

# It's still a Big World

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and Markus Leopoldseder*

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Many companies see long, slow and expensive supply chains as the big weakness of global sourcing. Complex logistics, they think, simply increase risk, erode the cost advantages gained through offshore sourcing and make servicing remote markets difficult and expensive. New evidence shows that this is a short-sighted view. Mastery of the global supply chain is becoming a key competitive weapon and those companies that achieve it are winning decisive battles, both in their home markets and abroad.

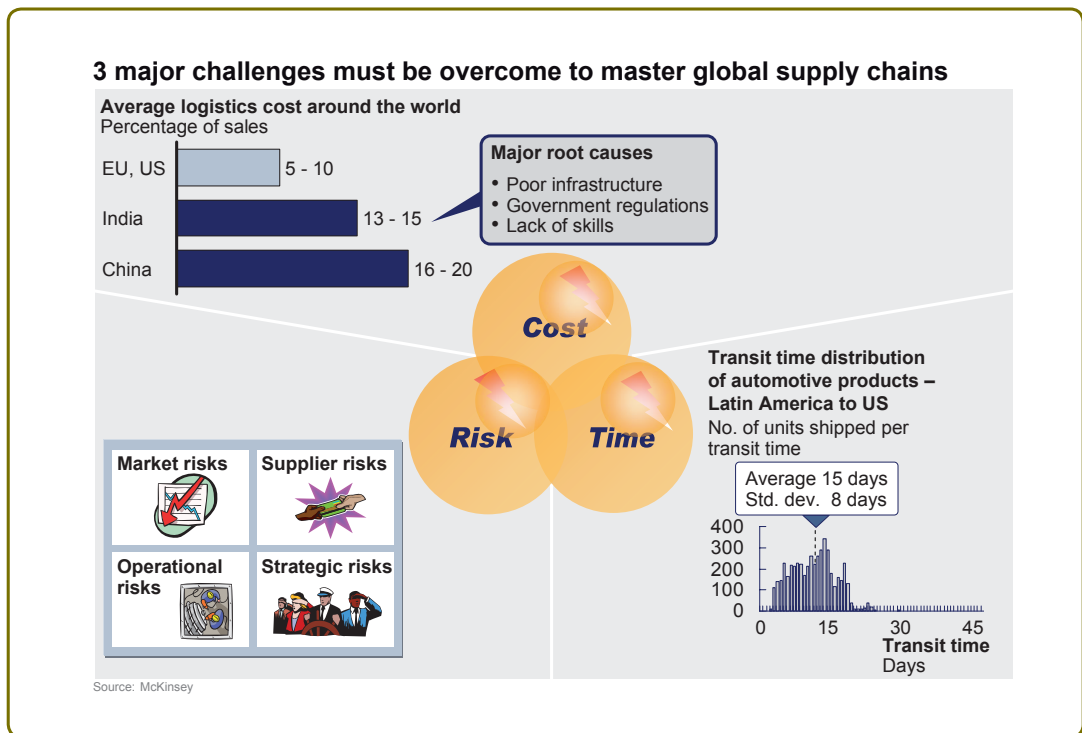
## A global supply chain problem

Responding to the demands and opportunities of globalisation is one of the most pressing challenges for CEOs today. Many industries have already moved a long way towards truly global operation. Decisions about how products and services will be developed for a global customer base may already have been made and many organizations are making use of production facilities worldwide to deliver those products cost effectively.

The German vehicle manufacturing industry, for example, already produces nearly 50% of its vehicles outside Germany, while four-fifths of domestic production is destined for export markets.

Our research indicates, however, that few companies are effectively managing the supply chains that will link products to customers effectively, leaving themselves exposed to unnecessary costs, extended lead times and significant risks. As Asia begins to take a vital, even a dominant, place in the supply chains of many US

**Exhibit 1**



and European firms, the considerably greater differences covered by their supply chains serve to emphasise the importance of getting these supply chains right.

