OLIVER WIGHT PAPER series

Demand Planning:

Where does it fit in the organization?



Ron Ireland – Oliver Wight Americas

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Demand Planning *is seen as one of the* Vital Processes

that, in many companies, results in a demand plan which is used as a "request for products and services." Having an accurate demand plan is critical for efficient and cost-effective supply chain processes as well as excellent customer service. Frequently, companies contact Oliver Wight because they struggle with developing an accurate demand plan. The cost of an inaccurate demand plan is often higher amounts of inventory, higher logistics costs, higher manufacturing costs, and missed shipments.



On many occasions, when we first go into a company for initial interviews and assessments on why they are struggling with demand planning, this is what we find: There is confusion on where the responsibility resides to perform the demand planning function. In most cases, the demand planning function resides in the supply chain.



Why is this so? Why would the planning of demand be the responsibility of the Supply organization and not reside on the demand side of the business in Sales or Marketing? (We should note that in some companies, the demand planning function resides in the Finance organization, where often the forecasts are reflected in monetary values and not in product volumes.)

The most common answer when asking why the commercial side of the business does not execute demand planning is the fact that Sales and Marketing are unwilling to spend the time forecasting their demand. Because the supply side needs a demand forecast, they will often take the responsibility for it. Here's the downside to this approach: The Supply Chain organization is removed from the customer and, as a result, the accuracy of the demand forecast tends to be depreciated. Also, the Supply Chain organization frequently treats the demand plan as a supply plan. This bias is obvious when the supply plan is not decoupled from the demand plan, and the Supply Chain organization refuses to accept changes in the demand plan in the near term.

Often, we hear that the commercial or sales side of the business formerly created the demand forecast but always had a forecast bias, so the demand planning function was placed inside of the Supply Chain organization. This is a poor excuse for not having a Class A Demand Planning process. Bias must be eliminated, no matter where the demand plan resides.

In Oliver Wight's view, the Sales organization is on the demand side of the company. Sales people are the closest to their customers. As a result, the Sales organization must be responsible and accountable for the demand plan.

