Retail – Getting Rid of Shortages and Surpluses

By Rudi Burkhard

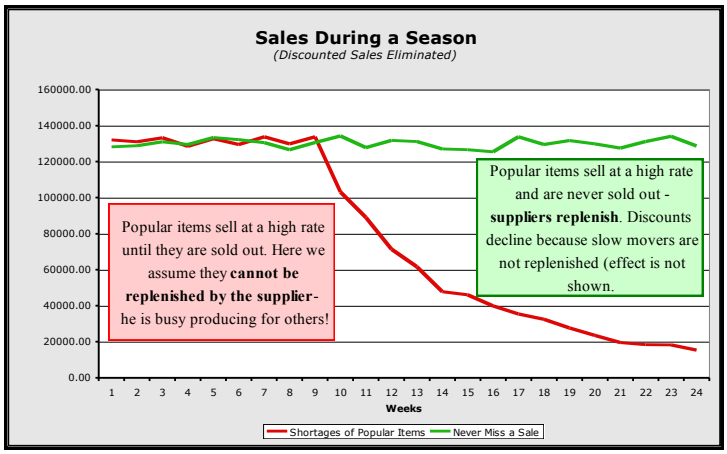
Surplus stock has always been a problem for retailers and their suppliers. Nobody yet knows how to forecast what the consumer will buy next season. If we knew how to forecast accurately, nobody would have end of season discounts or factory outlets. Surpluses are, today, a fact of life for almost any distributor or retailer. How much of a season’s purchase do retailers have to discount? 30%? 50%?

Wouldn’t it be nice to have only about 10% left that needs to be discounted? To do that a retailer must not buy what the customer is not going to buy. Why can’t we do that?

There are already enough product shortages in stores, so causing more of that is not the solution to reduce discounting. Retailers don’t know the extent of the damage shortages cause. Some products sell out quickly – and these are celebrated as great successes. But retailers often forget to count the missed sales. If a product sells out after 2-months of a 6-month season, how much more of that product could the retailer have sold? Could he have sold twice as much, three times, or even more? What is the damage of missed sales? Remember, **the entire** margin of every missed sale disappears from the retailer’s bottom line!

Wouldn’t it be nice to never miss a sale, or at least cut missed sales by half or more?

Let’s build a simple model. The retailer buys 20 products at the beginning of the season for the whole season. He does not know how much the demand for each product will be, so he buys 100k of each. As luck would have it 6 products are ‘dogs’ – only 30% of the volume is sold at full price. 8 products are OK – 78% of are sold at full price. The remaining 6 are sold out in 2.5 months – implying that the retailer could have sold 140k more of each of these products (but he had only 100k).



Modeling the situation results in the sales curves described in the chart to the left. Every retailer will have a somewhat different picture – depending on his ability to replenish during the season and the popularity of his products. In my chart the RED line declines more or less continuously as popular items disappear from the shelves. They start to disappear in week

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9 (there may be some residual sales). From then on the next most popular item disappears in the following week until only those products are left that will supply the season’s end discount sales! The bigger the gap, the greater the damage of missed sales and the greater the potential if the retailer can eliminate or reduce shortages. At least in my picture the potential is enormous. Lets see how much this could be worth.

Overall the retailer has to discount (in our example) 30% and he has missed 840k of full price sales! What does this mean? The table below shows the effect – of not missing any sale (discounts have not been reduced). In the table I assumed that the 30% that is discounted has an average of a 40% discount. In reality this number will be between 100% (the article doesn’t sell) to articles that need only a 10 or 20% discount. Play with the numbers – assume an average discount rate you are comfortable with.

		"Planned" Sales	70% Full Price Sales	30% Discounted Sales*	Total Actual Sales	Missed Sales	What Could Have Been
Sales Volume	000 Units	**2000**	1400	600	**2000**	**840**	**2840**
Price	€/Unit	**10.00**	10.00	6.00	**8.80**	**10.00**	**9.15**
Sales Revenue	000€	**20000**	14000	3600	**17600**	**8400**	**26000**
Variable Cost	000€	**9000**	6300	2700	**9000**	**3780**	**12780**
Contribution	000€	**11000**	7700	900	**8600**	**4620**	**13220**
Margin	%	**55%**	55%	25%	**49%**	**55%**	**51%**
Fixed Cost	000€	**7900**			**7900**	**0**	**7900**
Profit	000€	**3100**			**700**	**4620**	**5320**
	%	**16%**			**4%**	**55%**	**20%**

*Discount is assumed to be an average of 40% on all discounted prodocts

The 840k (missed sales) are also just an assumption. In my model I assumed that the top articles are so popular that the shops could have sold 2.5 times as many. In reality this will vary a lot from retailer to retailer and season to season. We know its going to happen and experience tells us its usually big. Determine the (popular) articles missing from stock and for how long they are missing and create your own number to estimate missed sales.

