

MANAGEMENT

Constant Reminders to Buyers on the Volatility of Balancing Supply and Demand Planning

By Bob Ferrari, Managing Director of The [Ferrari Consulting and Research Group LLC](#)



Having a proper Sales & Operational Plan in place can help buyers source more effectively.

Many industries have their unique planning and supplier risk challenges but I often observe that the high tech and consumer electronics sector seems to take the top position in terms of volatility and challenge. A July 2010 Aberdeen Group research report on benchmarking Sales & Operational Planning (S&OP) processes concluded that 51% of North America respondents indicate that product demand volatility was one of their top-three pressures, and that has been a continuing challenge for global based companies in the high tech sector. The other two were improving top-line revenues and reducing supply chain operating costs. The report notes that the emphasis for S&OP has shifted from inventory reduction to management of volatile demand, and that burden translates directly to procurement teams.

It seems that comedian Steve Martin's classic line of "wild and crazy" is an appropriate description for those planners, buyers and commodity procurement teams dealing with day-to-day high tech product fulfillment needs. Since so many of these component and finished goods product components are sourced in China, overcoming this challenge is ever more important for teams dealing with China based manufacturers. The recent global recession took its toll on small and large manu-

facturers, with many having no choice but to dramatically reduce capacity and inventory pipelines. As product demand in certain high tech, telecom and consumer electronics products continue to surge, critical component shortages have been continuous. Even more challenging for this sector is that excess capacity and inventory also exists, providing a double-edged challenge.

These past months have brought other acute reminders to these dual challenges. Toshiba announced that a brief power failure that occurred at its prime NAND flash memory chip production facility would impact the future output of production by as much as 20 percent. NAND memory devices are common in the production of tablet computers, smart phones and digital music players. According to a Wall Street Journal article outlining the incident, a sudden drop in utility supplied voltage that only lasted .07 seconds significantly impacted complex production equipment within the Yokkaichi facility, which is Toshiba's prime NAND memory chip production facility. Toshiba is the world's #2 NAND producer, which includes long-term supply commitments for Apple, and accounts for one-third of global NAND revenues. Industry players competing directly with Apple will be especially challenged since many have

been scrambling to bring alternative consumer choices to market, and must now find alternative means of short-term supply. That implies dealing with secondary market sources with unpredictable pricing to keep production lines moving.

Contrasting the unique but critical NAND flash memory shortage is a potential glut of LCD liquid-crystal-displays used in high definition televisions. The industry itself has been challenged by annual price declines averaging 20 percent, despite many product innovations. Many of the world's top TV brands were counting on sales of more expensive, feature rich 3D models for the 2010 holiday buying season, even though inventories were already unusually high. Consumers, however, remained more discriminating

in their 2010 holiday related purchases. Consumer electronics experienced a mere 0.4 percent increase in holiday sales, leaving even more excess inventory in the supply chain pipeline. As a result, LCD display makers need to reduce output. Leading LCD supplier Samsung Electronics indicated that it is ratcheting down the production at its various LCD factories to respond to building global inventories. Samsung's LCD division saw a sharp drop in operating profit margin in the third quarter, amid weaker sales. Number two LCD producer LG Display has also seen a drop in operating profitability because of building inventory and weaker panel prices.

Global inventories of high-definition televisions are unusually high during this upcoming holiday season and many OEM's have been aggressively promoting products to help clean out these finished goods inventories. If demand were to again surge later in 2011,

industry players would have to deal with this current decision to decrease capacity output of LCD devices.

It may seem to some buyers dealing with China based manufacturers that industry analysts and influential bloggers have been over-hyping the importance of faster planning cycles, more responsive sales and operations planning processes, and augmented technology. We do so for very obvious reasons. More than ever, buyers need to be constantly engaged on two fronts. These include being more responsive to the realities of this 'new normal' of business where product demand volatility is a constant, and supply challenges take on multiple dimensions. When markets and supply chain dynamics can change on a weekly or sometimes daily basis, broader visibility, communication and responsiveness capabilities become critical.

We offer the following advice to buyers:

- Become an integral participant and partner to your company's cross-functional Sales and Operations (S&OP) planning team process to ascertain the magnitude of product demand or supply changes. The S&OP process remains an excellent vehicle for cross-organizational planning and communications of operating plan changes. If your company does not have a functioning and viable S&OP process, influence senior management on the need for this process and get involved.
- Increase communication of demand and supply visibility to your key suppliers in China. Having a mini monthly S&OP planning process with

these suppliers can provide early warning to pending supply or demand imbalances. It goes without stating that accurate visibility to inventory and capacity are also a key requirement.

- When significant demand changes occur on a daily and weekly basis, demand sensing and scenario planning tools have been important tools for consumer or business focused companies. Buyers need to know what options they have, along with the consequences of any option to inventory or costs. Scenario planning capabilities have proven to be a key for quantification of impact or determining best option. Consider that the Aberdeen research report notes that 58% of consumer-related S&OP processes cite the ability to respond to unplanned events in a timely manner as an important capability. That implies that scenarios and options have been pre-determined.

- Technology plays a more important role in overcoming barriers of time and information, and now is the time to invest in appropriate tools that provide broader operational visibility as well as supply chain synchronization with various key suppliers in China.

The occurrence of a .07 second disruption in power at a key supplier once again reinforces how quickly planning can change in a volatile world. Issues of supplier risk and supplier dependency are both important reminders for the need for more responsive supply and demand planning in 2011 and beyond.

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About the Author

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