



The 11 Greatest Supply Chain Disasters

SupplyChainDigest™

Introduction

Many of us rightly take pride in the growing recognition role of supply chain both within companies and in the public markets. An increasing number of companies cite supply chain initiatives and prowess in annual reports and meetings with financial analysts.

But of course the opposite effect must then also occur – supply chain snafus are increasingly cited by CEOs and CFOs to explain poor financial performance.

Which got us thinking, what have been the greatest supply chain disasters we've seen in the 20 years or so since that term started being used? SCDigest did a lot of research to find out.

First, some caveats: we focused only on “man made” disasters, and so excluded such things as Mother Nature and factories burning down, even though these often evidence holes in supply chain strategy and risk reduction plans. Second, we looked for examples that had a significant impact on the company in terms of finances, stock price, brand equity, etc. Third, it's still subjective, and we probably missed a few “good” candidates.

Below you will find a summary table of our “Top 11,” (weird number, yes, but we just couldn't find one to cut) in order from worst to not quite as worse, as well as more detailed stories of the nature and impact of each disaster.

Interestingly, none of our Top 11 occurred after 2001. Coincidence? While at one level we see more public attention to supply chain issues, it appears the lessons from failures in the past have at least led companies to avoid the catastrophic impacts.

1. Foxmeyer's 1996 Distribution Disaster

In 1996, Foxmeyer was the second largest wholesale drug distributor in the U.S., with sales over \$5 billion dollars in a highly competitive industry.

The disaster started with an ambitious project to revamp both its IT systems and its distribution facilities. This involved a new ERP system, and a highly automated DC in Ohio that relied on huge number of carousels for order picking and conveyors for product movement.

The company was estimating huge efficiency gains from the new systems – so much so that it started to bid future contracts based on the expected cost reductions.

Not a smart move, it turns out.

First, this was perhaps SAP's first foray into the world of high volume distribution. The system was unable to handle the volumes of orders. "We ran some simulations," said one company exec, "but not with the level of data we have in an operating environment."

Foxmeyer, for a myriad of reason, ignored many warning signs. Said one consultant on the project, "Every time we showed them something that didn't work, they'd say 'Is it a deal breaker?' Well, no one thing was a deal breaker. But if you put enough cinder blocks in a rowboat, it's going to sink."

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"lights out" Foxmeyer.*

But the order processing system wasn't the only issue. The DC automation system also was a disaster. At the time, it was one of the most highly automated facilities in the U.S.

Nothing much worked right. The automation controls had constant bugs, and Foxmeyer had to deploy hundreds of workers to work around the issues. "The underlying software would fail in the middle of the process, so we'd have to stop and restart in the middle of intense picking hours," said one logistics executive.

The whole thing snowballed between the combined system issues. An order would be partially shipped due to DC problems. The customer would receive a partial order, and call to complain. Unable to see the rest of the order had shipped on a later truck, the customer service rep would authorize a replacement shipment for product already on its way to the customer. Tens of millions of dollars in unrecoverable shipping errors ensued. Add to that cost savings that weren't ever likely to materialize at the level Foxmeyer had assumed in bidding some large new contracts, and it spelled total disaster.

Lights out warehousing? Try "lights out" for Foxmeyer.

After filing for bankruptcy, the main operating division of the \$5 billion company was sold to its larger rival, McKesson, for only \$80 million. Last we knew, there were still outstanding lawsuits working their way through the process between Foxmeyer and several technology and consulting companies.

Top Supply Chain Disasters				
Rank	Company	Year(s)	Issue/Problems	Impact/Result
1	Foxmeyer Drug	1996	New order management and distribution systems don't work, and fulfillment cost targets built into contracts are unattainable	Huge sales losses; Foxmeyer files for bankruptcy, and is eventually bought by McKesson
2	GM	1980s	CEO Robert Smith invests billions in robot technology that mostly doesn't work	Smith fired; Low tech Toyota uses lean manufacturing to gain strong competitive advantage as GM's market share heads south
3	WebVan	2001	On-line grocer has many problems, including massive investment in automated warehouses that drain capital and aren't justified by demand	Company goes from billions in market cap to bankrupt in a matter of months
4	Adidas	1996	New warehouse system – actually, first one then another – and DC automation just don't work	Company under-ships by 80% in January; incurs market share losses that persist for years
5	Denver Airport baggage handling system	1995	Complex, hugely expensive automated handling system never really works	Airport opens late; huge PR fiasco; system is only minimally used from start and shuttered totally in 2005
6	Toys R Us.com	1999	Can't fulfill thousands of orders for which it promises delivery by Christmas	Famous "we're sorry" emails 2 days before Christmas cause fire storm of negative PR; eventually outsources fulfillment to Amazon.com
7	Hershey Foods	1999	Order management and warehouse implementation issues cause Hershey to miss critical Halloween shipments	Company says at least \$150 million in revenue lost; profit drops 19%, and stock goes from 57 to 38
8	Cisco	2001	Lacking adequate demand and inventory visibility, Cisco is caught with piles of product as demand slows	Company takes \$2.2 billion inventory write-down; stock drops 50% and has stayed near that level since
9	Nike	2001	Trouble with new planning system causes inventory and orders woes	Nike blames software related issues for \$100 million dollar revenue shortfall for the quarter; stock drops 20%
10	Aris Isotoner	1994	Division of Sara Lee makes disastrous decision to move production from Manila to even lower cost countries; cost rise instead as quality plummets	Sales are cut by 50%; company goes from strong profit to big losses; Sara Lee soon sells Isotoner unit to Totes
11	Apple	1995	Playing a conservative inventory strategy, Apple is swamped with demand for new Power Macs and can't deliver the goods	Apple takes PR black eye and loses PC market share, which it never really recovers

