

Global Supply Chain Survey 2013

This year's global supply chain survey by PwC shows how Leaders are moving ahead of the pack. They're tailoring their supply chains to customer needs and investing in next-generation capabilities while keeping the focus on supply chains that are both fast and efficient.

Next-generation supply chains Efficient, fast and tailored



Contents

<i>Executive summary</i>	<i>3</i>
<i>Introduction</i>	<i>6</i>
<i>Detailed survey findings</i>	<i>8</i>
<i>Industry-specific dashboards</i>	<i>20</i>
<i>About the survey</i>	<i>32</i>
<i>Acknowledgements</i>	<i>33</i>
<i>Related reading</i>	<i>34</i>

More than 500 participants from manufacturing and service industries contributed to this year's survey, with data collected from May to July 2012.



Executive summary

Macroeconomic cycles of growth, contraction and recovery have become erratic. Together with natural disasters that affect both operations and sales, they have made reliable end-to-end supply and demand planning increasingly challenging.

Successful management of extreme market and demand volatility has become the new mantra of supply chain managers around the globe. Macroeconomic cycles of growth, contraction and recovery have become erratic, making reliable end-to-end supply and demand planning increasingly challenging. Disruptions caused by recent natural disasters have added to supply chain volatility.

In business-to-business relationships, long-term loyalty and predictable order flow seem to have become relics of the past. At the same time, customers are tightening their requirements in terms of throughput time and perfect-order delivery while demanding continuous reductions in supply chain cost.

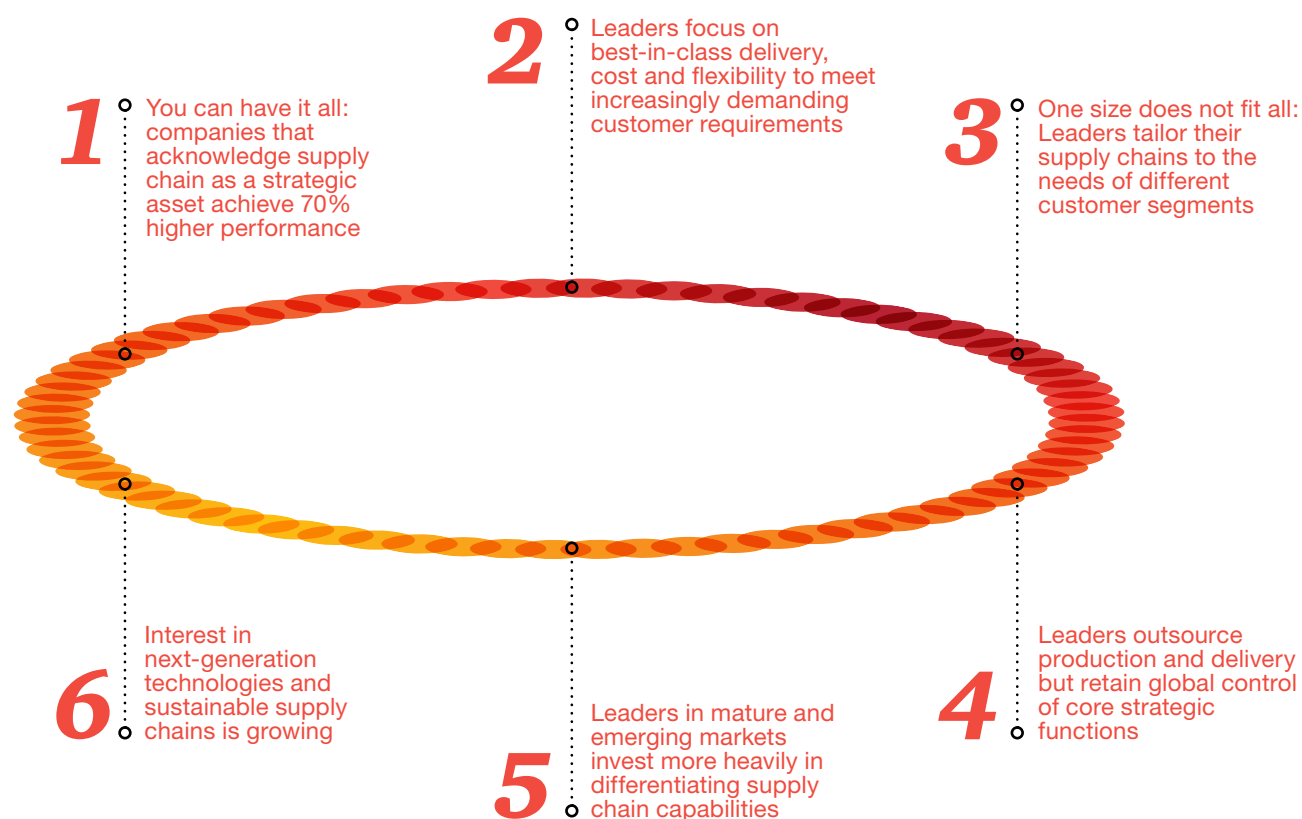
The increasing use of online channels is driving the reduction of response times and forcing supply chain managers to find new answers for global micro-delivery of multiple small-customer orders, instead of the large-batch movements.

Maximising supply chain flexibility and managing multiple supply chain configurations have become the new imperatives for today's supply chain executives. In addition, radio-frequency identification (RFID) and other digital technologies lead to new frontiers in supply chain transparency and process automation. Those technologies enable multiple supply chain partners along the value chain to seamlessly interact in the joint design, manufacture, delivery and service of complex customer orders.

But even with this kind of innovation available to enhance efficiency, supply chain executives everywhere face some tough challenges. So, how are they handling them? In this report we share the findings from our ninth and largest-ever global supply chain survey. We've drawn on the insights of more than 500 supply chain experts in Europe, North America and Asia, from companies of all sizes and across a wide range of industries. We've also picked out two groups of companies and compared their performance. The Leaders, as we've called them, have consistently outperformed their peers, while the Laggards have consistently underperformed — both financially and operationally.

The Leaders in our survey point to the future. They have supply chains that are efficient, fast and tailored — a model that lets companies serve their customers reliably in turbulent market conditions and that differentiates between the needs of different sets of customers. We've come up with six key findings that point the way towards how they do it.

Six key findings from PwC's Global Supply Chain Survey 2013



Finding 1: *You can have it all: companies that acknowledge supply chain as a strategic asset achieve 70% higher performance*

Companies that beat the competition on supply chain performance also achieve significantly better financial results. Supply chain Leaders deliver on time in full (OTIF) on 95.7% of occasions and have an impressive 15.3 inventory turns, while the Laggards achieve only 3.8 turns. That means greater efficiency and customer satisfaction without driving up working capital — essentially, having it all. Those are metrics that really impact the bottom

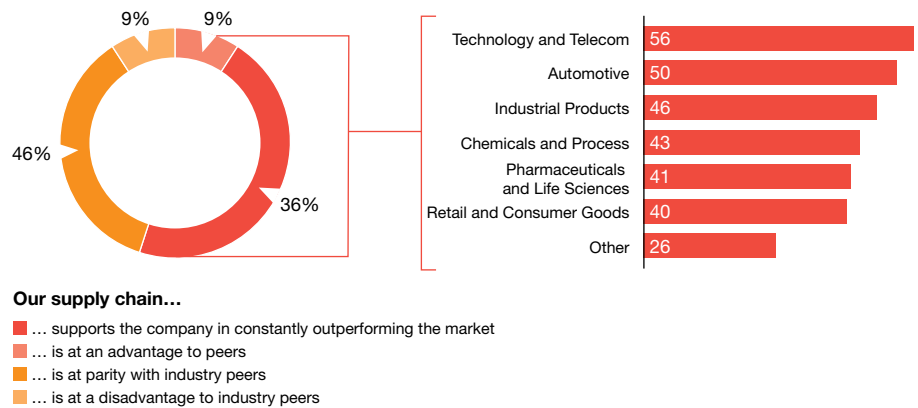
line; the Leaders in our survey enjoy average earnings before interest and taxes (EBIT) margins of 15.6%, whereas the Laggards can manage only 7.3%.

But, surprisingly, only 45% of respondents say their companies view the supply chain as a strategic asset, and just 9% say the supply chain is helping them outperform their peers. That needs to change, because better supply chain efficiency has a measurable impact. Supply chain managers across the globe need to step up to their top management and claim their rightful place as one of the major elements in the success — or failure — of their company.

Finding 2: *Leaders focus on best-in-class delivery, cost and flexibility to meet increasingly demanding customer requirements*

Supply chain executives are coping with a wide range of challenges, with profitability and cost management topping the list, followed by supply chain flexibility and the need to meet customer requirements. But those represent just the tip of the iceberg — adapting to competitive pressures, volatility, skills gaps, sustainability — because the range of increasingly important trends that affect supply chain success is wide.

Figure 1: 45% of the participants acknowledge that supply chain is seen as a strategic asset in their company [% of participants]



Source: PwC, Global Supply Chain Survey 2013

The Leaders have succeeded in coping with those challenges by focusing on three key drivers: perfect order delivery, cost reductions and supply chain flexibility. They've invested in new tools and technologies, built extensive supply chain networks to maximise the flexibility and responsiveness of their supply chains and simplified their processes wherever possible. That's helping them respond to customers, whose requirements are becoming increasingly demanding.

Finding 3: *One size does not fit all: Leaders tailor their supply chains to the needs of different customer segments*

The Leaders recognise that one size does not fit all. They've created different supply chain configurations for different customer segments by using distinct processes and supply networks to offer different levels of service at different prices. They're also more focused in the ways they go to market: 35% use only one channel, whereas 80% of the Laggards have more than one. Clear channel focus, while configuring the supply chain to meet the needs of individual customers, has proved to be a winning formula.

Finding 4: *Leaders outsource production and delivery but retain global control of core strategic functions*

The Leaders typically outsource about 60% of their warehousing and logistics activities and nearly 50% of their manufacturing and assembly activities.

But they keep core strategic functions such as sales and operations planning (S&OP), strategic procurement and research and development (R&D) in-house.

They also manage most core strategic functions centrally while steering more than three-quarters of their manufacturing and logistics activities regionally. Regional manufacturing and distribution give them greater flexibility and make it easier for them to respond to local customer requirements.

Finding 5: *Leaders in mature and emerging markets invest more heavily in differentiating supply chain capabilities*

Most companies have implemented the basic capabilities required to deliver efficiently and cost-effectively. Leaders have gone much further than only mastering the basics. They've also introduced differentiating processes, such as integrated real-time demand-and-supply planning with key suppliers and customers, effective supplier and partner management or tax-efficient supply chains.

