

The Gartner Supply Chain Top 25 for 2012

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Here, we reveal the eighth annual Supply Chain Top 25, identifying global supply chain leaders and highlighting their best practices.

Key Findings

- The top five includes three mainstays — Apple, Dell and P&G — and two that are newer to the ranking, but have been rising steadily — Amazon and McDonald's.
- Four new companies joined the list this year, including two industrials: H&M, Caterpillar, Cummins and Kimberly-Clark.
- Four key trends emerged among the leaders: A return to growth, continued focus on supply chain resiliency, simplification and "multilocal" operations.
- Average annual revenue growth of the companies in the study increased 29% over the previous year. Moreover, average return on assets (ROA) and net profits improved by more than 50% in 2010, and then stabilized this year, signaling profitable growth.

Recommendations

- Continue to build resiliency into supply network design, and implement a robust risk management strategy, including a "sense and respond" capability to recover quickly and profitably from disruptions.
- Adopt complexity optimization strategies to eliminate features, services and network capacity that do not add sufficient value to customers. Use end-to-end supply chain segmentation to enable simplification.
- Improve responsiveness to customer requirements using a globally architected, regionalized approach to supply chain network design.

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Analysis

2012 marks the eighth year of our annual Supply Chain Top 25 ranking. The list includes some perennial leaders, but also offers up four new companies from which to learn, including two industrials, and an interesting newcomer to the top five.

At its core, the Supply Chain Top 25 is about demand-driven leadership. Every year, Gartner identifies the companies that push the envelope of supply chain innovation. Our goal is to raise awareness of the supply chain discipline, as well as how it impacts the business, and to catalyze the debate and the cross-fertilization of ideas about what supply chain excellence really means.

Each year, our analysts talk to and research the supply chains of hundreds of companies, delving into the issues within plan, source, make, deliver and return, as well as the broader strategies, visions and missions across the value chain. Through these discussions, we note the trends: What are the leaders focusing on, where are they investing time and effort, and what can be applied broadly?

Last year, we noted that companies were starting to invest in resources and assets again, reflecting a newly recovering economy. This year, that trend continues even more strongly, with many companies investing for growth. The global economic recovery has been uneven and halting in some cases, but, on balance, the result has been expansionary for companies' bottom lines and outlooks.

The financial results of the companies on our broader list bear out this trend. Average annual revenue growth increased 29% over the previous year, a welcome change from the negative average seen in 2009. Even more telling: Of the 298 companies in the study this year, the percentage with negative annual growth fell from 65% in 2009 to 28% in 2010 and 15% for the 2011 fiscal year. At the same time, both average ROA and net profits improved by more than 50% in 2010, and then stabilized this year, signaling profitable growth. Although first-quarter 2012 financial results are not included in this year's ranking, they demonstrate continued growth as the number of S&P 500 companies reporting earnings higher than expectations was nearly 70%, compared to the long-run average of 62%.

The Notable Trends

There are three additional trends worth noting across supply chain leaders.

Supply Chain Risk Management and Resilience: Surviving and Thriving

We discussed this trend last year, and the events of 2011 have amplified its importance. Despite investing for growth, companies also know that the potential for disruption at anytime remains real. Many are looking to improve the resiliency of their supply chains to mitigate this risk. The past year brought global-scale supply chain disruptions that impacted multiple industries, from chemicals to semiconductors and electronics to automotive. Increased demand uncertainty and more complex global supply networks dependent on high-risk geographic zones placed additional pressures on the ability of supply chains to deliver predictable results. These disruptions have even called into question whether supply chains have become too lean, requiring a fundamental change in approach.

In turbulent times, and in the face of growing complexity and risk, leading companies need sustainable, resilient supply chains that support profitability and drive industry leadership. This requires managers to re-evaluate the layout of their supply network designs to make them more resilient to future catastrophes. It may also include designing products that allow more flexibility in supply and manufacturing, increasing long-term alternative sources of raw materials and logistics capabilities, and expanding outsourced manufacturing capacity. Finally, with recent crises fresh in management mind share, now is a prime opportunity to push for more robust and funded risk management, including a "sense and respond" capability to recover quickly and profitably from disruptions.

Many of this year's Supply Chain Top 25 companies were impacted by natural disasters, such as the Japanese earthquake and tsunami, and the massive flooding in Thailand. Leading companies such as Intel, P&G and Unilever improved multitier supply chain visibility and advanced network management capabilities to be agile in the face of disruptions. Overall, leaders have remained focused throughout the past year on building resiliency into their global supply chains, and we see it continuing to be a highly valued supply chain characteristic.

We posit that a company's ability to post industry-leading financial results year after year, despite demand and supply disruptions, is another indicator of resiliency. This year, we published initial research seeking a quantitative link between consistently above-average financial performance and a resilient supply chain (see "Measuring Resiliency in the Supply Chain Top 25"). More specifically, we defined the most resilient as those with above-median revenue growth and ROA for their industries, combined with a lower-than-median variation in the results over multiple years.

Although more definition is required, including the appropriate time frame and industry groupings, the current analysis provides another lens for companies to assess whether their supply chain resiliency methods and initiatives are yielding the desired outcome.

Simplification

Many companies tell us that they have exhausted easily gained efficiencies within their existing supply networks and product portfolios. Further improvement will require structural changes to streamline the flow of supply, and eliminate less profitable product and portfolio complexity. Supply chain leaders are adopting complexity optimization strategies to eliminate infrequently used product

features, service offerings, suppliers and distribution network capacity that does not add sufficient value to customers.

Supply chain segmentation has emerged as a critical enabler of supply chain simplification, delivering only the level of service required by each customer type and nothing more. Alternatively, delivering on open-ended service requirements from a one-size-fits-all supply chain drives increased complexity and inefficiency.

The concept of segmenting end-to-end supply chains to address customer-driven needs, such as cost efficiency, personalization and speed to market, has been around for several years. The difference this year is that we now see leading companies adopting and executing on their segmentation strategies.

A Shift Toward Multilocal Operations

Manufacturers and retailers have long sought ways to balance the trade-off in their supply network designs between global economies of scale and the demand for local responsiveness. Leading companies are reassessing their sourcing and manufacturing networks, and rebalancing their supply network strategies in favor of multilocal design, supply and support. More specifically, they are shifting from a centralized model, where these functions support global markets, to a regionalized approach, where capabilities are placed locally, but architected globally.

Several factors are driving this trend. Tax and other government incentives, coupled with meaningful concessions from organized labor, are enticing manufacturers to set up or expand operations in mature markets. Annual wage increases between 9% and 35% in China, combined with rising logistics expenses, are leading to higher core supply chain costs in a traditionally low-cost country. An ever-increasing demand to be responsive to local markets is further fueling the trend, and a growing sophistication with techniques, such as cost-to-serve analysis, is enabling it. Even within emerging markets, manufacturers are shifting capacity based on regional wage and logistics expense differentials.

Growth, resiliency, simplicity and multilocal operations are this year's most common trends among supply chain leaders. Now in its eighth year, the Supply Chain Top 25 continues to offer a platform for debate, insight, learning and contribution to the rising influence of supply chain practices on the global economy (see Table 1).

