

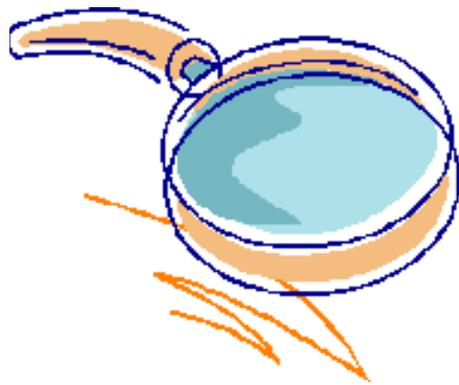


## Forecast Accuracy and Planning

The client knew that there was an existing problem of forecast accuracy in the supply chain. Such problems had occurred in the past as well. While it was important to balance the inventory holding cost and the stock out situations, the client recalled that the management had decided to keep the inventory levels very close to the real demand. There were programs conducted in the past to improve the demand management function. With investments in these programs, it was expected that the demand planners would be able to use the newer statistical tools and plan the forecast better.

Yet few orders were not fulfilled; these were lost orders and lost dollars. Like everyone else, one of the managers of the organization was monitoring the order fill rate for one of the high value product lines. The report showed that the fill rate was impacted adversely in the past few weeks. The key was to figure out first whether the planning left much to be desired, or if the planning was right, where exactly did the Supply Chain snag.

Isn't it a common tendency to recall the events that have occurred in the past and to link them with the current problems? The extant performance was therefore thought to be a problem with demand management and some losses were assumed to be due to poor forecast and hence inaccurate replenishment; result-



### Insights from Analytics

The week went by and to the manager's surprise, there was a pile up of inventory the next week. The manager could have blamed the demand planners again, but he decided otherwise. With structured analytics it was now possible to link the information consistently to be able to connect the dots. With the hierarchical configuration linkage, the client went further and checked the sales in the region. These were increasing as per the demand projections. The sourcing report linked to this showed the production increase at the manufacturing plant as well. The manufacturing in the previous week was in line with the actual sales. This indeed implied that the demand planners had done their job well but something went wrong elsewhere.

The manager was now intrigued at the situation and dwelled further. With the ability to slice and dice data, it did not take much longer to find out that the real culprit was the unavailability of the packaging material that was not being supplied by one of the vendors. This was a process that took place at the warehouse and not at the manufacturing facility.

If the root cause would have been known earlier, the situation could have easily been avoided with an alternate packaging. This would have involved some process approvals but nonetheless the orders could have been fulfilled.

There was a process improvement performed so as to ensure that the disruptions in the packaging material were handled in case of any such eventualities.

## Joined at the hip – Analytics and Optimization

This is just one of the examples that demonstrate the synergy of Analytics and Optimization. With such tools the focus of analysis could easily be spread across a wider spectrum rather than recalling the events that are already known. The drill down linkage capability of through a structured dimensional model was the most effective in our case.

Joining the dots backwards we can recall a concept from the Theory of Constraints, ‘the bottleneck in a process always shifts’. It is this bottleneck that everyone is trying to manage best and it is challenging to control as it keeps moving silently across the supply chain. With Analytics and Optimization and its advanced simulation capabilities, these silent movements can be predicted with high accuracy foretelling roadblocks even before they turn into one.



Contact Us

*About Us*

*M76 Analytics was founded by IITB (IIT Bombay) alumni and a set of young entrepreneurs who saw the utility of data far beyond its transactional manifestation. Data to them was much more than transactions, it was a fact with many dimensions. And these dimensions when connected together offered unparalleled insight into an enterprise's health. There are two broad objectives of an analytical system. Understand the dynamics of the ecosystem and be able to anticipate the future challenges to a business or future disruptions. Generating data as useful information is thus the key to simplifying complexity*

**We're on the web!**  
**[www.m76analytics.com](http://www.m76analytics.com)**