That includes supply chain Leaders from the emerging markets. They have rapidly adopted best-in-class practices and avoided the painfully slow development process used by many of the traditional-market companies. And many emerging-market Leaders are now leading the way by introducing new and innovative supply chain practices to the global supply chain community, especially in the areas of supply chain flexibility and cost efficiency.

Finding 6: *Interest in next-generation technologies and sustainable supply chains is growing*

The existing suite of innovative supply chain technologies includes RFID and other digital capabilities, new visibility and statistical decision tools and technology to facilitate further process automation and efficiency. Many companies aren't yet taking advantage of all those possibilities. But that looks set to change: more than half of all respondents say they're implementing, or they plan to implement, new tools to improve visibility and provide more process automation. Those in the Pharmaceuticals and Life Sciences, Technology and Telecom and Retail and Consumer Goods industries plan to make particularly significant investments in those areas over the next couple of years.

More than two-thirds of all respondents also say sustainability will play a more important role in the supply chains of the future. A number of companies have already started (1) investing in technologies to reduce their carbon dioxide emissions and (2) excluding any supply chain partners that don't adhere to the highest ethical standards. But such examples are not yet widespread — aspirations tend to exceed action unless there is a clear cost reduction benefit or regulatory requirement being met.

Introduction





In our ninth — and largest-ever — global supply chain survey, we heard from over 500 executives around the world which key trends they see reshaping the supply chain.

The need to cope with a whole range of supply chain challenges is putting greater pressure than ever on supply chain executives. In our ninth — and largest-ever — global supply chain survey, we heard from over 500 executives around the world which key trends they see reshaping the supply chain. Coming from companies large and small, across a wide range of industries, our respondents shared details of their operating models and the practices their companies are using, outlined the ways they're organising their supply chains and described the levers they're pulling to maximise the value of those supply chains.

We've supplemented this research with a comparison of two distinct cohorts of companies: those in the top quintile and those in the bottom quintile (per industry sector), measured in terms of financial and operational performance. The differences between those Leaders

and the Laggards are illuminating. The most-successful companies have configured their supply chains for specific customer segments, adopted differentiating practices such as collaborative planning with customers and suppliers and reduced complexity.

The Leaders in our survey point to the future. They have next-generation supply chains that are fast, flexible and responsive — a model that enables companies to serve their customers accurately and efficiently in turbulent market conditions and differentiates between the needs of different sets of customers.

We've discussed our main findings in the following pages. We've also included six dashboards with details of how well the supply chains of companies in different industries perform, how those supply chains are typically organised and the value drivers that matter most.

Detailed survey findings

Finding 1:
*You can have it all:
companies that acknowledge
supply chain as a strategic
asset achieve 70%
higher performance*

Companies that focus on improving their supply chain performance achieve much better financial and operational results than their peers do. The top companies we surveyed deliver OTIF at 96% compared with 89% on average. In addition, they have 87% more inventory turns per year than companies with average results do. That doesn't just mean more satisfied customers. It directly affects the bottom line: Leaders also enjoy 30% higher EBIT margins than the average (see Figure 2).

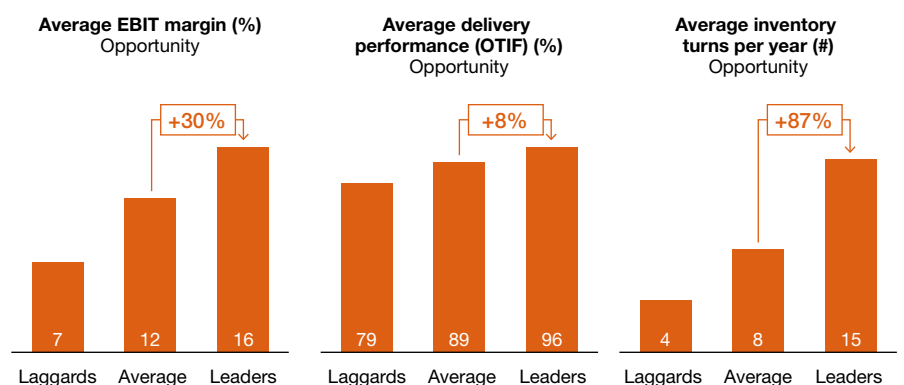
Perhaps more important, Leaders show that it's possible to deliver orders very efficiently without driving up their working capital, which refutes the still widely held belief that delivery performance is a function of inventory. More than half of them deliver OTIF more than 95% of the time and have more than 15 inventory turns a year — evidence that delivery performance is the product of a mature supply chain set-up, processes and systems. By contrast, 96% of the Laggards in our survey are supply chain rookies. Their delivery performance, inventory turns and EBIT margins are much lower than those of the Leaders (see Figure 3).



Our analysis suggests that the importance of the supply chain is still insufficiently recognised in the boardroom. In fact, even supply chain executives themselves usually don't realise the full value they bring to their organisations, or they don't promote that value sufficiently to the C-suite. That's because most supply chain executives are focusing on the day-to-day aspects of establishing and managing an end-to-end supply chain and fostering collaboration both with other functions and within the supply chain itself. But taking the time to promote the importance of the supply chain can have significant benefits.

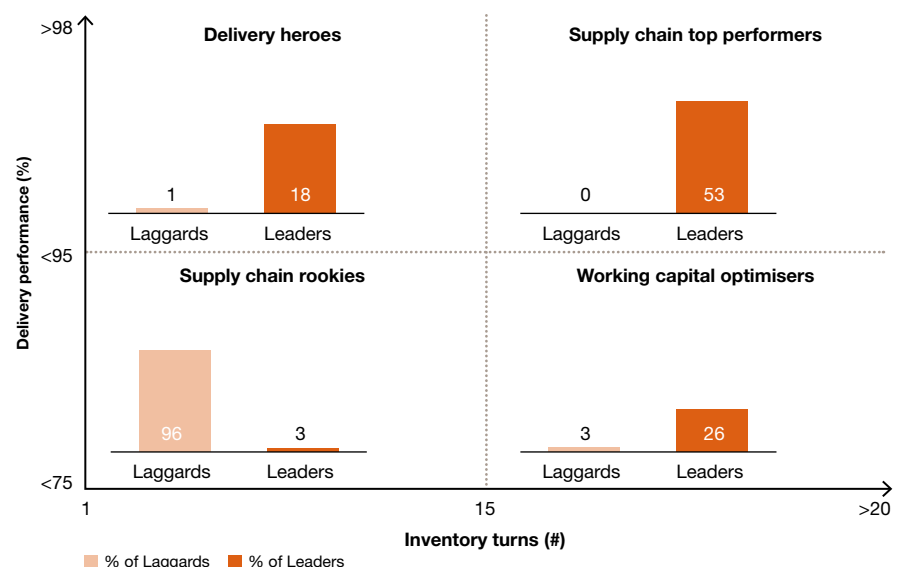
Once the C-suite recognises that a mature supply chain is truly a source of important competitive advantage, it will be easier to persuade executives to make the investments needed to bring supply chains up to the next level.

Figure 2: Companies that focus on improving their supply chain performance consistently outperform their peers financially



Source: PwC, Global Supply Chain Survey 2013

Figure 3: Leaders deliver on time in full more frequently and simultaneously optimise their working capital



Source: PwC, Global Supply Chain Survey 2013



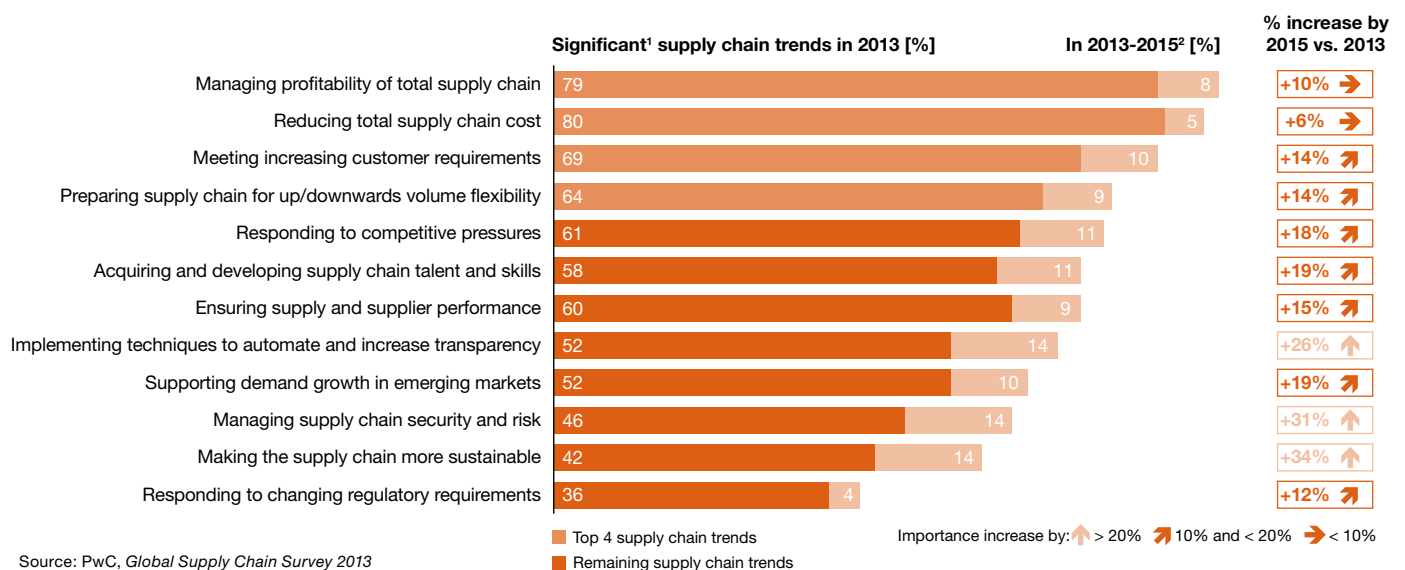
Finding 2:
Leaders focus on best-in-class delivery, cost and flexibility to meet increasingly demanding customer requirements

Supply chain executives see increasing the profitability of their companies' supply chain and reducing total supply chains costs as their top priorities (see Figure 4). In addition, more than two-thirds say it's vital to meet the requirements of customers, who are becoming more demanding about the delivery performance, flexibility and service levels they expect. And awareness of the need to keep up with customer demands is increasing; that number will jump to 78% by 2015. As one respondent put it, "We're juggling multiple supply chain balls faster and faster and just hope that none of the efficiency or customer satisfaction balls drops to the ground."

Staying resilient is one way to cope with customer requirements. Nearly two-thirds of supply chain executives say they'll need to build in greater flexibility to respond to shifts in volume. Here, too, the importance will increase by 2015, which is consistent with the shift we noted in our 2010-2012 trends report.

That's only the beginning of the challenges supply chain executives face. Respondents see a whole range of trends as increasing in importance, from the need to respond to competitive pressures and ensuring supplier performance through to concerns over risk and skills (see Figure 4).