Poor infrastructure, lack of skills and complex regulations mean that logistics costs in developing markets are significantly higher than those in the US and EU. As a fraction of total product cost, for example, logistics costs in China are around three times those of the EU. A poor understanding of logistics costs can destroy much of the cost advantage achieved by shifting production to low cost markets. The same issues can increase the cost to serve new markets to unacceptable levels (Exhibit 1).

Transit times from developing markets are not only long, they are also unpredictable. One company shipping automotive products from

Latin America to Europe, for example, found that while its average shipping duration was 15 days, the standard deviation was 8 days, with some shipments taking as long as 45 days to complete the journey. Such variation makes planning extremely difficult and adds a big cost burden.

With increased distance comes increased risk, as several of the biggest players in the mobile telephone sector discovered in 2000. Several of the major US and European handset manufacturers relied at the time on specialist radio chips produced at a single plant in New Mexico, US. In March 2000, a serious fire at the plant destroyed critical production equipment.

Within three days of the fire, one European handset maker spotted a glitch in supply, contacted the plant management directly and learned about the problem. The next day, the

company's CPO sent two staff to the plant to assess the damage. Within a week, they had calculated the risk to supply and had begun to seek alternate suppliers. Within two weeks of the fire, they had five alternative suppliers signed up and had convinced the original supplier to reassign capacity to another plant. Component supply continued uninterrupted.

Another European handset maker, by contrast, did not even learn about the fire until three weeks after it had happened. Unable to find alternative sources in time to prevent major production problems, this maker later reported the potential for a significant drop in sales due to component shortages. Its share price dropped 14% in a few hours on the back of the news.

## A solution in four parts

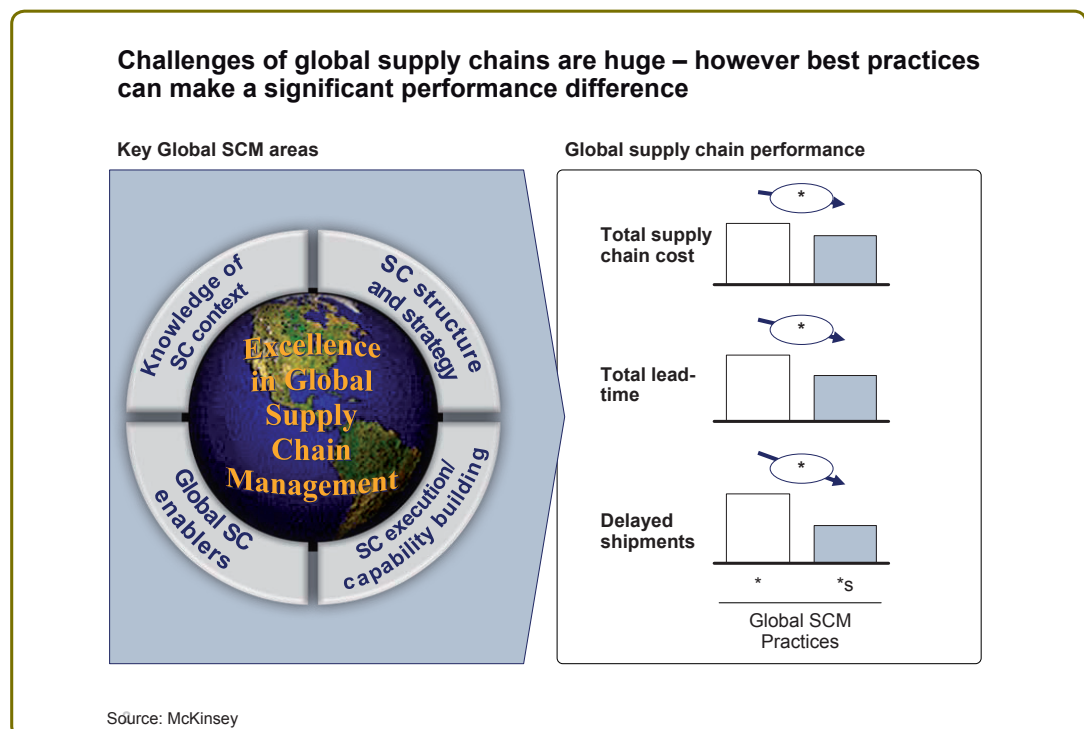
What makes some companies better at managing the new challenge of global supply than others? Evidence gathered by McKinsey in more than 250 studies

in global supply chain management in a wide range of industries indicates that success in global SCM requires excellence in four strategic areas. Leaders in global supply chain management must:

- Gain insight into the supply chain context of every market in which they operate, local capabilities, limitations and expectations.
- Develop structures and strategies to deliver cost effectively in every one of those different conditions.
- Equip themselves with the execution capabilities to fulfil those strategies.
- Ensure that they enable themselves to deliver supply chain excellence with the right organizational structure and the right IT tools.

The rewards of mastery in all these four areas are compelling. Among companies in our survey, leaders could expect supply chain costs 20% lower than average, lead times 30% shorter and 45% fewer delayed shipments (Exhibit 2).

### Exhibit 2



Yet our research reveals that this mastery should not be elusive. Diligent attention to key issues in each of these four areas will give companies the leverage they need to shape their supply chains into the robust, flexible tool they will need to compete effectively across the globe (Exhibit 3).

of subassemblies for different local customers. The company segmented its customers into three tiers: gold, silver and basic. For basic customers, it offered a four week lead time from order to delivery, with component manufacture triggered by customer order. This kept its inventory costs low. For silver customers, the company

**Exhibit 3**



### **1. Different markets, different challenges**

A fundamental mistake made by globalising companies is to think that one size of supply chain will fit all geographies and all types of customer. In reality, different customers in different regions will demand different levels of service and supply chains must be built to deliver these.

One silicon chip manufacturer, for example, had a business model based on global production of components, followed by regional manufacture

replenished component stocks at its regional assembly centres according to forecast and carried out subassembly operations to customer order. This allowed it to offer a two week lead time without the need for costly finished goods inventories.

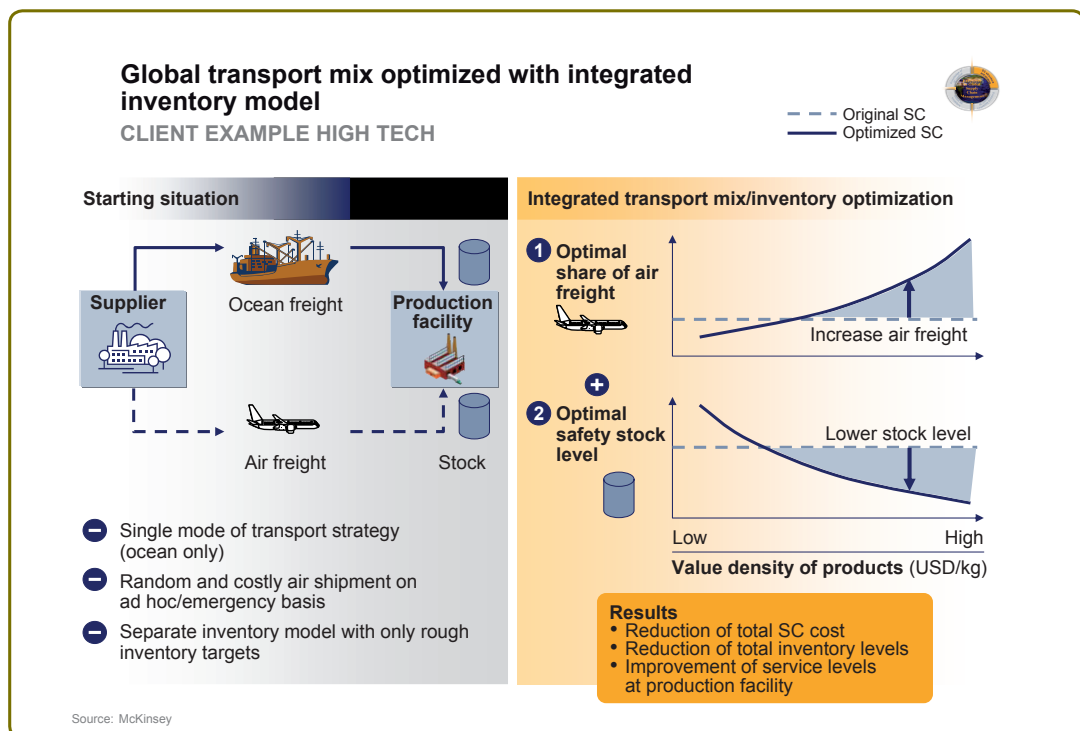
For gold customers, the company offered a 24-hour service, building subassemblies to forecast and keeping them in stock at its regional distribution centres for immediate delivery. This approach was costly, but the unmatched service level gave the company a decisive competitive advantage in high value sectors.

