# Product Availability: The Study of Filling Shelves

**With the advent of e-commerce, products often being just a “click away”, and customers being offered a vast amount of choices, perhaps today more than ever, it is highly important for retailers to have products on their shelves in order to keep up with competition.**

Most likely, you have been in the situation where a purchase has been anticipated with excitement, only to go to the store and find out that the product is not there. If you’re lucky, the next store in line has what you’re looking for, and your day is saved. The manager of the first store, however, might not be as happy, because she has just lost a customer.

You leaving the first store is not an unusual behaviour. Researchers have for several decades studied customer behaviour as a response to stock-outs in stores, and it is known that, if a customer both dearly wants a product and that product is available in another store, the customer will most likely leave. A customer is more reluctant to leave if he cannot easily find the product elsewhere, because of store or brand loyalty, or because he has found a substitute within the same store.

From the perspective of the retailer, although it is important, having products on the shelves is not just something that happens automatically. In fact, much can go wrong both in the store and throughout the supply chain. Knowing what in the end causes empty shelves, and what to do to avoid such a scenario, is also a research topic in its own right.

Looking mostly at retailers of fast moving consumer goods (FMCG) – your ordinary supermarket – many researchers have found that the main issues lie in the store. The stores seem to show lacking capability in predicting demand, managing shelf space, replenishing products from the “backroom”, and placing correct orders.

Suppose you’re going to buy a kitchen, having planned the purchase for two months. The day comes when you’re ready to go to the store, but those lovely knobs going so well with that door are out of stock. Except for potential frustration, it might cross your educated mind to think “they probably have backroom issues… or they just didn’t think of ordering enough this week.”

Well, as a matter of fact, a lot of the research findings on FMCG can probably be applied to most retailers.

Not without caution, however.

A recent case study (by the authors of this article) on a global leader in home furnishing, suggests that the structure and processes of the retail supply chain must be considered when looking to find root causes of stock-outs. It might not be as easy as saying it happens “in-store” or “pre-store”, without knowing who in the chain does what, when and how. As an example, in the home furnishing company, supplier issues in terms of insufficient capacity and non-communicated product defects, were perceived as causes that had high negative impact on availability. The same study also highlights that improved communication with, and creating ways for working towards the same goals as all the actors in the supply chain, are keys of making it on a long term. General research in the field of supply chain management agrees with this.


There is an issue, though.

As a retailer, there is the question of knowing how much stock to keep. Having too little might risk losing customers to competitors; having too much can be costly as there might be unsold products that both take space and risk to become obsolete.

In other words, if the retailer has a strategy of being cost-efficient, cutting costs to increase profit or offer products to a lower price, aiming to maximise product availability can lead to friction. Not just because always keeping products highly available might add to the cost of holding more stock, but also because the whole supply chain might need to become more flexible, which in theory is limited by efficiency (and the other way around).

Indeed, some authors argue that, for some products, it is beneficial to have stock-outs, as it can create to the customers a sense of rarity, which may be associated with good quality. At the very least, though, researchers mostly agree that companies should aim towards finding a balance, not just maximise availability, as not all products can be justified to be held in large quantities, neither from a cost efficiency or customer satisfaction perspective.

Unless the wonders of technology enable retailers to ensure availability without keeping physical stock in (or somewhere reasonably close) to the stores, it is therefore important for companies to come to grip with how availability should be treated; whether a decrease of cost-efficiency can be accepted for the sake of availability, or if it would not make a greater difference to their business with a certain amount of existing shortages.

*Written by:* **Drilon Polozani** & **Gabriel Vojin,** *both M.Sc. in Supply Chain Management*
*June 2017*