Table 1. The Gartner Supply Chain Top 25 for 2012

Rank	Company	Peer Opinion ¹ (173 voters) (25%)	Gartner Opinion ¹ (37 voters) (25%)	Three-Year Weighted ROA ² (25%)	Inventory Turns ³ (15%)	Three-Year Weighted Revenue Growth ⁴ (10%)	Composite Score ⁵
1	Apple	3241	651	20.2%	74.1	51.5%	9.69
2	Amazon	2713	435	4.4%	10.0	37.7%	5.40
3	McDonald's	1121	283	16.0%	142.4	7.2%	5.37
4	Dell	2131	546	6.8%	35.6	2.7%	5.30
5	P&G	1940	622	9.2%	5.5	2.5%	5.05
6	The Coca-Cola Company	1818	372	13.0%	5.8	19.7%	4.85
7	Intel	1006	406	16.2%	5.0	17.8%	4.63
8	Cisco Systems	1243	582	8.4%	11.0	5.5%	4.46
9	Wal-Mart Stores	1874	410	8.8%	8.3	4.2%	4.24
10	Unilever	1043	534	10.2%	6.0	5.5%	4.21
11	Colgate-Palmolive	697	342	19.6%	5.3	4.2%	4.17
12	PepsiCo	917	427	10.2%	7.7	17.6%	4.05
13	Samsung	1014	291	9.4%	17.1	15.9%	3.67
14	Nike	1073	278	13.3%	4.6	5.2%	3.55

15	Inditex	397	225	17.3%	4.0	10.3%	3.37
16	Starbucks	940	191	14.3%	6.2	6.3%	3.28
17	H&M	385	24	28.6%	3.6	5.7%	3.09
18	Nestle	651	196	15.9%	4.9	-9.5%	3.06
19	Research In Motion (RIM)	254	104	17.0%	11.3	13.3%	3.00
20	Caterpillar	876	226	4.6%	3.4	22.7%	2.67
21	3M	856	70	13.2%	4.4	8.4%	2.65
22	Johnson & Johnson	798	176	10.7%	3.2	2.1%	2.55
23	Cummins	142	52	11.9%	6.0	20.0%	2.22
24	HP	598	192	6.2%	13.7	2.8%	2.22
25	Kimberly-Clark	463	182	8.9%	6.1	3.5%	2.21
<p>Notes:</p> <p>1. Gartner Opinion and Peer Opinion: Based on each panel's forced-rank ordering against the definition of "DDVN orchestrator"</p> <p>2. ROA: ((2011 net income / 2011 total assets) * 50%) + ((2010 net income / 2010 total assets) * 30%) + ((2009 net income / 2009 total assets) * 20%)</p> <p>3. Inventory Turns: 2011 cost of goods sold / 2011 quarterly average inventory</p> <p>4. Revenue Growth: ((change in revenue 2011-2010) * 50%) + ((change in revenue 2010-2009) * 30%) + ((change in revenue 2009-2008) * 20%)</p> <p>5. Composite Score: (Peer Opinion * 25%) + (Gartner Research Opinion * 25%) + (ROA * 25%) + (Inventory Turns * 15%) + (Revenue Growth * 10%)</p> <p>2011 data used where available. Where unavailable, latest available full-year data used. All raw data normalized to a 10-point scale prior to composite calculation.</p>							

Source: Gartner (May 2012)

Inside the Numbers

The Top Five

Maintaining its record in the No. 1 slot is Apple, a master at delivering total solutions to its customers through tightly integrated design of hardware components, firmware, a proprietary operating system and an ecosystem of applications that run on top of that platform. Stellar financials, which further improved this year, supported by the highest voting scores point to its combination of operational and innovation excellence, a zealous focus on starting with the consumer experience and working back through the design of its supply network, and mastery in orchestrating its end-to-end value network.

The next two companies were newcomers to the ranking in 2010, and have moved steadily up since. Jumping three spots to No. 2 this year, Amazon is a great example of an "orchestrator" that goes beyond simply borrowing and adapting others' best practices and consistently defies conventional wisdom. With a three-year weighted revenue growth of 38%, the online retailing juggernaut has led in offering services where the profit potential was uncertain, such as cloud computing services, intraday delivery for major markets and use of pickup lockers at selected 7-Eleven stores, all requiring robust demand management and supply delivery capabilities. Moving into the media tablet business with the Kindle Fire, Amazon has shifted its model so that nine of its top 10 offerings are now digital content, augmenting its vast physical supply chain.

Next is McDonald's, rising five spots to No. 3 this year on strong financials and peer opinion votes. The ubiquitous restaurant chain has managed the fine balance between new product growth, and the resulting complexity in supply chain planning and execution. In particular, it has seen great success with the launch and expansion of its McCafe product line to compete in the specialty beverage business, while maintaining leadership in traditional food categories.

At No. 4, Dell is a respected supply chain leader whose signature supply chain capability has evolved from blazing-fast, configure-to-order capability to segmenting fit-for-purpose supply chains to the needs of its diverse customers across consumer, government, educational institutions, large enterprises and small businesses. This computing OEM has evolved into a solutions company, all while significantly improving its physical supply chain performance during the past few years in terms of end-to-end cycle time, order fulfillment rate and total supply chain costs. Dell is also employing design-to-value techniques to maximize the value of its product offerings, and has been steadily reducing complexity in its product portfolio.

Rounding out the list at No. 5 is P&G, a perennial winner in our Supply Chain Top 25, a supply chain thought leader and a standard bearer of brand management. Its ability to optimize decisions across the supply network allows it to orchestrate demand and connect the supply chain to the shelf. Using its world-class, open innovation platform, combined with an impressive new product organizational capability that is tightly integrated with supply chain, it taps a deep well of understanding its consumers' "moments of truth" to continue to deliver new products, such as the highly popular Tide Pods.

The companies in the next group were all featured on last year's Top 25 ranking, but have shuffled in line, with changing fortunes and reputations.

Movers and Shakers: No. 6 Through No. 15

The Coca-Cola Company, landing in the No. 6 slot this year, has a plant within a few hundred miles of every customer worldwide, and is a master at the last mile of distribution, whether by truck or donkey. A peer voter favorite — it's on the top 10 list of voters in every region — Coca-Cola has developed an innovative beverage delivery system called Freestyle, which delivers mass beverage customization to restaurant patrons in the form of 100-plus drink options selectable via a touchscreen interface. First introduced in limited markets in 2009, continued deployment in restaurants will not only streamline the supply chain, but also provide invaluable consumer information.

Re-entering the list in 2009 and on a steady climb since, Intel (No. 7) has made huge strides to transform itself from an inside-out-focused component manufacturer to running a demand-driven value network (DDVN) that delivers total customer solutions. The largest chipmaker has also significantly improved its supply chain agility and resiliency, largely by reducing its overall supply chain cycle time by approximately 40% during the past few years, leading to double-digit percentage improvements in customer service, satisfaction and cost. Intel has taken the initiative in areas of social responsibility related to supply chain, most notably in its efforts to drive strict industry certification standards for key raw materials sourced from conflict zones.

After venturing into multiple adjacent markets, Cisco (No. 8) has refocused its business back on core competencies, such as routing and switching services, collaboration, and data centers. The company is well-known for running a broad and highly interconnected value chain organization, and for its prowess in collaborating upstream with suppliers and downstream through its customer value teams. This longtime leading high-tech company also has a robust set of risk management systems, policies and procedures that allowed it to quickly recover from last year's crisis in Japan, using a customer and revenue priority-based approach. Beyond traditional risk management capabilities, the company also tracks resiliency along multiple dimensions, including by business unit, product, manufacturing, test and supplier, with a focus on isolating and minimizing impacts to revenue and margins.

Wal-Mart Stores (No. 9) is well-known for its ability to redefine the playing field when it comes to procurement leverage, but also for its investments in green products and supply chain practices, as well as its sophisticated collaboration techniques with suppliers on merchandising and planning, forecasting, and replenishment. A mainstay in supply chain, it has been on the Gartner Supply Chain Top 25 ranking every year since it first published in 2004.

Unilever, climbing to No. 10, has established a virtual manufacturing network that can quickly support fluctuations in local demand and tap into global capacity as needed through flexible manufacturing. This global consumer products (CP) leader also proactively designs its products for profitability by tailoring product formulations and supply chain capabilities based on different markets' relative maturities and abilities to afford. Key to this capability is an understanding of cost-to-serve trade-offs along the various dimensions of customer, product and channel.

Rising to No. 11 this year, Colgate-Palmolive continues to deliver strong financial performance, with an industry-leading, three-year weighted ROA of 19.6%, driven in part by disciplined reinvestment and a metrics-driven culture. A strong governance model, mature manufacturing and logistics

capabilities, a well-defined item management strategy, and the ability to execute all add up to success for this powerhouse.

A long-recognized leader in mastering route to market, including direct store delivery (DSD), PepsiCo (No. 12) continues to break away from conventional thinking, as it systematically expands its own definition of excellence. With a dual focus on global productivity and investments for growth and innovation, Pepsi is collaborating with retail partners to reduce out-of-stocks at the shelf, accelerate demand visibility, increase signal accuracy and shorten reaction time.

Samsung (No. 13) continues to leverage its vertical integration in consumer electronics and semiconductors in support of strong profitability. It has emerged as the strongest competitor to Apple in smartphones, and is truly orchestrating total customer solutions. Samsung is well-known for its mature sales and operations planning (S&OP) capabilities, including real-time scenario analysis that allows for assessing opportunities and risks along multiple dimensions of customer, location and product. The electronics giant has also implemented leading collaborative planning, forecasting and replenishment (CPFR) with its larger consumer electronics retail and mobile carrier customers.

