

Conquering the Supply Chain Effective Frontier

A Handbook for the Value Chain Leader to Manage
Trade-offs in Defining Supply Chain Excellence

9/20/2012

By Lora Cecere
Founder and CEO

Supply Chain Insights LLC

Contents

- Research 2
- Disclosure 2
- Research Methodology and Overview..... 2
- Executive Overview 3
- Why it Matters 4
- What is Supply Chain Excellence?..... 4
- Comparison of Methodologies..... 9
 - Analyst Methodologies 9
 - Industry Benchmarking Data10
- Case Study On the Use of This Methodology.....11
 - Cash-to-Cash Comparison to Gross Margin12
 - Inventory Turns versus Revenue/Employee15
- Recommendations20
- Appendix.....21
 - Methodology.....21
- About Supply Chain Insights LLC.....22
- About Lora Cecere22

Research

This independent research is 100% funded by Supply Chain Insights and is published using the principle of Open Content research.

It is intended for you to read, share, and use to improve your decisions on the use of financial data to benchmark with your peers. When you use it, all we ask for in return is attribution. We publish under the [Attribution-Noncommercial-Share Alike 3.0 United States](#) Creative Commons License and the citation policy can be found on the [Supply Chain Insights website](#).

Disclosure

Your trust is important to us. As such, we are open and transparent about our financial relationships and our research processes.

Research Methodology and Overview

This report is based on analysis of financial balance sheet data for the period of 1995-2012 and qualitative discussions with supply chain leaders in supply chain strategy engagements. Detail on the calculations of the financial metrics and ratios used in the analysis are listed in the Methodology section in the Appendix.

Executive Overview

Supply chain practices are nearing their third decade of maturation. The term supply chain excellence is bandied about by leaders, consultants and technology providers, but there is no alignment on what it means.

Conventional systems of measurement for supply chain excellence are problematic. In this report, we share insights gained during interviews with 75 supply chain pioneers. Based on their feedback we created a new framework, that we define here as the Supply Chain Effective Frontier, for supply chain leaders to use to determine supply chain excellence. This methodology is based on publicly available financial balance sheet data grouped into four sets of supply chain ratios: growth, profitability, cycle, and complexity.

We believe that supply chain excellence is best defined as the alignment of the supply chain team to deliver results to meet and exceed the requirements of the business strategy. This requires a clear vision and cross-functional coordination and alignment over a multi-year road map. It needs to be holistic. A supply chain is a complex system with increasing business complexity. The analysis needs to facilitate a clear understanding of trade-offs embedded in day-to-day decision making. It is this clarity that we find missing in many teams that we work with, and it is for this reason we wrote this report.

This framework is evolving. For the past four months, using these ratios, we have been plotting industry peer groups to understand the evolution of supply chain excellence in the period of 1995-2012. Our learning curve has been steep, and the work has been intense.

In this report, we do not pretend to have all the answers; but we want to share the insights that we have currently to help mature the methodology and advance the discussion of supply chain excellence. In this report we share the methodology, our insights from the interviews, and apply the concepts to an industry peer group.

Why it Matters

Supply chain leaders want a yardstick. They seek a measurement system to judge how well they are doing. There are two sources of data in the industry: analyst comparisons of Fortune 500 companies and benchmarking data. Both are problematic. In this report, we share how supply chain leaders can use readily available financial data to benchmark their supply chain to overcome these issues.

What is Supply Chain Excellence?

We believe that the definition of supply chain excellence is the alignment of source, make, sell and deliver processes to maximize the business strategy. It starts with a clear definition of supply chain strategy implemented over multiple years. It needs to be an end-to-end vision measured by financial results.

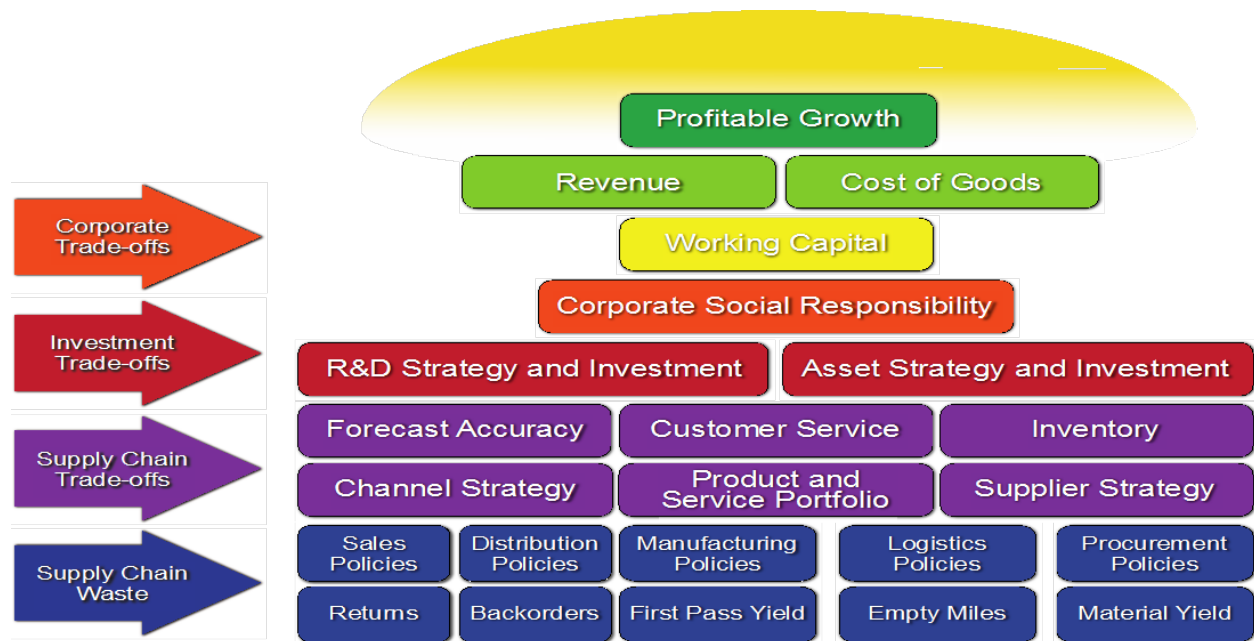
*No real impact can be made in a supply chain in less than three years.
It takes time.*

*Marty Kisliuk, Director of Global Operations and Business Development,
FMC Corporation Agricultural Products Group*

It is easier said than done. Supply chains are complex systems with complex business processes with increasing complexity. As a result, supply chain excellence needs to be viewed as a set of trade-offs. Leaders make these consciously, while laggards let the supply chains whip them around. These trade-offs form the effective frontier—defining supply chain potential—for the supply chain team. Assuming that the goal of the team is profitable growth, figure 1 reflects the Supply Chain Effective Frontier.

