Supply Chain Metrics That Matter: A Critical Look at Operating Margin

Using Financial Data from Corporate Annual Reports to Better Understand Operating Margin Performance by Industry

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Contents

Research

Supply Chain Metrics That Matter is a series of reports published throughout the year by Supply Chain Insights LLC. They are traditionally a deep focus on a specific industry. This report takes a different perspective than previous publications in that it focuses upon a single metric across several industries. This report is a cross-industry analysis of operating margin.

These reports are based on data collected from financial balance sheets and income statements over the period of 2000-2012. In this report, we analyze how companies and industries managed their operating margin performance while maintaining balance with other popular supply chain ratios such as inventory turns.

Within the world of Supply Chain Management (SCM), each industry is unique. We believe that it is dangerous to list all industries in a spreadsheet and declare a supply chain leader. Instead, we believe that we have to evaluate change over time by peer group. Thus, we discuss operating margin performance in regard to five specific industry peer groups.

Disclosure

Your trust is important to us. As such, we are open and transparent about our financial relationships and our research process. This independent research is 100% funded by Supply Chain Insights.

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Research Methodology

The basis of this report is publicly available information from corporate annual reports from the period of 2000-2012 for publicly-owned companies in the following industries: automotive, chemical, consumer electronics, consumer packaged goods and pharmaceutical. The analysis takes a closer look at operating margin performance over three time periods:

2000-2006: Start of the Decade and Rise of Enterprise Automation

2007-2009: Recession and Economic Downturn

2010-2012: Economic Recovery

The periods were selected in part to understand the impact of technology adoption and process evolution on corporate performance.

In picking companies for the *Supply Chain Metrics That Matter* report, we traditionally rely on companies recently listed in the Fortune Global 500. In addition, we used the Morningstar industry classifications to inform our decision. This report is a continuation of reports on financial supply chain ratios: Supply Chain Metrics That Matter: The Cash-to-Cash Cycle (published November 26, 2012) and Supply Chain Metrics That Matter: A Closer Look at the Cash-To-Cash Cycle (2000-2012) (published November 11, 2013) We have tried to minimize changes in the peer group composition in these reports to improve the reader's ability to do comparisons.

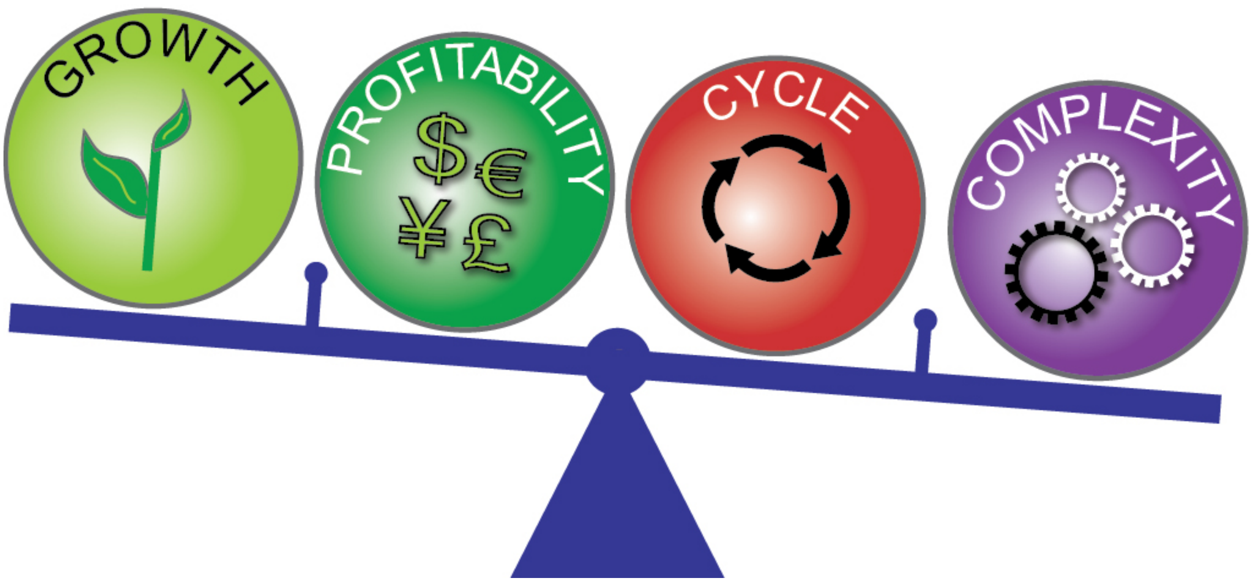
We use the financial data to help readers learn from past trends, to better understand current operating environments, and we provide recommendations for the future. We augment the financial data analysis with information from our quantitative and qualitative research studies as well as our work with clients operating within the industry.

Executive Overview

If a supply chain leader cannot demonstrate improvement in operating margin, they are often fired. Consequences are severe. However, as complexity in global supply chains has increased, it has become increasingly difficult to improve profitability metrics. Among supply chain leaders, operating margin is one of the preferred measures of profitability.