Moving up to No. 14 this year, Nike does a remarkable job delivering its product portfolio across a complex web of suppliers, contract manufacturers and logistics providers, building the visibility and velocity upstream that allows it to meet dramatic swings in demand. One of the valuable lessons this leader has to share is its approach to supplier development, taking a strong partnership role, and investing in new approaches and ideas with the members of its trading network.

Returning to the list for the third time, Inditex's (No. 15) approach to design and its integration with supply chain capabilities is legendary. A nonstop flow of information from stores conveying shopper desires and demands inspires its strong creative team. Fabrics and other raw materials are bought in advance in quantities that allow leveraged spending. Meanwhile, the company is in tune with its customers to sense and shape ideas, trends, and tastes that are developing around the world.

Our last set of companies includes several new name plates, including two large industrial players.

Rounding Out the List: No. 16 Through No. 25

This portion of the ranking is typically where we find the newcomers each year, and this one is no exception. Our methodology, which combines financial metrics with opinion polling, is designed to produce an outcome that recognizes stable leadership while, at the same time, ensuring that new blood makes it into the discussion. Two of our new additions come from the consumer and retail sectors. Landing at No. 17 is H&M, a successful and expansive Swedish fashion group. H&M's high-flying ROA, which has hovered consistently between 25% to 30% during the past four years, points to the success of a proprietary distribution network of centrally controlled stores, efficient management of production and logistics, and short lead times for quick response to market trends.

Another newcomer, Kimberly-Clark (No. 25), has undertaken a far-reaching supply chain transformation program. Working extensively with leading trading partners to improve its demand-sensing and demand-shaping capabilities, and translating that back through a redefined S&OP process, it has halved its total supply chain cycle times and costs, while improving on-shelf

availability. Kimberly-Clark was an early leader in sharing logistics contracts with competitors, and is now pursuing advanced capabilities in predictive demand planning and multiechelon inventory optimization.

As we've noted in the past, the ranking has tended to lean more heavily toward consumer and high-tech companies. Our analysis of the reasons for this has disproved some of the more popular notions: The totality of financials used in the ranking tends to balance out across industries, and the industrial companies are well-represented in the peer voter population, which accounts for 25% of each company's composite score. And while product brand likely does have an impact on the vote, we've found that supply chain brand is of equal, if not greater, importance. Supply chain executives from consumer and high-tech companies tend to talk more about their supply chain initiatives, sharing with others across industries at conferences and in publications, establishing recognition of their names in a supply chain context.

But if the consumer and high-tech companies communicate across our profession more, the industrials still have plenty of best practices from which others can benefit. Leading industrials are traditionally strong in upstream supply management, including the agility required to profitably balance their long and complex supply chains against volatile demand.

As such, we're excited to welcome some heavy industrials back on the list this year. Heavy equipment leader Caterpillar (No. 20) rose on the strength of increases in all voting points and financials, including particularly strong organic revenue growth for the second year in a row. Caterpillar was an early leader in the concept of segmentation through its well-known "lane strategy," which helped it to reduce complexity while improving customer service. It has strong quote and configuration capabilities aligned with manufacturing, and has succeeded in delivering new products designed for specific geographical needs, partly on the strength of supply chain input into the new product development process.

Cummins is the second new industrial, joining at No. 23. This major player in the engine and power generation markets has been recognized for its best-in-class part and service network, as well as a collaborative distributor network that provides demand insights to support field, sales, marketing and product management. Cummins' "fit for market" strategy of customizing by region to meet emission regulations allowed it to capture market share in both mature and emerging markets.

Three companies that were new to the list last year have rejoined this year. Starbucks, moving up to No. 16, is another customer-centric business that has returned to growth from the depths of the recession. During the past few years, the specialty food and beverage powerhouse has renewed its focus on store experience, supply chain talent and improved efficiency. Starbucks has a strong continuous improvement culture, and is simultaneously focused on maintaining the café experience of hand-crafted beverages, while improving the efficiency of its baristas based on time and motion studies.

Nestle, at No. 18 again this year, runs its global supply chain with an end-to-end focus, and has created a successful supply chain segment for its popular Nespresso line. Nestle is also highly advanced and integrated in its raw material sourcing strategies, and has invested significantly in supply development and innovation.

3M, returning at No. 21, is a company name synonymous with product innovation. It is best known for its adhesive products, such as Post-it Notes and Scotch Tape, but it has built a diversified portfolio of thousands of products, including touchscreens for high-tech devices and fiber optic cables. 3M's three-year weighted ROA of 13.2% indicates the level of attention it puts on driving a significant portion of top- and bottom-line growth each year through new products. More specifically, 3M's new product vitality index measures the ratio of innovation to sales revenue, while improving its return on invested capital by emphasizing technology platforms.

Research In Motion (RIM), the maker of BlackBerry mobile devices, fell to No. 19 on the 2012 ranking, facing a difficult 2011, due to stiff competition from Apple and Samsung. While struggling in terms of product competitiveness and corporate strategy, RIM excelled at locally integrated manufacturing, supply and aftermarket support through its Value Chain Express strategy.

Rounding out the 2012 list are two companies that have been perennial leaders since we started publishing the ranking in 2004. Johnson & Johnson (No. 22), with a highly diverse business and product-line portfolio, leads in its use of global, integrated category management teams. Its supply chain center of excellence has also focused on supplier collaboration as a significant contributor to procurement value contribution. The company is in the midst of a supply chain transformation, and has crafted a compelling vision for its future capabilities.

HP (No. 24) has been running a large-scale supply chain simplification program across one of the most complex supply chains in high tech and seeing double-digit results. Well-known for its leadership in sustainable supply chain sourcing and logistics, it also stands out in the area of social responsibility. Despite being hit by disk-drive shortages due to the flooding in Thailand, HP maintained good financials. Breaking with established convention in true "orchestrator" mode, HP moved from coastal to western China in 2008, and it is reaping the benefits of that move in terms of local worker satisfaction and lower supply chain costs.

A Fond Farewell (for Now)

Two high-tech heavyweights, IBM and Microsoft, are noticeably absent from the Supply Chain Top 25 ranking this year. This change relates to the methodology for which companies are included in the master list, as opposed to any shift in performance or opinion of their supply chain leadership. The Supply Chain Top 25 ranks companies that operate predominantly physical supply chains, and one of our criteria looks at the proportion of revenue related to physical product versus services or software. IBM, for instance, has a multibillion-dollar hardware business that is larger than some of the companies in the Fortune Global 500. But with a lens that looks at the proportion of revenue, we had to reluctantly drop some companies from our list that fell below the 50% cutoff, including IBM and Microsoft.

IBM has been on the Supply Chain Top 25 every year since it first published, including five appearances in the top five. The company is a pioneer in many areas of supply chain management, including its model of matrixed management, which simultaneously allows it to leverage its enormous scale while tapping the benefits of business-unit autonomy, and the application of supply chain principles to the "people supply chain." Beyond its own supply chain excellence, and pointing to a crucial underpinning of the Supply Chain Top 25 ranking, IBM has long been a demonstrated

leader, one to which others in the supply chain community look. In turn, it helps other manufacturers and retailers improve their own supply chain performance.

Microsoft, ranked at No. 12 in both 2010 and 2011, is best known for its Windows software, but has also orchestrated a complex web of outsourced manufacturing and logistics partners to enable significant supply chain agility for its Xbox branded products. Microsoft has blazed innovative paths with its approach to partnership, the virtual nature of its organizational design, its top talent, and a span of control that includes not only sourcing and delivery, but strategy, technology enablement, and design collaboration.

We thank IBM and Microsoft for their contributions to the supply chain profession to date, and we fully expect and look forward to sharing their continually evolving supply chain expertise going forward.