Figure 4: Costs, profitability and increasingly demanding customers top the agenda



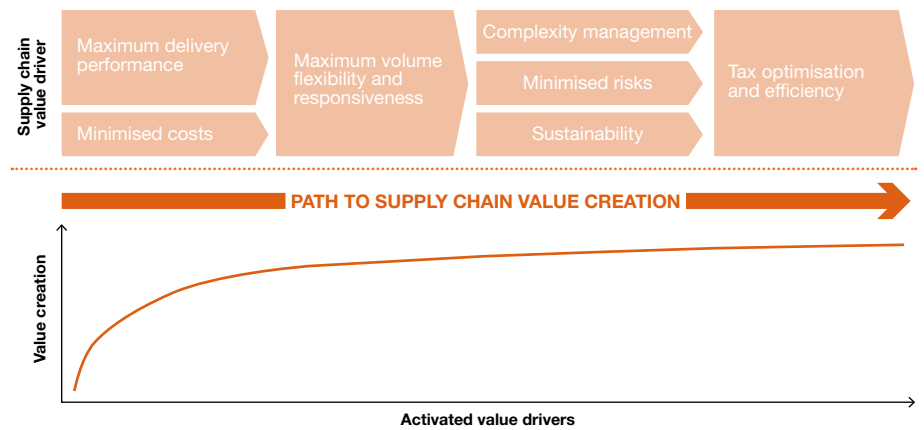
Source: PwC, Global Supply Chain Survey 2013

Notes

¹ % participants who judge trend as critical or significant in 2013.

² % participants who say that trend is significant, critical or moderately important in 2013 and who say it will increase by 2015, or who think that trend is critical or significant in 2013 and believe it will stay the same for the next two years

Figure 5: Leaders pull seven levers to maximise the value of their supply chains



Source: PwC, *Global Supply Chain Survey 2013*

Indeed, the war for talent is already in full swing. Nearly three-fifths of our survey respondents see the acquisition or development of supply chain talent and skills as essential to their current success. Even more rate it as important for 2013-2015. Some companies have responded by establishing dedicated supply chain academies to train their own staffs. They're also offering attractive compensation and benefits packages to acquire and retain successful supply chain managers.

Respondents say supply chains also need to support demand growth in emerging markets and be more sustainable. Most companies have so far devoted relatively little effort to the idea of the sustainable supply chain, largely because their customers seem unwilling to pay for it. But the importance is now rising sharply — one-third more respondents say sustainability will play a major role in 2013-2015 compared with now.

All of these challenges present a lot to deal with at one time, but the introduction of digital technologies such as RFID and process automation tools is likewise rising up the agenda. Such technologies require massive investment and typically take several

years to implement. But they provide much greater transparency and process automation throughout the entire supply chain, so they can help reduce costs and increase efficiency. Hence the fact that many supply chain executives now regard them as vital.

So, in light of all these challenges, what priorities are Leaders setting to maximise the value of their supply chains? As Figure 5 shows, many of them have focused on the same values drivers, and it's the first levers that provide the highest impact.

The two levers that create the highest value are maximising delivery performance and minimising supply chain costs: 90% of all Leaders have achieved a delivery performance of more than 96%, thanks to integrated supply chain planning, throughput/cycle time reductions and optimisation of their buffer stocks. Many of them are also using best-cost country sourcing and lean management techniques and are simplifying their processes in order to cut costs.

Maximising volume flexibility and responsiveness comes next: 75% of Leaders regard it as important. They're creating value by increasing

volume flexibility in their internal manufacturing or shift models, improving supply-and-demand balancing and collaborating closely with their partners. They make sure their supply chains are responsive and that volatility risks are shared with partners and suppliers.

Once they've pulled those three levers, the Leaders tend to focus on reducing risk and managing complexity. Just how do they do it? One way is by (1) working together with R&D and sales executives to reduce the number of product platforms and variants and (2) consistently pruning obsolete components. This results in lower inventories and reduced supply chain complexity. In addition, the Leaders manage key suppliers more professionally, automate supply chain processes that can be automated and switch from make-to-stock to make-to-order whenever possible. Finally, the Leaders turn to reorganising their supply chains to minimise tax exposure.

The result? The Leaders consistently achieve above-average supply chain performance and financial results, while the Laggards get bogged down by ever-increasing supply chain costs, complexities and inefficiencies.

Finding 3:
One size does not fit all: Leaders tailor their supply chains to the needs of different customer segments

More than 83% of all Leaders configure their supply chains for different customer segments. And, on average, they use 55% more configurations per channel than the Laggards do (see Figure 6). In other words, the Leaders recognise that one size doesn't fit all. The demands imposed on a supply chain are as much a function of the channel the supply chain serves and of the requirements of the customers who use that channel, as they are of the products a company sells and the technologies the company uses. Each combination results in a different set of customer needs that require a tailored solution.

Of course, many organisations recognise that different customers have different needs — and hence different supply chain requirements, too. But it's only the Leaders that have started using the concept of configuration to design their supply chains from the outside in. This enables them to provide optimal services for a wide range of customers by making the best trade-offs between delivery performance, cost and flexibility to satisfy each customer segment (see Figure 7). So, supply chain configurations are major elements in achieving superior supply chain performance.

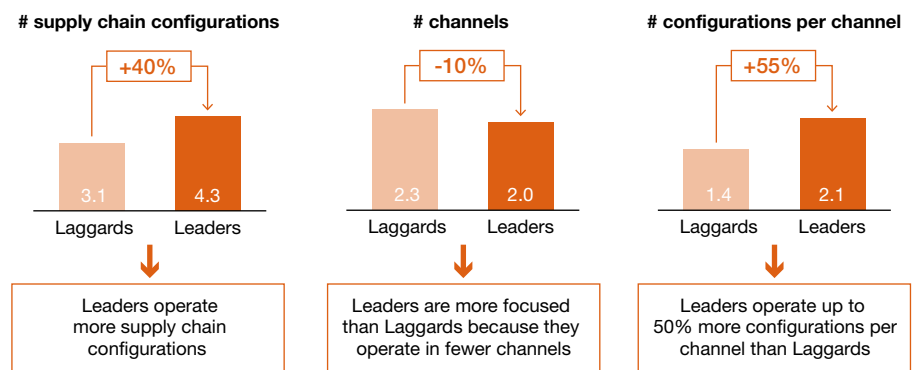
What is a supply chain configuration?

A supply chain configuration is a version of the supply chain that has been optimised to meet the needs of a specific customer group. For example, a manufacturer might have two different supply chain configurations: one for complex/high-end products and one for standard products. Each configuration might serve the same customers and source from the same suppliers by using different production locations and even, perhaps, different distribution networks. Similarly, a manufacturer might have two different transportation and logistics configurations: one with fast delivery times and a higher cost for top customers and one with lower performance for price-conscious customers.

Clear channel focus, while configuring the supply chain to meet the needs of individual customers, has proved to be a winning formula.

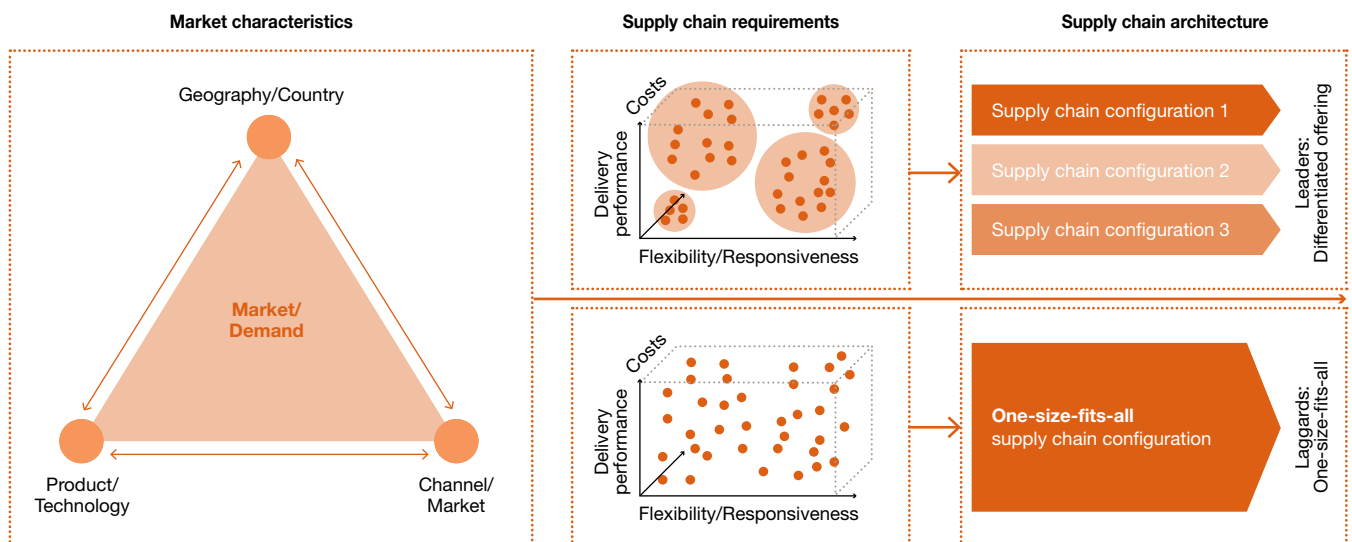
That's not the only difference between the Leaders and the rest of the survey population, though. The Leaders also have a clearly defined go-to-market approach: 35% focus on only one channel versus 20% of the Laggards, and on average, they generate 66% more revenue per channel than the other companies in our sample. This suggests that critical mass is a prerequisite for creating tailored supply chain configurations.

Figure 6: Leaders configure their supply chains for different customer segments



Source: PwC, Global Supply Chain Survey 2013

Figure 7: With different supply chain configurations, companies can make the best trade-offs to satisfy each customer segment



Source: PwC, Global Supply Chain Survey 2013

Finding 4:
Leaders outsource production and delivery but retain global control of core strategic functions

As a rule, the Leaders in our survey manage core strategic activities such as strategic procurement, S&OP and new product development globally while positioning production and delivery regionally (see Figure 8). This allows them to maintain control over standards and maximise synergies while remaining flexible and responsive to local needs.

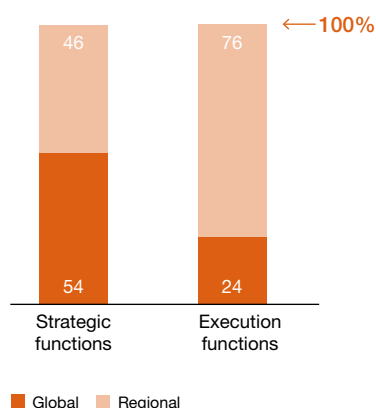
Many Leaders also use near-shoring to keep prices competitive. And the most-advanced companies are switching from low-cost country sourcing to best-cost country sourcing,

recognising that lead times are parts of the total cost of ownership. But both Leaders and Laggards use very similar organisational models, suggesting that organisational models alone are not main elements in higher performance. It is, rather, a company's practices and capabilities that determine how well the company's supply chain operates.