In value chain design, these trade-offs need to be managed vertically and horizontally while recognizing the supply chain as a complex system. In our work on supply chain strategy, we find that most companies recognize increasing business complexity without recognizing the supply chain as a complex system. The gap in understanding this fundamental concept is a barrier to achieving supply chain excellence. In multiple quantitative surveys, we find that the executive leadership team's lack of understanding of supply chain fundamentals ranks as one of the top three problems for supply chain teams today.

Figure 1. The Supply Chain Effective Frontier

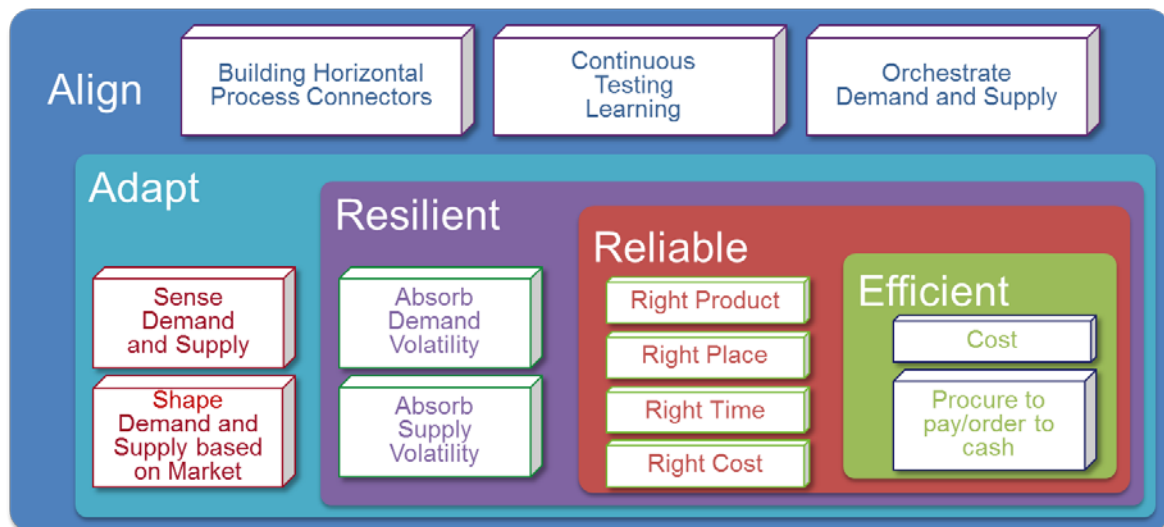


Supply chains need to be fit for purpose. They need to be designed. Many are inherited. It starts with goal clarity. The outcome cannot be broad-brushed in a simple maturity model. As shown in the Supply Chain Effective Frontier framework it needs to recognize the impact of corporate trade-offs, business investment strategies, supply chain trade-offs and the degree of complexity in business policies. These together form the system definition of the Supply Chain Effective Frontier.

While students of economics might caution that this is the efficient frontier, we have consciously chosen not to define this as the *“Efficient Frontier.”* Companies have traditionally defined the most efficient supply chain as the most effective supply chain with the lowest cost per unit. It is our belief that the most effective supply chain is not always the most efficient. As outlined in figure 2, and based on our study of 30 years of supply chain growth and evolution, we believe that companies transition through five stages of maturity:

- **Efficient Supply Chain.** A singular focus on the lowest cost per unit by means of “sweating assets” and driving down costs/unit. Companies on this progression will quickly find that the supply chain is out of balance, and that this singular focus will drive up total organizational costs, increase working capital and decrease customer service reliability. Companies early in their understanding of supply chain management are largely in the Pharmaceutical and Retail industries.

Figure 2. Definition of Supply Chain Excellence



- Reliable Supply Chain.** In the definition of the reliable supply chain, asset utilization and supply chain costs are aligned with customer service goals to drive the processes to deliver the right product, at the right place at the right time while delivered at the right cost. For students of supply chain management, this constitutes the basic “Rs” of traditional supply chain management. Companies with this level of understanding are typically found in mid-market Food & Beverage, Wholesale Distribution, and Industrial Chemical.
- Resilient Supply Chain.** In the design of the resilient supply chain, the network is configured to absorb demand and supply variability. This includes form and function of inventory, definition of supplier development relationships, postponement strategies, flexible manufacturing, and alternate modes of transportation. This is often seen as the adaptive supply chain. One that can deliver the same cost, quality and customer service given demand and supply fluctuations. Companies at this level of maturity are typically in Consumer Packaged Goods and High-tech and Electronics.
- Adaptive Supply Chain.** The adaptive supply chain, often termed demand driven, senses channel fluctuations and translates these changes into market drivers through demand sensing and shaping. This requires the transformation of sales-driven or marketing-driven approaches to be more demand-driven to define business policies to focus on “selling through” versus “selling into” the channel. A focus on value based outcomes affects business policies for customer relationships. This understanding is only currently understood by a select few supply chain leaders. Examples include Cisco Systems, Samsung, and Procter & Gamble.

- **Aligned Supply Chain.** The aligned supply chain is built on horizontal processes that can align the supply chain's bidirectional shifts in both demand and supply. This requires the orchestration of demand and supply. Orchestration is the adoption of buy- and sell-side policies based on market drivers of demand, price and business strategy. This orchestration of policies affects demand shaping strategies and buy-side procurement strategies. This level of maturity is largely aspirational. The issues with rising commodity costs, and the evolution of new forms of predictive analytics, will push the definition of supply chain excellence toward market-driven value networks over the course of the next five years.

Each stage is a prerequisite for the next. As a result, a company cannot move from one stage to the next without competency in the prior. However, in the progression, companies should exercise caution. Most companies are still wrestling with the fundamentals of the reliable or resilient supply chain, and as a result, should see the definition of demand-driven and market-driven value chains as aspirational. Each company moves at its own pace.