## 2. Flexible links, robust structures

The structure of an organization's supply chain has a profound effect on its ability to meet the cost and service demands of its customers. While many companies have considered their transport options and local inventory policies separately, the two must be integrated to minimise overall supply chain costs. Different relationships between product value and transport costs will drive different decisions about whether to keep local stocks to satisfy short lead time demand or to use expensive air freight instead (exhibit 4).

firms have even successfully shared production capacity to meet capacity peaks and minimize transport costs. This was the case with two chemical companies – one which faced difficulty meeting demand in Asia from its mainly European production facilities, the other which struggled to produce in Asia and supply to Europe. By agreeing reciprocal production agreements at times of peak demand, the two firms were able to use each other's local production facilities to supply their troublesome markets. Negotiating such an agreement was difficult, but the reward was dramatically reduced transport costs and satisfied customers.

Exhibit 4



Maximising the utilization of supply chain assets has a powerful effect on cost effectiveness. Collaborating with other firms to share transport and warehouse capacity or to ensure that ships and vehicles do not return empty from delivery saves money for all supply chain participants. Some

While global supply chains mean bigger risks surprisingly few organizations implement any kind of formal risk management strategy. Doing so can help to make shifts in production to low cost countries acceptable from both a cost and risk perspective. One US company, for

example, was considering moving 100% of the production of a key product line to China. Risk analysis revealed that more than half the expected cost savings could be eroded by the increased risks associated with such a long supply chain. In response, the company, adopted a dual sourcing strategy, with 25% of product coming from a factory in Mexico. The Mexican plant was more expensive, but while not all risks were eliminated, the risk reduction made the dual sourcing approach more cost effective than the original offshoring plan.

### 3. Global capabilities, local talent

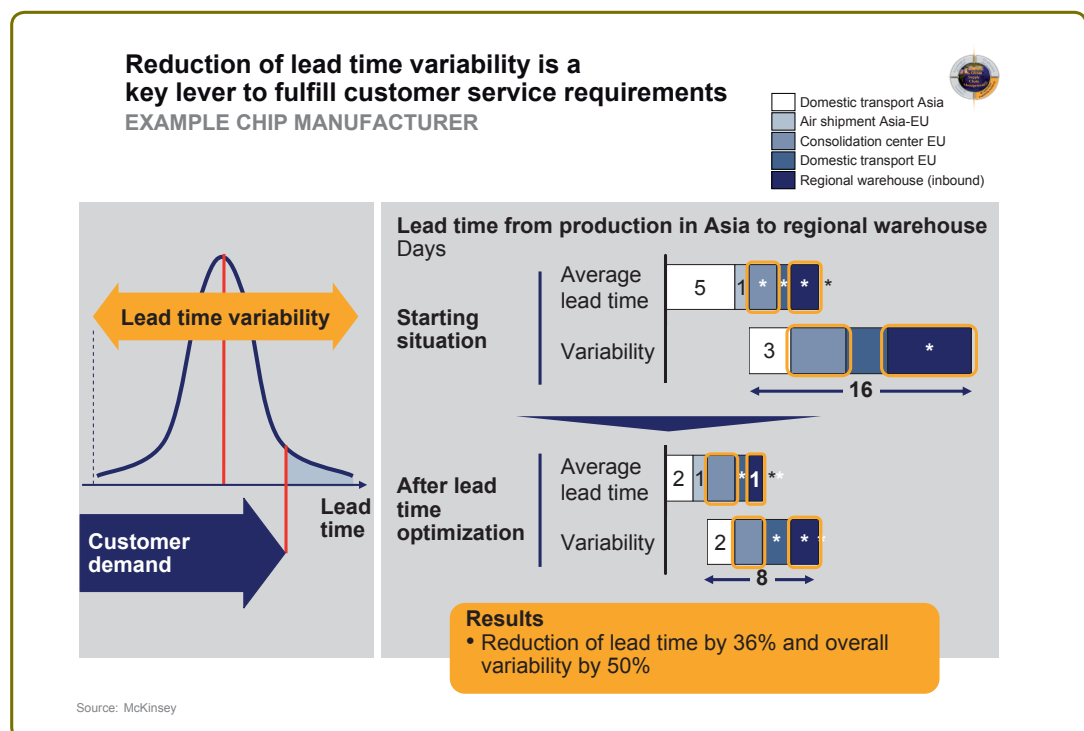
Companies operating in low cost regions can be tempted to ignore the efficiency of their local operations. They do so at their peril. Inefficient operating practice may not cost much more in labour, but delays and unpredictability create problems and add cost right through the supply chain. The same lean techniques that