Source: SupplyChainDigest

2. GM's Robot Mania

General Motor's CEO in the 1980s was Roger Smith, of "Roger and Me" fame, the documentary that really launched the career of liberal filmmaker Michael Moore.

Smith was fascinated with technology. Among other projects, such as the purchase of IT firm EDS, Smith embarked on a very aggressive effort to implement robots in GM factories.

When Smith was appointed, GM had approximately 300 robots of one kind or another. He soon created a joint venture with Japan's robot designer Fujitsu-Fanuc, and said he planned to deploy 14,000 new robots in GM plants by 1990.

Bad move.

Costing billions of dollars, the robots never really worked. As one observer wrote, "The robots accidentally painted themselves and dropped windshields on to front seats."

A "show place" factory in Hamtrac, MI turned out to be more like a "basket case." Introduction of the robots lowered productivity. A nearby Mazda plant produced just as many vehicles, with 1,500 fewer employees.

The entire project was later largely scrapped, as GM's costs rose and market share shrunk. Meanwhile, Toyota delivered low cost, high quality vehicles using comparatively low tech "lean production" techniques.

As one GM finance executive later noted, at the time the company could have bought both Toyota and Nissan for the money invested in the failed robot technology, a point especially painful given GM's troubles and Toyota and Nissan's success today.

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3. The WebVan Story

Though the spectacular rise and fall of on-line grocer WebVan was hardly only a supply chain story, its decision to invest huge sums in highly automated warehouses was certainly a strong contributor to that fall, and today seems almost ludicrous in its concept.

WebVan was among several major on-line grocery initiatives launched during the late 1990s. Backed initially by prominent financial outfits like Goldman Sachs, hiring a high profile CEO from Accenture, and then later going public and raising billions of dollars, WebVan went on a building spree, erecting hugely automated warehouses that cost \$25-30 million each.

“We made the assumption that capital was endless and demand was endless.”

Saying that this was overkill is putting it mildly. As one analyst commented, “They opted to automate the entire business, and that dug a very big whole.”

In an industry that typically has net margins in the very low single digits, WebVan bet the farm that it could drive out logistics costs enough to make a solid profit.

Unfortunately, if the strategy could be successful at all, it had to depend on huge volumes to drive high levels of system utilization, which never came close to materializing. “Using a hammer to kill a flea” is a reasonable aphorism.

After original CEO George Shaheen left as the business was collapsing, the new CEO stated, “We made the assumption that capital was endless and demand was endless.”

Wrong on both counts.

Within less than a year, WebVan saw its market cap shrink from billions to almost nothing, and the company shut its doors completely in 2001.

Would survival have been possible with less spending on the automated warehouses? Hard to say, but building them certainly made survival impossible.

4. adidas 1996 Warehouse Meltdown

Starting in 1993, athletic shoe and gear maker adidas tried to implement first one and then a second warehouse management system in its Spartanburg, SC, distribution center.

The troubles were caused in part by adidas insisting the vendor’s Unix-based system be ported to fault tolerant Stratus computers. They couldn’t make it work, and eventually the company (Integrated Software Logistics Engineering) went belly-up in mid-project.

Another WMS vendor, perhaps unwisely, then tried to implement their system.

The DC also featured heavy automation, requiring extensive logic and integration in the WMS. Perhaps frustrated by the long project delays, adidas then went live before the system was really ready.

The system just didn't work, and adidas was unable to process and ship orders. Estimates were that in January, 1996, the company in total was only able to fill 20% of its \$50 million in North American orders, and much of that came from overseas plants shipping direct. It took many months to get the system up to full speed.

Though not well known, adidas' nightmare made the front cover of Information Week magazine, under the simple title of "Meltdown."

As a result, adidas suffered major market share losses that persisted for a long while, while IT and logistics staff left the company in droves.

