

# Overcoming the complexity barrier //

By Chris Allan, Chief Strategy Officer, Quantum Retail

## Retail continues to evolve

Technology today provides retailers with the tools to tackle the massive scale and complexity of their businesses. From supply chain management to pricing optimization, retailers have access to a wealth of point technology solutions. Thanks to these new tools retailers have seen impressive efficiency and profitability gains. Continuous refinement and development of technology means that retailing will continue to evolve, but is that progress going to be fast enough? Could it be that there is a better way about to emerge? Are today's retailers ready to overcome the complexity barrier in order to enjoy the benefits of a new and better way?

The current use of centralized systems and processes means that most retailers have to work with aggregated information, months in advance, and miles away from the action. Planners utilize historical data which can be as old as two or three years, a timeframe during which the industry landscape is likely to have altered dramatically. While these strategies do help, they cannot take into account rapid changes in consumer behavior, the altering strategies of competitors and the evolution of product ranges. With systems and strategies defined by historic data, retailers are making key planning and forecasting decisions on the basis of where they lost sales and profit in the past. They are looking back at the money they have lost.



Out of stocks still cause customer dissatisfaction; unproductive inventory still causes unrealized sales and profit, and disparate processes and goals still cause retailers to miss business expectations. Complex systems lead costs to rise and productivity to fall.

The way in which current systems are configured makes it seemingly impossible to ever make improvements to a supply chain process without extensive cost, or the entire chain grinding to a halt. Yet the end-goal for retailing has never changed: "to continually achieve the merchandising goal for every product at every store." At present, by the time there are real reports to analyze at SKU/store level it is too late.

Eliminating out of stocks remains as elusive as the goal of zero excess inventory. However, what if there were a technology available that allowed planners, demand forecasters and supply chain professionals to seamlessly increase the efficiency of their operation without disrupting existing operations?

Retail is just as reliant on developing technology as any other industry to drive positive change and help improve efficiency. An innovative new approach exists with the ability to bridge the gaps between assortment planning and inventory execution and to make new impacts into the core competitive challenges facing retailers today. It takes a fresh look at what data is gathered and

analyzed; how it is analyzed and when it is analyzed. This new approach enables retailers to make both tactical and strategic changes that dynamically tune to strategic business objectives.

## Assortment planning and inventory execution

Assortment planning is aimed at maximizing return on investment, through planning sales and inventory in order to increase profitability. It does this by maximizing sales potential and minimizing losses from mark-downs and stock-outs.

Different retailers will have different names for the categories within their assortment, but they might typically be known as traffic drivers, core products, money products, image items and even excitement creators. An image item for a technology retailer might be a high-end plasma TV. Customers expect to see them in the store, but you the retailer may not sell very many or make much margin on them. At the other end of the spectrum would be money items like cables and connectors, which customers will buy regardless of which television they choose. These are very high margin products with a high stock turn.

Retailers typically use broadly similar category definitions and they need to assign a specific mission to each category – and individual roles and goals to each subcategory. These roles and goals are affected by a number of factors – geographical location, social trends, ethnicity of population, details which traditional solutions do not and cannot factor into analysis.

The key task in assigning products to roles is to identify the individual unique characteristics of each product and understand how to leverage the relationship between sales inventory and profit for those different roles and goals. To bridge effectively between assortment planning and inventory execution, retailers need to be able to treat products differently when pushing them through their internal supply network. Assortment planning is the bread and butter of retail. The breadth and depth of the assortment complemented by visual merchandising, store design and branding create a distinctive customer offer. Yet, existing inventory execution systems need to be better aligned with assortment planning processes to achieve a more streamlined supply chain and allocation process. What good does excellent assortment planning do us if the product is not on the shelf?

Whether they are based on allocation or replenishment, today's inventory systems are tied to inflexible forecasting models, which are typically based on analysis of generalized trends that are based on historic and often outdated information. This equates to a stock broker recommending investing in a company based on the performance of its stocks two to three years previously. In addition, existing systems do not offer the ability to take account of the role of an individual product within the assortment available from an individual store, or group of stores. Generally, inventory execution tends to be driven by target inventory and service levels.

Retailers devote considerable resources to assortment planning, yet executing operations in line with assortment plans has always been an elusive challenge. Fulfillment systems speak the language of algorithms, methods and parameters. This is math and science, unlike the art of assortment planning, which is driven by intuition about potential trends. This means that even if a retailer wants to drive fulfillment from the roles that it has set for its products, it needs to translate these before they can be applied to its systems.

