

Research Roundup for Selecting Supply Chain Planning Technology

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Analyst(s): Tim Payne

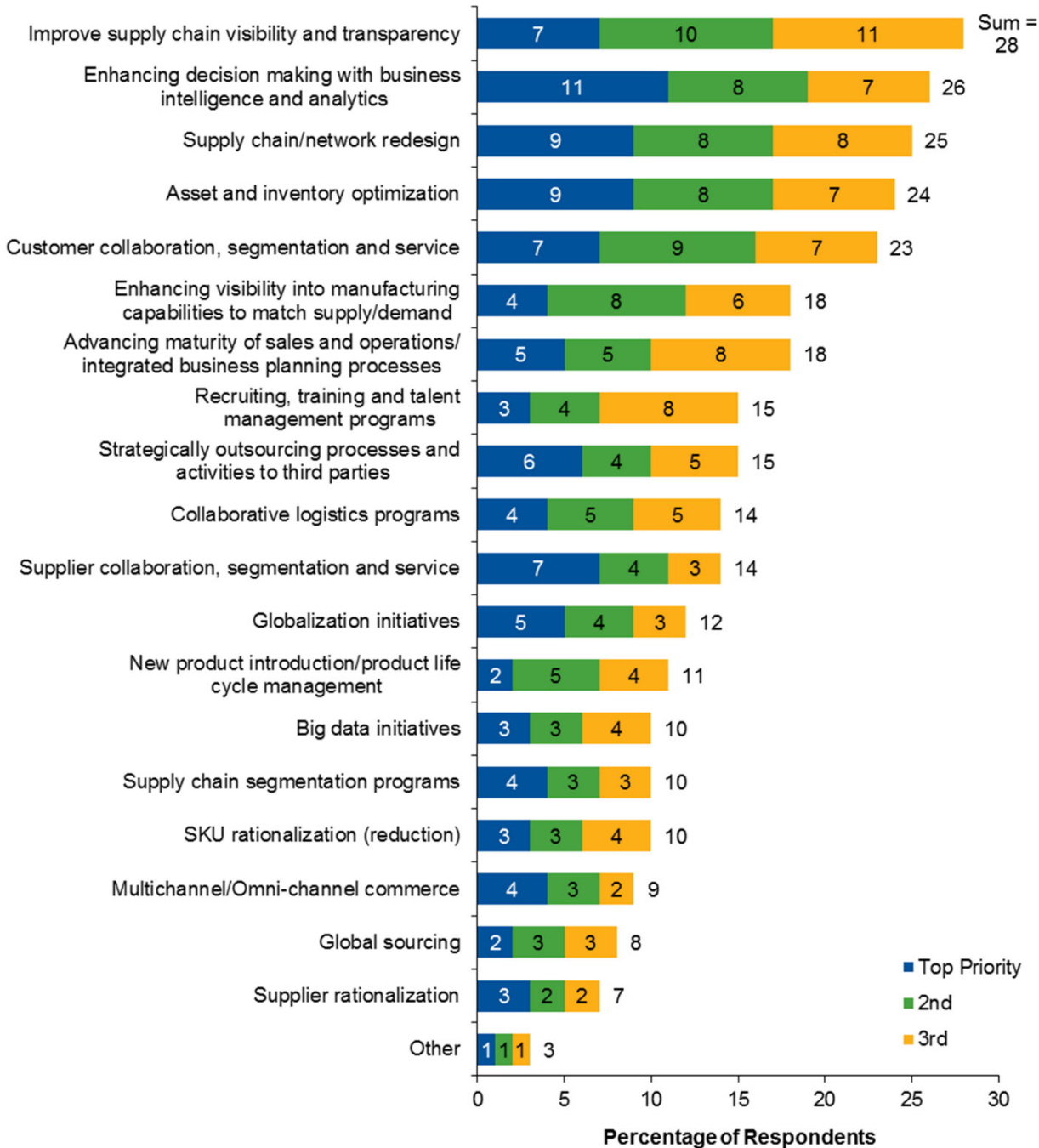
This Roundup compiles an assortment of research from mainly 2015 and 2016 focused on supply chain planning technology selection and use. Supply chain and IT leaders can gain insights for the evaluation and evolution of their capabilities to improve and mature their SCP and business performance.