As a cautionary note to the media, Modern Materials Handling magazine had named the Spartanburg DC its "Warehouse of the Month" in late 1995 – before the facility even went live.

5. Denver Airport Baggage Handling System

In 1995, the Denver International Airport finally opened, after several delays and enormous PR problems for the airport and United Airlines around a hugely automated baggage handling system that just never really worked as planned.

The automated system was an underground, computer-driven railroad network for moving baggage. But bags were mis-delivered, luggage was chewed up and cars derailed and jammed tracks.

Early in the new airport planning stage, United Airlines insisted on an automated high-speed baggage system. This was driven in part by the significant distances at DIA from the concourses to the main terminal, which United and others felt were too great for traditional approaches to baggage handling and would delay their ability to turn around aircraft quickly.

There were numerous problems. The underground tunnels to be used for the conveyance system had been already been built before the prime contractor, BAE Systems, was awarded the contract, and were not designed with this level of automation in mind. Miscommunication between BAE, airport officials, the airlines and others led to numerous problems, especially an inability to see inter-related problems and the impact of change on the total system. There wasn't much time to test the system, and little redundancy was built in. And even though ultimately the system became partly operational, its continued complexity, mishandling of bags, and operational costs in the end led United to return to

traditional handling methods. It is arguably the greatest material handling fiasco of all time.

6. Toys R Us.com Christmas 1999

It's 1999, and on-line retailing is finally starting to heat up. The on-line division of the leading toy retailer, Toys R Us, advertises heavily, and promises it will make Christmas deliveries for any orders placed by Dec. 10.

Toys R Us.com's Christmas 1999 failure led hundreds of other companies to add e-fulfillment capabilities the following year.

Toys R Us.com is swamped with tens of thousands of orders. Though the inventory is mostly in place, the company simply cannot pick, pack and ship the orders fast enough – though it was close.

“We'd have been OK if Christmas was on Dec. 26,” one company executive says.

Some employees work 49 straight days

Just a couple of days before Christmas, the company sends out thousands of now infamous “We're sorry,” emails, telling those customers their orders will not arrive in time for Christmas. The media has a field day, and customers are irate.

“How do I explain to my four-year-old that his present will be coming a week late?” is typical of more gentle complaints in the avalanche of mail and calls the company receives. “I've never been exposed to fouler language,” says then vice president Joel Anderson.

The Toys R Us brand generally takes a big hit, even though other e-tailers have some similar problems. In fact, the Christmas of 1999 causes hundreds of companies to analyze their e-fulfillment capabilities in more detail the following year, and put in capabilities that significantly reduce the issues in 2000 and beyond. The Toys R Us.com failure really was a wake up call to the rest of the industry.

Toys R Us.com later outsources its fulfillment to Amazon.com.

7. Hershey's Halloween Nightmare 1999

Like most candy manufacturers, industry giant Hershey Foods typically has a significant percentage of sales related to Halloween.

In 1998-99, Hershey spent more than \$100 million on a new order management, supply chain planning, and CRM system to transform the company's IT infrastructure and supply chain. When disaster hits, the company is later criticized for a "big bang" approach to implementation, trying to go live with all these systems in parallel.

For a long while after the disaster, Hershey supply chain executives were regularly presenting to Wall Street analysts.

Expected to go live in April, 1999, the schedule slips, and rather than wait until the following year, Hershey switches over in the summer. The system has major issues. In many cases, Hershey has product on the dock, but can't get transactions to work that will enable it to put the candy in a truck and ship it to customers. Inventory is not visible to the order management system for allocation – so the orders won't process.

The company ultimately says at least \$150 million in orders were missed. Quarterly profit drops 19% in the 3rd quarter, and it takes another hit in the 4th quarter. The fiasco makes headlines across the business press. The stock drops from 57 in August, 1999 to 38 by January, 2000, though it recovers strongly in subsequent years.

For a couple of years afterwards, Hershey supply chain and logistics executives are trotted regularly to Wall Street analysts to assure them the delivery glitches are completely gone. The company also changes the way it has systems talk to each other, using EDI messaging internally through a central hub for integration between applications.

8. Cisco's 2001 Inventory Disaster

Cisco rode the technology wave of the 1990s to incredible growth, profits, stock valuation, and prominence for itself and CEO John Chambers as global business giants.

As the tech bubble burst, however, Cisco was slow to see the slowing demand, and had inventory system and visibility issues that left it caught it unprepared when its market tanked. As a result, it had way more routers, switches and other gear than it needed.

How much more? In May, 2001, the company announced it was taking a \$2.2 billion (that's with a 'b') inventory write down, probably the largest in history.

"The networking industry, having no experience with a downturn and never having to deal with double or triple ordering, responded to high order patterns with higher build rates and substantial inventory accumulation to facilitate the projected shipping rates," said one analyst.