Successful supply chain management is about balance and particularly the balancing of growth, profitability, cycle and complexity. This is what we call The Effective Frontier. Supply chain management is getting tougher as commodity markets get more volatile, wage prices increase, and product life cycles shorten. It is up to the supply chain leader to design the network and processes to protect margin and balance the supply chain. This is becoming an increasingly difficult task.

Figure 1. The Effective Frontier



The challenges are many and they vary by industry. Commodity pressure is higher than at any previous point in time as shown in Figure 2. There is a limited toolkit for how to offset margin pressure. They include better planning, transportation optimization, rethinking network design, improved Sales & Operations (S&OP) execution, and Kanban events with suppliers and customers. None are easy or quick fixes.

Additionally, while many think that calculating cost and monitoring profitability should be easy, this is not true. In our research, we find that only 24% of companies surveyed can easily access total supply chain cost information. The ability to get to the data and connect the dots on cost to operating margin performance remains difficult for most. In fact, as shown in Figure 3, for 53% of survey respondents, getting to total supply chain cost is difficult.

Figure 2. Commodity Volatility (1997-2013)

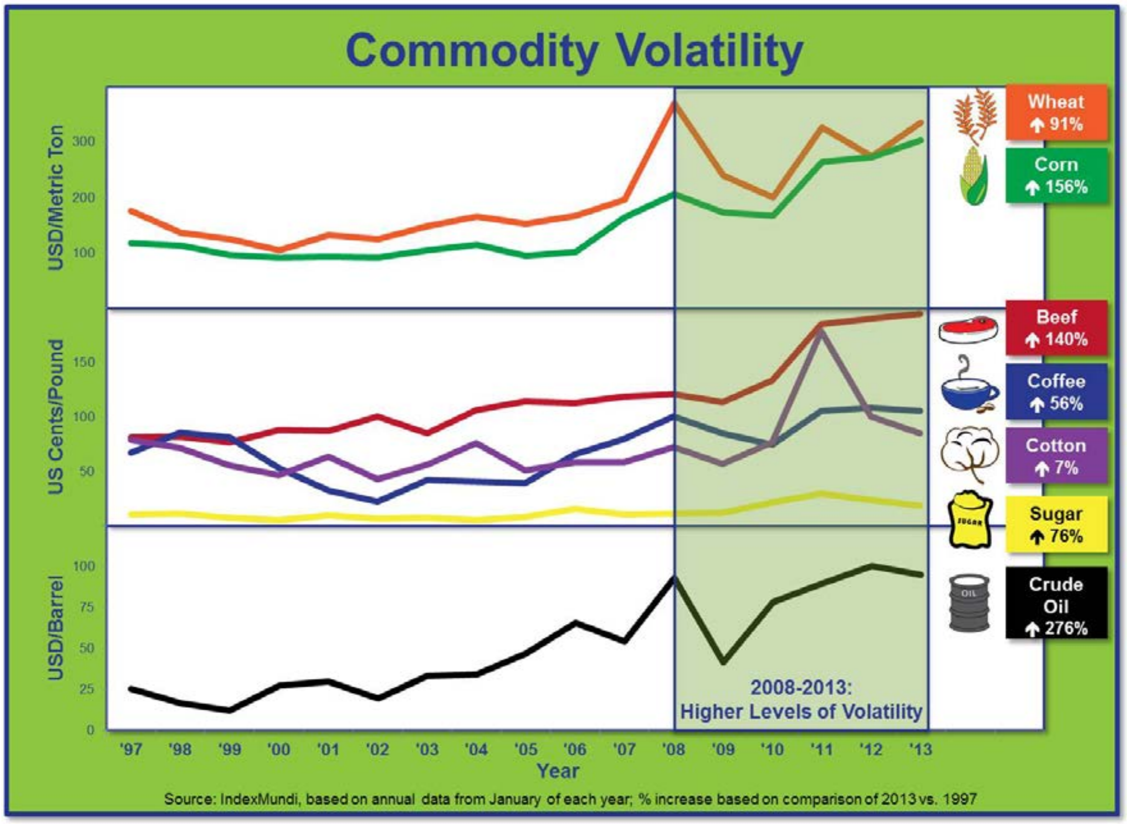
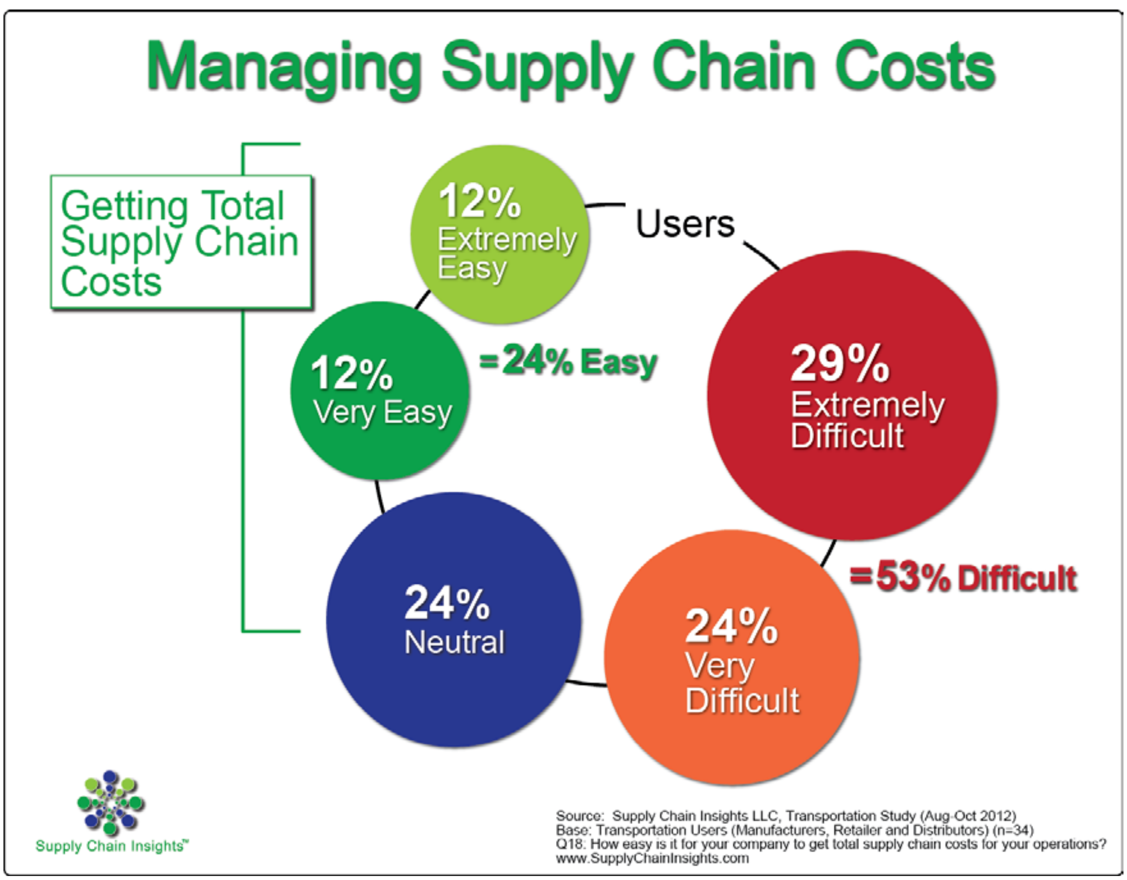