have revolutionised manufacturing for world class players are being applied to global supply chains. The results have been dramatic, with one manufacturer of high tech products cutting the average lead times for products sourced in China and delivered to Europe from 11 days to 7 and, crucially, halving the variability in that lead time from 16 days to 8 (Exhibit 5).

#### *Put control in the right place*

In some cases, optimising the supply chain at the execution level calls for control to shift from push by suppliers to pull from the receiving customer. One European clothing retailer adopted such an approach in response to difficulties in achieving acceptable delivery performance from its Sri Lankan suppliers. Under the existing system, suppliers shipped to their own warehouses in Europe, from where product was called off by the retailer when needed. Problems with

Exhibit 5



this approach included poor visibility of inventory until it landed in Europe, lack of flexibility and high transport costs.

To overcome these issues, the retailer established its own warehouses in Sri Lanka, controlled by 3PLs. Suppliers shipped to these warehouses and product was consolidated for transport to Europe. The benefits of the new approach were much greater than reduced transport costs. The retailer could now order in smaller batch sizes and had better visibility of quality problems or delays at its Sri Lankan suppliers.

#### *Elsewhere can be very different*

Companies have to understand that logistics in low labour cost countries looks different from their known environment. According to one logistics manager at an international blue chip company, "China has millions of trucks and the same number of logistics companies." Such comments may be exaggerations, but with millions of owner-operated trucks, the logistics landscape in developing countries is highly fragmented. It is also run on very different principles to those seen in older economies. It is common practice to overload trucks, for example. Indeed, according to reports from China, truckers cannot make money even when their vehicles are carrying twice their rated capacity. Only when the truck is 2.5 or 3 times overloaded do the truckers break even.

Failure to address these issues all the way from source to customer leads to big problems. One European footwear retailer began to address

its supply chain problems when frustrated shopfloor staff complained that they weren't finding the inventory they needed in store. It was weeks before the company's supply chain transformation team found the offending items stacked chaotically in a warehouse on mainland China.