- How do you follow assortment plans while sticking to the financial, merchandising and image goals of the organization?
- How do you execute inventory to meet your assortment strategy?
- How do you adapt assortment planning in response to real-time events?
- And then how do you adapt inventory execution to meet adapted goals?

Typically the complexity of a retailer's operations means that changes happen at a snail's pace. Whereas the ideal in terms of both delivering the customer offer and achieving bottom line performance would be a truly agile response – re-planning during the selling period and adapting inventory execution parameters in line with the latest intelligence.

A product moves through its life cycle; consumer demand changes for other reasons; vendor fill rates and reliability change. To respond to this change the retailer has to look at each product in every store and change the way that they are configured. This is too time consuming to manage at a detailed level, so it rarely is executed. If any changes are made, they are typically done at the item/store-group or some other higher level due to the amount of effort required. But each item can change its behavior at different times at different locations – grouping them together means that you will be under serving some stores and over serving others – each decision costs money and customers.

A goal can be about many objectives, but many systems are only able to deal with tackling one at a time. This limits the dimensions that can be brought into play in the fulfillment system when choosing a configuration, even through the role of the product may be multi-faceted in terms of service level, weeks of supply, profitability and sales and the like. While retailers aspire to a better model, the truth is that most do not have the systems and resources to deliver this type of approach at a detailed level across the enterprise. Until now.

## Putting a product manager for every product into every store

A new approach links the art of the merchandising process to the science of inventory execution. By translating merchandise strategies and bottom-up item behavior into optimal store-level need; monitoring item performance and adapting fulfillment models to achieve goals it becomes possible to:

- Improve communication and productivity between merchants and fulfillment
- Achieve or exceed merchandise plans and goals
- Increase productivity with an easy-to-use solution
- Reduce inventory imbalance across the chain and increase inventory efficiency

This is a holistic, real time approach to retailing that integrates merchandising and fulfillment processes while managing and reporting on inventory from store-level up. It provides merchandising plans; goals and strategies that are defined and directly drive product fulfillment. Such a system can provide a bottom-up view of item behavior fused with plans, goals and strategies to determine individual store needs. More fundamentally, it provides insight and prompts timely action. Exceptions flags and realtime performance metrics enable a rapid response if a SKU or location is not achieving its goals nor has the ability to exceed them.

## Rapid returns from a system that learns

Analogous with human thinking, this concept derives trends from relatively short and recent learning to make accurate predictions of correct actions and future behaviors. It is unlike traditional “number-crunching” techniques that rely on interpreting trends and forecasts on the basis of huge pools of amalgamated data. As a result this way of working has the flexibility to respond in real time and at a much finer level of detail (i.e. store level) than would conventionally be possible.

This new approach is able, like no other before it, to identify and support the winners whilst diverting resources from the losers that suck the profit from the business. A typical retail clothing business will lose about 15% of its turnover in markdown and perhaps 10% due to lost sales.

If we assume a turnover of \$300 million, then we are looking at a loss of \$75 million. Reducing each of these figures by only 1%, adds \$8 million to the bottom line. What is equally important is that this profit increase can be delivered in a sustained way. That is “Merchandise Planning”.

Similarly, if a specialty hardlines retailer were able to capture a conservative 20% of sales by applying this new methodology that were currently being lost to out of stocks and mark-downs, the overall effect would be to increase profit by 1%!

Because of the way this unique new concept works it not only bridges the gap between assortment planning and inventory execution, it enables retailers to fine-tune their business operations and strategy on a continual basis. Most supply chains today are enormously intricate and complex machines, which retailers rely on to keep their business operating and remain competitive.

A wealth of planning and execution technologies exists to tame and manage the bewildering complexity of the modern retailers operation. For most, their existing systems work well, or are good enough. But is “good enough” really good enough any more? Isn’t it time to move up to the next level?

The disruptive potential for system change has long been a barrier to progress. It is a bold decision maker who steps back and suggests now is the time for a complete rethink. But what if there was a new technology which could be implemented on top of and complementary to all your current systems that would learn from them, seamlessly integrate with them and in time could actually organically absorb and replace them? Overcoming this complexity barrier would leave you free to enjoy its benefits without the risks associated with change. Such a technology exists today and implementing it will give huge competitive advantage to its adopters.

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