While the outsourcing of supply chain functions has grown rapidly in the past years, our 2013 survey indicates that the percentage of value creation achieved by partners has reached a plateau. The activities that survey

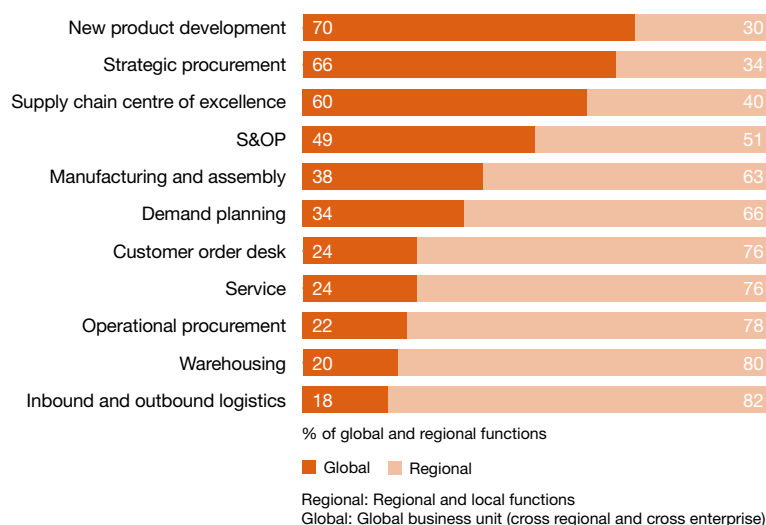
Figure 8: Leaders manage strategic functions globally and execute functions regionally

Leaders' organisational model



- Strategic functions: Demand planning, S&OP, Strategic procurement, New product development, Supply chain centre of excellence
- Execution functions: Operational procurement, Customer order desk, Inbound and outbound logistics, Manufacturing and assembly, Service

Leaders' geographic organisation



Source: PwC, Global Supply Chain Survey 2013

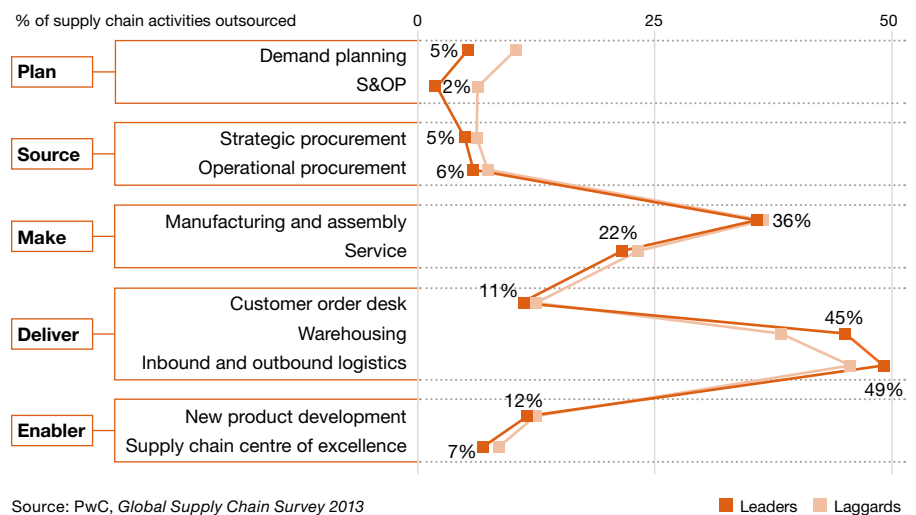


Interesting to note is that on average, only 36% of manufacturing and assembly is being outsourced, indicating that functions like manufacturing and sourcing remain cores of the supply chain and keys to achieving tighter supply chain integration.

participants do outsource are confined primarily to the areas of manufacturing and distribution, and even then, they're very selective. Due to global disasters in past years, some companies have actually brought some supply chain activities back, close to home, to reduce risks.

Both Leaders and Laggards outsource half of their transportation and warehousing activities, regarding them as commodities that can be handled by a partner. But they keep the customer order desk in-house to maintain control over interaction with customers. And they outsource only 36% of their manufacturing and assembly activities, suggesting that many companies still see manufacturing as a core component of the supply chain and one of the vital elements in achieving closer supply chain integration (see Figure 9).

Figure 9: Leaders and Laggards alike are very wary about outsourcing all functions but their manufacturing and distribution

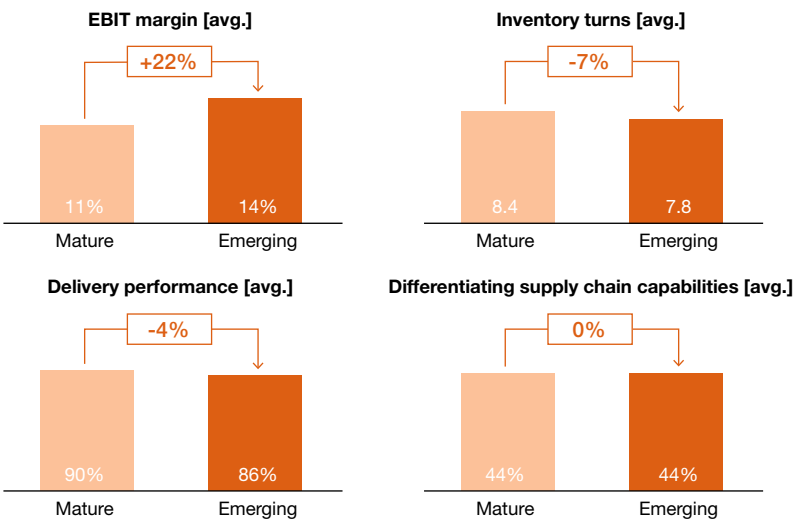


Finding 5:
Leaders in mature and emerging markets invest more heavily in differentiating supply chain capabilities

Two-thirds of the companies in our survey are still focusing on the basics of running a supply chain in a cost-effective manner and delivering goods sufficiently well to satisfy their customers. They're concentrating on achieving continuous improvements in cost, lead times and waste reduction. But those basic capabilities are simply preconditions for doing business; they don't enable a company to outperform the market.

Conversely, the Leaders have already mastered the basics. They're more concerned with the skills that separate a company from the crowd: 51% say differentiating capabilities are the real keys to success. Figure 11 shows the main areas in which those companies are investing to create added value. But before attempting to implement such practices, it's essential to make sure the basics are in place. The Leaders already excel in terms of delivery, cost and flexibility. That's given them a robust platform on which to invest in more-advanced capabilities.

Figure 10: The supply chain performance of companies in emerging markets is already close to that of companies in mature markets



Based on participant's country of origin.
Source: PwC, Global Supply Chain Survey 2013

According to our analysis, Leaders achieve excellence and competitive advantage by focusing on differentiating capabilities.

This emphasis on differentiating capabilities is characteristic of Leaders in both mature and emerging markets. One of the most notable features of this year's survey is the number of emerging-market companies with strong supply chains and high EBIT margins. In fact, 26% of the Leaders in our sample are based in the emerging economies. And on average, emerging-market companies command EBIT margins that are 22% higher than those enjoyed by mature-market companies (see Figure 10). They've almost caught up with mature-market companies in terms of inventory turns and delivery performance.

That's especially impressive given that emerging markets are typically more volatile and more competitive. Mastering differentiating capabilities has played a large part in emerging-market companies' success. A remarkable 44% of emerging-market companies are investing in differentiating capabilities — evidence that they're rapidly implementing best practices without going through the painful learning curve many mature-market companies have endured. And many emerging-market Leaders are even leading the way by introducing innovative supply chain practices to the global supply chain community, especially in the areas of supply chain flexibility and cost efficiency.

Figure 11: Leaders are investing in a number of differentiating practices

Supply chain value driver	Top three differentiating practices of Leaders
Maximum delivery performance	<ol style="list-style-type: none"> 1. Collaboration with key customers on planning (e.g., effective forecasting) 2. End-to-end supply chain planning and visibility 3. Vendor-managed-inventory direct-replenishment model
Minimised costs	<ol style="list-style-type: none"> 1. Best-cost country sourcing 2. Differentiated order-to-delivery time 3. Differentiated service level, including potential reduction
Maximum volume flexibility and responsiveness	<ol style="list-style-type: none"> 1. Internal capacity flexibility 80%-120% 2. Flexible shift models/payment structure 3. Regional supply chain set-up
Minimised risks	<ol style="list-style-type: none"> 1. Multiplication of sources and sole-sourcing avoidance 2. Regular review of suppliers' financial risk and mitigation through risk-sharing partnerships 3. Visibility and regular monitoring of main suppliers' operational indicators
Complexity management	<ol style="list-style-type: none"> 1. Development of multiskilled employees to cope with complexity 2. Late-stage product customisation 3. Use of distributors and other channel partners
Sustainability	<ol style="list-style-type: none"> 1. Agreement with supply chain partners to adhere to highest ethical standards 2. Responsible supply chain partner footprint and procurement framework 3. Internal carbon footprint optimisation and improvement
Tax optimisation and efficiency	<ol style="list-style-type: none"> 1. Manufacturing and assembly optimisation (toll manufacturing) 2. Localisation of inventory ownership in tax-efficient countries 3. Localisation of procurement organisation in tax-efficient countries (e.g., Singapore, Switzerland, Cayman Islands)



Finding 6:
Interest in next-generation technologies and sustainable supply chains is growing

The suite of innovative supply chain technologies now available includes RFID and other digital capabilities, new visibility and statistical decision tools, as well as technology to enable further process automation and efficiency. Those technologies open new frontiers in supply chain transparency and process automation. Survey respondents recognise the importance of moving their supply chains to this next level: over 50% report that they are implementing or planning to implement new tools for better process automation or transparency. And nearly two-thirds see automation as being vital by 2015. This is a consistent theme across all industries, but the Pharmaceuticals and Life Sciences, Technology and Telecom and Chemicals and Process industries are leading supply chain technology innovation (see Figure 12).

In some cases, the dramatic increase in interest in automation reflects fundamental changes that are happening in those sectors. For example, demographic shifts and the emergence of e-health are reshaping demand patterns for Pharmaceuticals and Life Sciences companies, while the emerging dominance of mobile devices is having a major impact on the Technology and Telecom sector.