Honorable Mentions

As always, there are many companies that have demonstrated compelling supply chain innovations, but have failed to make the list. Among the ones this year are Ford Motor Company, which has seen a second-straight year of growth, strong inventory turns, and increasing respect from voters for its resiliency in the face of extreme demand variability and disruptions from upstream electronics and chemical suppliers. BMW Group, another automotive manufacturer, is highly ranked by our European voters, and has surged forward on double-digit growth for the past two years. Lenovo has grown from the fourth- to the second-largest PC OEM, all while reducing the components it uses in its products by more than one-third. Dow Chemical places consistently high in its industry, with a robust resiliency methodology, as well as reliable and stable operations. And there's Emerson, a top-rated industrial with strong basics combined with an ambitious growth agenda. All exhibit the characteristics of leaders with compelling lessons for the broader supply chain community, and we look forward to sharing them in the year ahead.

What Is Demand-Driven Excellence?

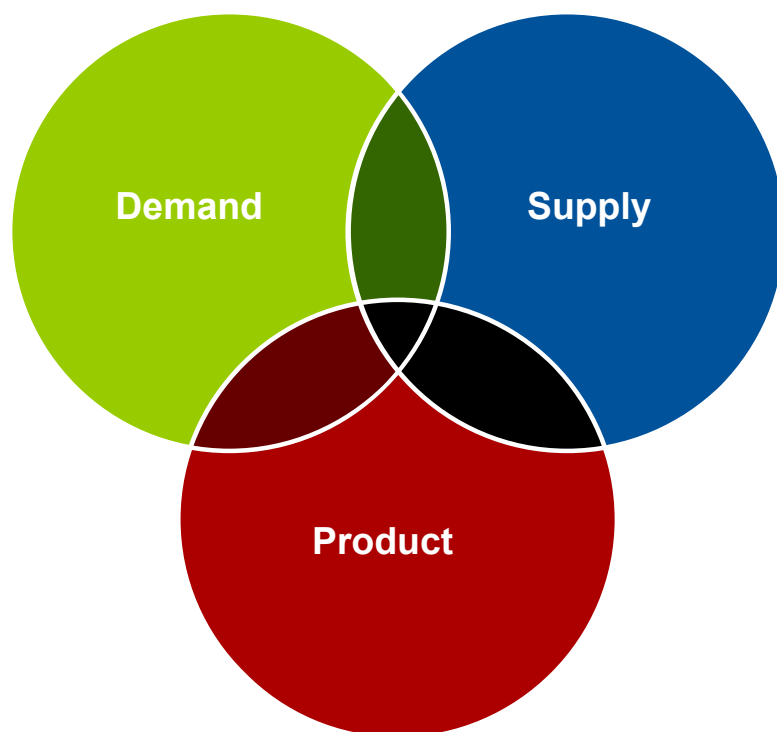
The concept of being demand-driven is at the heart of the Supply Chain Top 25 ranking. We first started writing about demand-driven principles in 2003, and have published hundreds of documents on the topic since, including a maturity model to help companies move along the transformation curve (see "Toolkit: Assess the 12 Facets of DDVN Excellence"). Because it's so critical to the Supply Chain Top 25 analysis, here's a brief synopsis of what it means to have a demand-driven value chain.

Figure 1 captures the organizational ideal of demand-driven principles as applied to the global supply chain. This model has three overlapping areas of responsibility:

- **Supply management** — Manufacturing, logistics, supply planning and sourcing
- **Demand management** — Marketing, sales, demand planning and service
- **Product management** — R&D, engineering and product development

Figure 1. Demand-Driven Principles

A system of technologies and processes that senses and responds to real-time demand signals across a supply network of customers, suppliers and employees



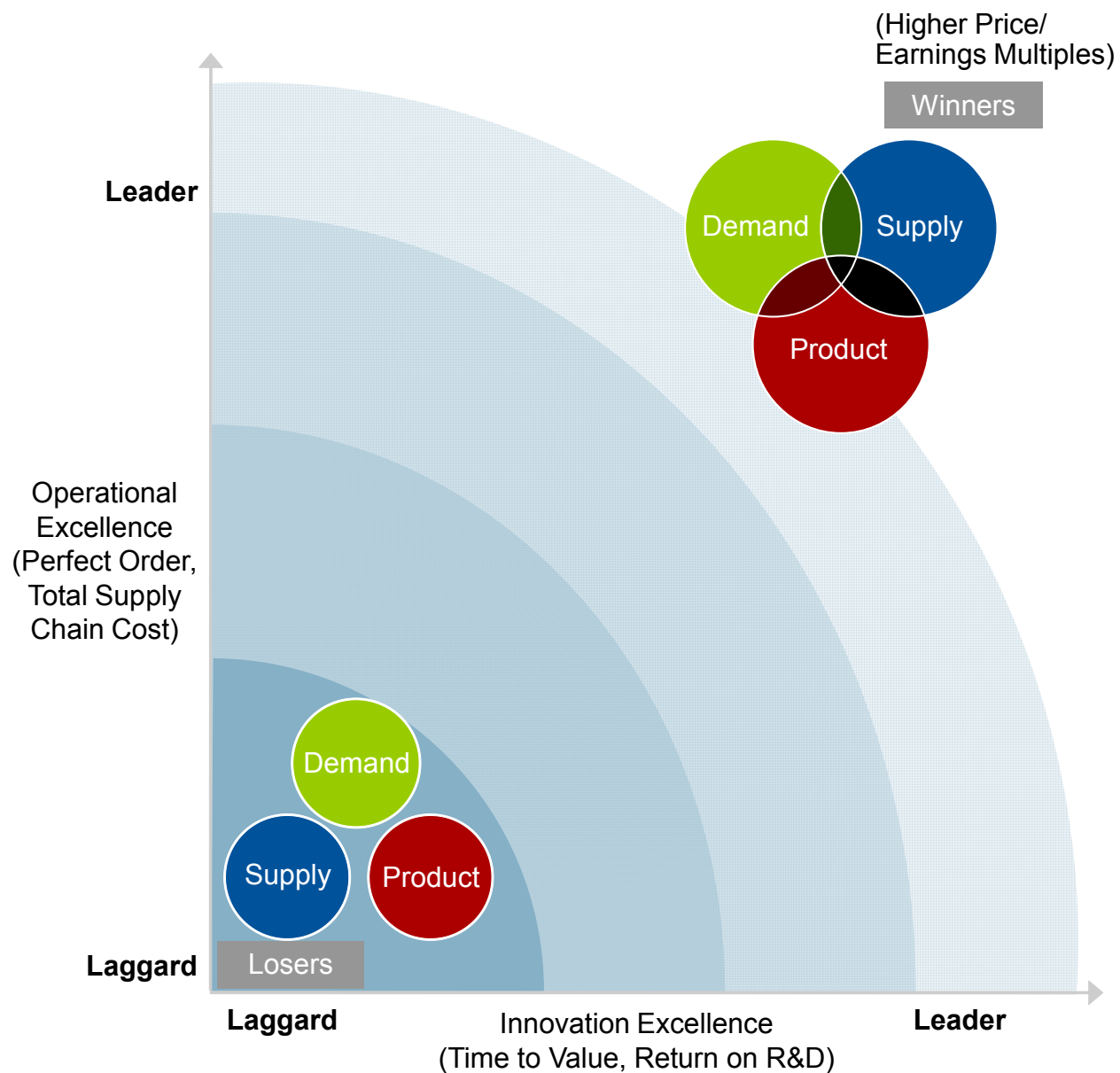
Source: Gartner (May 2012)

When these processes work together, the business can sense, shape and respond quickly and efficiently to opportunities arising from market or customer demand. The defining characteristics of supply chains built to this design include the ability to manage demand, rather than just respond to it; a networked, rather than linear, approach to global supply; and the ability to embed innovation in operations, rather than keep it isolated in the laboratory.

Operational Excellence and Innovation Excellence

Two basic dimensions of measurement capture the totality of the best-in-class, demand-driven, global supply chain: operational excellence and innovation excellence (see Figure 2). To measure operations, including delivering as promised to customers and keeping costs under control, we recommend a hierarchy of metrics, with perfect order performance and total supply chain costs at the top (see "The Hierarchy of Supply Chain Metrics: Diagnosing Your Supply Chain Health").

Figure 2. Operational Excellence and Innovation Excellence



Source: Gartner (May 2012)

Of course, operational excellence has value only if customers want what's being made and shipped. To address this, we look at innovation excellence. Although far harder to measure reliably, this dimension can also be managed with a hierarchy of metrics, in this case, topped by time to value and return on new product development and launch (NPDL). The key is to find the right balance on both these dimensions. Too much emphasis on one at the expense of the other either squashes innovation or hampers growth.