The damage can be and usually is enormous. If we could just cut the damage in half, our profit margin would be almost 15%.

The damage to the supplier in our example is 3780k€ of sales (the variable cost of missed sales for the retailer). If the supplier’s variable margin (materials cost) is 50% then he has lost almost 1.9m from his bottom line. Wouldn’t a supplier that helps his retailers avoid surpluses and shortages get a greater share of the retailers’ business?

Wouldn’t it be worthwhile to invest some money to capture sales retailers miss today?

Retailers can quite easily check for shortages. Just list and keep track of all articles missing from shops’ shelves. Whether they make only one or several purchases for a season knowing what and how many articles are sold out is quite a good indication of

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missed sales. It won’t tell the whole story, but it will tell us a lot nevertheless. (The analysis cannot tell us the impact of promoting the less popular products on the sales (or potential sales) of the really popular items.) If the analysis shows products disappearing from inventory and sales statistics early in a season, then (a lot of) sales are likely missed. (Stores that have taken appropriate action to eliminate missed sales have seen 30-70% increased sales!)

The example is for fashion or similar retailers. However other retailers that do replenish stocks in their stores can easily make the same analysis and see whether they have the similar problems. The picture will look different, but there is still a good chance of (considerable) missed sales due to shortages.

Retailers apparently have a problem, but how can they fix it? Suppliers demand huge order quantities to try and offset the low prices retailers demand with a lower cost structure from big batches. Retailers demand low prices to counter the impact of surpluses and the season end discounts they must give. The solution seems to be obvious – pay a little more and get regular replenishments based on actual sales. Avoiding missed sales is so valuable that some extra cost is well justified.

The same concept will reduce discounting. Since products are being replenished according to actual sales there will not be that much left over for discounting. On top of that, special promotions of slow movers will be drastically reduced. Stopping promotions will also eliminate their effect on the popular items. (Promotions take up the best store space – where the popular items should be).

Clients will learn that some retailers always have the good (desirable) stuff in stock. Wouldn’t this have a strong positive effect on consumer traffic and push our retailers sales up even further?

The strategy must be: Popular products are always on shelves throughout the season, and slow movers disappear from shelves early in the season. (The opposite of what often happens today!)

Products must be replenished regularly and according to the rate of actual sales. Using actual sales to steer production (and inventory in the supply chain) results in near 100% availability of stocks to support sales of popular items and the reduction of stocks and discounting of slow moving items. We know it can work; the only thing against the retailer is common industry practice.

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Common practice is to order huge batches for the entire season and hope that the forecast was correct. Common practice stems from the need for the lower costs big batches promise – production units don’t see the cost of discounting and shortages. Production units with their pressure on cost and their distance from the market can see only the demands (low price) of their clients and their big batch solution to cost (switching a production unit from one product to another costs ‘Chinese’ money and possibly set-up time). Apologies to China – what is meant is the fact that switching costs are a function of how a business allocates costs. Fixed costs do not change just because of some additional set-ups for product changes. There will be some cost in material losses due to more frequent changes.

Production units have to fill their capacity. A big batch now is better than a lot of promised smaller batches some time in the future, if sales are good. Better the bird in hand versus the two in the bush is the normal reaction that prevents a proper partnership to replenish what sells and avoid production of unpopular items.

Production units don’t realize that the majority of their production is not needed now – a lot of product they produce is wasted – discounted or even thrown away. Smaller batches make capacity available to service other customers at the start of a season. Smaller batches result in repeat business throughout the season – keeping the load on the factory high and much more stable. Smaller batches are more profitable for producers too – even if they don’t get higher prices from their clients. Capacity is used much more effectively throughout the year instead of in big peaks just before the selling season.

Frequent replenishment throughout the season has advantages for everyone – the retailer, the producer, the supply chain, the client and our environment.

Season-end sales are still desirable – but as a market segmentation tool and not to get rid of over-stocks. At this time we want to capture those people that cannot afford the higher prices – but by using a different product. Sales items should not cause consumers to delay their (full-price) purchase to get a lower price and they should not impact next season’s sales either. We really only want those customers that cannot buy at full price.

Modern ERP systems and modern telecommunications make it possible. A producer anywhere in the World can know today whatever his client sold in all his stores yesterday. Knowing that is the first step. With this information the producer can know exactly how much to produce of each product … a lot of the popular products and nothing of the slow movers. A little bit of sophistication will manage all inventories correctly, will manage the retailer’s shelf space and will manage the phase out period at the end of a season.

A high percentage of shortages can be avoided. Avoiding only half is already very powerful. Go for it!

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