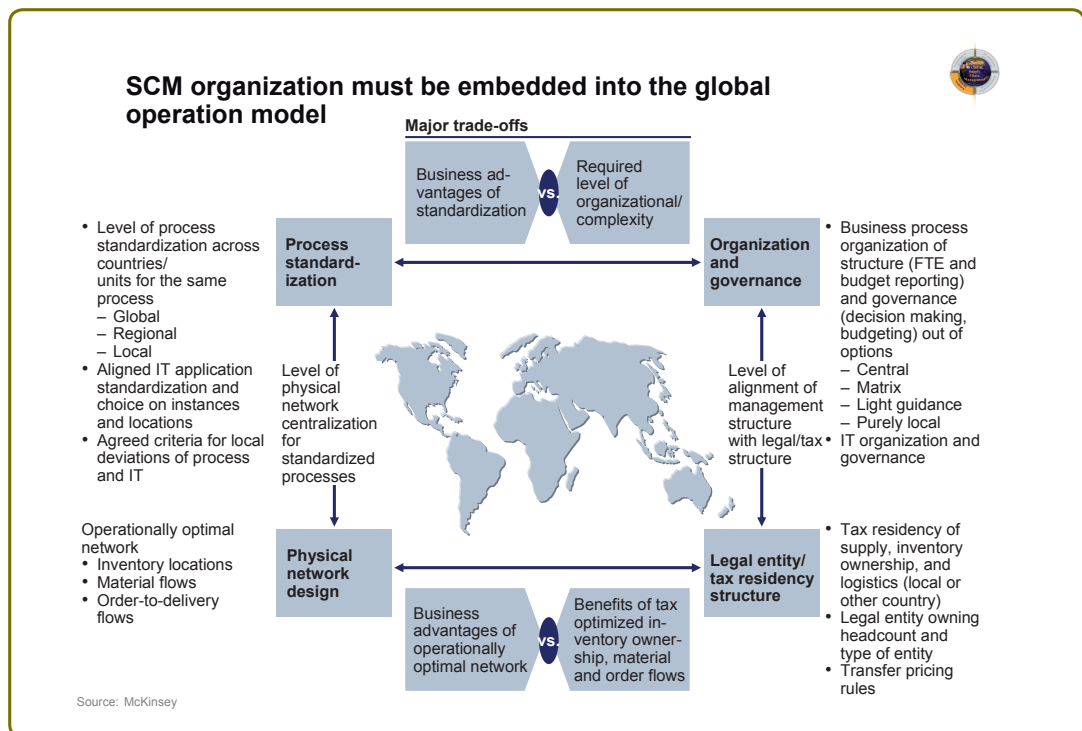
#### **4. Novel problems, new enablers**

How to design the supply chain organization is a question that vexes many companies. In practice, deciding whether to centralise all or part of the management of the supply chain depends as much on its maturity as its length and complexity. Many organizations building supply chains from new offshore sources or into new markets begin by organising on a regional basis. Such focus during the ramp-up phase has a lot of advantages. The new region receives a lot of top management attention, critical in allowing new problems to be identified and fixed quickly.

As the supply chain stabilizes, however, new supply chains are usually best integrated into the wider SCM organization. This way, firms can make sure that operations are efficient and that global best practices are being adopted. Finally, mature supply chains are often taken over by individual business units. Running supply chain activities at the business unit level allows them to be fine-tuned to the particular needs of individual products and markets.

Ultimately, decisions as to whether to run separate supply chains for particular regions and markets or to integrate all into one global system