Measuring Demand-Driven Excellence

The Metrics We Wish We Had

For the Supply Chain Top 25 ranking, our ideal would be to have metrics that perfectly describe the two basic dimensions of performance: operational and innovation excellence. These are the dimensions that point meaningfully to the better value chain, identifying which business is faster, stronger and smarter. Betting on next year or next quarter is a matter of knowing who the better "athlete" is, not merely who won last time. Our premise is that the better athlete is more likely to win markets and profits in the future. Therefore, the companies that can demonstrate superior performance against these dimensions merit a higher share price multiple on a dollar of current earnings.

In our ongoing supply chain research, we've identified the metrics that map to these dimensions, which, if we had them, would clearly convey the organizations that have the healthiest value chains (see Table 2).

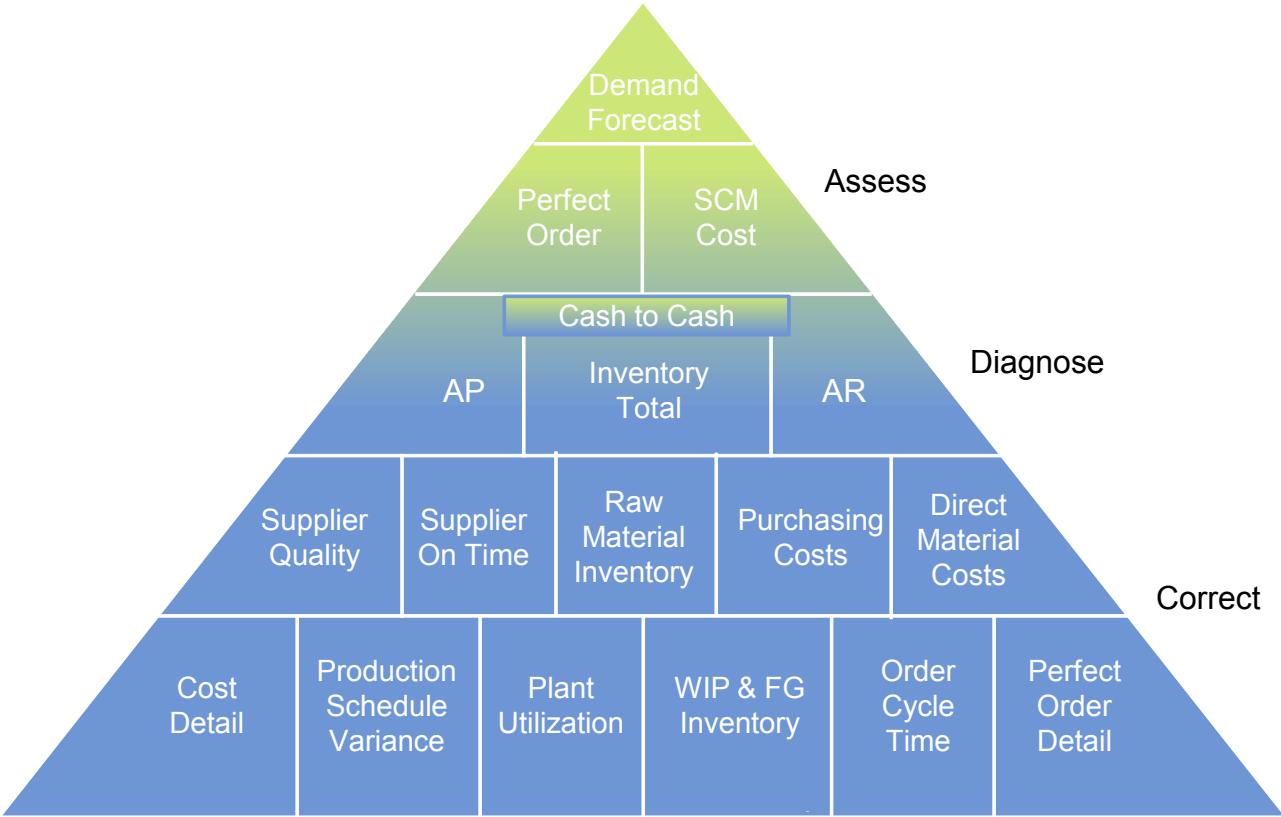
Table 2. Metrics for Operational Excellence and Innovation Excellence

Performance Dimension	Key Metrics
Operational Excellence	Perfect order rates Total supply chain costs
Innovation Excellence	Time to value Return on new product launch

Source: Gartner (May 2012)

For each of these performance dimensions, we've published a full hierarchy of metrics that allows management to assess overall performance at the highest level, diagnose problems via process decomposition and make corrections at the tactical work level (see Figure 3 and Figure 4). We have also published a Hierarchy of Manufacturing Metrics to identify some of the more detailed functional metrics that must be aligned with end-to-end supply chain goals to achieve the overall goal of operational excellence (see "Aligning Manufacturing and Supply Chain Performance, Part 2: The Hierarchy of Manufacturing Metrics").

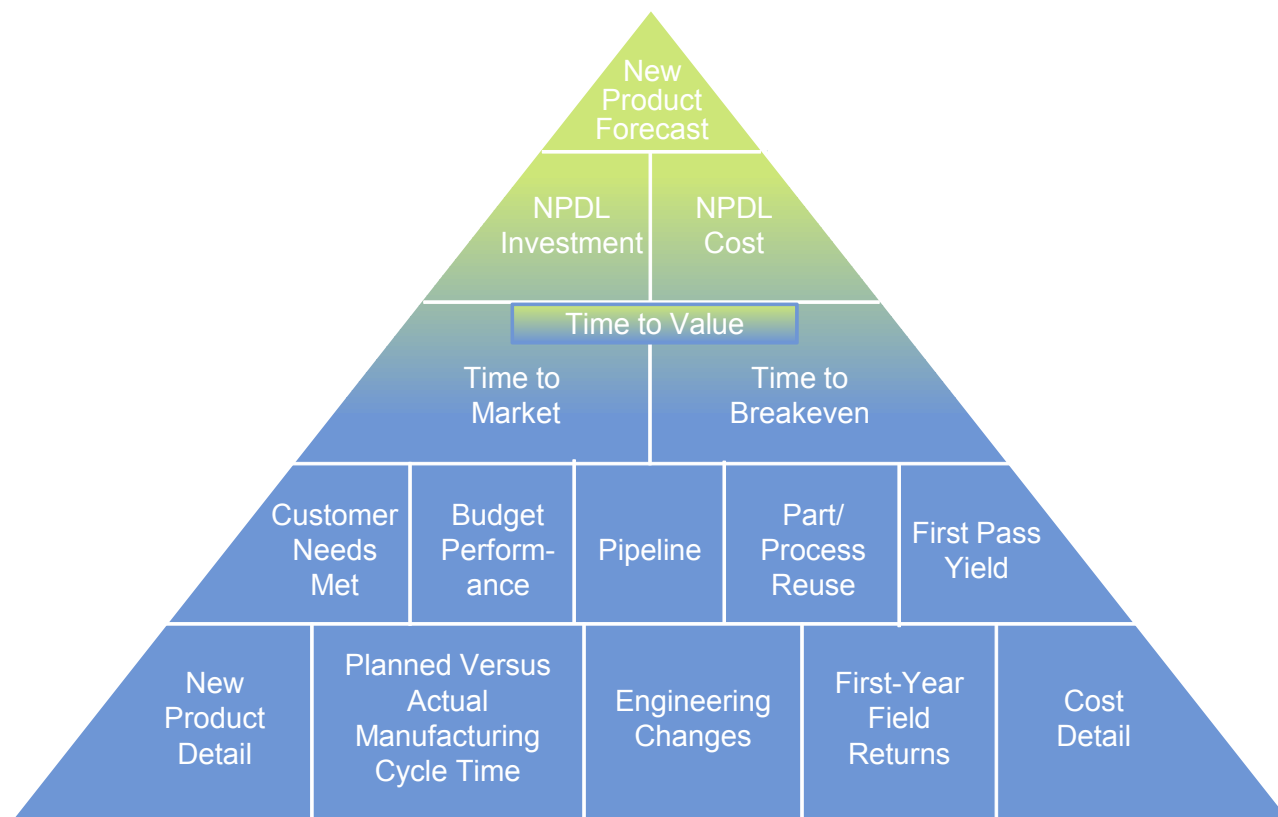
Figure 3. The Hierarchy of Supply Chain Metrics: Operational Excellence



AP = accounts payable; AR = accounts receivable; FG = finished goods; SCM = supply chain management; WIP = work in process

Source: Gartner (May 2012)

Figure 4. The Hierarchy of Product Metrics: Innovation Excellence



Source: Gartner (May 2012)

However, from our work with companies and our benchmarking studies in the past, we're all too aware of how inaccessible this data is in most companies, particularly within a realistic time frame. Moreover, although some companies may have some of the data we seek, there are vast inconsistencies in how these metrics are calculated from company to company.