Figure 3. Managing Supply Chain Costs



Operating margin is a straightforward calculation with serious implications. Of the ten industries profiled in Table 1, only two have increased operating margin over the period: consumer electronics and consumer packaged goods. Furthermore, of the 18 companies profiled individually in this report, less than 40% (7/18 = 39%) have made progress on margin in 2012 compared to their result in 2000. As shown in Table 1, it is becoming more and more difficult for companies to maintain balance on their portfolio of supply chain metrics. This trend is true across all industry subgroups.

Table 1. A Review of Industry Progress from 2000-2012

Industry	Average Operating Margin	Operating Margin Percentage Change (2000-2012)	Average Cash-to-Cash Cycle	Cash-to-Cash Cycle Percentage Change (2000-2012)	Average Inventory Turns	Inventory Turns Percentage Change (2000-2012)
Pharmaceutical	0.25	-22%	190.3	25%	2.0	47%
Medical Device Manufacturers	0.18	-84%	211.6	7%	2.2	6%
Consumer Packaged Goods	0.17	27%	28.3	-68%	5.6	9%
Food	0.16	-30%	38.1	-17%	6.4	16%
Consumer Electronics	0.12	74%	9.3	-45%	43.8	-35%
Apparel	0.10	-9%	127.7	3%	3.2	-4%
Chemical	0.09	-25%	78.1	-12%	5.3	5%
Automotive	0.04	-92%	75.9	-28%	9.9	-16%
Third Party Logistics	0.03	-104%	27.5	52%	36.6	76%
Contract Manufacturing	0.02	-43%	38.8	-44%	8.0	38%

Source: Supply Chain Insights LLC, Corporate Annual Reports 2000-2012
Apparel: American Apparel, Inc., Columbia Sportswear Co., Hanesbrands, Inc., PVH Corp, Ralph Lauren Corp., VF Corp.
Automotive:: Daimler AG, Ford Motor Co., General Motors Co., Honda Motor Co., Ltd., Toyota Motor Corp., Volkswagen AG
Chemical: BASF SE, E. I. du Pont de Nemours and Co., The Dow Chemical Co.
Consumer Electronics: Apple Inc., Dell Inc., Intel Corp., Motorola, Inc. (now Motorola Solutions, Inc.)
Consumer Packaged Goods: Colgate-Palmolive Co., The Procter & Gamble Co., Unilever N.V./PLC
Contract Manufacturing: Benchmark Electronics, Inc., Celestica Inc., Kimball International
Food:: Campbell Soup Co., General Mills, Inc., Kellogg Co.
Medical Device Manufacturers: Boston Scientific Corp., Medtronic, Inc., St. Jude Medical, Inc., Zimmer Holdings Inc.
Pharmaceutical: Eli Lilly and Co., Merck & Co., Inc., Pfizer, Inc.
Third Party Logistics: Kuehne + Nagel International AG, Panalpina Welttransport Holdings AG, R.R. Donnelley & Sons Company

Companies with the highest operating margin tend to be the least mature in their understanding of supply chain principles. As a result, they demonstrate the worst performance in balancing competing priorities on the Supply Chain Effective Frontier and are stuck on the Supply Chain Plateau. The positions of companies, and their relative successes over the last decade, are shown in figure 4.