The technologies companies are deploying are far more sophisticated than before. Companies in every sector are looking for holistic solutions that encompass everything from order to delivery — solutions that are

supported by enterprise applications and that draw on so-called big data to provide greater transparency within the supply chain and to help them optimise their logistics and distribution operations.

Designing a holistic planning platform that can be implemented across the supply chain is challenging, though. Unfortunately, many organisations have adopted point solutions focusing on particular issues, which has prevented them from addressing all of their business objectives equally.

A growing number of companies are also beginning to pay closer attention to the concept of the sustainable supply chain. Managing a supply chain in a sustainable manner entails taking account of the impact of major environmental, social and economic factors throughout the life cycle of a product. In the long term, it's also what gives a company its licence to operate.

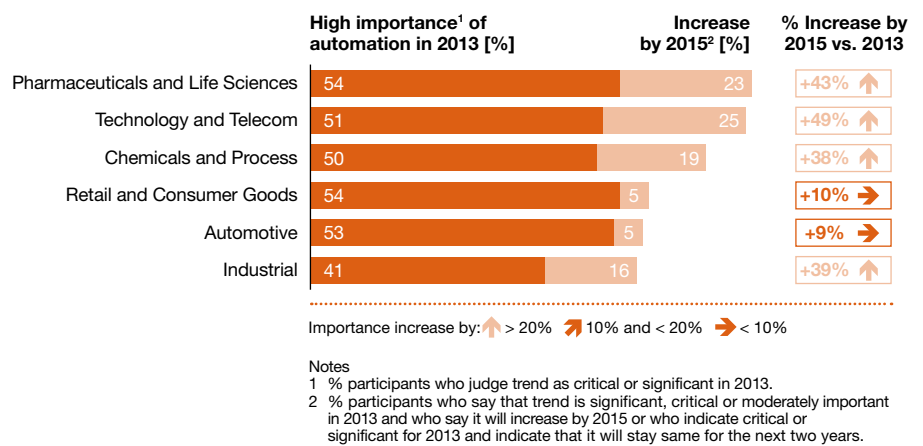
To date, most firms have done very little on the sustainability front, but demand for sustainable products manufactured with sustainable raw materials is increasing; indeed, it now outstrips supply. Investors' expectations are also rising, and manufacturing regulations are getting tighter. At the same time, greater use of low-cost and best-cost country sourcing is making it more difficult to control sustainability through the entire supply chain. And though a company can outsource specific business activities, it can't abdicate responsibility for them.

A full 81% of respondents who rate sustainability as important favour collaborating with their suppliers to create a responsible supply chain footprint and procurement framework.

That means a company has to keep track of all the risks in its supply chain to in addition to its as well as profiting from opportunities the sustainability movement might offer. At present, respondents see four main reasons for investing in sustainable supply chain management: to manage the risk of unintended environmental or social damage, to manage their company's reputation and the expectations of its shareholders, to reduce costs and realise productivity improvements and to create sustainable products, thereby increasing revenues and enhancing the corporate brand.

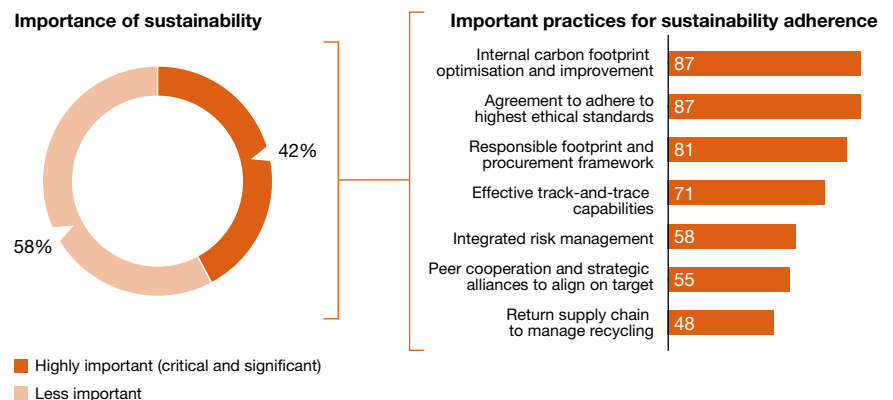
Optimising their own internal carbon footprint is the top priority for 87% of those respondents who say sustainability is highly important. But there's an equally strong trend, as more companies begin to adopt sustainable supply chain practices: to provide support for suppliers while assessing and auditing them. As Figure 13 shows, 87% of those respondents who say sustainability is very important are saying it's best to reach an agreement with their suppliers on adhering to the highest ethical standards. Similarly, 81% favour collaborating with their suppliers to create a responsible supply chain footprint and procurement framework. And 71% say effective track-and-trace capabilities are important, too. As public expectations rise, companies will come under increasing pressure to report on the environmental and social impacts of their activities and on the steps they're taking to mitigate those impacts.

Figure 12: Pharmaceuticals and Life Sciences, Technology and Telecom and Chemicals and Process Industry companies see automation as particularly important



Source: PwC, Global Supply Chain Survey 2013

Figure 13: Creating a sustainable supply chain requires collaboration with suppliers



Source: PwC, Global Supply Chain Survey 2013

Industry-specific dashboards

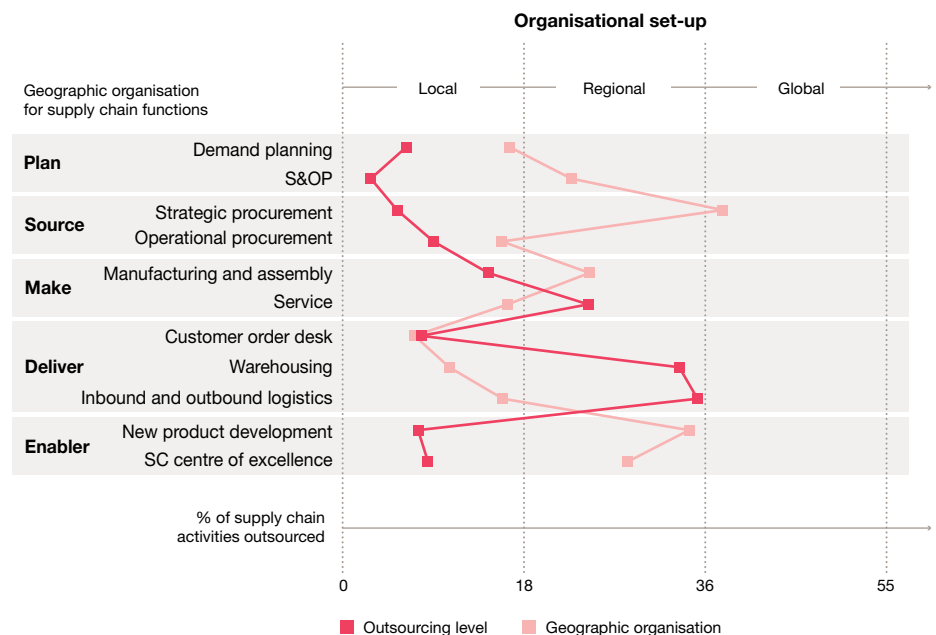
Automotive:

Leaders achieve lowest EBIT margins with highest inventory turns and strong delivery performance

Figure 14: The key attributes of Automotive companies

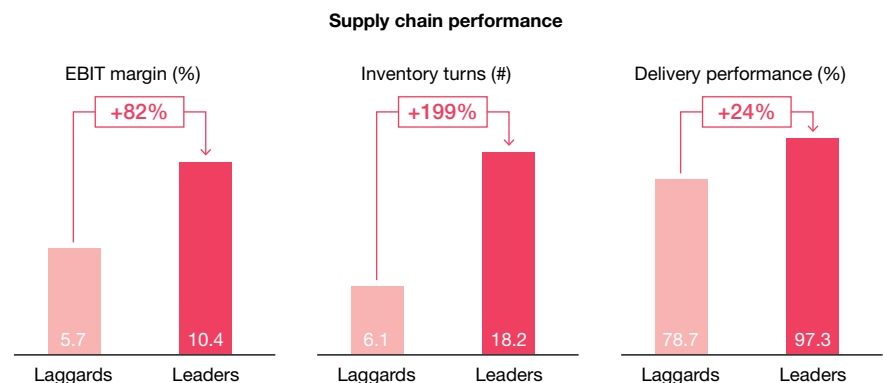
Organisational set-up:

Automotive companies typically manage their planning, manufacturing, operational procurement and delivery functions regionally, and their new product development and strategic procurement functions globally. They outsource less than 10% of their planning, sourcing and enabling activities; a relatively low, 15% of their manufacturing and assembly activities; and 10%-35% of their delivery activities.



Supply chain performance:

The leading Automotive companies achieve the lowest EBIT margins compared with other industries (10.4%). But they have the highest number of inventory turns (18.2) and a nearly best-in-class delivery performance (97.3%). The performance gap between the Leaders and Laggards is quite small, signalling that the industry has already adopted mature supply chain practices.





Leading practices:

The most important value drivers for Automotive companies are minimised costs (90%), maximum delivery performance (87%), maximum volume flexibility and responsiveness (83%) and complexity management (67%). The Leaders focus on continuous improvements in production efficiency and inventory management — together with best-cost country sourcing, to drive down costs and on collaborations with key customers and suppliers.



