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# Three Ways To Leverage Your Time

Here's a three-point analysis that helps you to get the biggest bang for your supply chain management buck

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**I**N MANAGING SUPPLY CHAINS, less is usually more. It's all in the "view-to-effort ratio."

I'm reminded of when our children were young, and my wife and I would take them hiking in New Hampshire. We rated hikes by their view-to-effort ratio. It turned out that

careful upfront homework made a big difference in the quality of the experience.

The same time-honored principle applies to the supply chain. When I talk to supply chain executives about their jobs, they usually are focused on two areas: managing day-

to-day operations, and implementing a few far-reaching initiatives. What's often missing is a systematic analysis of what will produce the most impact for the least amount of scarce resources, chiefly management time. This analysis constitutes the view-to-effort ratio that conveys maximum supply chain leverage.

### Three points of greatest leverage

When I hark back to my experience teaching Supply Chain Management at MIT and consulting with dozens of companies over the past 20 years, three points of leverage continually emerge as keys to the highest supply chain view-to-effort ratios: 1) order pattern; 2) product lifecycle loss exposure; and 3) gross margin per order line. Interestingly, in many companies these three points aren't explicitly managed. Let's examine each in greater detail.

#### 1. Order pattern

Demand variance, a company's order pattern, has a huge impact on supply chain cost structure. If the variance is high, inventories must be kept at high levels, delivery route structures become unstable and costly, efficient warehouse handling patterns are disrupted, and costly expediting of inbound supplies often must take place. The company's suppliers experience a parallel set of problems, often compelling them to break production schedules to resupply important products to important customers.

Taming a company's order pattern at first may seem like a daunting task. There are two reasons for this. First, most companies have thousands of customers and tens of thousands of order lines. Where do you start? Second, orders reflect customers' needs, and a supplier's job is to meet customers' needs. Right?

Wrong on both counts. In several projects, I worked with companies to drill down and really understand their order pattern, especially the source of variance and its relationship to costs. We were searching for the precise points of leverage that would yield the maximum impact for our change management efforts.

In one representative project, we created a two-by-two matrix. Along one axis, we divided the customers into core vs. non-core accounts, with the former being major accounts, and the latter smaller accounts. On the other axis, we divided the company's products into core vs. non-core SKUs. Core SKUs were generally fast-movers plus some critical products. Non-core SKUs were generally slower-movers.

When we looked at the company's supply chain costs, a

significant majority resided in the core-core quadrant. Importantly, when we looked at the order pattern, only 10% of the core customers were generating most of the order variance. A startling finding emerged: by changing the order pattern of only 3% of the products ordered by about 3% of the customers, we could reduce the company's supply chain costs by over 30%.

But doesn't the customer need products when it orders them? To explore this, we actually visited a dozen of the core customers with high demand variance. What we found was amazing: the customers actually didn't know they were ordering so erratically, and they were appalled when we showed them the order pattern. They understood that erratic ordering was as costly for the customer as it was for the supplier. The root causes varied, from inexperienced demand planners, to uncovered vacation schedules, to poorly calibrated software. When we reviewed the causes with the customers, every customer readily made the needed changes.

The cost of the changes needed to reduce supply chain costs by over 30%? Nearly zero. All it took was a careful search for the point of maximum supply chain leverage, and some thoughtful analysis.

#### 2. Product lifecycle loss exposure

Most companies have product lifecycle loss exposure of some kind. This can occur in technology companies with new generations of products, and in consumer product companies and retailers with seasonal stocking patterns. In most companies, careful product lifecycle management makes all the difference between total product lifecycle profit or loss.

The CEO of a major retailer recently observed to me that products produce virtually all of their profits in the first 90 days of the lifecycle, and the product managers' skill over the remaining four to six months of the lifecycle determines how much of this profit remains.

Some companies have seen the potential impact. For example, Dell has developed a finely honed process for late product lifecycle management. Dell has done the same thing on the cost side. Because Dell has no component inventory, it can take immediate advantage of the component cost reductions as the components ride through their own product lifecycles.

Late product lifecycle management is amenable to careful analysis. Yet how many companies do this well? In several projects, we looked at late product lifecycle cost exposure. We found that different types of products in dif-

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ferent selling situations had significantly different probability of markdowns.

For example, in a project in a major retailer, we found that the vast majority of late product lifecycle inventory markdowns occurred in predictable situations, chiefly certain smaller stores. Large stores are like big rivers: if you stock the wrong product, it quickly gets flushed through the system. But smaller stores are like small streams: if you stock the wrong product, it clogs the store for a long time. This has a doubly problematic impact. Not only is the product ultimately marked down, but it also keeps “hot” new products off the limited shelf space. The solution was to determine how to draw down late lifecycle stocks much earlier in exposed stores, in a sort of reverse product roll out.

In most companies, there is enormous leverage from analyzing precisely where and when high levels of product lifecycle loss exposure occur, and putting those situations under the microscope. Managing these situations is fundamentally different from managing less sensitive, earlier lifecycle situations. In all too many companies, however, these highly sensitive, high-risk situations are simply managed by product/demand planners in an all-the-same manner as just another node on the product/location inventory matrix.

### 3. Gross margin per order line

The third point of supply chain leverage is gross margin per order line. This is the prime driver of profitability in most companies.

Over the past 20 years, I’ve analyzed the profitability of a number of companies in a variety of industries, ranging from hospital supplies to food and beverages to telecommunications to steel to auto accessories. In every company, I found that 30-40% of the company’s business is unprofitable by any measure (customers, suppliers, orders, order lines). At the same time, 20-30% of the company not only provides all the company’s profits, but cross-subsidizes the losses on the unprofitable portion as well. The rest of the company’s business is marginal at best.

It turns out that supply chain management is a critical element in turning this around.

In these studies, the most important underlying factor that determined profitability was gross margin per order line relative to the supply chain cost structure. The gross margin of an order line must be high enough to absorb all related supply chain costs, to contribute positively to operating profit. It is only when you assign supply chain costs to

order lines that order line P&Ls reflect the true profitability of the order line. Focusing on gross margin before these costs are applied misses the often-substantial supply chain cost burden.

This seems simple and obvious, yet how many companies carefully analyze this measure? In a representative project, we extracted a file of order lines covering a period of a few months, and attributed costs to each order line. We then analyzed the sources of unprofitability and the payoff from several remedial actions. This whole process only took a few months on a PC.

We were able to identify the customers and products where gross margin per line was systematically less than the line costs. It turned out that there was a very clear pattern of identifiable “repeat offenders.” When we explored remedial measures, it turned out that two or three carefully targeted initiatives were surprisingly practical and cost-effective at reversing this problematic profitability.

Importantly, repricing and squeezing suppliers weren’t the answers. Targeted supply chain measures, such as differentially managing the order frequency and order cycle times for problematic customers, had a huge positive impact on profitability.

### The big question

In gross margin per order line management, as in order pattern management and product lifecycle loss exposure management, the view-to-effort ratio is enormous. Moreover, the resources required for huge impact are usually minimal. The payoff comes from upfront identification of the points of highest leverage, thoughtful analysis, and highly focused management measures. The big question for a supply chain executive is whether your team is working on your highest-payoff set of opportunities.

By carefully analyzing your key points of supply chain leverage, you can produce maximum impact, often with relatively little resource cost and organizational disruption. ♦

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Reprint # P0603B