Likewise, there is no one standard prescription for improvement. Each company is at a different point of maturity and understanding. However, we find that few companies use financial balance sheet data as a litmus test of supply chain excellence. It is the goal of this report to give supply chain leaders a methodology to better use financial data to understand supply chain excellence based on these frameworks.

It is our belief that best-in-class supply chains have five characteristics:

- **Clarity of Supply Chain Strategy.** When we talk to leaders, it is clear: Supply chain matters. There is a clear understanding of how supply chain drives the business strategy and how these decisions impact financial results. When we talk to supply chain laggards, and show them this methodology, they hang their heads and admit that they have not thought about it holistically. Many struggle to understand balance sheet metrics stating that they need a “refresher course.”
- **Consistent Year-over-Year Improvements to Peer Group.** A supply chain leader improves the supply chain with a focus on continuous improvements in driving year-over-year results. There is consistency in direction despite market factors while balancing trade-offs.
- **Balance.** It is our belief that supply chain leaders need to balance four factors: growth, profitability, cycles and business complexity. Through process improvement, a leader improves the capability and the performance of supply chain while

maintaining balance. We believe that the financial ratios outlined in Table 1 are a good starting point for this analysis.

- **Understanding of the Complex System.** The ability to manage policy, rewards and measurement as a complex system with a focus on balance defines the supply chain leaders. These leaders can separate discussions on supply chain complexity from the drivers of business complexity. This holistic system thinking is a characteristic of supply chain leaders.
- **Supply Chain is Business.** For mature companies, the discussion of supply chain's role in the business is not an issue. For laggards, there is a posturing for supply chain recognition and earning the right to have these discussions. In mature organizations, the supply chain is more than a cost center to squeeze. Instead, the supply chain is seen as a driver of business strategy. In these organizations, there is a close relationship between the supply chain finance team and the supply chain business leadership team to improve performance. Supply chain leaders are able to talk the language of business with a focus on serving the larger organization.

Table 1: Useful Supply Chain Ratios from Financial Balance Sheets

Growth	Profitability	Cycle	Complexity
R&D Margin	Cash on Hand	C2C Cycle	Altman Z
R&D to COGS Ratio	Free Cash Flow Ratio	Days of Finished Goods	Capital Turnover
SGA Margin	Gross Margin	Days of Inventory	Current Ratio
SGA/COGS	Net Profit	Days of Payables Outstanding	Quick Ratio
COGS as Percent of Net Sales	Operating Margin	Days of Raw Materials	Return on Assets
YoY Sales Growth	Pretax Margin (EBIT)	Days of Sales Outstanding	Return on Equity
	Operating Margin	Days of Work in Progress	Return on Invested Capital
		DPO/DSO	Return on Net Assets
		Inventory Turns	Revenue/Employee
		Receivables Turns	Cost of Sales

The use of financial ratios to evaluate supply chain performance eliminates the issues of comparison due to company size and currency. They are readily available and well-defined.

We also believe that comparative financial balance sheet data is underutilized. It is hard to get. To complete this analysis, Supply Chain Insights built a database of relevant financial ratios outlined in Table 1 to be used in supply chain comparative analysis.

Comparison of Methodologies

The development of the effective frontier methodology is the outcome of work with many clients on supply chain benchmarking and watching the maturation of the market. There are currently two methodologies to judge supply chain performance: analyst methodologies and peer benchmarking. So, you might say, why create a third? It is our belief that there needs to be a methodology to overcome the fundamental issues with the two existing methods in the market today.

Analyst Methodologies

In the last five years, industry analysts have attempted to define methodologies to evaluate supply chain excellence. The most widely known is the AMR Research Top 25 now owned by Gartner and renamed the Gartner Top 25. It has now been refined through eight cycles of data. It was a good starting point.

The Gartner Top 25 attempts to rate companies cross-industry based on a three-year comparative analysis of growth, inventory and return on assets (ROA) augmented by peer ratings and industry analyst insight. This analysis has three limitations:

- **Limited View.** It is an analysis of Fortune 500 and Global 2000 companies. As a result, it is an exclusive club. Mid-market and smaller companies want to know how they stack up. The methodology is not applicable to them.
- **Benchmark Data.** The study focuses on a three year weighted average of financial data and is augmented by peer group and analyst input. It is our belief that three years of performance data are just the tip of the iceberg. We believe that true supply chain excellence happens over many years.
- **Peer Group.** The fundamental flaw of this methodology is the peer group. Supply chain leaders just do not believe that putting all supply chains in a spreadsheet and shaking them up helps the industry at large. We do not believe that the comparison of a high-tech supply chain to a retail supply chain to a chemical supply chain is relevant. Each supply chain has different market drivers and the comparison of potential should be limited to the specific peer group.
- **Bias.** The methodology is biased to high-tech and electronics companies. Asset intensive supply chains will never measure up using this methodology. By definition, the methodology penalizes the in-sourcing of manufacturing and process-intensive industries.

Industry Benchmarking Data

As companies mature, they want to know how their supply chain compares to others. They turn to their friends in the industry to understand what is possible. They want to know whether they are getting better or worse and what good looks like. They are hungry to know if they have reached their supply chain potential. While this sounds simple, the answers to these questions are not easy. The ability to get comparison data on supply chain performance is easier said than done.

These services have primarily focused on the reporting of forecast accuracy, inventory data and customer service performance. Companies in self-reported data have a tendency to overstate performance, and there is a lack of consistent industry definitions to ensure apples-to-apples reporting.

While there are many services in the market that have evolved to share benchmark data, there are five fundamental flaws that cannot be overcome.

- **Self-reported Data.** The issue of overstating results is a monumental challenge for widely available benchmarking services.
- **Consistent Definitions.** When it comes to supply chain benchmarking, the basics matter. Definitions, granularity and frequency of the process need to align for the data to be relevant. Industry standard definitions do not exist.
- **Common Data Model.** To be useful in benchmark comparisons, the planning systems need to have similar data models. Few companies have implemented planning in a similar enough manner to facilitate peer group benchmarking. For most, this is overlooked.
- **Timeliness.** One of the issues with benchmarking is timeliness. Data gathered in inconsistent snapshots—once or twice a year—is not useful. There needs to be a regular, standardized system of reporting.
- **Peer Group.** An essential element to getting useful benchmark data is having a comparable peer group. In most systems, it is very difficult to get relevant data for a peer group.

After considering all the available options in the market, and judging them against these pitfalls, we believe that the only source of reliable supply chain data with standardized reporting is financial balance sheet ratios. It is for this reason we applied the supply chain financial ratios to the Effective Frontier Framework in figure 1.