Figure 4. Supply Chain Plateau

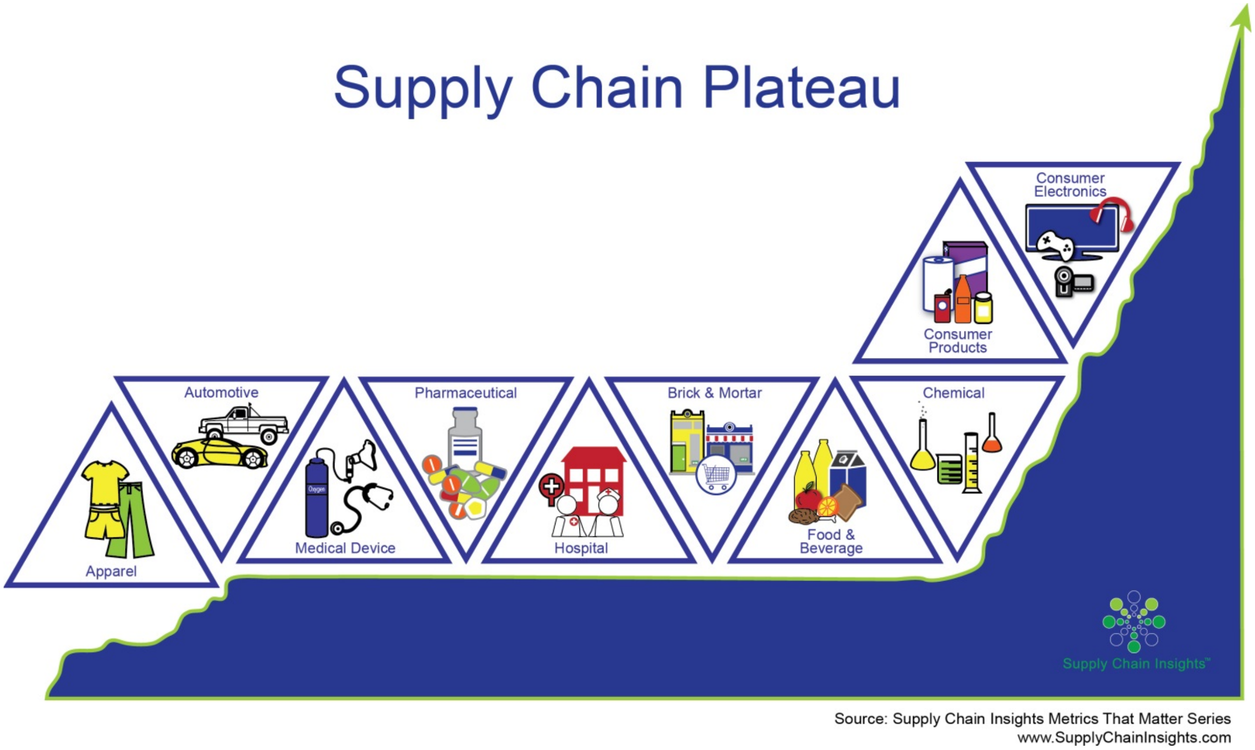


Table 1 is sorted by average operating margin with pharmaceutical companies returning the highest average value at 0.25 over the period. With the patent cliff, and significant changes in the healthcare environment including ongoing implementation of the Affordable Care Act, the margins of pharmaceutical and medical device companies, especially, are under attack.

Some industries have seen falling operating margin across the board (pharmaceutical), but most industries demonstrate companies on both sides of the coin, those improving margin and those faltering within the same business environment. Here, we tell their stories.

Balancing Priorities

Successful management of a supply chain is a continuous balancing act. Aggressive focus on a single metric can have unintended consequences on others metrics and jeopardize the entire supply chain. One of the toughest balancing points when it comes to supply chain metrics is the intersection of inventory turns and operating margin. Only a small percentage of companies, regardless of industry, are able to balance these priorities.

While it is possible to drive short-term improvements through projects or program goals; it is exceedingly difficult to sustain these improvements over a series of several years. Today, nine out of ten companies are stuck in their ability to manage performance at the intersection of inventory turns and operating margin. As shown in Table 2, it is difficult for companies to maintain progress on both metrics for any given period of two years, and the percentages decrease severely for periods of three or four consecutive years.

