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Planning & Allocation vs. Replenishment: When is Each the Best Strategy?

As a full line retailer, you carry many types of products to meet your customers' needs. Everything from fashion softlines to commodity hardlines is available in your stores. These disparate merchandise types have differing traits and present unique challenges to your Merchants and Inventory Analysts. A frequently asked question is: What are the best strategies for addressing forecasting and inventory concerns for various types of product? To begin, let's define what we mean by Replenishment and Planning & Allocation.

What is Planning and Allocation (P&A)?
Merchandise Planning is defined as the process of setting and maintaining future performance goals for sales, inventory and other financial metrics and tracking actual results and variances to those goals. Planning decisions are based on historical trends and management insight into expected future changes such as number of stores, calendar shifts, business shifts, and promotional events.

Depending on the needs of the company and the sophistication of the software supporting the process, planning occurs at various levels along three dimensions:

- Product: item, style, sub-class, class, department, division, channel, company
- Location: store, district, region, division, banner, chain, channel
- Time: week, month, quarter, season, year

At each intersection of these dimensions there exist a number of variables such as sales, inventory on hand, receipts, markdowns, gross margin, turn, etc. Not all of the variables are appropriate at all intersections (sometimes known as vertices). In addition, multiple versions of plans (original plan, current approved plan, what if plan, this year, last year) need to exist to support measurement of actuals and comparison to goals.

All retail organizations tend to perform merchandise planning at high levels such as department / chain / month for key variables such as inventory dollars, sales dollars and gross margin. This level of merchandise planning drives company decision making and provides a basis of success measurement internally and with external parties such as stock analysts.

Some retailers take these high level plans down to lower levels of detail. Key item planning, store attribute planning and the addition of unit planning for both demand and inventory is sometimes added to support the ordering and allocation needs of a specific category.

Planning requires user intervention. Systems automate the planning process by spreading changes made at higher hierarchy levels down to lower product, location or time levels, or aggregating changes at lower levels back up the hierarchies. But decisions about changes to a planned variable must be made and entered by a user. This approach allows planning solutions to apply to virtually all products.

The lower in the hierarchy the planning level is defined, typically the more time and effort is required. Most companies cannot plan down to the item / store / week level because of the sheer number of combinations requiring review and action. Because individual items eventually need to be delivered to individual locations, but planning at the item location level is often not practical, merchandise allocation often goes hand-in-hand with merchandise planning.

Allocation is the process of assigning individual item quantities to specific stores based on analytical approaches that recognize the performance of those items and their history or potential at different stores. Using multiple sets of rules and logic allows allocation to handle a wide variety of product types when planning the buy or executing the distribution.

The objectives of allocation solutions are to minimize time required to allocate product and maximize profit by reducing costs and aligning product placement with store opportunity to sell. Initially establishing allocation models can be a time-consuming process. However, once established these models can be reused for the allocations of successive purchase orders for product with similar or identical characteristics.

The **Planning and Allocation (P&A)** referred to in the rest of this document refers to the lower level planning of unit sales and inventory variables for the purposes of inventory management – product purchase and distribution.

What is Replenishment?

Retail **Replenishment** can be defined as acquiring product on a recurring basis to support anticipated need. Replenishment is best served as an automated process given the huge number of combinations of items and store locations. Systematic creation and updates to demand forecasts and automatic creation of purchase orders are common functions supported by most leading solutions.

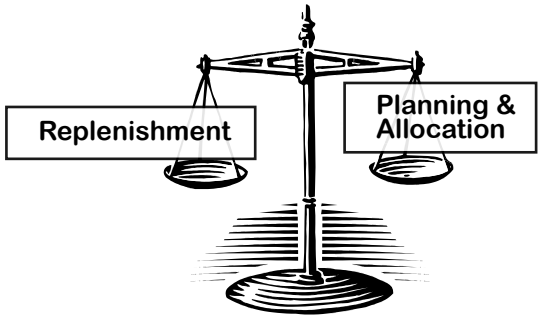
To enable replenishment solutions to perform these automated adjustments and decisions, several item / location specific variables are required and considered in the process. Examples include presentation minimum, seasonal selling profile, buying multiple, shipping multiple, order cycle, safety stock or service level goal, leadtimes, vendor ordering requirements and daily updates to shipment and/or sales history and current inventory. While most of the user-defined variables do not change frequently once established, the initial setup effort for an item on replenishment can be time consuming.

Upon completing the up-front time investment, most replenishment systems can run on their own. Management of exceptions and review of key reports helps to fine tune the system and thus the purchasing, but these best practice efforts are not required for self-adjusting demand forecasts and automatically generated order quantities. This automation greatly reduces workload for the inventory teams and is a major benefit of replenishment solutions.

The primary focus of a replenishment solution is profit improvement through management of item / location level demand forecasts and inventory levels. While exception reporting and higher level data summaries are available for many of the solutions on the market, the primary goal of a replenishment system is to maximize sales and optimize service levels, while minimizing inventory investment.

You Have a Choice

Many retailers have software solutions that support both replenishment and planning and allocation. Managing detailed forecasts and inventory ordering variables for the same item on both systems is not an effective approach. The buying team has a decision to make: Which system is most appropriate for each product, typically defined by category?