Analysis

Having the appropriate supply chain planning capabilities is key to delivering value for the business irrespective of industry type. Figure 1 shows the ranked supply chain initiatives for around 390 companies. The top seven initiatives are either directly related to supply chain planning or depend on strong SCP capabilities.

Figure 1. Supply Chain Initiatives, 2015

For each of your top three priorities select the most important initiative that has been or will be put in place to achieve that priority.



Source: Gartner (August 2016)

To deliver on these initiatives, companies should ensure that they have, and will further acquire, the right SCP technology, in the right sequence, to ensure they are able to support the maturation of

their SCP business capabilities. The Gartner definition of SCP spans high-level longer-range planning (such as network modeling and optimization) through to short-term, granular planning such as scheduling or replenishment deployment.

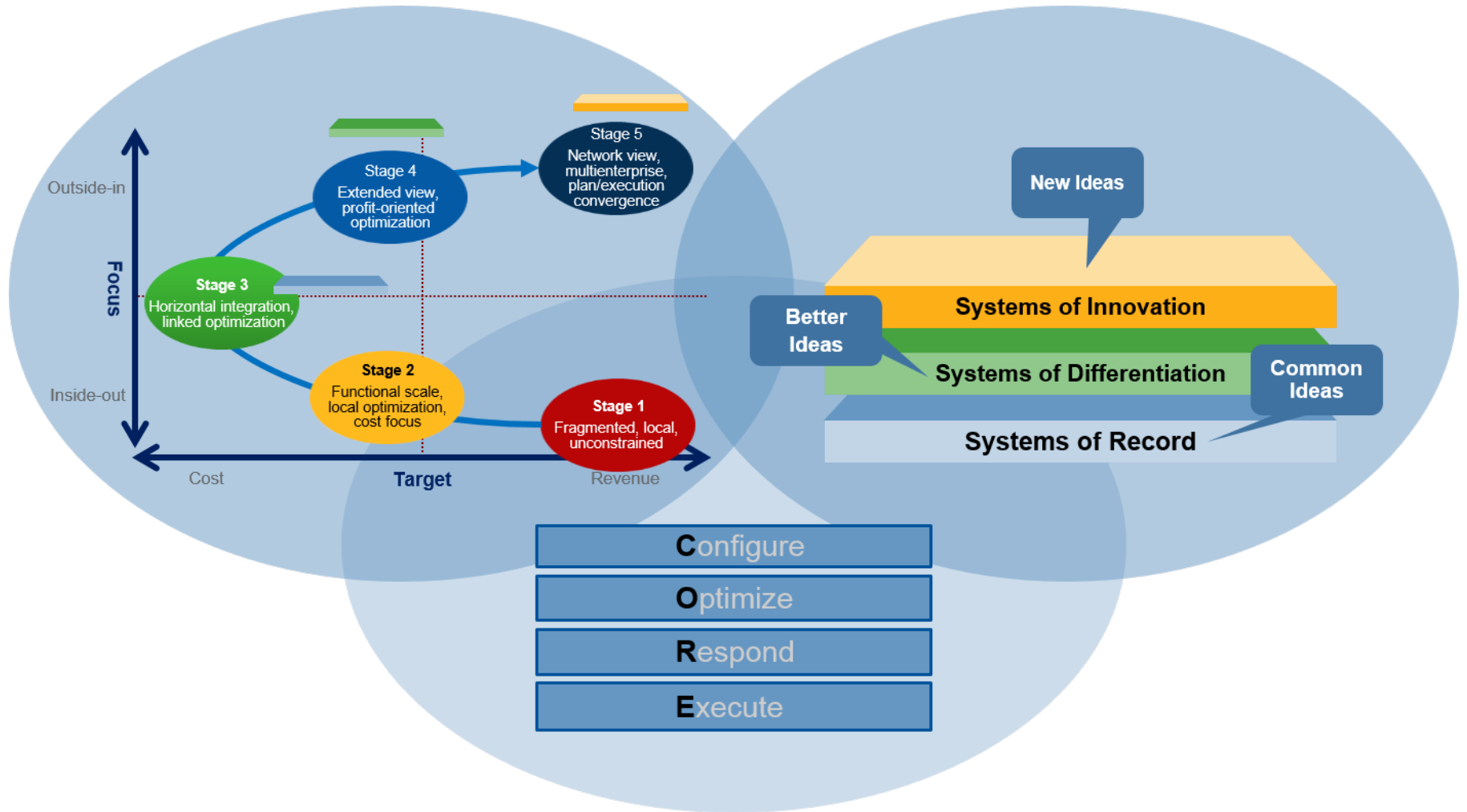
Although SCP technology has been around for many years and is often described as mature, it is undergoing something of a revolution. New technologies (such as in-memory and cloud) will be increasingly used by vendors to enable new planning approaches that, when deployed appropriately, will deliver additional value to an organization.

