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DE-STRESS TO DELIVER

Size Does Matter!

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The fashion industry has a holy grail of "size sets" or "ratio packs"

The standard pre-defined assortments of goods that are used for production and logistics. To understand this: when an article is conceived for the range of the company, considering that the customers require a size that fits them, the same article (design, colour) is manufactured in all the size options (XS, S, M, L, XL and so on, or sizes – 28, 30, 32, 34 and so on).

Since the distribution of human population is not equal across physical attributes, the industry cannot manufacture the same quantities of each size (the number of XS, S, M, L, XL people is not equal!). This is the "etymology" of the size set. The set is supposed to be designed after careful analysis of population distribution. It is almost a normal curve distribution with many quantities of some regular sizes and very few of the extreme sizes (too big or too small). For example a set of a garment design might have many numbers of sizes M or L and very few of sizes XS on one side of distribution and size XXL on the other extreme. This distribution supposedly reflects the overall population distribution of the sizes. So a typical ratio pack of, say, a T Shirt design may have 1 x XS, 2 x S, 3 x M, 3 x L, 2 x XL and 1 x XXL.

So far so good?

Now let us look at the problem

A visit to any retail outlet will tell us that stock-outs at size level are significant. It is not surprising to find out that the size for specific design selected by you is not available. Of course the sales person tries his best to shift your interest to a different design. Many a times the customer shifts and many times does not. So end of the season what is left over is not only odd designs but also odd sizes.

Why do you think this happens?

There are two factors at play here. One is the fact that though over all population distribution may follow the normal distribution curve for variation sizes, the sales of a particular do not necessarily obey that distribution! After all consumer choice is an enigmatic subject. The assumption that for 3 Medium sized people who buy the Pink chest print T shirt with white collar, there will two XL people and 1 XXL person buying is not true. Reality tells us that at a shop and at a day to day level the arrival can be very erratic. The fluctuations at a shop level much more than what is seen at a large population level. We can suddenly have too many people of a specific size walk in causing a stock out while the other sizes lie as inventory. But that still does not explain stockouts and surpluses, right?

The second factor at play here is the practice of the fashion industry to produce and supply only in size sets or multiples thereof. This means that the plants will produce in mutiples of size sets and if a retailer has to buy, his minimum lot of buying is one full size set.

The combination of these two factors creates the problems for the entire supply chain. What prevents a retailer to order fast selling designs? It is the fear of getting stuck with the odds. So even when a design is selling fast and some sizes are stocked out, the retailer may not re-order out of the fear that when he gets a full size set, he will be saddled with more of the sizes which are not

selling currently. The damages of lost sales, high inventory and discounted sales look significant. Then why is the industry stuck in the inertia of selling in fixed lots?

Maybe it has to do with internal production considerations. While most machines need a set up change for a design change, they invariably do not need a set up change for a size change. For example if we take the case of fabric weaving, the set up is high between design changes but not much for colour changes within a design. Similarly for a garment making, the setups are high for moving over from one design to another. The same is the case of shoe making. So, for machine efficiency considerations, it is better to take a design and complete all the sizes in one go.

The strategy of selling to distribution points in predefined sets is not only due to an erroneous statistical assumption that a smaller sample will exactly mimic the distribution of a large sample but further reenforced due to internal efficiency considerations.

But if we look at the end of season sales – we see odd sizes of designs left behind while there is a stock out of running sizes. What if the production capacity was used up to produce more of the running sizes instead of it being wasted for making the non-running sizes? Yes it may increase the setups as the manufacturing planning has to focus on design-size instead of just designs. But is Set Up time a waste? Well, by not, manufacturing as per the selling sizes and forcing design sets in supply chain; we are actually increasing the wastages of the system (more inventory and loss sales). So it seems that selling as per predefined sets not only is statistically erroneous but also bad for internal efficiencies.

The solution? Extremely simple now!

While the first lot of goods that arrive in stores must be for a each size (or one full size set if you will), the subsequent supplies should be strictly as per consumption. The replenishment (whether it is from production or warehouses) should be at a size level and not a size set level. This will ensure that sales loss is eliminated by always having all the sizes in stock and at the same surplus inventory is limited by not supplying those sizes that are not selling. A true win win!

Of course it will call for changes in the ERP system, policies that govern production and shipping and full detailing and buy in of this solution by all stakeholders of the company, but the results are dramatic.

Some of Vector's clients have seen stockouts reduce from typical 25-30% to less than 5%, a sales growth of about 25% and at the same time reduction in "ends of range" and discounts at the end of the seasons.

The key insight that these companies have realised is that it is not the manufacturer, but the market which decides the size set and the size set for each variant could be different (depending on how the customers take to the product). So in stead of guessing or force fitting a pre-conceived offering to the market, if the company subordinates to the customer choice, it can capture full sales potential and yet not suffer the ills of high inventory.