THE EVOLUTION OF DEMAND PLANNING

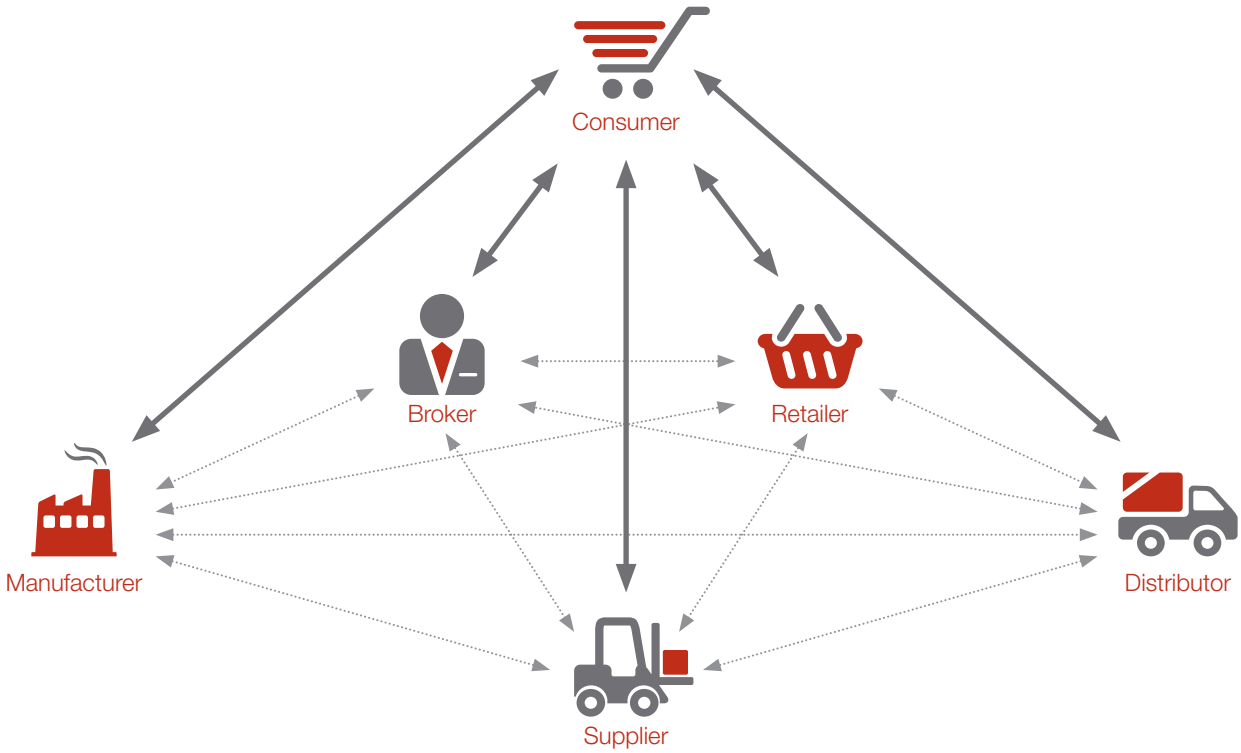
Prior to the mid 1980s, manufacturing

"Bias must be eliminated, no matter where the demand plan resides."

and supply chain processes were mostly planned by using what was defined as a "Push" method of demand. This method of demand planning was often based on what the executives promised the shareholders as a company's growth goal for the upcoming year. Using the "Push" demand planning process resulted in the development of the Sales organization's targets and goals for the year and defined what the Manufacturing group was to make that year. The "Push" method basically disregarded what the end consumer was going to actually buy during the year, which created a disconnect between the company plans and actual consumer demand. This disconnect frequently caused the need for promotions, additional advertising, and product discounts to get rid of the products that were overproduced, thus, reducing the company's profit margins.

In the mid-1980s, the grocery industry defined an industry standard called "ECR" – Efficient Consumer Response. Efficient Consumer Response is based on the core principle of planning demand using a "Pull" method. The "Pull" method focuses on the end consumers' need for the product. (See Figure 1.)

Fig 1. *Consumer-Driven Value Chain*



The idea from the grocery industry was that if the supply chain planning processes focused on the end consumer, all the planning processes would be optimized to have the right amount of product, at the right time, and at the right place. The results would be significant improvements on product margins for an industry with historically very low margins.

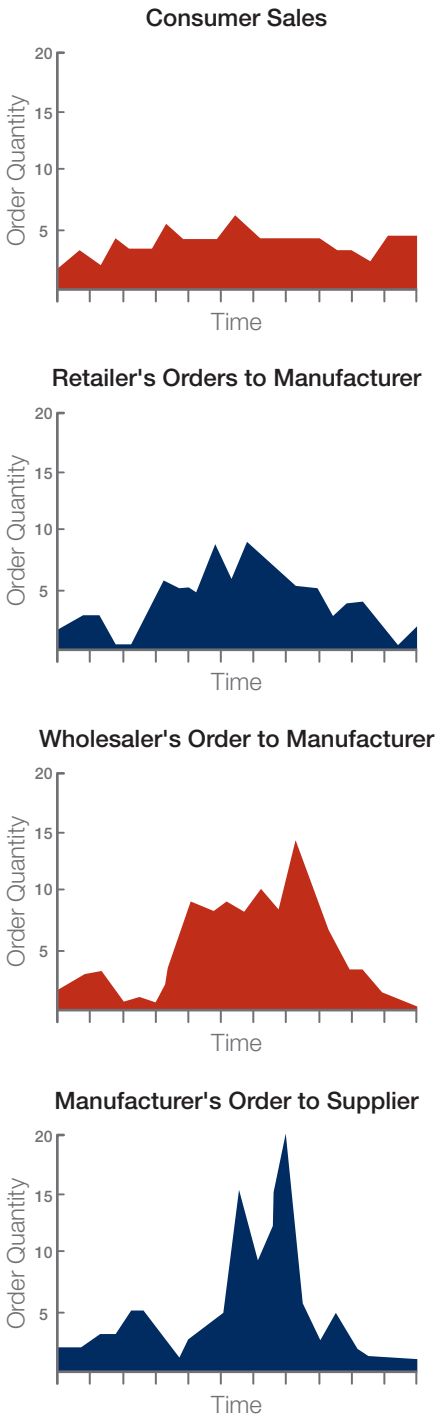
The grocery industry realized, through studies done by Jay Forrester in the 1950s while he was at MIT and most recently by Hal Lee at Stanford University, that the supply chain can have a "bullwhip" effect. As you can see from Figure 2, the consumer demand is often shown to be somewhat consistent and predictable, punctuated by seasonal patterns and promotions.

