



Overview

UPS, a leading provider of global logistics and transportation services, has partnered with IDC Manufacturing Insights to launch a new study, called "Change in the (Supply) Chain", to measure the impact of rapid industry changes and challenges on the high-tech supply chain. Findings reveal current and future plans as high-tech companies prepare for significant "change in the chain" to meet increasing and ever-evolving customer demands.

The survey targeted senior-level decision makers in the areas of operations, supply chain and logistics and distribution at 125 high-tech companies across the U.S. IDC Manufacturing Insights also conducted approximately 25 in-depth interviews (IDIs) with companies located in five key high-tech markets for greater insights around findings. IDI markets included: Los Angeles, San Jose/ San Francisco, Dallas/ Fort Worth, Miami and New York City.

Key Findings

Cost is top issue – and driver of change

The top issue driving "change in the chain" for high-tech companies is cost. As a business priority, cost containment ranked as the top priority over the past two years, while reducing costs was cited by 66% of companies as the top priority for the next 18 months. As a supply chain issue, reducing total supply chain costs was the number one supply chain priority over the past two years and the top driver of future supply chain changes.

Additional findings are organized around key trend areas:

- Recession impact and priorities
- Changes ahead
- Customer service
- Returns/reverse logistics
- Sustainability
- Global trends
- Barriers and challenges

Supply Chain Secret Weapons

High-tech companies were also asked to share their supply chain "secret weapon" that they felt was most likely to contribute to future success:

- Achieving supply chain flexibility through a completely variable cost structure was the top response, cited by 33% of companies
- The second secret weapon was supplier management via better upstream collaboration with suppliers, named by 24% of respondents



Recession Lessons

The recession of 2009 hit high-tech companies hard, adding more pressures to an already-challenging business and supply chain environment. Long-time industry issues such as rapid product lifecycles, complicated products and difficulty forecasting and planning for demand were heightened during the economic downturn.

The top three business priorities during the downturn were:

- Cost containment (72% ranked among top three priorities)
- Improving margins (61%)
- Improving customer experience (39%)

Changes in the chain

The good news is that supply chain focuses and changes made over the past two years will pay off in the future:

Priorities from past two years:

- 68% ranked reducing total supply chain costs among the top three supply chain priorities over the past two years
- 51% ranked better preparation to meet customer demand
- 47% said improve inventory planing

Specific supply chain changes made:

- 78% increased their focus on achieving higher service levels
- 66% focused on improved demand planning
- 66% implemented technology to improve efficiencies

Changes Ahead

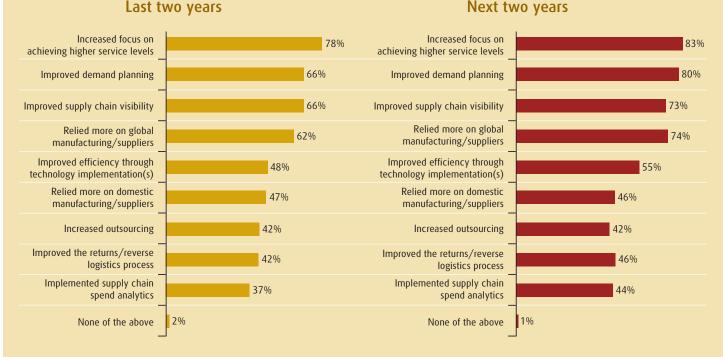
Identifying "change in the chain" was a key focus of the survey. Respondents were asked about specific supply chain changes they planned to make over the next two years, and many of the planned changes were based on lessons high-tech companies learned from the recession. Companies were also asked about key drivers of change in their supply chains, an area that resulted in some interesting answers, such as revealing that innovation is low on the driver list.

Supply chain changes

- The top three planned supply chain changes over the next two years are:
 - increase focus on achieving higher service levels (83%)
 - improve demand planning (80%)
 - improve supply chain visibility (74%)
- The largest jumps in terms of areas customers will focus on more in the next two years than they did in the past two years, are improving demand planning and improving supply chain visibility, with 14- and 12- percentage point jumps respectively
- Outsourcing is a focus for high-tech companies, with 42% planning to increase the amount of supply chain outsourcing they do over the next two years
- Technology and analytics investments are also on the rise:
 - 73% of companies plan to implement new technologies to improve efficiencies over the next two years
 - 44% of high-tech companies will implement supply chain spend analytics over the next two years

Drivers of change

- Cost ranks as the number one driver of supply chain change for the next three to five years, ranked as the most important issue by 68% of companies, with reponsiveness coming in second and rapid changes in customer demand third
- Perhaps surprisingly, innovation and sustainability ranked low on the driver list, with 22% and 19% of companies naming these top issues respectively



Question: What supply chain changes have you made and what changes will you make?