Table 2. Balancing Inventory Turns and Operating Margin (2000-2012)

Percentage of Companies Demonstrating Consecutive Improvement on Both Inventory Turns and Operating Margin (2000-2012)			
Morningstar Sector	**2 years only**	**3 years only**	**4 years only**
Household & Personal Products (n=27)	37%	7%	0%
Communications Equipment (n = 94)	33%	13%	2%
Semiconductors (n=76)	33%	5%	1%
Chemical (n=22)	32%	9%	0%
Specialty Chemical (n=48)	31%	8%	2%
Packaging & Containers (n=19)	26%	0%	0%
Packaged Food (n=48)	25%	6%	2%
Consumer Electronics (n=11)	18%	0%	9%
Drug Manufacturers- Major (n=17)	12%	6%	0%

Source: Supply Chain Insights LLC, Corporate Annual Reports 2000-2012

The “Consumer Electronics” Morningstar sector has the highest level with four consecutive years of improvement at 9%; but, the “Household & Personal Products” sector has the highest level of two year improvement with 37% of companies showing improvement on both inventory turns and operating margin. Major pharmaceutical companies have the lowest level of improvement with only 12% of companies showing improvement for two consecutive years. In the following report, we will examine each of these industries as well as two others with varying levels of success at managing the intersection of inventory turns and operating margin.

Defining Operating Margin

Operating margin is not complicated. The equation is as follows:

$$Operating\ Margin = \frac{Operating\ Income}{Revenue}$$

By minimizing the operating income (both fixed and variable costs) and maximizing the revenue of the company, operating margin will climb. To a certain extent, the range of possible operating margins is a reflection of the company’s business model. Pharmaceutical companies have enjoyed high operating margins, in some cases close to 0.40, while third party logistic (3PL) providers, contract manufacturers and automotive companies have some of the lowest operating margins in all of the industries we have studied with values south of 0.05. While a third party logistics (3PL) provider should never expect to report an operating margin value of 0.40, there are bands of possibilities for each industry, and the most successful companies have used their supply chain to move to the upper regions of their industry band over the past decade.

The Big Picture

The goal of the supply chain leader is to fight margin pressure through improved supply chain processes, new technologies and continuous improvement initiatives. There are five major opportunities to consider:

- **Benchmark to Know the Potential.** It is critical to set achievable targets grounded in reality. Fundamentally, each industry is different. There are different limitations, risks, and opportunities in each industry. Each of these will impact the operating margin potential of the industry. The most meaningful comparisons of operating margin occur within the same industry amongst comparable companies.
- **Size Matters.** Our analysis in this report focuses on large market capitalization companies with a global footprint. Additional research we have completed on companies of varying revenue size indicates that these large companies are doing the best job of increasing and maintaining healthy margin levels. Economies of scale are possible through well-executed merger and acquisition activities.
- **Focus on End-To-End Process.** Unexamined costs lie between functional silos. As stated above, getting at supply chain cost remains difficult for over 50% of companies surveyed. When companies design and implement end-to-end processes, there is a large impact on operating margin. However, today, less than 1% of companies have a single person responsible for the design and orchestration of end-to-end processes.
- **Alignment with Business Strategy.** Companies that have prioritized operating margin as an important component of their supply chain strategy, and business strategy, have generally been successful at improving performance. Metrics alignment cross-functionally is a critical element of goal performance.
- **Better Planning.** Companies that excel at network planning and horizontal processes, such as Sales & Operations (S&OP) Planning, have both higher and more resilient performance in operating margin.

Case Study: Automotive

Over the course of the last decade, the automotive industry has had many ups and downs. Most believe that the automotive industry is on the mend. Today, auto sales are high, but operating margin remains low and even more worrisome, volatile.

The automotive industry is simply an asset-intensive and low-margin environment. Within the industry, there are two basic designs: the U.S. automakers and the European and Japanese manufacturers. As seen in Table 3, the U.S. automakers are struggling to compete.

Table 3. Operating Margin (2000-2012)

Operating Margin (2000-2012)				
Company	2000-2006	2007-2009	2010-2012	Percentage Change (2000-2012)
Daimler AG	0.02	0.05	0.07	167%
Ford Motor Company	-0.01	-0.03	0.05	-4%
General Motors Company	-0.01	0.28	-0.04	N/A
Honda Motor Company, Limited	0.08	0.06	0.05	-58%
Toyota Motor Corporation	0.08	0.05	0.02	-65%
Volkswagen AG	0.04	0.04	0.06	23%
AVERAGE	0.03	0.07	0.04	

Source: Supply Chain Insights LLC, Corporate Annual Reports 2000-2012

The two large German manufacturers ended the decade with the two highest operating margin levels while the U.S. and Asian companies lagged behind. In a shared operating environment, **Daimler AG** and **Volkswagen AG** have maximized their margin over the time period, improving from 2000 levels by 167% and 23% respectively.

The squeeze on downstream suppliers in the domestic automotive supply chain is well documented throughout and following the Great Recession. By losing sight of larger collaborative goals and long-term aims, U.S. automakers have weakened their position and it shows with their lagging margin performance. The story here is one of maturity. These German powerhouses have managed their supply chains in a more mature and responsive manner than other manufacturers. They have had a more productive relationship with their suppliers and have taken more responsibility to build a healthier ecosystem and value network. With the severe downturn in domestic sales, U.S.-based auto manufacturers have a chance to reinvent a bit of their supply chain by looking to their European counterparts.