Some of the key SCP focus areas for companies include:

- **Standardization:** Companies are looking to standardize on a particular SCP technology to leverage skills, integration and best practices across the organization in support of Stage 3 maturity (see "Gartner's Demand-Driven Model for Supply Chain Maturity").
- **Integrated operational planning:** As companies look to improve their planning processes, an integrated operational planning capability becomes a foundational requirement. This capability is critical for supporting a strong S&OP process that is linked back to operations and execution, as well as across other planning domains in the company.
- **Data and process integration:** Companies want to get better data and process integration along the supply chain, supported by a single version of the truth, improved plan visibility and strong internal collaboration. To achieve this, they need to ensure consensus for, and alignment of, the resulting plans.
- **Improved planning functionality:** Companies that want to mature their planning processes are looking to acquire or activate additional planning functionality within the context of their integrated operational planning environments. This can help them avoid islands of process, data or optimization.

In developing their SCP technology roadmaps, companies need to keep in mind the business journey they are on, which type of planning capability they should focus on and what planning functionality they will need in the future. Figure 2 illustrates the three frameworks Gartner uses to analyze the SCP market and assess the relevance of different SCP technologies and offerings.

Figure 2. The Ideal SCP Technology Roadmap Is Informed by Process Maturity, Pace Layering and CORE



Source: Gartner (August 2016)

Gartner research shows that using these three frameworks, in combination, significantly increases the likelihood that the correct SCP technology is deployed at the right time in support of current and evolving business requirements. Gartner uses these same three frameworks when evaluating SCP technology for its relevant Magic Quadrants:

- **No. 1 Process Maturity:** This framework talks to the level of sophistication or maturity of the business capability of planning. It can be analyzed at the SCP level or for the individual subprocesses, such as S&OP, demand planning, inventory planning, etc.
- **No. 2 Pace Layering:** This framework talks to the type and level of the technology. Is it foundation or supporting more differentiating capabilities? How to source and manage the layers is different. The sequence of acquiring the layers is also important and linked to the business transformation journey.
- **No. 3 CORE:** This framework talks to the type of planning capability. Is it to help plan the configuration of the supply chain, to help create optimal plans for shared resources, or to help plan a response to specific execution-level events? What blend of these capabilities a company has is important in relation to the level of benefit the business can extract from planning.

Research Highlights

To help companies think about appropriate SCP technology to enable their business goals, this Research Roundup provides insights into five key areas:

1. Identifying and assessing your current and target SCP maturity levels
2. Identifying and assessing what layer of planning technology do you/will you need in support of these maturity levels
3. Identifying and assessing the key elements in each of these SCP layers
4. Identifying and assessing the detailed business requirements for each SCP technology
5. Identifying, assessing and selecting the appropriate vendors and solutions to meet these business requirements

1. Identifying and Assessing Your Current and Target SCP Maturity Levels

A starting point for any SCP technology assessment or roadmapping exercise is to understand where the business is today and where it needs to get to in order to deliver on its business goals and remain competitive. This input is important, as not all SCP technology is created equal, and different solutions do different things to different levels of competency. Implementing SCP technology is not a short-term investment — at least not for the foundational capabilities. Therefore, any decision made regarding SCP technology can be one that the business will be forced to live with for several years.