Source: PwC, *Global Supply Chain Survey 2013*

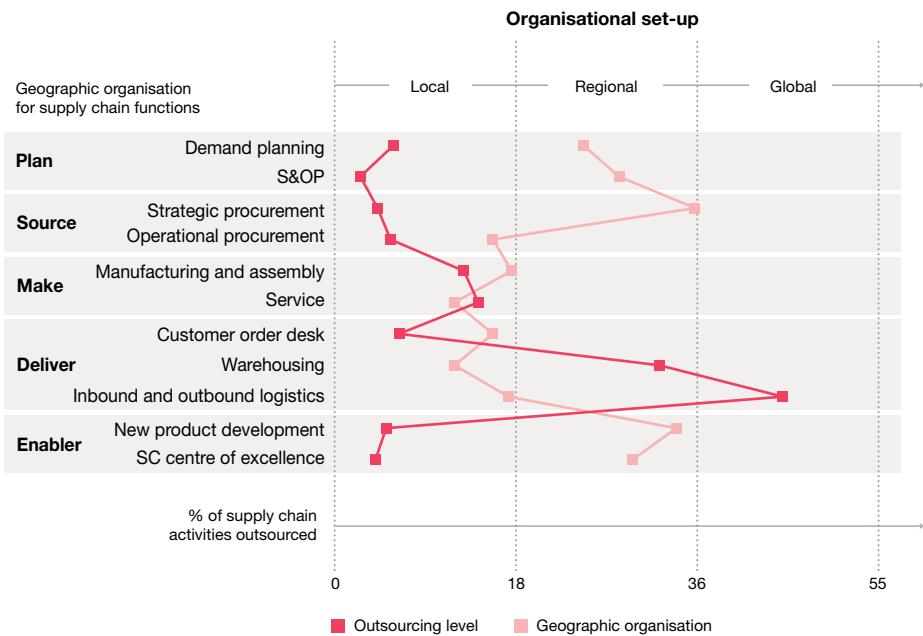
Top differentiating practices

- Decreased manufacturing costs through reduction of waste
- Inventory reduction
- Best-cost country sourcing
- Collaborative planning with key suppliers
- Collaboration with key customers on planning and execution
- Order fulfilment cycle-time reduction improve manufacturing time
- Flexible shift models/payment structure
- Internal capacity flexibility 80%-120%
- End-to-end supply chain planning and visibility
- Making to order
- Automation of processes in order to cope with complexity
- Assortment/inventory policies distinguished by product family and storing location
- Multiplication of sources and sole-sourcing avoidance
- Visibility and regular monitoring of main suppliers' operational indicators
- Regular review of suppliers' financial risk and mitigation through risk-sharing partnerships
- Agreement of supply chain partners to adhere to highest ethical standards
- Internal carbon footprint optimisation and improvement
- Return of supply chain to manage recycling
- Localisation of procurement organisation in tax-efficient countries
- Intellectual property and patent royalty optimisation
- Import/export optimisation (e.g., bonded warehouse)

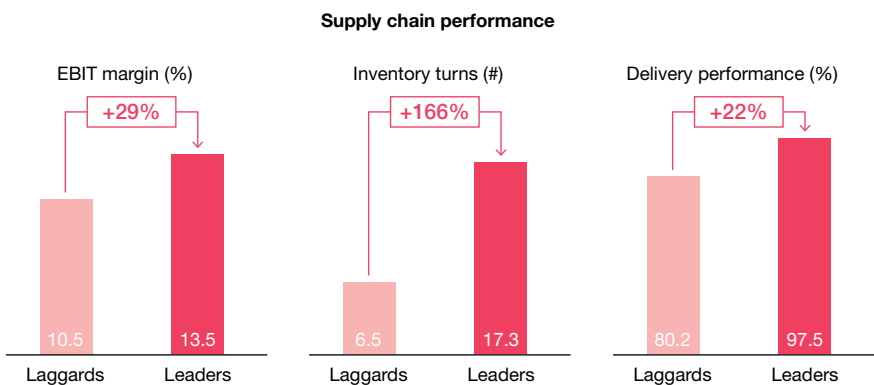
Chemicals and Process Industry:
Leaders achieve average EBIT margins with high inventory turns and strong delivery performance

Figure 15: The key attributes of Chemicals and Process Industry companies

Organisational set-up:
 Chemicals and Process Industry companies typically manage their planning, manufacturing, operational procurement and delivery functions regionally, and their enabling and strategic procurement functions globally. They outsource about 5% of their planning, sourcing and enabling activities; only 13% of their manufacturing and assembly activities; and 7%-45% of their delivery activities.



Supply chain performance:
 The leading Chemicals and Process Industry companies achieve average EBIT margins (13.5%) with a high number of inventory turns (17.3) and a better delivery performance than does any other industry except Retail and Consumer Goods (97.5%). The supply chain performance gap between the Leaders and Laggards is also the smallest.





Leading practices:

The most important value drivers for Chemicals and Process Industry companies are minimised costs (87%), maximum delivery performance (87%), maximum volume flexibility and responsiveness (77%) and complexity management (72%). The Leaders focus on continuous improvements in production efficiency and inventory management — coupled with process simplification — to drive down costs and on end-to-end supply chain planning and visibility.



Source: PwC, *Global Supply Chain Survey 2013*

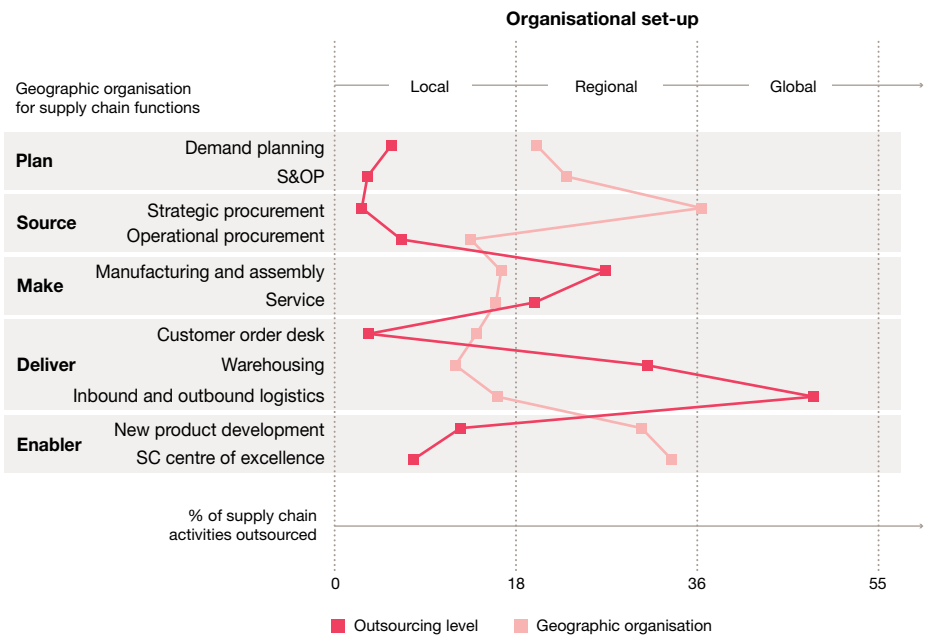
Top differentiating practices

- Inventory reduction
- Decreased manufacturing costs through reduction of wastes
- Reduction in process flow complexity
- End-to-end supply chain planning and visibility
- Collaboration with key customers on planning (e.g., effective forecasting)
- Order fulfilment cycle-time reduction to improve information flow
- Internal capacity flexibility 80%-120%
- End-to-end supply chain planning and visibility
- Involvement of partners for capacity reservation
- Development of multiskilled employees in order to cope with complexity
- Making to order
- Assortment/inventory policies distinguished by product family and storing location
- Multiplication of sources and sole-sourcing avoidance
- Visibility over short-term supply through order traceability, vendor-managed inventory and so on
- Visibility and regular monitoring of main suppliers' operational indicators
- Responsible supply chain partner footprint and procurement framework
- Integrated risk management
- Agreement of supply chain partners to adhere to highest ethical standards
- Transfer pricing
- Localisation of procurement organisation in tax-efficient countries
- Manufacturing and assembly optimisation (toll manufacturing)

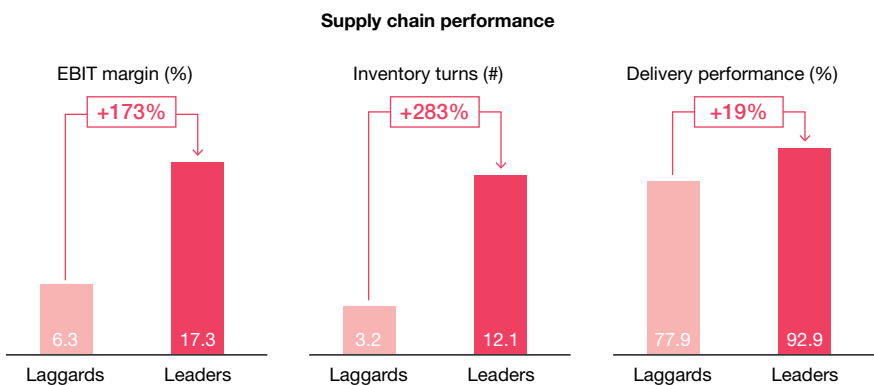
Industrial Products:
Leaders achieve high EBIT margins despite low inventory turns and low delivery performance

Figure 16: The key attributes of Industrial Products companies

Organisational set-up:
 Industrial Products companies typically manage their planning, manufacturing, operational procurement and delivery functions regionally, and their enabling and strategic procurement functions globally. They outsource about 7% of their planning, sourcing and enabling activities; nearly 35% of their manufacturing activities; and up to 50% of their delivery activities.



Supply chain performance:
 The leading Industrial Products companies achieve relatively high EBIT margins (17.3%) despite low inventory turns (12.1) and a lower delivery performance than any other industry (92.9%). The marked gap between the supply chain performance of the Leaders and Laggards represents a big opportunity for Laggards to improve their financial results.





Leading practices:

The most important value drivers for Industrial Products companies are minimised costs (98%), maximum delivery performance (93%), maximum volume flexibility and responsiveness (74%) and complexity management (61%). The Leaders focus on collaboration with key customers and suppliers and continue to place great weight on continuous improvement and lean processes to reduce order fulfilment cycle time and decrease costs.



Source: PwC, *Global Supply Chain Survey 2013*

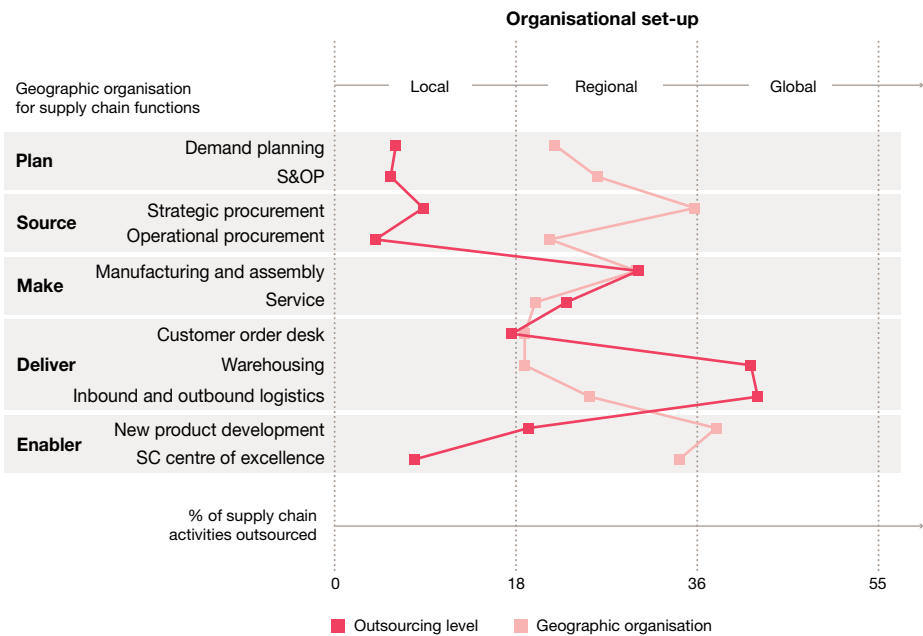
Top differentiating practices

- Collaborative planning with key suppliers
- Collaboration with key customers on planning (e.g., effective forecasting)
- Order fulfilment cycle-time reduction improve information flow
- Decreased manufacturing costs through reduction of wastes
- Inventory reduction
- Decreased overhead costs through increased labour productiveness
- Internal capacity flexibility 80%-120%
- End-to-end supply chain planning and visibility
- Regional supply chain set-up
- Making to order
- Late-stage product customisation
- Differentiated distribution strategies
- Multiplication of sources and sole-sourcing avoidance
- Visibility and regular monitoring of main suppliers' operational indicators
- Regular review of suppliers' financial risk and mitigation through risk-sharing partnerships
- Agreement of supply chain partners to adhere to highest ethical standards
- Internal carbon footprint optimisation and improvement
- Responsible supply chain partner footprint and procurement framework
- Localisation of procurement organisation in tax-efficient countries
- Import/export optimisation
- Transfer pricing