Case Study: Chemical

The chemical industry, like the automotive industry, is asset intensive. While the chemical industry has approximately twice the margin performance of automotive, as a result of their downstream placement in the supply chain, they struggle with the bullwhip effect. Since most of their upstream partners have pushed cost and waste backwards in the supply chain, it has been more and more difficult to maintain margin. In addition, the industry lacks resiliency. Several of the largest multinational chemical companies shut down large portions of their manufacturing footprint in 2008 and 2009 as seen in these excerpts from annual reports.

"At this early stage in the year, product inventories across value chains remain low and substantial capacity is still off-line."

- The Dow Chemical Company 2008 Annual Report, page 49

"BASF was also hit hard by the deepest recession in post-war times. Sales and earnings fell considerably, but we acted quickly and decisively. We adjusted our production to the steep decline in demand by idling or closing numerous plants. Furthermore, we accelerated our programs to increase efficiency and reduce costs. Unfortunately, we could not avoid introducing short-time work and job cuts."

- BASF 2009 Annual Report, page 8

For chemical manufactures, margins are low and under pressure. The results for the industry are shown in Table 4.

Table 4. Operating Margin (2000-2012)

Operating Margin (2000-2012)				
Company	2000-2006	2007-2009	2010-2012	Percentage Change (2000-2012)
BASF SE	0.10	0.10	0.12	34%
E. I. du Pont de Nemours and Company	0.11	0.09	0.10	-25%
The Dow Chemical Company	0.07	0.04	0.05	-72%
AVERAGE	0.09	0.08	0.09	

Source: Supply Chain Insights LLC, Corporate Annual Reports 2000-2012

Of the three, **BASF SE** is the winner. E. I. du Pont de Nemours and Company and The Dow Chemical Company both lost ground on operating margin over the period. The same two have also lost ground on inventory turns as shown in Table 5.

Table 5. Inventory Turns (2000-2012)

Inventory Turns (2000-2012)				
Company	2000-2006	2007-2009	2010-2012	Percentage Change (2000-2012)
BASF SE	4.9	6.1	5.5	30%
E. I. du Pont de Nemours and Company	4.3	4.0	7.0	-12%
The Dow Chemical Company	5.5	3.4	6.3	-2%
AVERAGE	5.2	5.7	5.1	

Source: Supply Chain Insights LLC, Corporate Annual Reports 2000-2012

BASF is the single chemical company profiled here that has managed to improve both inventory turns & operating margin over the past thirteen years. While BASF still has the lowest average of the three companies for the time period of 2000-2012, the company shows a level of resiliency that exceeds its peers. BASF has pulled ahead of peers on margin and is gaining in terms of inventory management.

Case Study: Consumer Electronics

Consumer electronics has long been regarded as one of the most advanced industries when it comes to supply chain management. A fast-moving, resilient and agile supply chain is a requirement to remain successful in the consumer electronics space today. The perennial favorite in the industry for supply chain management is **Apple Inc.** who outperforms the peer group on operating margin to a significant margin as seen in Table 6.

Table 6. Operating Margin (2000-2012)

Operating Margin (2000-2012)				
Company	2000-2006	2007-2009	2010-2012	Percentage Change (2000-2012)
Apple Inc.	0.04	0.23	0.32	440%
Panasonic Corp.	0.02	0.04	0.00	-404%
Samsung Electronics Co., Ltd	0.13	0.07	0.12	-31%
AVERAGE	0.06	0.11	0.14	

Source: Supply Chain Insights LLC, Corporate Annual Reports 2000-2012

Apple has improved operating margin from 2000 to 2012 by over 4X while the other companies in the peer group have lost ground. The recession of the early 2000s, the dot.com bubble, hurt consumer electronics companies. As a result, they used the lessons from this earlier recession to improve their processes. Consumer electronics companies have the most mature planning processes and are the fastest to adapt and drive innovation when it comes to both process and technology adoptions. As a result, they suffered less and recovered faster from the more recent downturn. Companies with innovative new products and those willing to lead the way on mobile have enjoyed the largest advantages.

Success for these companies requires the management of a network. The industry is dependent on contract manufacturing relationships. As noted above, contract manufacturers have some of the lowest margins of any industry and their stability threatens the consumer electronics behemoths. Consumer electronics manufacturers with shortening life cycles and price pressures will be pushed to stay on the leading edge. While they have successfully built superior customer-oriented planning processes, they should now prioritize downstream relationships that have enabled their current success.

Case Study: Consumer Packaged Goods

The consumer packaged goods industry is the only industry of the five profiled here in which each company has managed to improve operating margin performance since 2000. The progress is not equal. The results for the industry are shown in Table 7.

Table 7. Operating Margin (2000-2012)

Operating Margin (2000-2012)				
Company	2000-2006	2007-2009	2010-2012	Percentage Change (2000-2012)
Colgate-Palmolive Company	0.20	0.21	0.23	18%
Procter & Gamble Company	0.17	0.20	0.18	7%
Unilever N.V.	0.11	0.14	0.14	96%
AVERAGE	0.16	0.19	0.18	

Source: Supply Chain Insights LLC, Corporate Annual Reports 2000-2012

Unilever N.V. has increased operating margin to the greatest degree over the thirteen year period, but **Colgate-Palmolive Company** is the real winner here with an operating margin of 0.23 for the 2010-2012 time period. Colgate has a strong focus on operating margin as part of their supply chain strategy and larger business strategy. They have pushed themselves to the upper band. There is no company that we have studied that equals Colgate when it comes to operating margin. However, when it comes to performance on inventory turns, **Colgate** has faltered, demonstrating the elusive balance between operating margin and inventory turns.

