KPMG

Voice of the CSCO

A recurring conversation with CSCOs on the state of their supply chains

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CSCOs discover a breakthrough with cost to serve

In our conversations with chief supply chain officers (CSCOs), we know cost to serve (CTS) can be a sore subject. It sounds great on paper, knowing the cost factors that go into servicing of a customer and essential for evaluating profitability. However, gathering data, analyzing costs and allocating them, and more can be time-consuming with questionable results. CSCOs were in for a surprise, learning that CTS is better serviced by leveraging advanced analytics, machine learning, and predictive modeling techniques. In fact, by leveraging technology, CTS can be a daily, weekly, or monthly report that supply chains generate for leadership. Doing a CTS analysis by applying the Internet of Things represents a breakthrough in supply chain management. While CSCOs are pro technology, they're also realists. They know marketing spin doesn't equate to business results. Also, failures at pilot to scale serve as a constant reminder that some tech isn't ready for prime time. When businesses openly share what works, it creates opportunities for improvement across industries.

On the CSCO agenda

Upgrading cost to serve

Down to the SKU level

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Not ready for prime time

Rethinking pilot to scale

The role of digital and analytics

Upgrading cost to serve

Down to the SKU level

Cost to serve (CTS) analysis accounts for the cost factors that go into servicing of a customer. With CTS, supply chains can conduct advanced forecasting and scenario planning with a focus on profitability. The age-old problem with CTS has been the difficulty of working with the sheer number of assumptions. The entire process entails a major effort often only undertaken once or twice a year with dubious impact.

Brandon Harsany with KPMG works primarily in strategy and analytics under the supply chain umbrella. Brandon shared the KPMG approach to CTS in a model that is operational and repeatable with wide-ranging profitability.

The sales order is the backbone of how the model is structured. All the end allocations happen at the customer order at the SKU level. That way, data can be tracked daily, weekly, yearly, whatever is required. The key is the bottom-up perspective.

"Looking into the individual cost of goods sold and the buy- and sell-side economics, all those things play against each other and having them at that very granular level is very powerful," said Harsany. "It becomes an economic model that supply chains can utilize."

With sales order data with SKU detail inputting the economic model, analytics can then be applied. In short order, users can perform intelligent forecasting and leverage machine learning to act on the data. You can also layer on market conditions that might influence forecasting or planning. The SKU-level detail provides the confidence in the numbers.

Brandon went on, enthusiastically sharing that supply chains could set up a prompting engine on top of the economic model and train it to answer queries like, "What is the profitability of a distribution center for this customer?"

CSCOs were receptive to a better approach to CTS with some good questions around data and the mechanics of layering on a large language model with GenAI capabilities. Most of the group knows the data challenge with predictive analytics. Brandon didn't sugar coat it, sharing that there is a level of work that goes into building and testing the model to get outcomes that are insightful and leverageable.

Overhyped technologies

Not ready for prime time

CSCOs, like all members of the executive team, have been on the receiving end of marketing pitches for new technologies. For many CSCOs, the hype never materializes in a use case.

The CSCO of a major distributor shared his experience. "We've looked at different companies who claim they use artificial intelligence to improve predictive analytics. Then when we start using the tools. It's so limited in what they can do. We believe it's still bleeding edge, not yet cutting edge."

Brandon is no stranger to new solutions and offered CSCOs a different perspective. "There's a lot of tools that push hard these days, but organizations may be surprised. You might have something that would work sitting within your IT stack."

Another strategy with overhyped technologies isn't to wait for them to contact your organization. Instead, examine your use cases and then seek out tech solutions that fit your needs.

That's the approach used by a multinational oil and gas company that searches out technology solutions not just for the supply chain but also the wider business. They have a small central team that scouts the world for applications. Selected tools come through a portal for analysis. If the solution is around technology automation, it's first studied to see its potential for solving an identified problem. If it passes that test, then the engagement team takes over and examines the solution's ability to understand the company's existing data. If it's a go, then the solution is put to the test using company infrastructure and internal data in a six-week pilot.

"It's great having the central team focused on searching out solutions," said the CSCO. "It's been a differentiator for us."

Another CSCO had a different kind of new technology experience that might classify as serendipitous. The company was trying to solve a problem with artificial intelligence and tested five different solutions. The company walked away from all five except one. The reason it was kept wasn't the AI component; it was the other technology that came with it that proved beneficial.

If more companies had a better approach to evaluating new technology, the rate of success with implementing cutting edge solutions might well increase.

> "Many new technology solutions are bleeding edge, not cutting edge."
>
> Major distributor CSCO

Rethinking pilot to scale

The role of digital and analytics

When reviewing new technology solutions, it may make sense to fight fire with fire and employ digital and analytics in the testing and evaluation process. Doing so might generate better results than pilot to scale. The recurring challenge with pilot to scale is either it doesn't work with new technology in your use case, or the results don't scale.

"I'd love if we had more confidence to jump right into the fray with the precise tool, but that hasn't been our experience so far," said a CSCO of a manufacturer and marketer of consumer and professional products.

"It might be the way we're evaluating these tools, and the problems we're trying to solve."

Given necessity is the mother of invention, another CSCO hit on a road map that was more integrated. "The road map was effective because we were able to carve out discrete problems, known issues, and usable tech."

Identifying needs and issues help match with the right technology solution. The road map leading to the discovery of usable tech applies Brandon's advice that the solution might well be in your information technology (IT) stack.

Evolving beyond pilot to scale is something Mary Rollman, US Supply Chain Advisory leader for KPMG, knows well. "I've observed over the years that digital and analytics are most successful when personalized to the business."

Mary continued to say that businesses have to learn how to use the tools and then apply digital and analytics to business circumstances. In other words, your team should get comfortable using the tool with line of sight into how it solves a business problem. Then lean into proven digital and analytics tools like digital twins, predictive analytics, and AI algorithms that aid in mimicking testing or prove out assumptions with real data.

Brandon provided an example of how a solution personalized to the business works in his world. With clients, his team tailors the solution to the business requirements and builds it within Python, in an environment like Databricks in Azure or Snowflake. The entire development process is streamlined if the company's IT infrastructure already resides on Azure. The Internet of Things creates possibilities that didn't exist before.

> "Over the years I've observed that digital and analytics are most successful when personalized to the business."
>
> Mary Rollman, KPMG U.S. Supply Chain Advisory Leader

Key considerations

- Develop detailed business requirements for new tech
- Coordinate with IT on infrastructure capabilities
- Audit IT tech stack for digital and analytics

Additional resources

The disruption dilemma in supply chain
Putting AI to work for the supply chain
Unchain the supply chain

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