Yet, despite this consistent demand pattern, when the purchase orders are placed and processed down the various links of the supply chain, a bullwhip effect occurs. This bullwhip effect is so called because the orders placed on the various nodes of the supply chain do not come close to resembling the true "demand pull" of the end consumer. This effect results in a lot of waste and inefficiencies. Often, there are massive amounts of excessive inventory, as well as stock-outs, excessive logistics costs as orders need to be expedited, disruptions in manufacturing resulting in higher costs, and erosion of already slim profit margins.

CONSUMER DEMAND PLANNING

Today, most industries have adopted a Pull-based demand planning process. In fact, the companies with the most advanced supply chain processes focus on the "end-to-end supply chain" and plan the demand at the point of consumption – at the end-consumer level. These companies may not be selling to the end consumer directly but have discovered that they need the supply chain visibility of consumer demand in order to optimize and plan for what the proper supply plans should reflect.

Fig 2. *The Resulting Bullwhip Effect*



"Knowing the impact of a promotion on customer and consumer demand should be derived from information supplied by the Sales organization in conjunction with customers."

Understanding the demand of the consumer is as much an art as it is a science. The structure of demand planning processes that produce the most accurate plans incorporate multiple views of demand, reflected in Figure 3.

For each of these different points of view around demand, the assumptions are documented. The assumptions clearly describe from where the demand plans, or view of demand, are derived. As shown in Figure 3, the different views of demand include sales, marketing, the customer, and the company's strategies. The focus is on the consumer or end-user demand, not just what the anticipated demand will be from the customer.

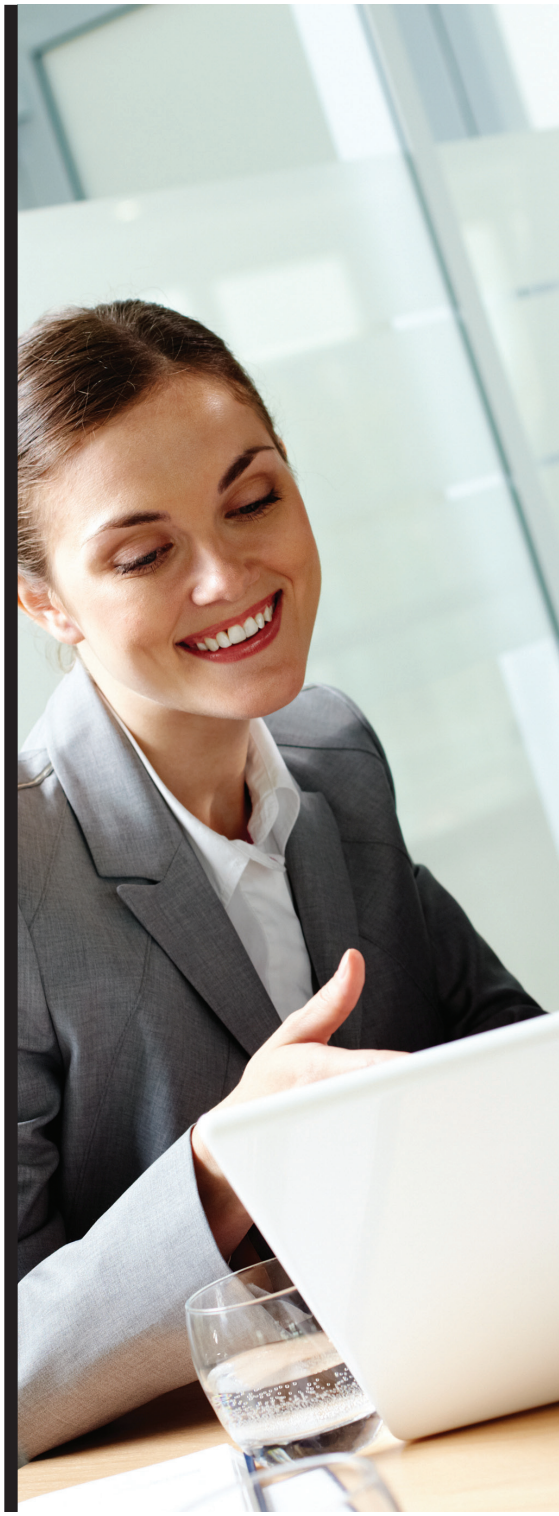
Having a good understanding of what generates the consumer demand is the key component to developing the most accurate demand possible. Knowing the anticipated demand for a new product should be derived from the Marketing organization, in cooperation with the Sales organization as well as customers. Knowing the impact of a promotion on customer

