IDEA
rethinking retail

The Illusion of Service Levels in the 98th Percentile

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How good is good? If your company is crowing about order fill rates of 98%, recognize you have an opportunity. For a number of reasons, which are detailed below, accepting such service levels means missing significant net profits and customer satisfaction. Read on for a conservative estimate of the lost profits. Customer satisfaction is the bellwether of future opportunity. Failure to exceed customer expectations limits your company's ability to grow its market share.

So far, the case has been about companies whose results would be described as relatively good. There may be readers whose employers fair more poorly. Some of these companies do not meet reasonable financial goals. Other may lose money and sales, much of the time. The approaches suggested herein apply across the boards to all companies, with the exception of those rare few that have achieved perfection.

The environment caused by shortages creates a "Catch 22." That is, the more shortages, the more rushing to fill orders causes a hectic environment. The more hectic the less a firm is able to avoid shortages. Expediting product is expensive and becomes more commonplace as the vicious cycle revolves. For all the efforts companies put forth and for all their money spent, consumers still find shelves empty more often not less. Why do things seem to get worse the harder we work?

Let's begin with how we measure shortages. The typical mechanism is to measure the amount of goods on backorder. As we have said, companies that are reasonably well run experience shortages of 2-3%, when measured in this fashion. That is, 97-98% of the time orders are filled from stock, meeting the customer need.

Does this measurement give us an accurate picture? Consider these points:

- Do customers always complain when they don't find what they are looking for?
- On the occasions when they do complain, is an entry made into the system documenting that an order was missed?
- Is the magnitude of a purchase that was not made always known?
- If a customer requests a new item which your company must make or source, do lost sales get counted, even if no order is ever placed?
- Is the shortage metric different if a customer never buys your product again?
- What is the impact on the measurement of shortages if a reseller of your product drops the product because they find it too difficult to depend on you?
- When inventories are already too high to justify a broader line, does the shortage metric give any indication of the sales missed due to too narrow an offering?
- Are sales lost due to delayed new product introductions captured?

Most of the situations listed above are not captured in shortage reports. In other words, our shortage measurements are way too low. How many orders do we really miss?

Rather than try to answer that question theoretically, it is easier to cite specific examples (see appendix). Companies that solve their shortage problem by having inventory in the right place, at the right time, find that sales increase 20% or more when they were only measuring shortages in the 2% range. Wow. That means conventional shortage measurements are understating the actual impact on sales by 10 times or more!

The financial impact is tremendous. The majority of companies could produce or sell more, if only they had customers willing to buy – but they do – the customers that go away disappointed due to unavailability. Most companies have the capacity to handle more sales with their existing staff and facilities. In other words, much, if not all, of a 20% sales increase could be handled without an increase in operating costs.

Let's calculate the improvement in net profits. (See Table 1 below.) Let's say raw materials are 70% of sales. Add 20% to current sales. Increase cost of sales and gross margin by 20% as well. If there are other items that vary directly with each dollar of new sales like commission, raise them by the same percentage. Remember we are already paying for these sales, so there is no increased operating expense. The increase in net profits is a whopping 5% of today's sales, that is an increase of 250%! What would such an increase in return do to the value of your company's stock?

(All Percentages are of Today's Sales)	Today's Business	Available Business	New Totals
Sales	100%	+20%	120%
Cost of Sales	70%	+14%	84%
Gross Margin	30%	+6%	36%
Freight/Commission	5%	+1%	6%
Operating Expense	23%	-	23%
Net Profit	2%	5%	7%

Table 1

What caused the "Catch 22" in the first place? Why do things get worse the harder we work? Today, businesses concentrate too much on cutting costs. We read about layoffs in the papers every day. The staff reductions slash the capacity which was historically used to respond to urgent customer needs. The results are short term profits. Long term, there is less ability to serve and retain customers. Profits will decline, calling for more cost cutting. Obviously, we created the cycle.

IDEA's proven methods have been used on behalf of many companies to reduce unavailability by an order of magnitude. We know sales increases of this size are possible because they are typical of actual results. Companies need to understand the importance of increasing sales and customer satisfaction and the way to increase fill

rates while reducing overall inventory levels. Of course, reducing operating expense is important. It is just far less important than increasing the contributions from sales and reducing inventory levels.

Appendix

A Few Companies who have benefited from using our method, Elucidate to improve availability:

Company	Sales	Due Date Performance	Inventory Reduction	Revenue Increase	Year Imple-mented
Adidas, Europe, Middle East, N. Africa	$10 billion	95% improvement	50%	100%	2006
Avery Dennison, CA	$3 billion	88% improvement	50-75%	10%	1993
The Bell Group, NM	$100 million	28% improvement	0%	100%	1997
Brenco, VA	$130 million	To 98%	29%	40%	1996
Dixie Iron Works, TX	$20 million	50% improvement	80%	Net profit 4X	1996
Grand Rapids Spring and Wire, MI	$12 million	58% improvement	30%	100%	1991
Nat'l Semiconductor, CA	$2.5 billion	35% improvement	20%	30%	2000
Premark Food Group, KS	$2.7 billion	80% improvement	0%	200%	1990
Shippers Supply Co, KY	$36 million	60% improvement	55%	50%	2005
Tessco Technologies, MD	$13.8 billion	88% improvement	18% increase	26%	2002

IDEA'S WAY OF THINKING

- *Neither an accurate forecast nor changing vendors is required for success*
- *There is a way to both increase sales and reduce inventory*
- *Supply chains sell less when clogged with inventory*
- *In the long term, unless the supply chain sells more no link can sell more*
- *We must help clients gain buy-in internally and with supply chain partners*
- *The majority of our fees are based on improved return on inventory*

IDEA'S METHOD

- *Verify the existence of inventory imbalances and the benefits of moving from a "Push" to a "Pull" system*
- *Gain top management buy-in to the assessment and support of the approach*
- *Build knowledge and understanding across the supply chain, at all levels*
- *Utilize systems that deliver actionable information, integrated with existing software*
- *Work with you until expected results are achieved*
- *Share the tools and know-how to continually improve results*

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