Case Study On the Use of This Methodology

Since the graphing of these results can be complex and hard to read, we show how this methodology can be applied by sharing two intersections of the data for consumer products companies in a time-series analysis. The evaluation is of five companies **Colgate, Kimberly Clark, Kraft, Procter & Gamble** and **Unilever** for the period of 2000-2012. The evaluation is broken into time increments of:

- **2000-2003: Dawn of Supply Chain Strategy.** During this period, we saw the evolution of Supply Chain process teams, the automation of B2B processes, the beginning of global expansion and the building of global supply chain teams. Software systems were evolving and processes were in flux from recent implementations and the recovery from Y2K. This was the starting line for many companies in their journey on delivering supply chain excellence.
- **2004-2007: Global Expansion.** In this period, we saw the development of global teams, the maturation of modern trade policies in Europe and North American and the establishment of customer teams. This period also gave birth to global commodity buying practices and the establishment of teams to manage procurement through aggregate buying strategies. During this period, each company's network became more complex and products proliferated. Most were not ready for the shock wave of the Great Recession.
- **2008-2012: Great Recession and Recovery.** Starting in 2008, companies experienced the shock waves of the great recession and rebounded. This was also a time of transition. The first generation of supply chain talent passed the baton to the second and the focus moved to the definition of network relationships and the automation of the value network to align with corporate social responsibility initiatives.

As shown in Table 2, the companies in this case study vary in size, number of employees and geographic location, but each of the companies built a global supply chain team and focused on serving the consumer products market with comparable products in the timeframe studied.

Table 2: Comparison of Consumer Products Companies

Logo	Name	2011 Revenue (millions USD)	Number of Employees (2011)	Country
	Colgate-Palmolive Co.	16,734	38,600	USA (New York)
	Kimberly Clark Corp.	20,846	57,000	USA (Texas)
	Kraft Foods Inc.	54,365	126,000	USA (Illinois)
	The Procter & Gamble Co.	82,559	129,000	USA (Ohio)
	Unilever N.V.	64,610	169,000	Netherlands & UK

Source: Supply Chain Insights LLC, Corporate Annual Reports 2011

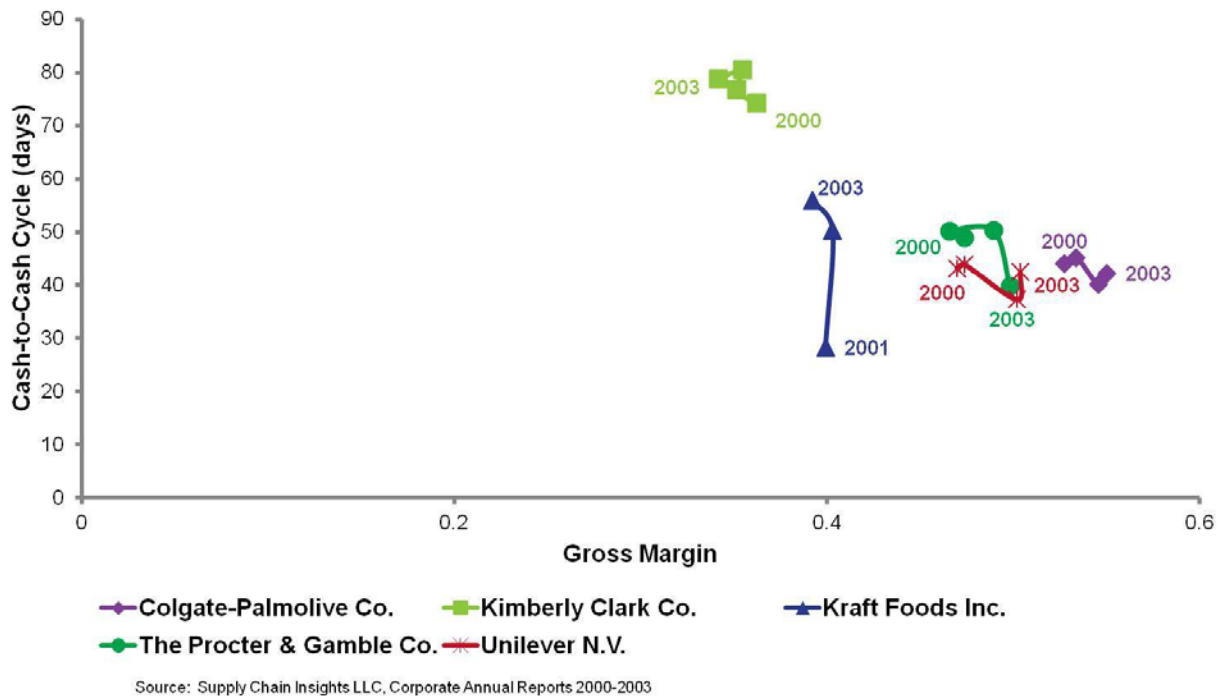
Cash-to-Cash Comparison to Gross Margin

Ask any supply chain leader if they care about “cash-to-cash cycles” and “gross margin” and you will get violent agreement that they both matter. But, if you ask them how they perform against their peer group for year-over-year performance on the effective frontier, they just do not know the information. Cash-to-Cash is a cycle metric while Gross Margin is a metric of profitability. In this case study, we show how this comparison can help a supply chain team.

1. Cash-to-Cash Cycle versus Gross Margin 2000-2003

At this point in the evolution of supply chain maturity, the five companies in this case study are closely clustered with Colgate showing an advantage in gross margin performance. All of the companies listed in figure 3 have gone through major implementations of Enterprise Resource Planning (ERP) and Advanced Planning Systems (APS) technologies. Each has a similar technology system. Only Procter & Gamble has improved cash-to-cash cycles through the implementation of technology.