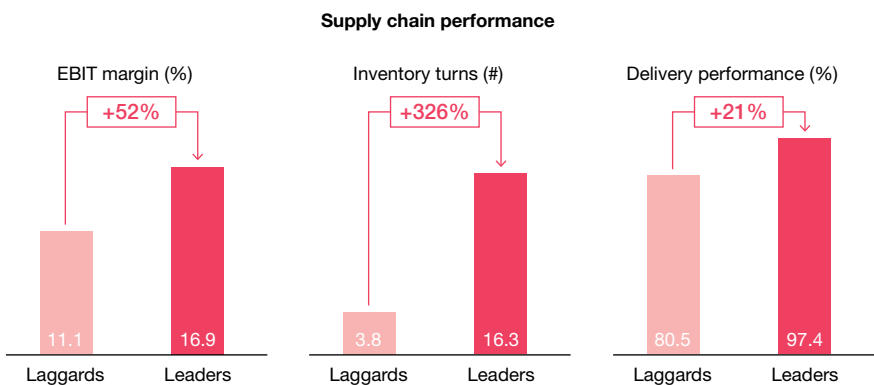
Pharmaceuticals and Life Sciences:
Leaders achieve average EBIT margins with high inventory turns and strong delivery performance

Figure 17: The key attributes of Pharmaceuticals and Life Sciences companies

Organisational set-up:
 Pharmaceuticals and Life Sciences companies typically manage their planning, operational procurement and delivery functions regionally, and their enabling, manufacturing and assembly and strategic procurement functions globally. They outsource about 6% of their planning and sourcing activities; a relatively high, 25% of their new product development activities; and 20%-40% of their delivery activities.



Supply chain performance:
 The leading Pharmaceuticals and Life Sciences companies achieve average EBIT margins (16.9%) with a high number of inventory turns (16.3) and excellent delivery performance (97.4%). The gap between the Leaders and Laggards is relatively low when it comes to EBIT margins and delivery performance but relatively high when it comes to inventory turns (16.3 turns versus 3.8 turns, respectively).





Leading practices:

The most important value drivers for Pharmaceuticals and Life Sciences companies are minimised costs (100%), maximum delivery performance (94%), maximum volume flexibility and responsiveness (78%) and complexity management (78%). The Leaders focus on collaboration with key customers and suppliers and end-to-end supply chain planning. They also continue to place great weight on continuous improvements in manufacturing.



Source: PwC, *Global Supply Chain Survey 2013*

Top differentiating practices

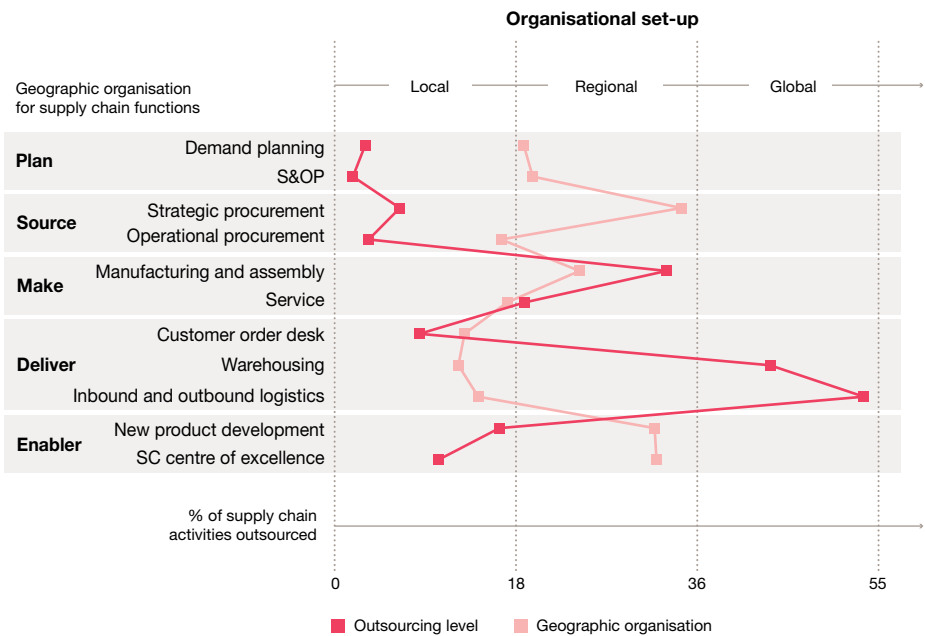
- End-to-end supply chain planning and visibility
- Order fulfilment cycle-time reduction improve manufacturing time
- Collaborative planning with key suppliers
- Decreased manufacturing costs through reduction of wastes
- Inventory reduction
- Decreased overhead costs through increased labour productiveness
- End-to-end supply chain planning and visibility
- Outsourcing to service provider
- Involvement of partners for capacity reservation
- Multiplication of sources and sole-sourcing avoidance
- Regular review of suppliers' financial risk and mitigation through risk-sharing partnerships
- Visibility over short-term supply through order traceability, vendor-managed inventory and so on
- Use of distributors and other channel partners
- Differentiated distribution strategies
- Development of multiskilled employees in order to cope with complexity
- Return of supply chain to manage recycling
- Responsible supply chain partner footprint and procurement framework
- Integrated risk management
- Import/export optimisation (e.g., bonded warehouse)
- Intellectual property and patent royalty optimisation
- Localisation of inventory ownership in tax-efficient countries

Retail and Consumer Goods:
Leaders achieve average EBIT margins with highest number of inventory turns and best delivery performance

Figure 18: The key attributes of Retail and Consumer Goods companies

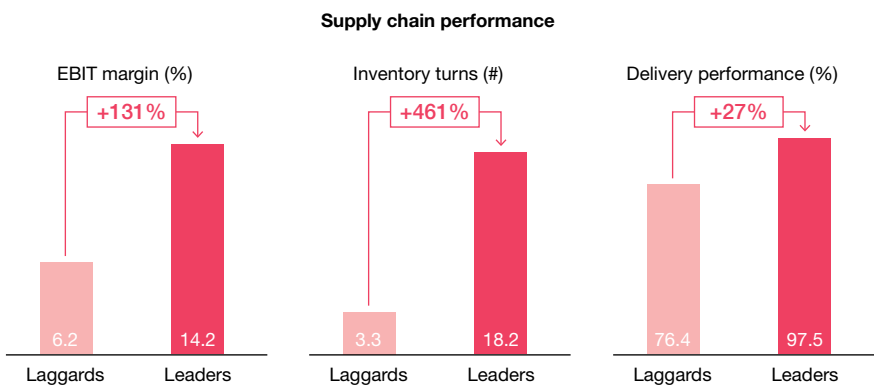
Organisational set-up:

Retail and Consumer Goods companies typically manage their planning, manufacturing, operational procurement and delivery functions regionally and their enabling and strategic procurement functions globally. They outsource about 7% of their planning, sourcing and enabling activities; only 30% of their manufacturing activities; and 10%-55% of their delivery activities.



Supply chain performance:

The leading Retail and Consumer Goods companies achieve average EBIT margins (14.2%) with the highest number of inventory turns (18.2) and a better delivery performance than companies in any other industry (<97.5%). The supply chain performance gap between the Leaders and Laggards is about average, but Laggards have a major opportunity to improve their inventory turns and delivery performance.





Leading practices:

The most important value drivers for Retail and Consumer Goods companies are minimised costs (95%), maximum delivery performance (90%), maximum volume flexibility and responsiveness (79%) and complexity management (70%). The Leaders focus on collaboration with key suppliers and vendor-managed inventory and continue to place great importance on continuous improvements in production efficiency and inventory management.



Source: PwC, *Global Supply Chain Survey 2013*

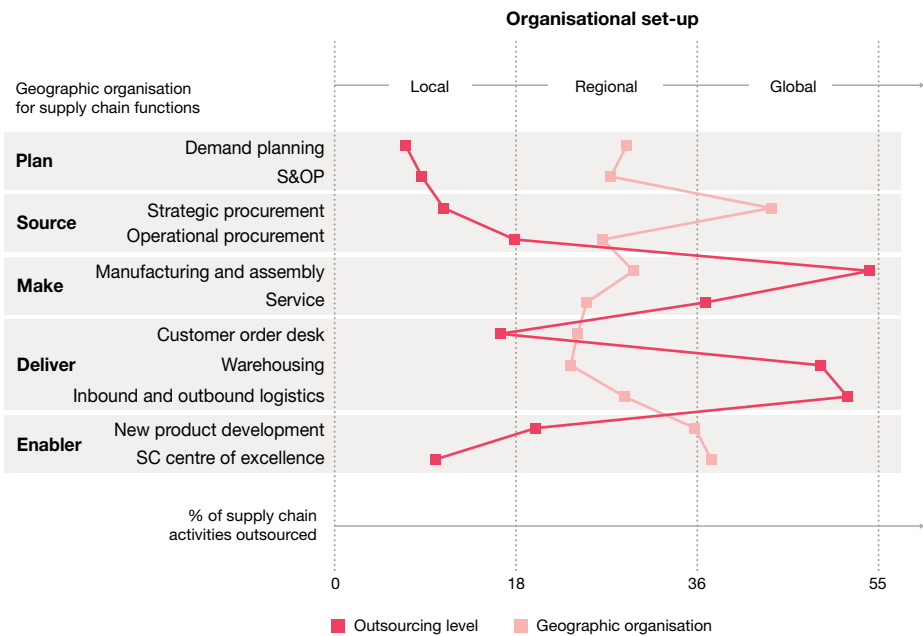
Top differentiating practices

- Collaborative planning with key suppliers
- End-to-end supply chain planning and visibility
- Vendor-managed-inventory direct-replenishment model
- Decreased overhead costs through increased labour productiveness
- Decreased manufacturing costs through reduction of wastes
- Inventory reduction
- Internal capacity flexibility 80%-120%
- End-to-end supply chain planning and visibility
- Flexible shift models/payment structure
- Automation of processes in order to cope with complexity
- Development of multiskilled employees in order to cope with complexity
- Assortment/Inventory policies distinguished by product family and storing location
- Visibility and regular monitoring of main suppliers' operational indicators
- Multiplication of sources and sole-sourcing avoidance
- Regular review of suppliers' financial risk and mitigation through risk-sharing partnerships
- Transfer pricing
- Import/export optimisation (e.g., bonded warehouse)
- Manufacturing and assembly optimisation (toll manufacturing)
- Agreement of supply chain partners to adhere to highest ethical standards
- Internal carbon footprint optimisation and improvement
- Effective track-and-trace capabilities to ensure sustainable supply chain