"Gartner's Demand-Driven Model for Supply Chain Maturity"

This research lays out the five high-level maturity levels for Gartner's supply chain research. All the supporting domains, such as SCP, align with these five stages of maturity. Use this research to understand the different stages of maturity and to start the discussion as to where your company needs to target in support of the corporate vision.

"Toolkit: Self-Assess Your Supply Chain Maturity"

This research lays out an assessment framework that will help a company to identify its current supply chain maturity level. Use this to identify your starting point for your supply chain transformation journey. This research will also help to crystalize where you are currently lagging and need to bolster maturity.

"Assessing Your S&OP Process Maturity — The Why, Who and How to Realizing Greater Business Outcomes"

This research drops down from the high-level supply chain maturity model into S&OP. S&OP is a key process for any supply chain but can exhibit different stages of maturity that will deliver levels of business benefit. Use this research to familiarize yourself with distinctions and differences between the five stages of Gartner's S&OP maturity model and where you need to target future capability

"Toolkit: S&OP Maturity Self-Assessment for Supply Chain Leaders"

This research lays out an assessment framework that will help a company to identify their current S&OP maturity level. Use this to identify your starting point for your S&OP journey. This research will also help to crystalize where you currently have maturity gaps or imbalances across the different dimensions of S&OP.

"Apply the Supply Chain Maturity Model for Better Demand Planning"

This research drops down from the S&OP process into the demand planning processes that support S&OP. This research lays out the five stages of demand planning maturity that associate with the five stages of S&OP and overall supply chain maturity. Use this research to familiarize yourself with the distinctions and differences between the five stages of demand planning maturity and where you need to target future capability.

"Toolkit: Self-Assessment of Demand-Planning Maturity for Supply Chain Leaders"

This research lays out an assessment framework that will help a company to identify their current demand planning maturity level. Use this to identify your starting point for your demand planning journey. This research will also help to crystalize where you currently have maturity gaps or imbalances across the different dimensions of demand planning

"Apply the Gartner Supply Chain Maturity Model for Better Supply Planning" and "Supply Planning Maturity: Answers to Five Key Questions"

This research drops down from the S&OP process into the supply planning processes that support S&OP. This research lays out the five stages of supply planning maturity that associate with the five stages of S&OP and overall supply chain maturity. Use this research to familiarize yourself with the

distinctions and differences between the five stages of supply planning maturity and where you need to target future capability.

"Toolkit: Self-Assessment of Supply-Planning Maturity for Supply Chain Leaders"

This research lays out an assessment framework that will help a company to identify its current supply planning maturity level. Use this to identify your starting point for your supply planning journey. This research will also help to crystalize where you currently have maturity gaps or imbalances across the different dimensions of supply planning.

Leveraging this research should result in gaining a clear view as to your current and target maturity levels in your S&OP, demand and supply planning business capabilities. This clarity will then help you with the next step of identifying which type of technology do you need to support these current and target business capabilities.

2. Identifying and Assessing What Layer of Planning Technology Do You/Will You Need in Support of These Maturity Levels

Not all technology is created equal. As such, some solutions will be better at doing some things than others. The key is to get the right technology for your specific business needs. This may often mean not acquiring the "best" or deepest planning functionality in the market, but rather the right blend of functional and nonfunctional capabilities to support your planning maturity targets. Timing is also key here. In the earlier phases of your SCP technology roadmap, it is likely you will be more focused on foundational capabilities with the more advanced technology coming along in subsequent phases when the business is ready to up its maturity level.