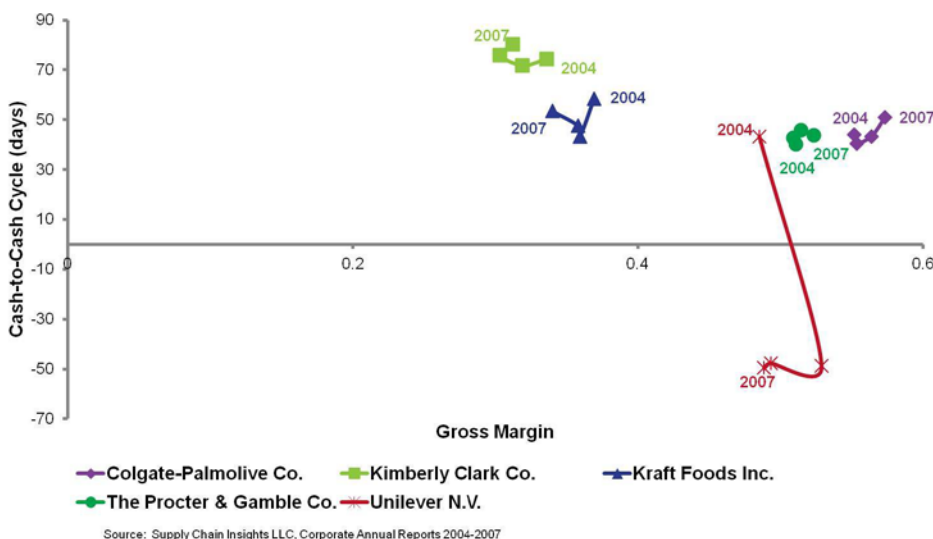
Figure 3. Cash-to-Cash Cycle versus Gross Margin 2000-2003 for Consumer Product Leaders



2. Cash-to-Cash Cycle versus Gross Margin 2004-2007

In this period, Colgate maintains a leadership advantage in gross margin with a strong focus on maintaining gross margin while maintaining cash-to-cash cycles despite the proliferation of products. P&G absorbs Gillette with a slight increase in cash-to-cash cycles. The cash-to-cash cycles for Kraft improve slightly, but gross margin declines as Kraft begins the spin-off of the company from Altria. Unilever redefines procurement practices and drives down cash-to-cash cycles.

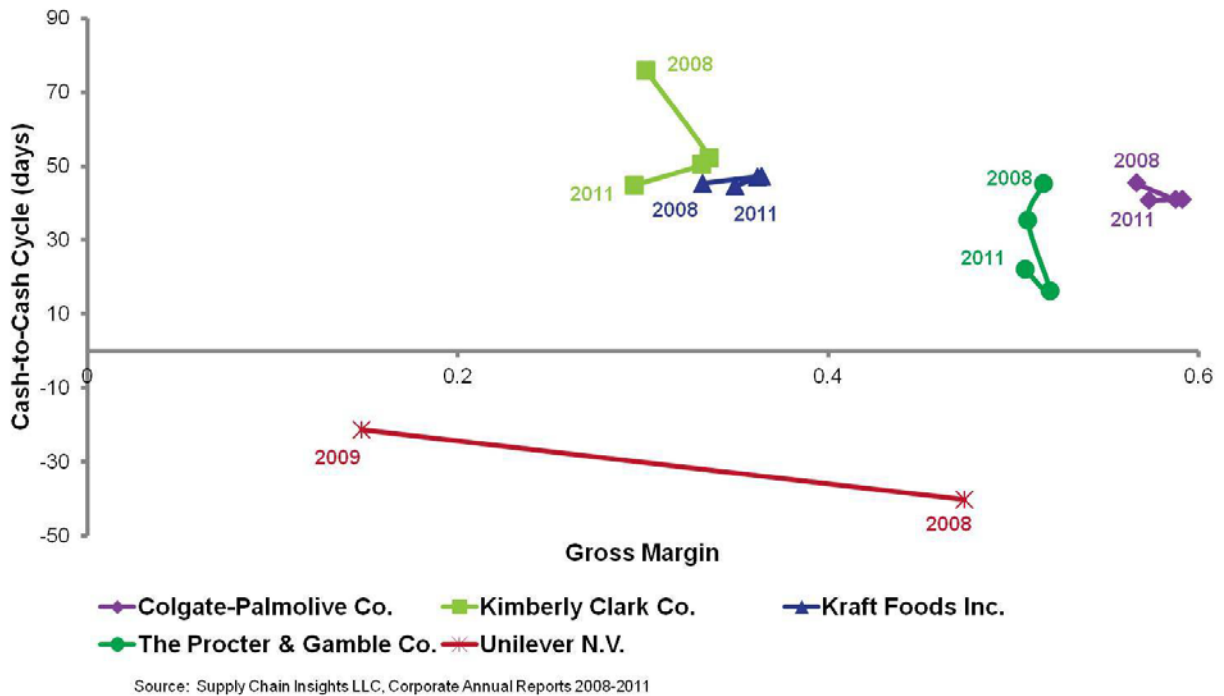
Figure 4. Cash-to-Cash Cycle versus Gross Margin 2004-2007 for Consumer Products Leaders



3. Cash-to-Cash Cycle versus Gross Margin 2008-2012

In this period, Unilever is hit the hardest by the recession with a serious decline of gross margin. Coordination of regional supply chains becomes more difficult with multiple changes in leadership and direction. Kimberly Clark builds capabilities to improve cash-to-cash cycles with a slight decline in gross margin, while P&G makes steady improvements in cash-to-cash cycles while maintaining margin.