Therefore, for the Supply Chain Top 25 ranking, we look to publicly available, audited financial data to find the closest possible proxies. We know the limitations inherent in these metrics. Existing financial accounting principles were developed in the hard-asset, factory-intensive economy of the early 1900s. For example, the balance sheet treatment of inventory as a valuable asset rings false for the many short-cycle businesses today that see inventory as more of a liability. Similarly, soft assets like brands and intellectual property (IP), which are essential to demand creation, are impossible for standard accounting to handle, and are thus usually undercounted. Even income statements can obscure real costs with sneaky capitalization rules.

Because of these issues, our methodology isn't limited to financial metrics. Instead, we see financials as one important component that provides a baseline, an anchor and an objective foundation on top of which we place the group intelligence of a vote, precisely because no combination of income statement or balance sheet financial metrics will tell us which companies are

furthest along toward the demand-driven ideal of supply chain excellence. For this reason, we look to craft a methodology that combines enough, but not too many, of the right metrics — both quantitative and qualitative — to achieve our goals.

Supply Chain Top 25 Methodology

The Supply Chain Top 25 ranking comprises two main components: financial and opinion. Public financial data provides a view into how companies have performed in the past, while the opinion component offers an eye to future potential and reflects future expected leadership, which is a crucial characteristic. These two components are combined into a total composite score.

We derive a master list of companies from a combination of the Fortune Global 500 and the Forbes Global 2000, with a revenue cutoff of \$10 billion. We then pare the combined list down to the manufacturing, retail and distribution sectors, thus eliminating certain industries, such as financial services and insurance (see Table 3 for a full list of excluded industries).

Table 3. Industries Not Included in the Supply Chain Top 25

Airlines	Mail, Package and Freight Delivery	Shipbuilding
Banks	Mining	Software Development
Diversified Financials	Crude Oil Production	Steel
Energy	Petroleum Refining	Telecommunications
Engineering/Construction	Pipelines	Temporary Help
Entertainment	Railroads	Trading
Healthcare: Insurance, Managed Care, Services	Shipping	Utilities
Insurance	Services	

Source: Gartner (May 2012)

Each year, we examine the methodology used to develop the ranking, with two sometimes-conflicting goals in mind: consistency and improvement. We want to improve the methods and procedures we use, but, for the sake of consistency, in a way that builds on what we've done in previous years.

We encourage and actively solicit input from the broader supply chain community on the methodology we use, issues with it and suggestions for ways to improve it. Indeed, this goes to the very heart of what we see as the purpose of the Supply Chain Top 25: It's intended to be a lightning rod and foundation for vigorous debate about what constitutes leadership and supply chain excellence.

We continually consider new metrics that might give us additional or better insights into supply chain performance, and reassess the weightings used to ensure a fair reflection of market and business realities. For example, we've investigated the possibility of using days sales outstanding (DSO) as a proxy for customer satisfaction, independent customer ratings for input on customer views, cash to cash for supply chain throughput rates (see "Supply Chain Top 25 Methodology: What About Working Capital?") and the ratio of inventory versus revenue change as a measure of how efficiently a company manages growth (see "AMR Supply Chain Top 25 Methodology: Inventory Versus Revenue Change"). This year, we published the results of our analysis of a possible new way to measure resiliency, looking at the change in financial performance, rather than a snapshot in time (see again "Measuring Resiliency in the Supply Chain Top 25"). Although our investigations revealed it wasn't feasible to apply these metrics within the quantitative methodology used for the Supply Chain Top 25, we've used them in the additional analyses that we publish periodically throughout the year.

At the same time, we continually look for ways to mitigate any issues with the methodology, and enhance the explanatory power, applicability and extensibility of the overall ranking. The impact of brand recognition on the vote, industry variations in inventory and inequalities between more versus less asset-intensive industries are all challenges with which we grapple. These issues are multifaceted. By analyzing them, we've been able to make incremental changes that have allowed us to painstakingly chip away at some of the problems, while maintaining consistency from year to year at the same time.

Similar to last year, we used a 50/50 overall weighting for the 2011 ranking: 50% for the financial component and 50% for the opinion component.

Financial Component

Three financial metrics are used in the ranking:

- **ROA** — Net income / total assets
- **Inventory turns** — Cost of goods sold / inventory
- **Revenue growth** — Change in revenue from prior year

ROA was weighted at 25%, inventory turns 15% and growth 10%. Inventory offers some indication of cost, and ROA provides a general proxy for overall operational efficiency and productivity. Revenue growth, while clearly reflecting myriad market and organizational factors, offers some clues to innovation. Financial data is taken from each company's individual, publicly available financial statements.

The weighting within the financials is the same as last year. Prior to 2010, inventory was weighted at 25%. We had considered dropping it altogether. As much as inventory is a time-honored supply chain metric — one of the few "real" supply chain metrics on a company's balance sheet — there have always been issues with it, not the least of which is that higher turns don't always point to the better supply chain. At the same time, it's a metric that's widely known and understood, both inside and outside the supply chain community. Despite the issues, it's not entirely invalid as an indicator,

particularly if combined with other metrics. Therefore, we decided to leave it in, but reduce its weighting.

Since 2009, we've used a three-year weighted average for the ROA and revenue growth metrics (rather than the one-year numbers we had previously used), and a one-year quarterly average for inventory (rather than the end-of-year number we had previously used). The yearly weightings are as follows: 50% for 2011, 30% for 2010 and 20% for 2009.

The shift to three-year averages was put in place to accomplish two goals. The first was to smooth the spikes and valleys in annual metrics, which often aren't truly reflective of supply chain health, that result from events such as acquisitions or divestitures. It also accomplishes a second, equally important goal: to better capture the lag between when a supply chain initiative is put in place (a network redesign or a new demand planning and forecasting system, for example) and when the impact can be expected to show up in financial statement metrics, such as ROA and growth.

Inventory, on the other hand, is a metric that's much closer to supply chain activity, and we expect it to reflect initiatives within the same year. The reason we moved to a quarterly average was to get a better picture of actual inventory holdings throughout the year, rather than the snapshot, end-of-year view provided on the balance sheet in a company's annual report.

Opinion Component

The opinion component of the ranking is designed to provide a forward-looking view that reflects the progress companies are making as they move toward the idealized demand-driven blueprint. It's made up of two components, each of which is equally weighted: a Gartner analyst expert panel and a peer panel.

The goal of the peer panel is to draw on the extensive knowledge of the professionals that, as customers and/or suppliers, interact and have direct experience with the companies being ranked. Any supply chain professional working for a manufacturer or retailer is eligible to be on the panel, and only one panelist per company is accepted. Excluded from the panel are consultants, technology vendors and people who don't work in supply chain roles (such as public relations, marketing or finance).