Customer service

Despite significant industry challenges and the need to focus on cost reduction and the bottom line in order to weather hard times, high-tech companies did not lose sight of the importance of customer service during the past two years. Making changes to meet changing customer demands is also a key business and supply chain priority and focus area for the months and years ahead.

Customer service focus over past two years

- Improving customer experience ranked among the top three business priorities from the past two years, cited by 39% as the number one or two priority
- In terms of supply chain priorities from the past two years, better balance of cost efficiency with customer service was ranked a top or number two priority by 40% of companies
- Better preparation to handle fluctuations in customer demand was also among the top supply chain priorities from the past two years, chosen by 51% of respondents

Future plans for improving service

- High-tech companies are planning to place an increased focus on achieving higher service levels in the next two years, with 83% of survey respondents ranking this as a top supply chain change ahead
- Responsiveness was ranked as a top factor driving changes in the supply chain over the next three to five years by 40%; another 40% ranked it as second
- Invest in new product development/keep up with customer demand came in third as a business priority over the next 18 months (46% ranked as top priority; 36% rated as somewhat of a priority)

What high-tech companies said about customer service

"Our customers have choices every day they decide to place a purchase order. They can put it with us, they can put it with competitors, and they can also put it with the OEMs. So trying to facilitate the customer experience is one of our highest priorities."

- Electronics manufacturer in South Florida

"In difficult times, you cannot provide the same level of service to all customers. You have to pick your top customers and provide them a higher service level. It all depends on how collaboratively you work with your customers and how much of a strategic relationship you have with them."

- Disk drive manufacturer in San Francisco

"I think we need the end-to-end supply chain design and execution with customers; we need to get more customer-driven in the whole supply chain."

- High-tech medical device manufacturer in New York

"From a business standpoint, improving or exceeding customer expectations is a big part of today and the future."

- Server appliance manufacturer in Dallas



Returns/Reverse logistics

The area of returns/reverse logistics has long been a challenge for high-tech companies. Much can be lost by getting it wrong in reverse logistics from both a cost and a customer satisfaction perspective. On the other hand, much can be gained for companies that focus on reverse logistics, which can quickly become a competitive advantage when managed correctly.

Surprisingly, high-tech companies ranked improving the returns/reverse logistics process as a low priority, with only 16% of survey respondents saying this was a top supply chain priority. Meanwhile, companies' top business and supply chain goals are around reducing costs and improving the customer experience, both areas that can be significantly impacted by reverse logistics. Whether the low ranking is because companies feel they have already mastered this process is unclear, but losing focus on this area could prove detrimental, as increasing customer demands will certainly translate to increasingly challenging returns expectations and processes in the future.

Changes

- Only 19% of companies felt that reverse logistics was a weak link in their supply chain, yet at the same time, many companies either made or planned to make changes in this area, suggesting that this was an area in need of improvement
- During the past two years, 42% of companies reported having made changes to improve the returns/reverse logistics process
- Looking ahead, 46% of companies say they will make supply chain changes to improve the returns/reverse logistics process over the next two years

Challenges and Concerns

- Companies admit challenges with reverse logistics when asked about specific issues for their business and supply chains
- The overwhelming winner when it comes to high-tech companies' greatest business concern related to reverse logistics is in meeting customer expectations, cited by 46% of respondents
- Losing money and damaging brand reputation tied for second place among reverse logistics-related business concerns with 17% of companies citing each as concerns
- The biggest reverse logistics supply chain challenge is difficulty getting customers to comply with processes, cited by 22% of companies and illustrating the need for greater customer education on product features and operation



Question: What is your biggest business concern with reverse logistics?



The survey asked companies about their current sustainable supply chain practices as well as future drivers of green practices at their companies. Sustainability ranked as a lower current priority for high-tech companies than many would expect, with only 19% of companies ranking this as a top issue driving changes in their supply chain over the next three to five years. It's clear that changes are coming, however, that will make it imperative for high-tech companies to focus on this area in the near future.

Current practices

- When asked how often they factor environmental or social sustainability into supply chain decisions, less than half, or 47%, of companies said "always"; reasons were varied:
 - Only 26% said sustainability was an important value driver
 - Another 21% reported this as a company or industry mandate
- Another 33% of companies reported occasionally factoring sustainability into their supply chain decisions as a "nice to do" but not an imperative and 18% said sustainability is a factor only when it's cheaper or more efficient
- Only 3% of companies never factor sustainability into supply chain decisions

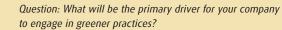
Future drivers of sustainable supply chains

- Industry mandates were the overwhelming reason companies cited as primary drivers for them to engage in green practices moving forward:
 - 36% say their customers will demand it
 - 26% believe legislation will require it
- Less than one quarter, or 24%, of companies believed that sustainability would be an important part of their CSR agendas in the next three to five years
- Only 11% saw sustainability as key to their competitiveness in the future



Question: How offen do you factor sustainabilities

into supply chain decisions?



