

As Trevor Miles, VP Thought Leadership, Kinaxis, puts it, “As a practice we are a bunch of engineers who have been trained and taught to value precision, efficiency, and repeatability over approximation, effectiveness, and agility.”<sup>12</sup>

Changing those old mindsets to allow for a focus on fresh, innovative ideas isn't always easy. Neither is managing the personalities of traditionally-minded employees with those who are more revolutionary-minded (often Millennials). Driving this much needed shift in culture requires strong leadership and a core team ready to embrace the benefits of both mode one and mode two employees.

Additionally, those working in mode one, on the analog side of supply chain, need to feel as valued as those on the more fast-paced digital side. Often, those credited with the big breakthroughs receive all the acclaim, but it takes both mode one and mode two teams to implement those breakthroughs and achieve success. Those who are part of mode two operations need to realize change doesn't happen overnight. Rushing can lead to costly mistakes and important lessons can be learned from analyzing past decisions.

But it's not enough just to have strong leadership to guide your supply chain into the future. You need to find a way for the innovators and the traditionally minded to work harmoniously together. That means successful change management. It becomes about creating a more cooperative and collaborative way of doing things.

## Fostering successful collaboration

Those with a close eye on supply chain best practices have recognized the need for a new generation of collaboration, which brings together data, processes and people across all supply chain functions. Through this collaboration, everyone from planners and inventory managers to suppliers and service providers can access the same information at exactly the same time.

<sup>11</sup>Petty, Christy, May 17, 2016.

<sup>12</sup>Miles, Trevor, *Move Over Old Man. It's Time to Meet Supply Chain Planning 4.0*, 21st Century Supply Chain blog



The secret to solving the data portion of this collaboration challenge requires organizations to eliminate spreadsheets and create a more flexible supply chain based on a single source of the truth. Rather than spending time collecting and consolidating data in spreadsheets that will quickly be out of sync with their system of record, stakeholders can get straight to the business of collaboratively planning and responding to supply chain demands.

True collaboration also requires context – more agile processes and a better picture of the end-to-end supply chain – to support decision-making aimed at achieving corporate goals. Connecting the supply chain from end-to-end (suppliers to customers), is vital to this ability. Continuously planning, monitoring and responding within a single environment increases collaboration across business functions. Companies that achieve this level of cooperation reduce risks and make faster, better decisions.

If the lag time to share planning decision results can be eliminated and people have a way to concurrently assess impact, the conversations related to tradeoffs and compromises can flow seamlessly across the supply chain. This is vital to the success of a bimodal supply chain where mode one and mode two teams need to work together. Making critical decisions in time to drive value requires everyone to see their data and planning process results at exactly the same time. When this level of connecting people is enabled, supply chains become more responsive to their customers and have a greater ability to navigate through unexpected events.

## The vehicle to get you there

While successful collaboration requires compromise, it also requires having the right tools to enable much needed continuous communication. Enter the need to invest in technology.

In addition to providing enhanced collaboration capabilities, the right supply chain solution can also help enable the successful transition to a bimodal supply chain. With improved response management, mode one can spend less time firefighting and more time focused on high value activities. The ability to rapidly see potential outcomes through scenario simulation allows mode two to quickly determine whether a proposed change to the supply chain would help or hinder the situation in question. Flexibility and increased speed in implementing changes helps both modes move innovative new ideas from revolutionary to evolutionary with minimal disruption.

Concurrent planning – the ability to plan, monitor and respond continuously – helps bridge those functional silos often prevalent in supply chains and connects not only mode one and mode two, but all nodes in the value chain. Imagine a supply chain solution where multiple supply chain planning functions are holistically managed in the same system, enabling cross-functional coordination and faster, more effective decision-making.

The right technology solution must also be capable of adapting to our new digital world. That means having the expandability to take advantage of new capabilities, algorithms and automation. As Tim Payne, Analyst, Gartner explains in his paper on digital business, supply chain planning leaders will be required “to move a significant part of their planning from traditional “conscious” planning to automated “subconscious” planning supported by a range of algorithms.”<sup>13</sup>

This move to a new planning paradigm will result in a corresponding alteration in the role, skill set and value-add of supply chain planners. A new era of network planners will emerge as part of the planning revolution. The tools they'll use will be able to automate low value-add activities, increasing overall supply chain efficiency while still enabling human input for exception management.

## Following the road forward

Blending traditional with innovative, efficiency with growth, analog with digital, making the shift to a bimodal supply chain is becoming a critical factor to supply chain success. Ensuring your company has the right framework means investing in leading-edge technology, the right leadership and the right talent. It takes both sides of the supply chain – mode one and mode two – to make the change happen.

Improve collaboration, don't be afraid to take risks and be aware what standing still in this fast-paced, evolving world could cost you. Move past a solely analog supply chain and embrace digitization and innovation. It's the only way forward to supply chain success.

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<sup>13</sup>Payne, Tim, *Digital Business Requires Algorithmic Supply Chain Planning*, Gartner, September 22, 2016.

## Additional resources

- ▶ [WHITE PAPER] [Supply Chain Planning 4.0: Planning Revolutionized](#)
- ▶ [INFOGRAPHIC] [Supply Chain Risks Big or Small, Prepare for Them All](#)
- ▶ [EBOOK] [3 Ways to Improve Supply Chain Collaboration](#)
- ▶ [INFOGRAPHIC] [Manage Murphy's Supply Chain Law with Concurrent Planning](#)



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## About Kinaxis Inc.

Offering the industry's only concurrent planning solution, [Kinaxis](#) helps organizations around the world revolutionize their supply chain planning. [Kinaxis RapidResponse](#), our cloud-based supply chain management software, connects your data, processes and people into a single harmonious environment. With a consolidated view of the entire supply chain, you can plan expected performance, monitor progress and respond to disconnects when reality hits. RapidResponse lets you know sooner and act faster, leading to reduced decision latency, and improved operational and financial performance. We can prove it. From implementation to expansion, we're here to help our customers with every step of their supply chain journey.

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