Fig 3. *Best Practice: Multiple View Demand Planning*



and consumer demand should be derived from information supplied by the Sales organization in conjunction with customers. Other information, which by the way the Sales and Marketing organizations are in the best position to know, includes: how the global economy is affecting consumer demand; and what the impact is of competitors on our product demand. The Sales force, with feet on the ground, often has the best insight into what is really happening with the actual demand for products, as they are the ones closest to the customer and end consumer. Market data, which the Marketing organization typically is responsible for providing, gives greater insights as well. This information and insights are not usually in the domain of the Supply Chain organization.

Once the demand pull, or consumer demand, is well understood and predicted, planning fulfillment is simplified. It becomes more of a math exercise, using the basic principles of Distribution Resource Planning (DRP) and Integrated Planning and Control (IPC) processes. These processes, operated well, result in purchase orders that flow through the supply chain and more closely resemble the end-consumer demand pull. The bullwhip, mentioned earlier, is smoothed out. A smoother bullwhip means less inventory, less lost sales caused by product and materials not being available, and a boost in both revenue and margins.



WHO SHOULD OWN THE DEMAND PLAN?

From our perspective at Oliver Wight, there is no doubt that the Sales and Marketing organizations have responsibility and accountability for the demand plan. Even if the Supply Chain organization performs the service of consolidating the views of demand into a single demand plan, the commercial side of the business is responsible for reaching consensus on the plan and for executing the plan.

We now operate in a world of competing supply chains. An accurate demand plan is one of the key components necessary to make a company's supply chain efficient and effective. The best companies in the world have figured this out, and the commercial side of the business owns the demand planning process in these companies.



ABOUT THE AUTHOR

Ronald K. Ireland, a principal with Oliver Wight Americas, is a globally-recognized visionary to many of today's value chain best practices organizations. He has over 25 years of business process and technology experience with leading companies with a primary focus in Demand and Supply Chain processes for retail, manufacturing, high technology, and aerospace. He has experience specific to the area of strategic consulting at the executive level. Ron's business experience includes manufacturing, retail planning and distribution, marketing, and consulting. His manufacturing experience at Martin Marietta included achieving six Class A implementations. He then led a 45-person I/S staff on software development projects for store and warehouse replenishment, forecasting, procurement, micro merchandising, labor scheduling, and data mining for Wal-Mart. Ron is a frequent conference speaker, Supply Chain article author, is co-author of the book: *Supply Chain Collaboration*; *How to Implement CPFR® and Other Best Collaborative Practices*.

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