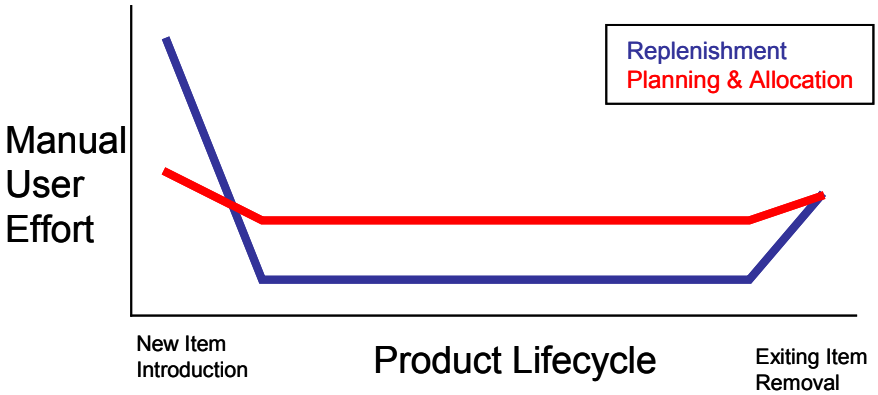


Compare and Contrast: How do these two methods compare to one another

Generally, replenishment solutions require more data and effort for initial item setup than do P&A solutions. This is not to say that setup for P&A solutions is easy, but the number of variables required for demand forecasting and ordering tend to outnumber those required for a P&A solution at these lower levels of detail.

P&A solutions tend to require greater effort weekly to maintain accurate plans and place purchase orders than would a replenishment solution. Demand planning management and purchase order creation are efforts requiring user intervention with P&A systems. Replenishment systems do not require user efforts for these functions, although exception management and user fine tuning is customary to deliver the best results.

Management of exiting items is a challenging and time consuming effort with both systems. Both types of solutions need user attention to decrease forecasts or plans, stop ordering, manage remaining inventory and optimize markdowns and disposition.



When Planning and Allocation is Preferred
While both replenishment and P&A solutions can have various types of merchandise assigned to them, certain traits predispose some products to be simply better addressed by the use of a P&A solution.

Limited reorders - If an item is anticipated to have few or no vendor reorders after an initial purchase order, P&A is the preferred option. Because one of the shortcomings of P&A is the incremental time and effort required to determine order quantities, reduction in the exposure to this event helps a P&A solution. Allocation, sometimes referred to as pre-distribution, can be used to distribute the acquired product over several periods, so the key event to monitor here is the number of vendor purchase orders forecasted.

No history or like item - If the item in question is a unique item and sales patterns are not anticipated to match other items and no demand history exists on which to base a demand forecast, P&A is preferred. Because this type of item will likely require buyer review and management of the demand forecast, benefits from a replenishment system's automatic demand forecast updates are minimized. Items with erratic sales that are difficult to predict or quickly trending items also fall into this category.

Heavily promoted and price adjusted categories - Items or categories that will benefit from planning other variables such as price and margin will benefit from using a P&A methodology. Replenishment solutions do not typically address impact of pricing. Therefore P&A solutions become more attractive when management of retail prices to meet corporate goals is a major driver of category decisions.

Highly fashion oriented / short life cycle items - Products strongly influenced by variables difficult to interface into a software solution are good candidates for a P&A solution. Because replenishment solutions will need user intervention to react to these types of quick moving trends, the already flexible nature of P&A makes it the more viable option.

When Replenishment Works Best
Several other characteristics of the buying process dictate which items are best suited for replenishment solutions.

Frequent reorders - Because of the automation that replenishment provides for demand forecast management and order creation, items that are eligible for multiple vendor reorders are excellent replenishment candidates. These types of products gain maximum benefit from the power of replenishment solutions to automatically generate purchase orders, literally down to the item store level, though typically summed up for delivery of the order to the vendor.

New products with like item history - In addition, new items that have similar sales traits to previously replenished items do well on replenishment solutions. These products have a reduced initial setup effort if the replenishment system has a "copy item" type function. By removing the major shortcoming of replenishment solutions – the initial item setup – the positives become even more prevalent.

Long lifecycle items - Extend the lifecycle of an item and the gains realized each period from the forecasting and replenishment between introduction and exit are extended as well.

Transitioning from One Solution to the Other
Not every item always shows clear signs as being best addressed by only one solution. Often, items will show characteristics that are best addressed by replenishment during one portion of its lifecycle and at other times be best addressed by P&A.

Newly introduced items are often best supported by P&A. The attention to detail and focus on additional pricing variables is needed the most when an item does not have a solid track record. As an item builds demand history and variation settles down, moving to a replenishment approach can make more sense.

Items supported by a replenishment solution often benefit by moving to P&A during the end of its lifecycle. Regular vendor ordering ceases and attention to markdowns and other variables increases in importance.

As with any transition, smooth handoff is key – especially if two different people or teams are involved. When moving from P&A to replenishment for new items or from replenishment to P&A for exiting items, coordination between buyers is important. Collect and transition all data and variables associated with the item when moving from one solution to the other. Even more important is the passing of "soft" information about items. This type of buyer insight should transition to the new team supporting the item when possible.

In Conclusion
Inventory management is one of the main drivers of retailer profitability. With this financial influence also comes a great deal of work. Selecting the best forecasting and buying approach for each product type can help drive optimal performance while minimizing manual efforts. This decision making activity clearly demonstrates the truth in the old adage: "Retail is Detail!"

About RPE

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