The Illusion of Service Levels in the 98th Percentile

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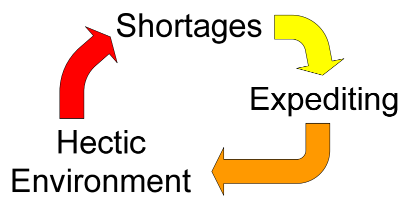
How good is good? If your company is crowing to customers about order fill rates of 98%, recognize you have an opportunity. For a number of reasons, which are detailed below, accepting such service levels means missing significant net profits and customer satisfaction. Customer satisfaction is the bellwether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

My title refers to companies whose results would be described as relatively good. There may be readers whose employers fair far more poorly. Some of these companies do not meet reasonable financial goals. The approaches suggested herein apply across the boards to all companies that hold inventory.

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 the company is able to avoid more 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 define how we measure shortages. The typical mechanism is to measure the number of products on backorder. As we have said, companies that are 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 a good sense for the damage? 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?
- Doesn't the shortage metric improve if a customer never buys from you 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 stocking a broader selection, 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?
- Does a shortage of an item that sells 10 times more than average count 10 times as much as a shortage of a slower mover?
- Isn't it true that faster moving products run out more often?

The situations listed above are not captured in shortage reports. In other words, the shortage metric underestimates the damage. How many sales 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 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 did – the customers that went 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. Say raw materials are 70% of sales. Add 20% to current sales, cost of sales and gross margin. If there are other expenses that vary directly with each dollar of new sales like commission, raise them by 20 as well. Remember, we already pay for these sales, so there is no increased operating expense. Net profits jump a whopping 5% of today's sales. That is an increase of 250%! What would such an increase in net 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%	No change	23%
Net Profit	2%	5%	7%

IDEA's proven methods have been used on behalf of many companies to reduce shortages by a factor of ten. We know such sales increases are possible because they are typical of actual results. Companies should understand the importance of increasing sales and customer satisfaction and the way to increase fill rates while reducing overall inventory levels.

If you are a little curious, ask us to simulate what your results would be using your own data. There is no charge for the service and no obligation.

Appendix

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

Company	Sales	Availability Performance	Inventory Reduction	Revenue Increase	Year Imple-mented
Adidas, Europe	$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 & 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	60%	50%	2005

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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