## Exhibit 6



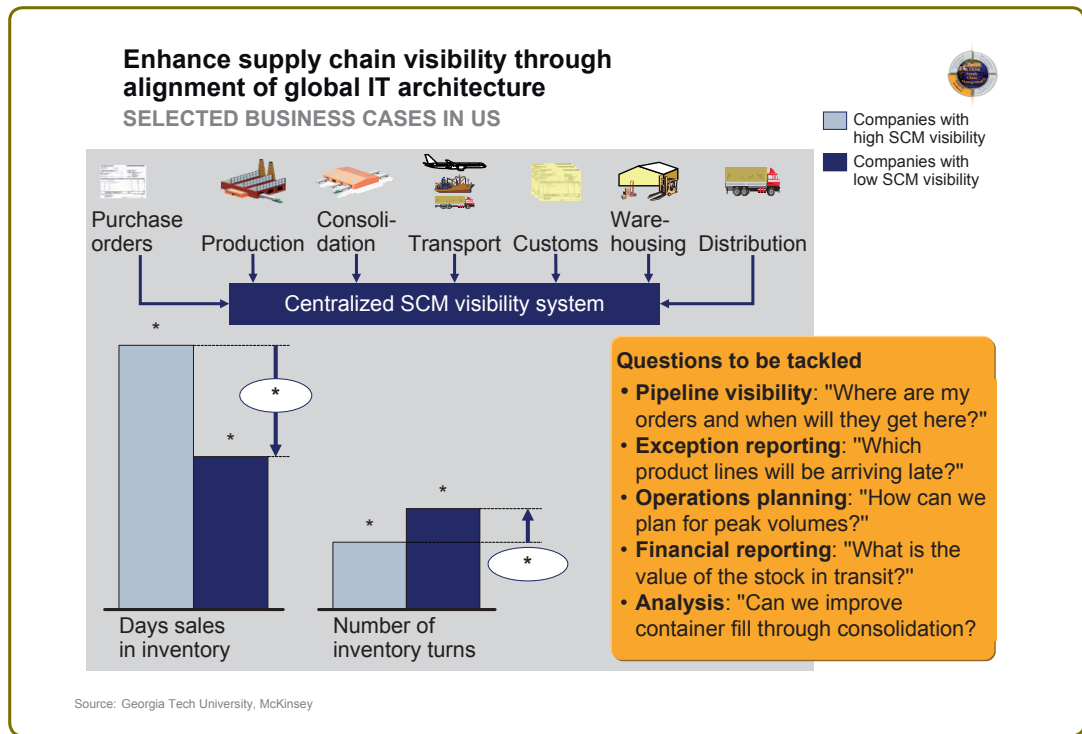
are the result of a detailed series of trade-offs (Exhibit 6). Centralization has advantages for management, IT implementation and the delivery of economies of scale. On the other hand, the one-size-fits-all approach can leave many business units and product lines struggling with operationally sub-optimal practices, unless effective mechanisms are put in place to allow deviations from the norm where necessary.

Firms operating complex supply chains want visibility in order to make effective decisions. Today's supply chain IT systems are providing that visibility to an unprecedented degree, with common systems architectures now available to manage the whole supply chain from planning to final delivery. Properly applied, such tools are powerful. In studies by McKinsey and Georgia Tech University, companies with centralised supply chain visibility in place can cut their inventories by 42% and increase inventory turns by 49% (Exhibit 7).

Optimising the global supply chain is the next performance frontier for organizations in many industries that operate across national boundaries. True excellence will be tough to achieve, but the diligent application of improvement levers in four areas has been demonstrated to deliver significant, sustainable results.

A well designed, well executed global supply chain is no longer a local support function focusing merely on physical distribution. It becomes a way of managing the whole value chain, controlling the distribution of information, products and relationships across departmental, national and corporate boundaries. Leading companies like Ikea are already designing their products from the ground up with the global supply chain in mind. The pressure is now on for other global companies, and the LSPs that support them, to do the same.

**Exhibit 7**



**Exhibit 8** Myths and realities of global supply chain excellence

Myth	Reality
“One supply chain solution will suit all customers in all markets”	Different customers in different markets will pay for different levels of service, and they won’t be satisfied with less. No matter how global your supply chain is, your customers remain local
“A single transport mode will be appropriate for every product”	Transportation needs differ by product depending on its need for speed, reliability, and flexibility. Even over long distances, express freight can be more cost effective than excess inventory for high value items.
“Transport is a commodity and decisions are best left to 3PLs”	Optimum utilization of transport assets requires collaboration between all parties involved. Differences between regional transportation markets and capabilities need to be managed proactively
“Long supply chains mean bigger risks, there’s nothing you can do about that”	Risk management can transform the cost effectiveness of a supply chain
“We can manage our supply chain perfectly well from central headquarters”	Getting the supply chain right needs local skills and talented people on the ground
“We don’t need to worry about lean operations in low cost countries as labor is so cheap”	Inefficient working practices produce long, variable lead times, dramatically increasing costs and reducing customer service
“We don’t have to worry about the supply chain decisions of our suppliers”	A supply chain that pulls products to the customer meets their needs better than one that is pushed by the supplier. Therefore suppliers should be encouraged to fulfill your customers’ demands effectively
“Our present organization manages the supply chain perfectly well”	As supply chains change and mature, the organization to manage them needs to change and mature over time as well
“New supply chain software tools are too much cost and trouble to implement”	Better supply chain visibility is a key enabler to manage the supply chain more cost effectively

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