"Best Practices for Developing a Pace-Layered Application Strategy for Supply Chain Planning"

This research lays out how Gartner's pace layer framework is applied when it comes to SCP technology. Research shows a strong correlation between maturity level and pace layer. Stages 1 through 3 are typically enabled by a planning system of record. Stage 4 maturity is enabled by planning systems of differentiation. Stage 5 maturity is enabled by planning systems of innovation. This research defines these different layers and explains the importance of layering up the SCP technology in support of the business capabilities.

"Toolkit: Developing a Pace-Layered Application Strategy for Supply Chain Planning"

This research lays out a SCP pace layer model that aims to help you identify and audit your current SCP technologies in terms of which pace layer they fit into and to help identify relevant gaps. At the end of this exercise, you should have a visual model of your SCP technology needs segmented by the different pace layers. This will help with the appropriate identification of suitable technologies.

"Hype Cycle for Supply Chain Planning, 2015"

This research lays out the different types of technology in the SCP market. It ranges from technologies that are mature and have been in the market for a while through to those that are new and emerging. The research highlights the correlation between the old and new technologies and

the pace layer they will support. Use this research to help identify relevant capabilities for your organization when constructing your SCP technology roadmap.

"Predicts 2016: Reimagine SCP Capabilities to Survive"

This research lays out some of the key planning assumptions you should have in mind when thinking about which SCP technology to invest in.

"Supply Chain Planning Analytics: It's All in the Memory Now"

This research lays out some of the newer things happening in SCP technology, especially with regard to the use of in-memory computing (IMC). Several of the vendors in the SCP market will talk to you about IMC, but not all IMC is created equal. This research attempts to highlight the essential differences and what they mean for your business performance.

3. Identifying and Assessing the Key Features in Each of These SCP Layers

Once you have identified the appropriate layer of SCP technology to focus on, the next question to consider is what are some of the key capabilities that are each of these layers?

"Understand the Standard Features of Demand-Planning Software to Enhance Supply Chain Effectiveness"

This research highlights the standard features that can be found in most of the demand planning solutions on the market. This will give you a good understanding of the typical level of functional capability of a good demand planning system of record.

"Understand the Nonstandard Features of Demand-Planning Software to Enhance Supply Chain Effectiveness"

This research highlights the nonstandard features that can be found only in some of the demand planning solutions on the market. This will give you a good understanding of the typical level of functional capability of a good demand planning system of differentiation.

"Assess the Potential of Standard Features of Supply-Planning Software to Enhance Supply Chain Effectiveness"

This research highlights the standard features that can be found in most of the supply planning solutions on the market. This will give you a good understanding of the typical level of functional capability of a good supply planning system of record.

"Assess the Potential of Nonstandard Features of Supply-Planning Software to Enhance Supply Chain Effectiveness"

This research highlights the nonstandard features that can be found only in some of the supply planning solutions on the market. This will give you a good understanding of the typical level of functional capability of a good supply planning system of differentiation.

"Reference Model for SCP System of Record"

This research outlines what Gartner thinks "good looks like" for a planning system of record. It includes the key functional areas, but, equally important, also the key nonfunctional/architectural elements that are key in order to make the functionality usable for the business. Use this research as a guideline when evaluating different planning systems of record.

"Reference Model for S&OP System of Differentiation"

This research outlines what Gartner thinks "good looks like" for a S&OP system of differentiation. It includes the key functional areas, but, equally important, also the key nonfunctional/architectural elements that are key in order to make the functionality usable for the business. Use this research as a guideline when evaluating different S&OP systems of differentiation.

"Reference Model for a Demand Signal Management System of Differentiation"

This research outlines what Gartner thinks "good looks like" for a demand signal management system of differentiation. It includes the key functional areas, but, equally important, also the key nonfunctional/architectural elements that are key in order to make the functionality usable for the business. Use this research as a guideline when evaluating different demand signal management systems of differentiation.

4. Identifying and Assessing the Detailed Business Requirements for Each SCP Technology

This section focuses on research to help build out the detailed, company-specific and business requirements to drive a SCP technology selection process.

"User Survey Analysis: Technical Architecture Is Key to Successful SCP SOR Deployments in 2015":

This research outlines what users are thinking about when they successfully implement a planning system of record. Use this research to help with the prioritization of your business requirements.