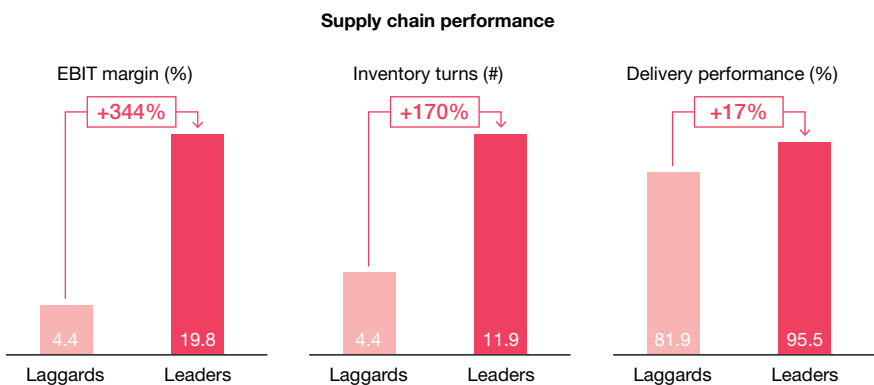
Technology and Telecom:
Leaders achieve best EBIT margins with fewest inventory turns and average delivery performance

Figure 19: The key attributes of Technology and Telecom companies

Organisational set-up:
 Technology and Telecom companies typically manage their planning, manufacturing, operational procurement and delivery functions regionally, and their enabling and strategic procurement functions globally. They outsource about 15% of their planning, sourcing and enabling activities; as much as 55% of their manufacturing and assembly activities; and 20%-50% of their delivery activities.



Supply chain performance:
 The leading Technology and Telecom companies achieve the highest EBIT margins (19.8%) with the fewest inventory turns (11.9) and an average delivery performance (95.5%). There's a bigger gap between the EBIT margins of the Leaders and the Laggards than there is in any other industry, but their inventory turns and delivery performance are relatively similar.





Leading practices:

The most important value drivers for Technology and Telecom companies are minimised costs (94%), maximum delivery performance (90%), maximum volume flexibility and responsiveness (83%) and complexity management (71%). The Leaders focus on collaboration with key customers and suppliers and end-to-end transparency. They also continue to place great weight on dual sourcing with key electronics manufacturing services providers and regional supply chain set-ups.



Source: PwC, Global Supply Chain Survey 2013

Top differentiating practices

- Collaborative planning with key suppliers
- Collaboration with key customers on planning (e.g., effective forecasting)
- End-to-end supply chain planning and visibility
- Multisourcing/dual sourcing
- Outsourcing to service provider
- Regional supply chain set-up
- Inventory reduction
- Best-cost country sourcing
- Decreased overhead costs through increased labour productivity
- Outsourcing
- Making to order
- Automation of processes in order to cope with complexity
- Multiplication of sources and sole-sourcing avoidance
- Visibility and regular monitoring of main suppliers' operational indicators
- Visibility over short-term supply through order traceability, vendor-managed inventory and so on
- Internal carbon footprint optimisation and improvement
- Agreement of supply chain partners to adhere to highest ethical standards
- Return of supply chain to manage recycling
- Import/export optimisation (e.g., bonded warehouse)
- Manufacturing and assembly optimisation (toll manufacturing)
- Transfer pricing

About the survey

Global supply chain survey overview

This year's survey is the ninth such supply chain survey to be conducted by PwC. From May to July 2012, we surveyed 503 supply chain executives in a wide range of industries. Forty-four percent of them hold senior management positions, while 34% hold C-level posts. (Figure 23 provides full details of the survey population.)

As part of our research, we assessed each company by using two criteria: its financial performance (based on its EBIT margins and revenue growth) and its supply chain performance (based on the average annual number of inventory turns and the percentage of occasions on which it delivered on time in full). We gave each company a score for each performance category. Then we combined the two scores to

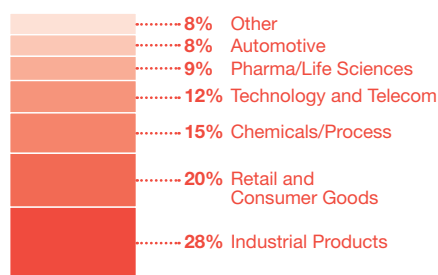
create a total performance score, comprising 35% of the financial performance score and 65% of the supply chain performance score.

We used these total performance scores to find two groups of companies within each industry sector: Leaders (the top 20% of the sector population) and Laggards (the bottom 20%).

We compared those two groups with each other to find out which features make the Leaders so successful.

We also distinguished between basic and differentiating supply chain capabilities. We defined basic capabilities as those that Leaders and Laggards regard as equally important or where there's very little difference in their views. We defined differentiating capabilities as those that Leaders treat differently than Laggards do.

Figure 20: Industry affiliation



Study population characteristics

- 503 completed questionnaires
- All three global regions are well represented
- The participants represent a balanced mix of company sizes
- More than half of the participants are senior executives

Figure 21: Geographic distribution

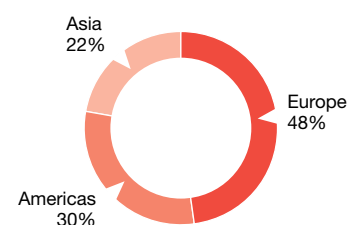


Figure 22: Company size

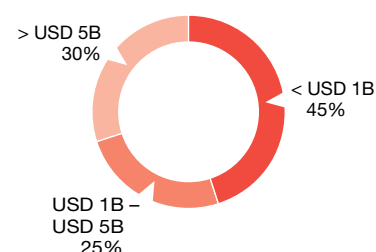
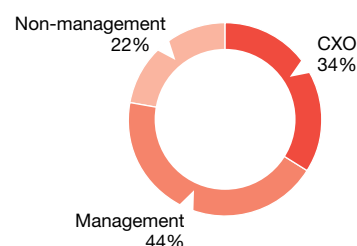


Figure 23: Seniority level



Source: PwC, Global Supply Chain Survey 2013

Acknowledgements

Core Editorial Team



Dr. Reinhard Geissbauer
Germany
reinhard.geissbauer@de.pwc.com



Joseph Roussel
France
joseph.roussel@fr.pwc.com



Stefan Schrauf
Germany
stefan.schrauf@de.pwc.com



Mark A. Strom
US
mark.a.strom@us.pwc.com

Editorial Board

Vincent Espie, France
Mark Fabisch, Germany
William B. Householder, US
Dr. Elizabeth Montgomery, Germany
Oz Ozturk, Switzerland
Dr. Eric Pohlmann, Germany
Nitin Soundale, India
Costas Vassiliadis, Greece

Research and Data Analysis

PwC's Performance Measurement Group
Steffen Holm, Germany
Kara Kardon, US
Judith Vaupel, Germany

Advisory Group

Koen Cobbaert, Belgium
Gordon Colborn, UK
Joseph Ippolito, UK
Craig Kerr, China
Hans Kühn, Germany
Johnathon Marshall, UK
Bernhard Raschke, UK
James E. Takach, US

Marketing and Project Management

Helen Gill, UK
Viktoria Kaminski, Germany
Shannon Schreibman, US

Design

Odgis + Company

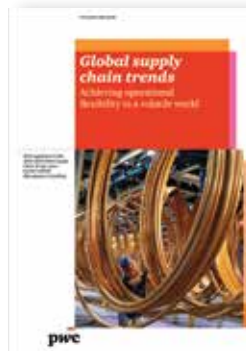
Related reading



Driving CO₂ out of the supply chain and off retailers' shelves



From vulnerable to valuable: How integrity can transform a supply chain



Global supply chain trends 2011 supplement: Achieving operational flexibility in a volatile world



Not your father's supply chain: Following best practices to manage inventory



Pharma 2020: Supplying the future



Powering the service-oriented supply chain



APEC's evolving supply chain: 2012 APEC CEO Summit PwC issues spotlight



Resilience: Sustaining the supply chain



Rethinking the business operating model: Corporate simplification in the automotive sector



Sparing no effort: Lessons on managing service inventory for greater profitability and growth



Supply chain globalization planning and analytics



Supply chain management: Achieving agility through the sales inventory operations planning process



Sustainability matters: Carbon accounting in the value chain



The best of both worlds: Strategies for a high-service, low-cost supply chain



10Minutes on supply chain risk management



Transforming material supply chain for US electric utilities: Material logistics benchmark study 2011



Value chain transformation: transforming your business to achieve financial, legal and operational alignment



Winning in India's retail Sector



How to fortify your supply chain through collaborative risk management



Transportation & Logistics (T&L) 2030 Vol. 1 : How will supply chains evolve in an energy-constrained, low-carbon world?



Transportation & Logistics 2030 Vol. 2: Transport infrastructure — engine or hand brake for global supply chains?



Transportation & Logistics 2030 Vol. 3: Emerging Markets — New hubs, new spokes, new industry leaders?



Transportation & Logistics 2030 Vol. 4: Securing the supply chain

www.pwc.com/GlobalSupplyChainSurvey2013

PwC firms help organisations and individuals create the value they're looking for. We're a network of firms in 158 countries with close to 169,000 people who are committed to delivering quality in assurance, tax and advisory services. Tell us what matters to you and find out more by visiting us at www.pwc.com.

This publication has been prepared for general guidance on matters of interest only, and does not constitute professional advice. You should not act on the information contained in this publication without obtaining specific professional advice. No representation or warranty (express or implied) is given as to the accuracy or completeness of the information contained in this publication, and to the extent permitted by law, PricewaterhouseCoopers LLP its members, employees and agents do not accept or assume any liability, responsibility or duty of care for any consequences of you or anyone else acting, or refraining to act, in reliance on the information contained in this publication or for any decision based on it.

© 2012 PricewaterhouseCoopers LLP. All rights reserved. In this document, "PwC" refers to PricewaterhouseCoopers LLP (a limited liability partnership in the United Kingdom), which is a member firm of PricewaterhouseCoopers International Limited, each member firm of which is a separate legal entity.