Table 8. Inventory Turns (2000-2012)

Inventory Turns (2000-2012)				
Company	2000-2006	2007-2009	2010-2012	Percentage Change (2000-2012)
Colgate-Palmolive Company	6.0	5.3	5.3	-16%
Procter & Gamble Company	5.8	5.2	5.8	5%
Unilever N.V.	4.8	6.6	6.2	47%
AVERAGE	5.5	5.7	5.8	

Source: Supply Chain Insights LLC, Corporate Annual Reports 2000-2012

To drive true improvement in their supply chain, companies must look at performance of a portfolio of their metrics that aligns to the larger business strategy. This is not a case of monitoring what is simplest to get at or easiest to improve. The list of metrics must fit within the company's larger goals.

Case Study: Pharmaceutical

Historically, the pharmaceutical industry has enjoyed high operating margin values. Today, with the patent cliff and the slow-down of new products to market, the industry is being challenged as never before.

Table 9. Operating Margin (2000-2012)

Operating Margin (2000-2012)				
Company	2000-2006	2007-2009	2010-2012	Percentage Change (2000-2012)
Bristol-Myers Squibb Co.	0.20	0.24	0.26	-56%
Eli Lilly and Co.	0.26	0.13	0.25	-33%
Merck & Co., Inc.	0.36	0.37	0.12	-24%
AVERAGE	0.28	0.25	0.21	

Source: Supply Chain Insights LLC, Corporate Annual Reports 2000-2012

From table 1 shown earlier, we know that the average operating margin of the industry is 0.25. Just as companies with low margin are forced to get serious about supply chain efficiency, companies with large margins have taken a historically lax approach to supply chain. The necessity was not there. However, as shown in table 9, operating margin is shrinking for all three companies in the peer group.

Now is the time for pharmaceutical companies to get serious about supply chain excellence. The pharmaceutical industry has two advantages here: small changes will have a large impact because of their low supply chain maturity, and by starting this journey late, they can learn and avoid the well-known mistakes of other industries. These pharmaceutical companies will likely never cope with the single-digit margins in automotive and 3PL organizations, but they can work to improve performance as their operating margin band shrinks. Small changes will have a big impact.

Recommendations

As companies prepare to tackle their operating margin performance, we offer these five recommendations:

- **Each industry has its own potential.** Operating margin is unique to each industry; and to a greater extent, each company. Cross-industry analysis can be insightful, but should be done with care. The realities of each industry create a range or band of operating margin values. Companies should work to improve their performance within that band given the limitations of the industry structure. Progress needs to be viewed over several years. It takes three to five years to see the true impact of a supply chain program.
- **Size matters.** Companies with a larger revenue base demonstrate higher operating margin values compared to their smaller peers. Along with the industry specifics, the size of the company will also determine to some extent the possibilities when it comes to operating margin performance. Focus on effective mergers & acquisition (M&A) activity to reverse the trend in falling operating margin.
- **Patience is a virtue.** Change, done right, comes slowly to supply chains. Large swings caused by changing priorities or mismanagement of metrics can be disastrous for supply chains. Instead, small consistent year-over-year improvements and commitment to a long term vision are the building blocks for improving supply chain performance. Supply chain leadership is measured in inches, not miles.
- **Supply chain excellence matters.** The companies with the greatest supply chain maturity have driven better results in both operating margin and inventory turns. Progress is measured in consistent year-over-year results. This financial performance is

only possible in coordination with clear supply chain strategy and consistency of leadership. At the end of the day, supply chain excellence matters.

- **Orchestrate end-to-end.** Traditional supply chain processes are stuck in functional silos. Hidden costs lie in the gaps between the silos. Less than 1% of companies have an end-to-end leader tasked with owning the supply chain from demand to supply. Use Table 5 to sort out your own opportunities when it comes to improving demand-and-supply orchestration.

Table 5. Demand-And-Supply Orchestration

Demand-shaping Levers	Importance	Performance
New Product Launch		
Marketing		
Sales Incentives		
Trade Promotions		
Distributor Incentives		
Assortment		
Price		
Run-out of obsolescence or mark-down strategies		

Market-driven Orchestration Levers	Importance	Performance
Price to Price Orchestration		
Alternate Bill of Materials		
Alternate Sourcing		
Change in Assortment		
Orchestration of Product Mix (Incent products with less commodity variability)		
Changes in Demand Shaping Strategies		
Commodity Hedging		

Conclusion

Operating margin is one of the most popular financial metrics when it comes to supply chain performance. Each industry has a range of possible operating margin and companies should focus on improving performance within their industry band. Finally, by aligning operating margin goals with supply chain and business strategy, companies can ensure their metric management is aligned with the larger goals of the organization.