"Survey Analysis: S&OP User Survey 2015 — Getting the Fundamentals Right for Mature S&OP":

This research outlines what users are thinking about when they successfully implement an S&OP system of differentiation. Use this research to help with the prioritization of your business requirements.

"Toolkit: An RFP Template for Evaluating SCP System-of-Record Solutions"

This research lays out a template for an RFP for an SCP SOR. Use this to help develop your specific RFP. Add and subtract business requirements as necessary, and use the weighting field to emphasize your specific key requirements.

"Toolkit: An RFP Template for Evaluating S&OP System-of-Differentiation Solutions"

This research lays out a template for an RFP for an S&OP SOD. Use this to help develop your specific RFP. Add and subtract business requirements as necessary, and use the weighting field to emphasize your specific key requirements.

"Enhancing Demand-Planning Functional Excellence Requires a Sustainable, Scalable Technology Strategy"

This research outlines how to think about the linkage between your demand planning transformation journey and the technology requirements to support it.

5. Identifying, Assessing and Selecting the Appropriate Vendors and Solutions to Meet These Business Requirements

Having identified your business journey through the stages of SCP maturity, which layer of technology you need and your specific requirements, it's time to go and select some technology.

"How to Select Supply Chain Planning Technology Effectively"

This research lays out 14 steps that take you through the process of finally purchasing an SCP solution as a component of your SCP technology roadmap.

"Magic Quadrant for Supply Chain Planning System of Record"

This research lays out Gartner's evaluation of the top 20 or so SCP vendors in the world in terms of their abilities and vision to be a strong planning system of record. Please remember to discuss your options with a Gartner analyst so that we can go into a deeper dive around strengths and cautions for vendors you are interested in.

"Magic Quadrant for Sales and Operations Planning Systems of Differentiation"

This research lays out Gartner's evaluation of the top 17 or so S&OP vendors in the world in terms of their abilities and vision to be a strong S&OP system of differentiation. Please remember to discuss your options with a Gartner analyst so that we can go into a deeper dive around strengths and cautions for vendors you are interested in.

"Market Guide for Demand Signal Management Vendors"

This research lays out a range of vendors capable of supporting aspects of demand signal management (a demand planning system of differentiation).

"Market Guide for Supply Chain Analytics Technology"

This research lays out a range of vendors capable of supporting aspects of supply chain analytics. It helps to outline the different types of analytics that would be applicable to the supply chain and where some of these are available in SCP solutions.

"Toolkit: Identifying Supply-Chain-Planning Vendor Candidates"

This research lays out a configurable list of SCP vendors (some of which do not appear in the Magic Quadrant). Use the pivot table filters to create a list of potential SCP vendors that can meet your specific circumstances and/or focus.

"Market Guide for Retail Forecasting and Replenishment Solutions"

This research lays out a range of vendors capable of supporting forecasting and stock replenishment for retail companies.

"Market Guide for Supply Chain Visibility Software"

This research lays out a range of vendors capable of supporting aspects of supply chain visibility, including use cases for planning visibility across a supply chain. It helps to outline the different types of visibility that would be applicable to the supply chain and where some of these are available in SCP solutions.

Evidence

November 2014 through January 2015, Gartner conducted a primary research study to examine how Supply Chain organizations are responding to today's business challenges. The sample was obtained through Gartner's partnership with Supply Chain Digest. Subscribers were contacted via email from Supply Chain Digest and invited to participate. The 390 respondents who completed the web-based survey were qualified according to industry as well as their personal involvement in decisions regarding supply chain management processes, strategy and supporting technology.

GARTNER HEADQUARTERS**Corporate Headquarters**

56 Top Gallant Road
Stamford, CT 06902-7700
USA
+1 203 964 0096

Regional Headquarters

AUSTRALIA
BRAZIL
JAPAN
UNITED KINGDOM

For a complete list of worldwide locations,
visit <http://www.gartner.com/technology/about.jsp>

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