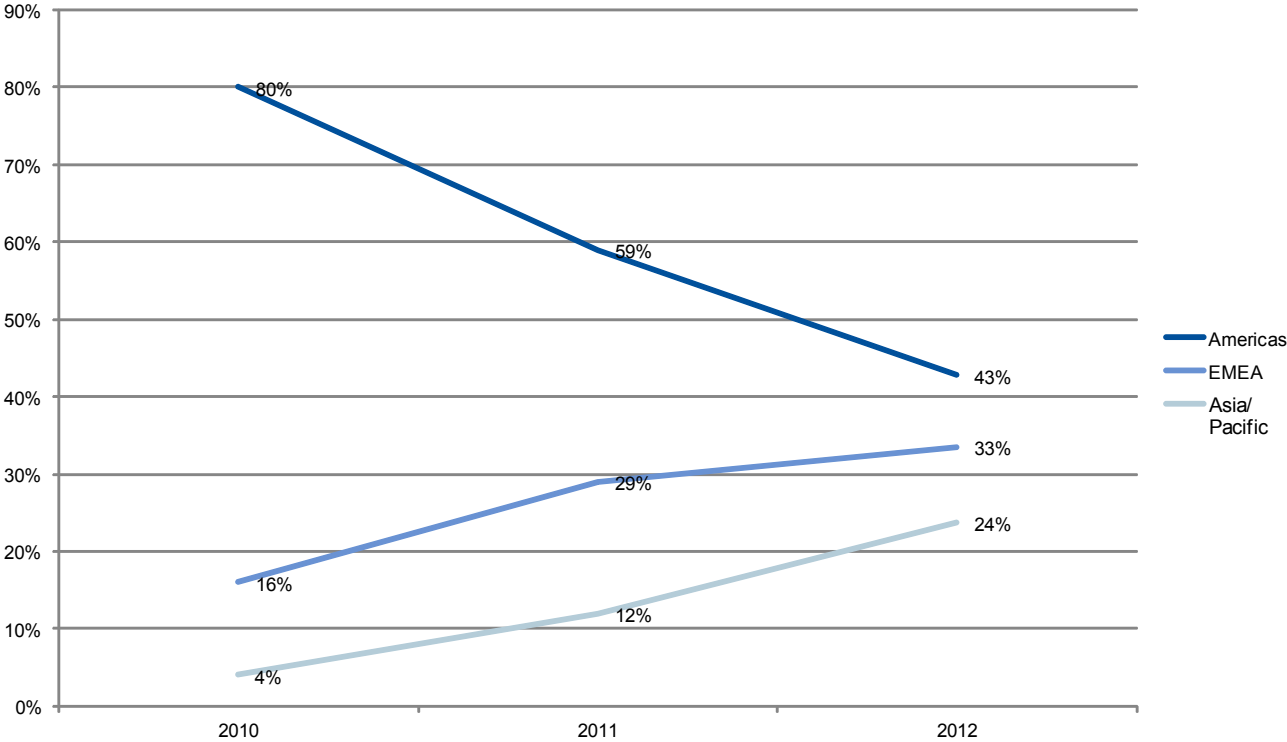
We accepted 246 applicants for the peer panel this year, with 173 completing the voting process. Participants came from the most senior levels of the supply chain organization across a broad range of industries. There were 37 Gartner panelists across industry and functional specialties, each of whom drew on his or her primary field research and continuous work with companies.

Organizations must receive votes from both panels to be included in the ranking. Therefore, a company that had a composite score fall within the Supply Chain Top 25 solely based on the financial metrics would not be included in the ranking.

The figures below provide a breakdown of the peer vote on the dimensions of region, industry, function, role and revenue. The regional breakdown of voters continued to be a particular emphasis for us, and we made significant progress this year. In the past, North American voters made up 80% of the total, despite many efforts to get a more even regional distribution. Last year, we made

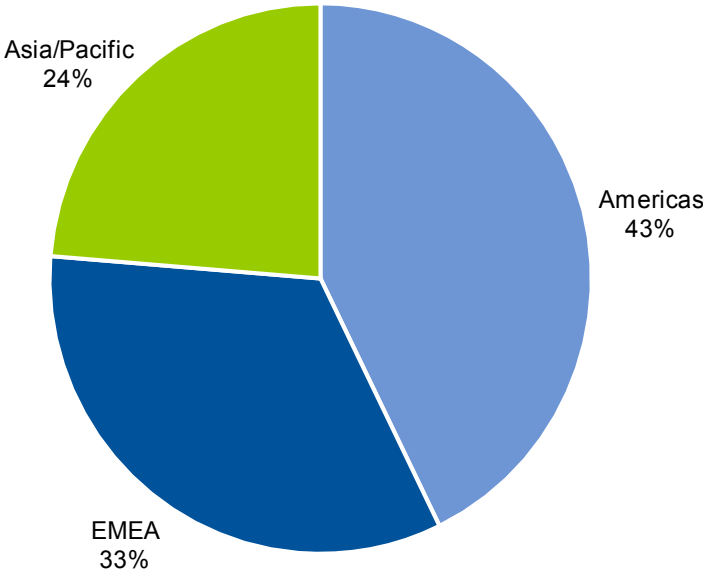
some inroads toward increasing the percentage of voters from Europe and Asia/Pacific. This year, the improvement was even more robust, providing a more balanced global view of supply chain leadership (see Figure 5).

Figure 5. Change in Peer Panel Regional Composition, 2010-2012



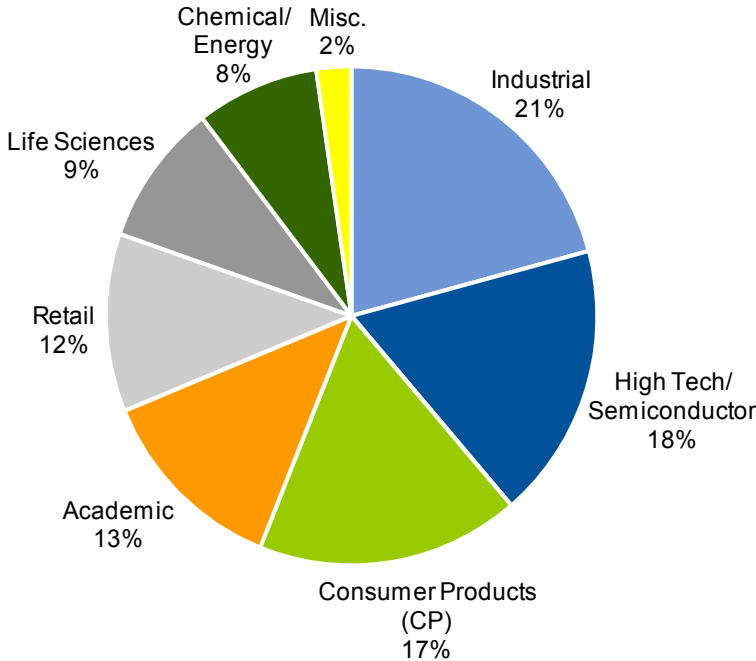
Source: Gartner (May 2012)

Figure 6. 2012 Peer Opinion Panel Composition: Region



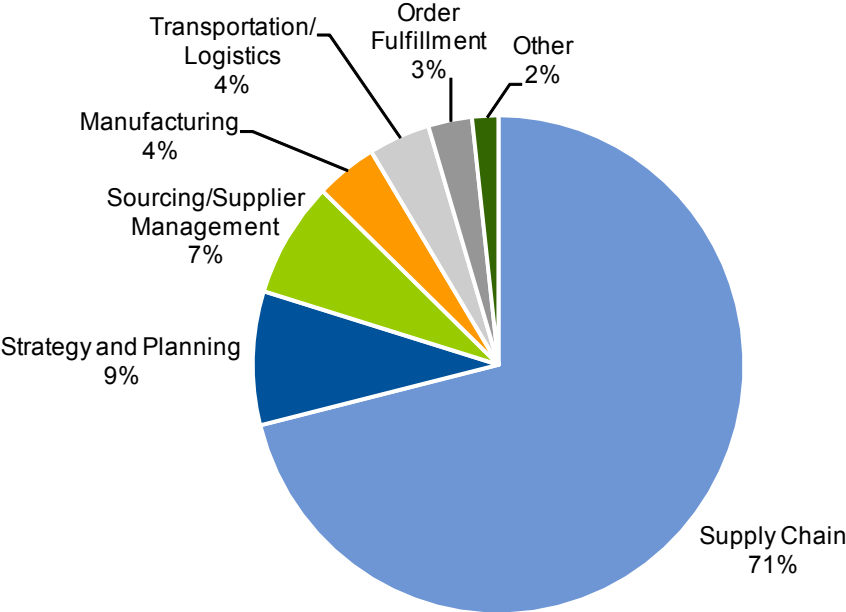
Source: Gartner (May 2012)