In one fell swoop, the "Cisco bubble" also burst, with the company being wildly pilloried in the business press, and the stock price being cut in half. It has really stayed close that price level ever since.

9. Nike's 2001 Planning System Perplexity

In February, 2001, athletic gear maker Nike went live with a new – and complex – supply chain planning system. A myriad of issues, including software bugs and integration problems, complexity and change for planners, lack of training, etc., lead to major challenges forecasting demand and deploying inventory.

At a quarterly conference call, the company publicly cites "software problems" for causing a \$100 million revenue shortfall. CEO Phil Knight said the supply problems had created significant inventory shortages and excesses. In certain cases, Nike would have to slash prices to get rid of the additional inventory, putting pressure on margins and profits. Wall Street reacts strongly, quickly knocking 20% of the company's stock price.

The Nike saga is another one blamed on a "big bang" approach to deployment, rather than a more phased implementation. The software provider says Nike didn't implement the software the way it recommended.

10. Aris Isotoner's Sourcing Calamity in 1994

In 1993, Aris Isotoner was a highly successful division of Sara Lee Corp. A manufacturer of gloves and slippers, it was one of the most well-known brands in the U.S., made famous in part by commercials featuring NFL quarterback Dan Marino.

It was very profitable, with sales of \$220 million, 15% net profit, and high growth.

Isotoner's plant in Manila, Philippines, was a crown jewel of the business. Highly skilled labor there had been turning out 27 million pairs of gloves a year at such low cost that even factories in China couldn't compete.

Said one company executive later: "The plant in the Philippines couldn't be duplicated. So many of the people had been there 15 years; they were so skilled. It was the low-cost producer in the world."

Trying to chase even low costs, however, a new Aris Isotoner executive shuts the Manila plant and sources production to other Asian locales.

Bad choice.

As it turned out, the "low-cost" suppliers Aris Isotoner chose to replace the in-house production ended up costing between 10% and 20% more. Managers found they couldn't turn around orders as quickly as before. Product quality plummeted.

Aris Isotoner's sales also plunged. Three presidents later, the glove maker's sales had fallen in half, to \$110 million. By 1997 operating losses had totaled \$120 million, and Sara Lee had invested over \$100 million to keep the company afloat.

In late 1997, Sara Lee announces the sale of the once high flying division to Totes Inc., a unit of Bain Capital, for a bargain price.

Aris Isotoner shut down a "crown jewel" in its Manila plant chasing still lower costs – and got higher costs and big quality problems instead.

11. Apple Misses Power Mac Demand

Many forget that even through the mid-1990s, Apple was often the leader in market share in the then still deeply fragmented PC market. That position took a permanent hit in the last half of 1995 due to supply chain foibles.

Apple was introducing its new line of Power Mac PCs, to be launched just before the Christmas season in 1995. Just two years before, however, the company had been burned by excess inventories and production capacity during a similar launch for its Power Book laptops.

At one point, Apple had an order backlog of \$1 billion.

So this time, it played things very conservatively. That turned out to be the expensive option.

When demand for Power Macs exploded, Apple was caught short for the critical Christmas season. Forecasts were too low, there wasn't enough flex in the supply chain, and some parts suppliers developed additional delivery issues. At one point, Apple has \$1 billion dollars in unfilled orders in its system. Unable to capitalize on the market opportunity it had been handed, the stock price was soon cut in half, the CEO was shown the door, shareholder lawsuits came pouring in, and Apple's market position in PCs took a permanent hit such that it took the IPOD years later to lead a recovery in the company.

Other Candidates

SCDigest consider a handful of other supply chain disasters to include in our list. Though not making the formal “Top 11” list, some of these other events include:

- The near disaster Ford’s **Land Star division** found itself in during 2001, when its sole source of chassis for a new vehicle launch was nearly bankrupt and demanded a payment of tens of millions of dollars in almost blackmail-like payments to keep production going. The issue nearly cancelled the new model’s launch, and had to be resolved in the British courts. Ultimately, Land Rover purchased the supplier.
- The **Federal Emergency Management Administration (FEMA’s)** poor response in getting supplies to victims of Hurricane Katrina. With all the issues to sort through, including politics, we thought it best to just leave it alone.
- **Snap-on Tools**, which had a challenged order management system implementation in 1997, which it says led to \$50 million in lost sales for the first half of 1998, while operating costs soar 40% as extra workers are hired to work around the system issues. Company profits drop 22% in 1998.
- **Tri-Valley Growers**, which around 1996 spent millions on a new ERP and supply chain planning system which it never could get to work, ultimately throwing that system out and replacing it with another.
- **Norfolk Southern’s** inability to successfully combine its systems with fellow rail carrier Conrail after a merger in 1999. The company suffered through months of train back-ups and delays, lost track of cars, and had major crew scheduling disruptions. The company lost at least \$100 million in business, and had extra operating cost of nearly that much as well.

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