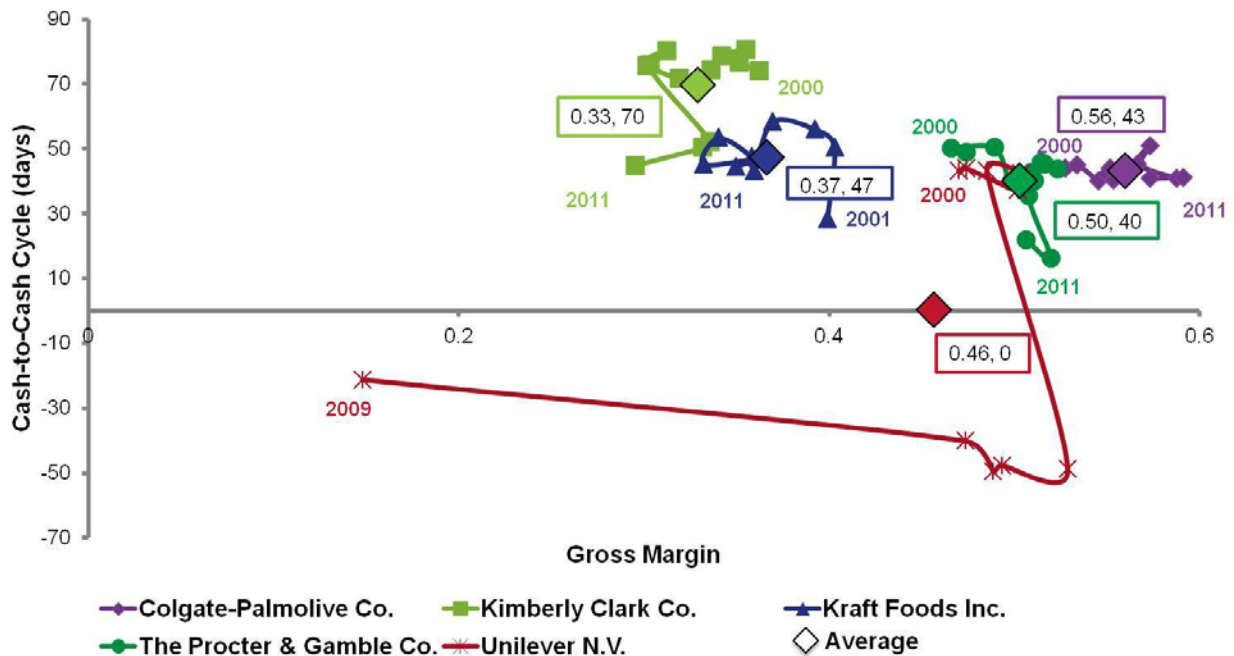
Figure 5. Cash-to-Cash Cycle versus Gross Margin 2008-2012 for Consumer Products Leaders



4. Cash-to-Cash Cycle versus Gross Margin Summary

The summary of twelve years is shown below with averages indicated by diamonds. If only looking at this intersection of financial metrics, you might reward Colgate or P&G as the best supply chain, but before crowning the winner, we believe that it requires further analysis of the Supply Chain Effective Frontier.

Figure 6. Cash-to-Cash Cycle versus Gross Margin Summary Consumer Products Leaders



Source: Supply Chain Insights LLC, Corporate Annual Reports 2000-2011

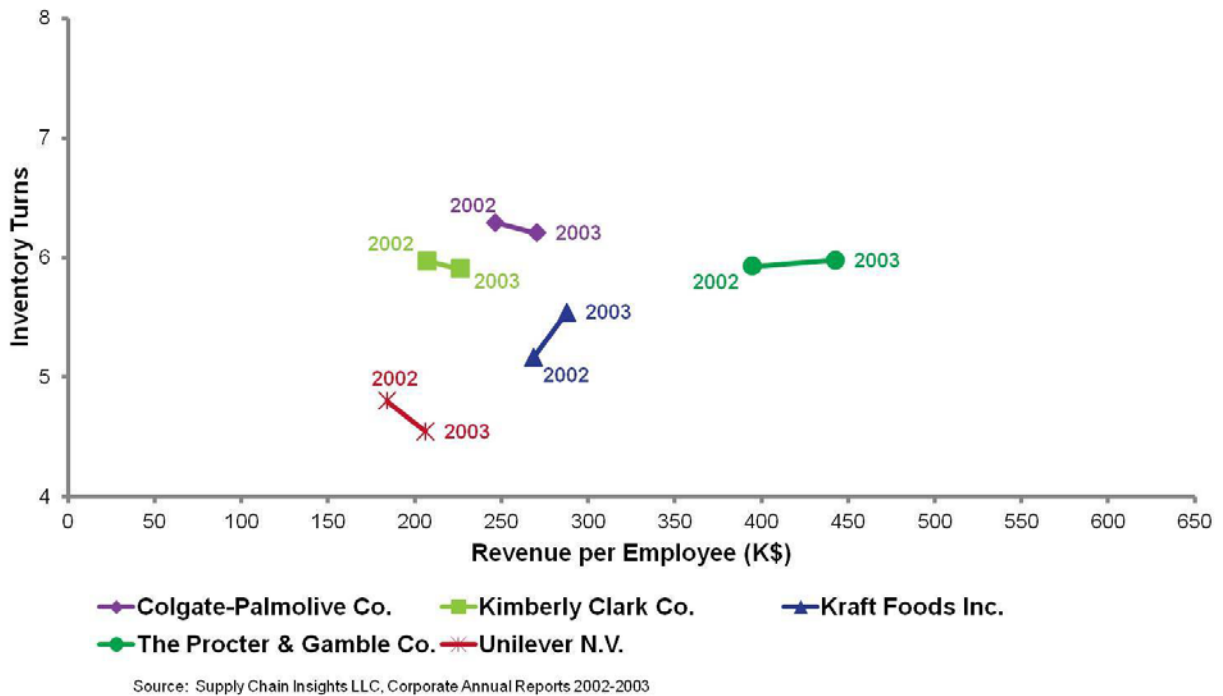
Inventory Turns versus Revenue/Employee

Inventory turns is a cycle metric while revenue/employee is a complexity ratio. While companies have talked about the management of inventory, inventory turns for the consumer products industry as a whole has stalled. Taking a look at performance at the intersection of these two metrics, we see a very different story than the intersection of cash-to-cash cycles and gross margin shown above.

1. Inventory Turns versus Revenue/Employee 2000-2003

With the implementation of new systems and the establishment of the global footprint, P&G takes an early lead in revenue/employee and continues this lead through the decade. While Colgate shows early progress in inventory turns, they are unable to sustain a competitive advantage. Kraft is unable to show steady progress against the goal, and Kimberly Clark improves performance over the last two years.

Figure 7. Inventory Turns versus Revenue/Employee 2000-2003 Consumer Products Leaders