Company Profiles

Company	Stock Exchange: Ticker Symbol	2012 Revenue (billions USD)	2012 Global Employees (thousands)	Country Where Based
DAIMLER Daimler AG	FWB: DAI	146.9	275.1	Germany
Ford Motor Company	NYSE: F	134.3	171.0	USA (Michigan)
GM General Motors Company	NYSE: GM	152.3	213.0	USA (Michigan)
HONDA Honda Motor Company, Limited	NYSE: HMC	100.7	187.1	Japan
TOYOTA Toyota Motor Corporation	NYSE: TM	235.4	326.0	Japan
VOLKSWAGEN AKTIENGESELLSCHAFT Volkswagen AG	FWB: VOW	247.6	549.8	Germany

Source: Supply Chain Insights LLC, Corporate Annual Reports 2012 from One Source

Company	Stock Exchange: Ticker Symbol	2012 Revenue (billions USD)	2012 Global Employees (thousands)	Country Where Based
BASF The Chemical Company BASF SE	FWB: BAS	101.2	113.3	Germany
DUPONT E. I. du Pont de Nemours and Company	NYSE: DD	35.3	70.0	USA (Delaware)
DOW The Dow Chemical Company	NYSE: DOW	56.8	54.4	USA (Michigan)

Source: Supply Chain Insights LLC, Corporate Annual Reports 2012 from One Source

Company	Stock Exchange: Ticker Symbol	2012 Revenue (billions USD)	2012 Global Employees (thousands)	Country Where Based
Apple Inc.	NASDAQ: AAPL	156.5	72.8	USA (California)
Panasonic Panasonic Corp.	TYO: 6752	99.4	330.8	Japan
SAMSUNG Samsung Electronics Co., Ltd	LSE: SMSN	178.5	90.7	South Korea

Source: Supply Chain Insights LLC, Corporate Annual Reports 2012 from One Source

Company	Stock Exchange: Ticker Symbol	2012 Revenue (billions USD)	2012 Global Employees (thousands)	Country Where Based
Colgate-Palmolive Company	NYSE: CL	17.1	37.7	USA (New York)
Procter & Gamble Company	NYSE: PG	83.7	126.0	USA (Ohio)
Unilever N.V.	NYSE: UN	65.9	172.0	Netherlands/ United Kingdom

Source: Supply Chain Insights LLC, Corporate Annual Reports 2012 from One Source

Company	Stock Exchange: Ticker Symbol	2012 Revenue (billions USD)	2012 Global Employees (thousands)	Country Where Based
Bristol-Myers Squibb Co.	NYSE: BMY	17.6	28.0	USA (New York)
Eli Lilly and Co.	NYSE: LLY	22.6	38.4	USA (Indiana)
Merck & Co., Inc.	NYSE: MRK	47.3	83.0	USA (New Jersey)

Source: Supply Chain Insights LLC, Corporate Annual Reports 2012 from One Source

Other Reports in This Series:

Supply Chain Metrics That Matter: A Focus on Retail
Published by Supply Chain Insights in August 2012.

Supply Chain Metrics That Matter: A Focus on Consumer Products
Published by Supply Chain Insights in September 2012.

Supply Chain Metrics That Matter: A Focus on the Chemical Industry
Published by Supply Chain Insights in November 2012.

Supply Chain Metrics That Matter: The Cash-to-Cash Cycle
Published by Supply Chain Insights in November 2012.

Supply Chain Metrics That Matter: A Focus on the Pharmaceutical Industry
Published by Supply Chain Insights in December 2012.

Supply Chain Metrics That Matter: Driving Reliability in Margins
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Supply Chain Metrics That Matter: A Focus on Apparel
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Supply Chain Metrics That Matter: A Focus on Contract Manufacturing
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Supply Chain Metrics That Matter: A Focus on the Automotive Industry
Published by Supply Chain Insights in October 2013

Supply Chain Metrics That Matter: A Closer Look at the Cash-To-Cash Cycle (2000-2012)
Published by Supply Chain Insights in November 2013

About Supply Chain Insights LLC

Founded in February, 2012 by Lora Cecere, Supply Chain Insights LLC is focused on delivering **independent, actionable and objective advice for supply chain leaders**. If you need to know which practices and technologies make the biggest difference to corporate performance, turn to us. We are a company dedicated to this research. We help you understand supply chain trends, evolving technologies and which metrics matter.

About Abby Mayer

Abby Mayer (twitter ID @indexgirl), Research Associate, is one of the original members of the Supply Chain Insights LLC team. She is also the author of the newly-founded blog, Supply Chain Index. Her supply chain interests include connecting financial performance and supply chain excellence, as well as talent management issues and emerging markets.

Abby has a B.A. in International Politics and Economics from Middlebury College and a M.S. in International Supply Chain Management from Plymouth University in the United Kingdom. She has also completed a thru-hike of Vermont's 280 mile Long Trail, the oldest long distance hiking trail in the United States. As part of the planning and food prep process, she became interested in supply chain management when she was asked to predict hunger pangs for the entire three-week trip before departure. If that isn't advanced demand planning, what is?!?!