Getting It Right

Tim Payne Tells the FocusConnect 2011 Audience How to Select the Best Technology for Supply Chain Success

Companies face a myriad of choices when it comes to selecting the right technology to support their supply chains. According to Tim Payne, Gartner Group's research director, the technology a company chooses all depends on where that company is in its supply chain journey. From the FocusConnect 2011 General Session main stage in London, Payne provided a packed room of supply chain professionals with guidance to help make the task easier.

"We need different technologies at different times in our supply chain journey," said Payne. "We don't implement technology in the supply chain and then say, 'Well, that's it. We've done supply chain.' We want to keep moving forward, developing and improving the performance of the supply chain."

Payne illustrated the journey to supply chain excellence, and the steps to achieve it, using the Demand-Driven Value Network (DDVN), a supply chain maturity model designed by Gartner to assess supply chain leadership. The type of supply chain technology a company uses will change as it progresses from the lower levels of the DDVN model to a more mature position, where demand, supply and technology processes are tightly integrated.

Identifying the Right Technology

Payne advised companies to address their supply chain technology needs using a Gartner framework called pace layering. This framework — used not just in supply chain management, but in many areas of business applications — focuses on three technology layers that support a company's supply chain needs:

- **Systems of record** support the fundamental, non-differentiating processes. For example, most companies consider enterprise resource planning (ERP) technology a system of record.
- **Systems of differentiation** offer capabilities that improve processes. For instance, a system of differentiation for inventory optimization would enable a company to support multi-echelon inventory optimization and employ postponement strategies in the supply chain.
- **Systems of innovation** feature the latest advancements in supply chain technology. Cost-to-serve analysis, which is how a company analyzes cost profiles through the supply chain, is an example of a system of innovation designed to help businesses improve decision making.

How a company aligns supply chain software investments within the different pace layers will change as it moves through the DDVN model. For instance, companies that view the supply chain as a vehicle for reducing the cost of doing business will most likely appear at the lower levels of the DDVN model. These companies have a fragmented approach to demand and supply, are operating in silos and have a reactionary approach to the supply chain. Typically, this group relies on systems of record such as ERP to manage planning and execution from a supply chain perspective.

As companies move into the second level of the DDVN model, integrated planning processes typically form the supply chain foundation. While these companies still use ERP, they are also using best-of-breed software as systems of differentiation to support their demand planning and supply planning needs.

Companies that reach the higher levels of the DDVN model progressively shift their software investment to best-of-breed and managed services offerings. These align with the systems of differentiation and systems of innovation, empowering the companies to drive competitive advantage from their supply chains.

What does this mean for companies researching and selecting supply chain technology? Payne suggests that organizations think about which pace layers of technology are needed at each DDVN stage, and then determine which solutions provider best supports that supply chain capability.

Connecting the Pace Layers

How a company connects the pace layers — from systems of innovation to differentiation to record — is important. In between those layers, there will be connectors such as service-oriented architecture or master data management (MDM). For instance, business process management workflows can help connect elements together within the process, while MDM can help separate the data from the process logic in order to manage those different application areas. Companies must determine whether this can be done in-house, or if a technology partner is needed to help provide the infrastructure necessary to blend those different elements together.

Examining Technology From a New Framework

According to Payne, the pace layer framework should prompt different types of thinking within organizations: Companies should start thinking about applications in terms of the pace layers they're supporting.

Each pace layer has its own set of characteristics. For instance, a system of record has a life span of 10–20 years. It provides basic functionality; it doesn't give companies a competitive advantage. But as companies move through the framework of systems of differentiation to systems of innovation, the life spans decrease. Life spans for systems of differentiation average three to five years due to improvements and changes in the functionality. The life spans of systems of innovation range from six months to three years.

Support requirements are also different. A system of record must be robust; there will be a lot of people using it. As a result, there's a lot more input from the technical side. However, as companies move from the pace layers of systems of differentiation to systems of innovation, it switches around. There's much more input and ownership required from the business side because the technology is driving value in terms of the performance needed from the supply chain.

Payne explained that vendors and applications will have different characteristics. Some vendors can offer multiple pace layers, and others are very focused in one layer or another. Companies need to look at that and say: Is this vendor one that can deliver all of these pace layers for me, and how do they knit together? Or are they predominantly focused on one layer only?

Payne offered the FocusConnect audience some parting words of wisdom:

- Sit down with your IT group. Look at the technology you currently have from a supply chain perspective and try to map to the pace layer framework. Determine how much technology falls into the systems of record, differentiation or innovation categories.
- Then examine your company's supply chain strategy, as well as the capabilities you need to support that vision. Determine what is required from a system of record, differentiation or innovation standpoint.
- Based on where you are in the DDVN model and the industry you're in, there are a number of benchmarks and resources available to help guide your next steps. Consider your company's perspective on sourcing technology and how you work with particular vendors.
- Once you have a clear picture of what technology you have today and what you need to support future initiatives, the easier it will be to build a business case for that technology and to determine the best vendor to support your supply chain needs. ■

The JDA Difference

With best-in-class solutions and more than 25 years of supply chain expertise, JDA has the technology, people and processes to help its customers attain the highest level of supply chain leadership. The breadth and depth of JDA's technology footprint can support companies as they move through the stages of DDVN maturity and align the pace layer framework to this journey. Plus, companies can leverage JDA's enterprise architecture to connect the pace layers, providing a powerful foundation for supply chain excellence.

This article originally appeared in Real Results Magazine, Volume 7, Issue 1, jda.com/realresultsmagazine