



Panic Buying and the Bullwhip Effect

I had a conversation with a friend of mine this morning. He was wondering why the store shelves are devoid of toilet paper, since all the production facilities are working around the clock to produce it. Naturally, it comes down to the panic buying, or 'hoarding' that has been going on for the past few weeks.

But that begs the larger question of the supply chain ramifications of this abnormal buying activity. It is causing an erratic demand pattern. This erratic demand pattern, as it works backwards in the supply chain (or 'upstream') to retailers, distributors, manufacturing facilities, Tier 1 suppliers, and Tier 2 suppliers, will amplify and reverberate as it works upstream, so the manufacturing facility's demand will be far worse than the erratic demand we are seeing at retail; and the manufacturing facility's suppliers' demand plan will be even worse. This is known as 'the bullwhip effect', where an ever so slight change at the consumer level will have a much more significant impact as it works its way backwards to distributors, manufacturers, and then suppliers. The farther upstream you are in the supply chain, the bigger the amplification. Think of holding a whip- you don't need a lot of effort to get it started, but the end of the whip will have a much more significant gyration than the handle of the whip that you are holding.

Pricing strategies at retail (coupon drops, 'buy one, get one free' promotions, etc.) exacerbate the curve. These strategies don't really drive more consumption, but they do change buying patterns. That is why some stores - most notably supply-chain savvy WalMart - have smartly moved

to an 'everyday low pricing' strategy, which dampens the demand variation, thus dampening the overall bullwhip effect.

What is interesting, in the example of toilet paper, is that there really is no real change in day to day consumption. We are most likely not using more toilet paper each day in our households, but we have introduced these wild demand swings into the demand plan. Compare that to masks, or maybe hand sanitizers, which are seeing true increases in demand. It will be much more difficult for companies that produce and distribute these items to understand the Coronavirus impact on consumption, than it will for the toilet paper companies. For TP, it's simply hoarding with no increase in consumption; but for the masks and hand sanitizers, it's hoarding as well as increase in consumption.

So what will this mean a year from now? Most likely the toilet paper supply chains will have been able to identify and strip out the impact of the hoarding. These supply chains will likely snap back to efficiency with relative ease. However, the mask supply chain partners, and the hand sanitizer supply chain partners, will struggle to correctly identify true demand and will probably take much longer to stabilize their supply chain and their resulting financial performance.

Just my two cents.