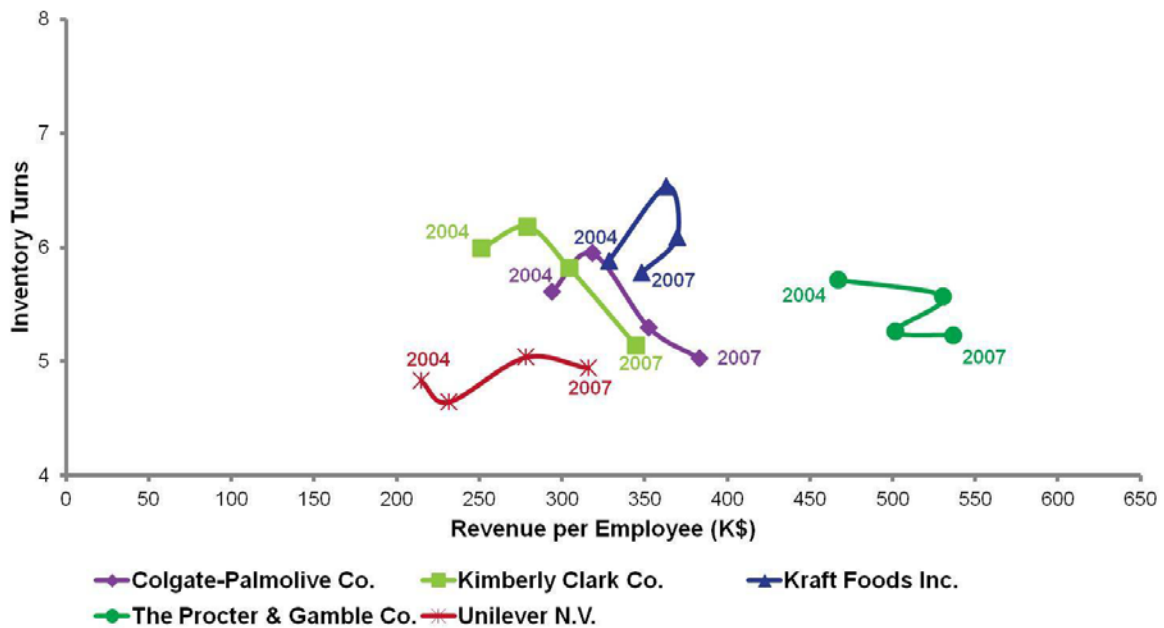


2. Inventory Turns versus Revenue/Employee 2004-2007

With product proliferation, and the beginning downturn of the economy with the early impact of the recession, all companies are unable to maintain progress on working capital.

Unilever's definition of regional supply chains with high autonomy and the regional brand presence puts it at the bottom of the pack. Procter & Gamble's acquisition of Gillette slows the company's progress on inventory and working capital.

Figure 8. Inventory Turns versus Revenue/Employee 2004-2007 for Consumer Products Leaders

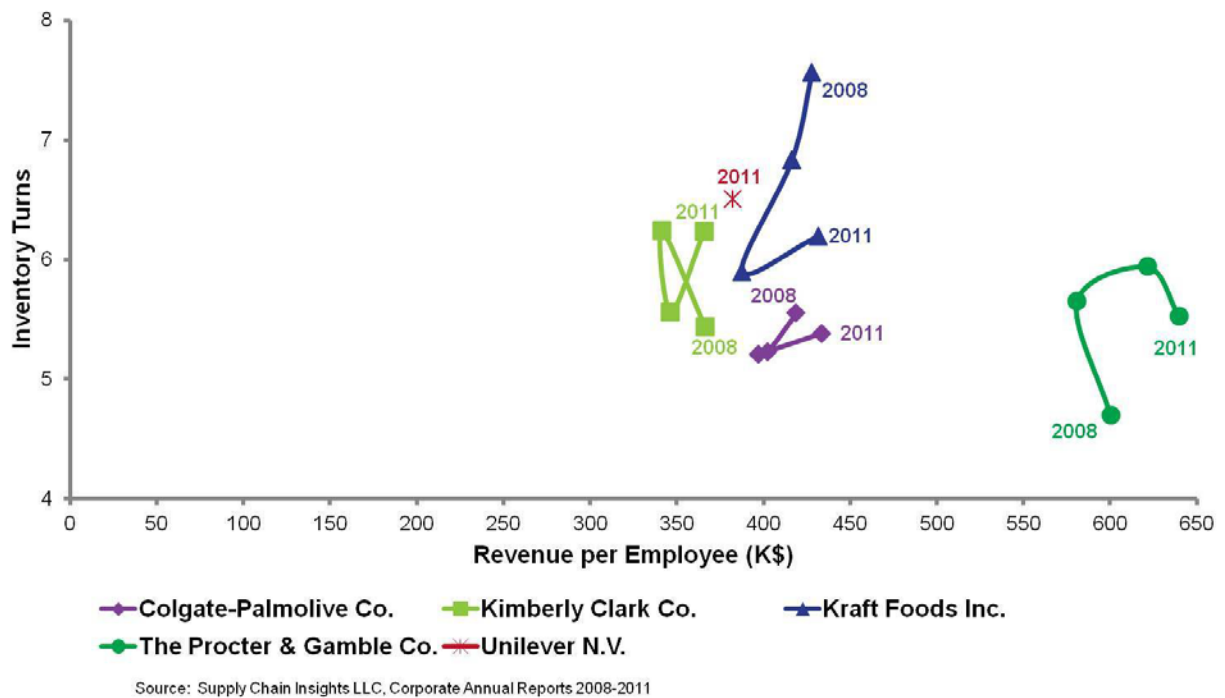


Source: Supply Chain Insights LLC, Corporate Annual Reports 2004-2007

3. Inventory Turns versus Revenue/Employee 2008-2012

In this period, Procter & Gamble was able to drive new levels of inventory turns through the implementation of demand sensing and advanced inventory optimization technologies. Kimberly Clark adopts similar strategies and drives similar results two years later. Kraft, while having the technologies, loses focus and attempts to absorb the Cadbury acquisition. The company goes through many changes in supply chain leadership with inconsistent progress. Colgate remains focused and makes small improvements.