Primary Drivers Over Next 3-5 years





Global trends

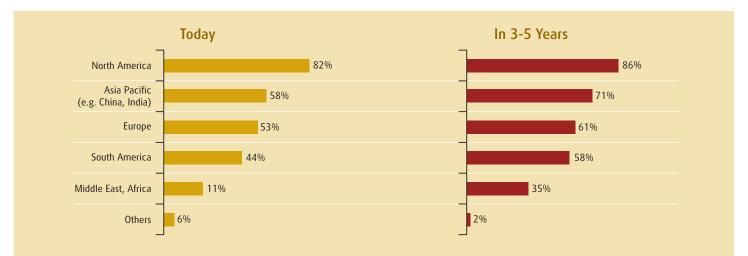
The high-tech industry is an increasingly global one, with a lot of growth opportunities coming from emerging markets. Despite this trend, the most significant source of demand for high-tech products remains North America and other mature markets. As with many other areas, global expansion took a backseat during the downturn, with only 22% of companies ranking this as a top business priority over the past two years. This is changing, however, with 57% of companies naming expanding into new global markets and locations as a priority over the next 18 months.

Growth markets

- High-tech companies foresee a large jump in demand growth for their products coming out of Asia Pacific, with 71% expecting growth in the region in the next three to five years, versus 58% who are currently experiencing demand growth in Asia Pacific
- North America remains the top driver of demand growth for high-tech products, with 82% of companies experiencing current growth in the region and 86% expecting growth there in the next three to five years
- While trailing North America, Asia Pacific and Europe as a key growth region, South America was the area with the highest jump in expected demand growth with a 14 percentage point jump from 44% of companies seeing growth there today and 58% expecting growth there in the next three to five years

Suppliers near and far

- More than half, or 55%, of high-tech companies reported that they will rely more on global manufacturers and suppliers over the next two years
- At the same time, 46% of companies plan to rely more on domestic manufacturers and suppliers over the next two years
- Suppliers are a focus for high-tech companies in general, with 44% reporting that unstable suppliers are a weak link in their supply chains



Question: Where do you see global demand for your products coming from now and in the future?

Barriers and challenges

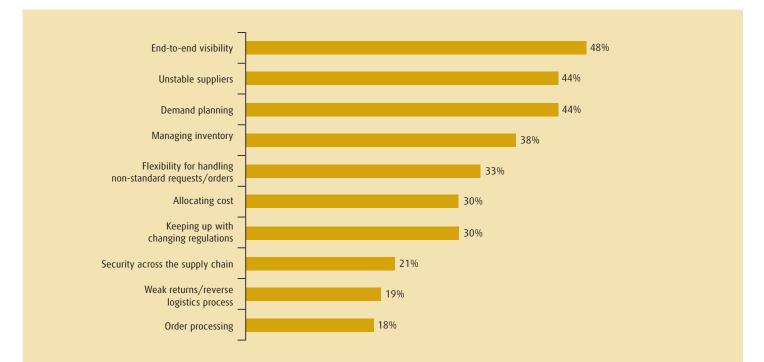
A portion of the survey focused on uncovering supply chain barriers and "weak links" that need to be overcome to help drive future growth and new market opportunities. The survey also looked closely at one area in particular that has often been cited as a key way to overcome numerous challenges in the high-tech sector: industry collaboration. Findings showed that companies still have a long way to go in overcoming barriers to collaboration and that supply chain weak links remain.

Supply chain weak links

- End-to-end visibility emerged as the number one weak link, as cited by 48% of companies
- Unstable suppliers and demand planning tied for second place, with 44% of companies naming each as weak link areas of their supply chains
- Managing inventory came in fourth, with 38% of companies calling this a weak link for their supply chain
- Flexibility for handling non-standard requests and orders was named by 33% of companies

Industry collaboration challenges

- Collaborating more with supply chain partners on new products was ranked a priority by 60% of companies, yet barriers exist
- The number one barrier to increased supply chain collaboration was listed as protection of intellectual property, cited by 26% of survey respondents
- Internal organization barriers was the second largest barrier, cited by 21% of companies
- Other barriers included poor data quality/ inability to integrate IT (14%); cultural barriers (14%); supplier leverage (13%) and industry mistrust (10%)



Question: Which of the following are weak links in your supply chain? Choose all that apply.