Figure 7. 2012 Peer Opinion Panel Composition: Industry



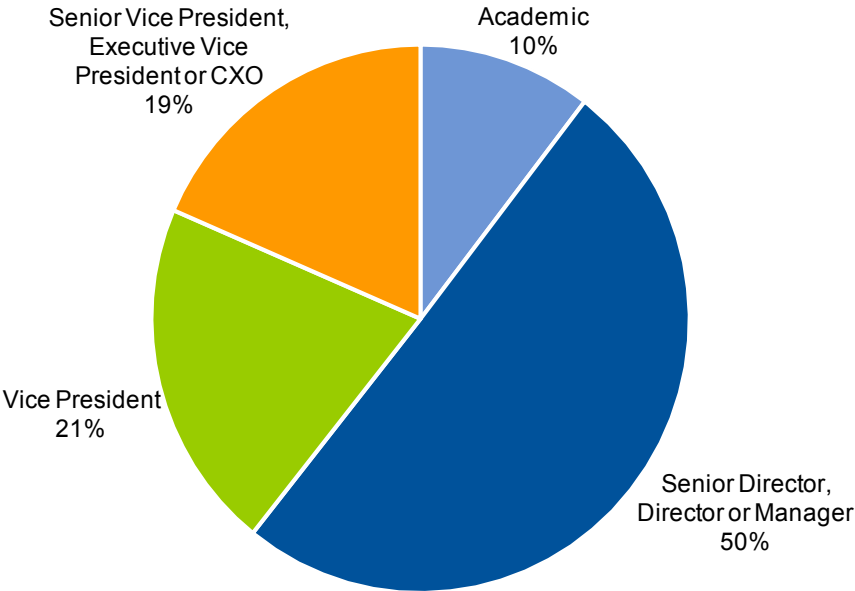
Source: Gartner (May 2012)

Figure 8. 2012 Peer Opinion Panel Composition: Function



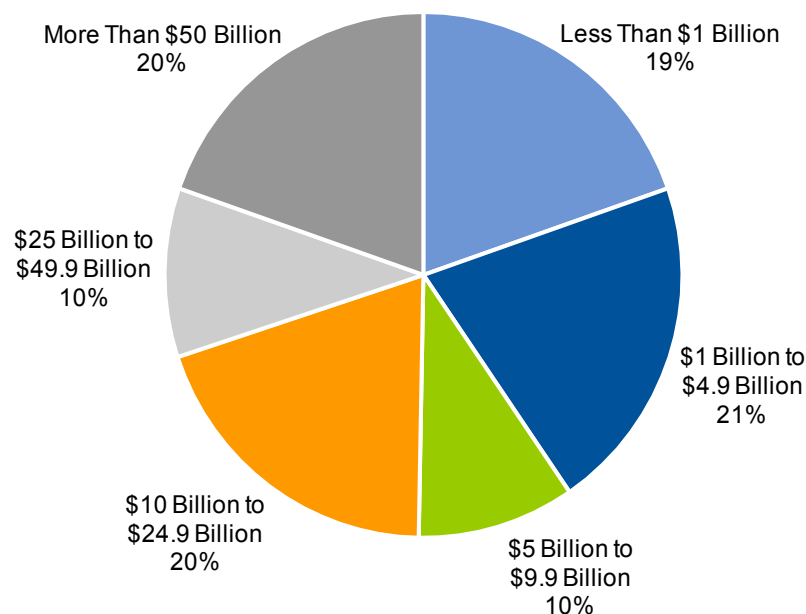
Source: Gartner (May 2012)

Figure 9. 2012 Peer Opinion Panel Composition: Role



Source: Gartner (May 2012)

Figure 10. 2012 Peer Opinion Panel Composition: Revenue



Source: Gartner (May 2012)

Polling Procedure

Peer panel polling was conducted in April 2012 via a Web-based, structured voting process identical to previous years. Panelists are taken through a four-page system to get to their final selection of leaders that come closest to the demand-driven ideal, which is provided in the instructions on the voting website for the convenience of the voters.

Here's a breakdown of the voting system:

- The first page provides instructions and a description of the demand-driven ideal.
- The second page asks for demographic information.
- The third page provides panelists with a complete list of the companies to be considered. We ask them to choose 30 to 50 that, in their opinion, most closely fit the demand-driven ideal.
- After the subset of leaders is chosen, the form refreshes, bringing just the chosen companies to a list. Panelists are then asked to force-rank the companies from No. 1 to No. 25, with No. 1 being the company most closely fitting the ideal.

Individual votes are tallied across the entire panel, with 25 points earned for a No. 1 ranking, 24 points for a No. 2 ranking and so on. The Gartner analyst panel and the peer panel use the exact same polling procedure.

By definition, each person's expertise is deep in some areas and limited in others. Despite that, panelists aren't expected to conduct external research to place their votes. The polling system is designed to accommodate differences in knowledge, relying on what author James Surowiecki calls the "wisdom of crowds" to provide the mechanism that taps into each person's core kernel of knowledge and aggregates it into a larger whole.

Composite Score

All this information — the three financials and two opinion votes — is normalized onto a 10-point scale and then aggregated, using the aforementioned weighting, into a total composite score. The composite scores are then sorted in descending order to arrive at the final Supply Chain Top 25 ranking.

Looking Ahead

The Healthcare Supply Chain Top 25 and the next global Supply Chain Top 25 lie ahead for the rest of 2012 and into 2013. Throughout the coming year, we plan to expand our publications that are based on various cuts and views that go deeper into the full 2012 global ranking, and will pull them all together for the first time in a special report toward the end of the year. We've been publishing industry cuts of the full list for a few years now, and will continue to provide them. Last year for the first time, we also published regional cuts for Europe and Asia/Pacific that show how companies headquartered in those regions stack up against each other. We will publish these again, expecting them to be further enhanced by the improved regional balance of our voters this year.

As previously mentioned, we made substantial inroads this year toward a better regional balance of peer voters. With the peer vote making up one-quarter of a company's composite score, the makeup of the peer voting community is of vital importance. In the aggregate, it can also yield its own interesting perspectives on regional similarities and differences that will be useful to the supply chain community at large. We're looking forward to mining this new information throughout the coming year, and sharing insights on any trends and patterns we find.

We will also continue to investigate new metrics, and ways to define and measure supply chain excellence. This year, for example, we investigated and published one possible way to measure the outcome of a resilient supply chain using the financials in the Supply Chain Top 25. Although we found that it wasn't feasible to apply this metric within the quantitative methodology used for the ranking, we will use it — and others — in the additional analyses and lenses that we publish periodically throughout the year. In addition to metrics, we are continuing to expand the global nature of the ranking.

We are hopeful that the growth trend, which is generally lifting the prospects of all large companies, will continue into next year. Companies that move fastest into global markets with innovative products, coupled with supply chains that are customer-driven, adaptable to change and resilient to disruption, will be the winners. We look forward to continuing to share the lessons learned, providing a platform for informed and provocative debate, and helping the supply chain community provide vital contributions to the global economy.

Recommended Reading

Some documents may not be available as part of your current Gartner subscription.

"The Gartner Supply Chain Top 25 for 2011"

"2011 Gartner Supply Chain Top 25: A&D"

"2011 Gartner Supply Chain Top 25: Automotive"

"2011 Gartner Supply Chain Top 25: Chemical"

"2011 Gartner Supply Chain Top 25: Consumer Products"

"2011 Gartner Supply Chain Top 25: High Tech"

"2011 Gartner Supply Chain Top 25: Industrial"

"2011 Gartner Supply Chain Top 25: Life Sciences Takes a Fall"

"2011 Gartner Supply Chain Top 25: Retail"

"2011 Gartner Supply Chain Top 25: Asia/Pacific"

"2011 Gartner Supply Chain Top 25: Europe"

"Gartner Supply Chain Top 25 for 2011: European Peers' Votes Shaped the European Ranking"

"Measuring Resiliency in the Supply Chain Top 25"

"The Healthcare Supply Chain Top 25 for 2011"

"Cash-to-Cash Cycles of the 2010 Healthcare Supply Chain Top 25 Provide Lessons for Life Science Manufacturers"

"The Hierarchy of Supply Chain Metrics: Diagnosing Your Supply Chain Health"

"Product Launch Dashboards, Part 1: The Hierarchy of Product Metrics"

"Aligning Manufacturing and Supply Chain Performance, Part 2: The Hierarchy of Manufacturing Metrics"

"The Hierarchy of Healthcare Supply Chain Metrics for IDNs"

"Aligning Retail and Supply Chain Performance: The Hierarchy of Retail Metrics"

"Toolkit: Assess the 12 Facets of DDVN Excellence"

[The Supply Chain Top 25 website](#)

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