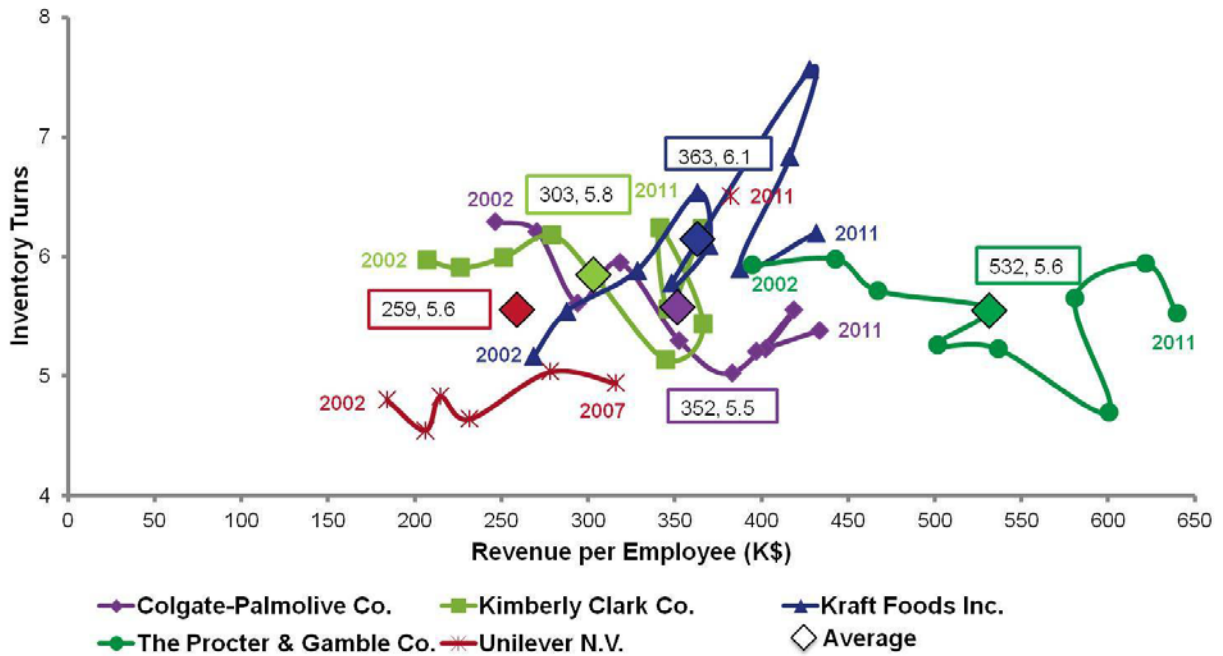
Figure 9. Inventory Turns versus Revenue/Employee 2008-2012 for Consumer Products Leaders



4. Inventory Turns versus Revenue/Employee Summary

Procter & Gamble has the strongest year-over year performance out performing peer group at this intersection of the Effective Frontier. Inventory turns push upward with a decline during the absorption of the Gillette acquisition. Kraft makes year-over-year progress on inventory turns and revenue/employee, but is not able to make as much progress as shown above in the gross margin/cash-to-cash analysis. Colgate, while the leader in gross margin, is unable to improve inventory turns or match the peer group on revenue/employee. Unilever lags the peer group with a much lower performance in inventory turns and revenue/employee.

Figure 10. Inventory Turns versus Revenue/Employee 2002-2011 for Consumer Products Leaders



Source: Supply Chain Insights LLC, Corporate Annual Reports 2002-2011

So, in driving performance improvements at the intersection of the effective frontier, from the analysis of balance sheet data, we believe that P&G outperforms their peer group over the course of the last decade.

Through the use of this case study, it is our goal to give insights on how to use the methodology. This methodology can be applied easily to your peer group by requesting the data at the [Supply Chain Insights Community](#).

Recommendations

While we have discussed supply chain excellence for the last 30 years, the definition is not clear and the current work in the market muddies the discussion. We believe that supply chain teams need to become a better business partner through the use of financial data to benchmark supply chain performance.

Using this methodology, push the team to improve year-over-year performance through a multi-year phased plan. Use the Supply Chain Effective Frontier to guide the trade-off discussions and judge success through the evaluation of financial metrics. Begin this activity, by identifying the peer group and understanding your supply chain potential. Evaluate the ability of the supply chain to withstand demand and supply shocks and learn from the patterns. Build a multi-year road map to align the organization and help guide the supply chain team on how to best make trade-offs on the Supply Chain Effective Frontier.

Appendix

Methodology

Formulas used on the financial data and supply chain ratios in this report are listed in Table 3.

Table 3: Definitions of Supply Chain Ratios Readily Available from Financial Balance Sheets

Growth	Profitability	Cycle	Complexity
Cost of Goods Sold to Revenue Ratio (cost of goods sold)/ (revenue)	Cost of Goods Sold¹	Cash-to-Cash Cycle Days of inventory + days of sales outstanding (receivables) - days of payables outstanding	Altman Z *8 variable equation for predicting corporate risk
R & D Margin (1- (R & D spend/revenue))	Free Cash Flow Ratio (free cash flow)/ (revenue)	Days of Inventory (average inventory/cost of goods sold) * 365	Current Ratio (current assets)/ (current liabilities)
R & D to COGS Ratio (R & D spend)/ (cost of goods sold)	Gross Margin (revenue-cost of goods sold)/(revenue)	Days of Payables Outstanding (accounts payable/ cost of goods sold) * 365	Quick Ratio (current assets - inventories)/ (current liabilities)
SGA Margin (sga)/ (revenue)	Net Income¹	Days of Sales Outstanding (accounts receivable/ revenue) *365	Return on Assets net income/ total assets
SGA to COGS Ratio (selling, general & administrative costs)/(cost of goods sold)	Operating Margin (operating income)/ (revenue)	Days of Payables Outstanding to Days of Sales Outstanding (days payables outstanding)/ (days sales outstanding)	Return on Equity (net income)/ (shareholder's equity)
Year-over-Year Sales Growth (revenue year y - revenue year x)/(revenue year x)		Inventory Turns (cost of goods sold)/ (inventory)	Return on Invested Capital (net income- dividends) /(total capital)
			Return on Net Assets (net income)/ (fixed assets + net working capital) Revenue per Employee (revenue)/ (employee count)

¹Cost of Goods Sold and Net Income reported directly from the balance sheet.

About Supply Chain Insights LLC

Supply Chain Insights LLC (SCI) is a research and advisory firm focused on reinventing the analyst model. The services of the company are designed to help supply chain teams improve value-based outcomes through research-based Advisory Services, a Dedicated Supply Chain Community and Web-based Training. Formed in February 2012, the company is focused on helping technology providers and users of technologies improve value in their supply chain practices.

About Lora Cecere



Lora Cecere (twitter ID [@Icecere](#)) is the Founder of [Supply Chain Insights LLC](#) and the author of popular enterprise software blog [Supply Chain Shaman](#) currently read by 4500 supply chain professionals. Her book, **Bricks Matter**, publishes in December 2012.

With over eight years as a research analyst with **AMR Research**, **Altimeter Group**, **Gartner Group** and now as a Founder of Supply Chain Insights, Lora understands supply chain. She has worked with over 600 companies on their supply chain strategy and speaks at over 50 conferences a year on the evolution of supply chain processes and technologies. Her research is designed for the early adopter seeking first mover advantage.