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WINNING STRATEGIES FOR **THE DISTRIBUTION INDUSTRY**

Integrated Demand Planning:

The Key to Next-Level Supply Chain Performance and Customer Satisfaction

Executive Summary

>> Compliments of Microsoft Business Solutions

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>> Integrated Demand Planning: The Key to Next-Level Supply Chain Performance and Customer Satisfaction

Introduction:

From the dawn of the industrial revolution in the late nineteen century, the processes of mass production and distribution has centered, to a significant degree, around guessing future customer demand then guessing at required inventory levels to fulfill that demand. Today, even as advanced software and techniques have automated many supply chain functions, these highly subjective forecasting games are still in wide use, and continue to restrict the supply chain performance of many companies.

Demand planning is required to bring forecasting into the age of the digital economy. It is central to the migration to CPFR (collaborative planning, forecasting and replenishment) standards, which enable suppliers to more effectively assume inventory management functions for customers.

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>> Why you can no longer afford to use 19th century forecasting methods

Even with sophisticated ERP systems, forecasting improvements have remained elusive for many distribution organizations—often because demand-planning functions are not automated, nor fully integrated with other supply chain modules. So, the fallback method is either a simple calculation in spreadsheets (Excel is the most widely used forecasting tool) at the inventory item level, or best-guess figures from sales personnel or product managers. Since the entire planning process often starts with a sales forecast (just as it has for over a century), it easy to see why SCM performance has not advanced as much as it should.

The ultimate solution revolves around more accurate inventory and improved forecasting.

According to Harris Interactive and Industrial America, 15 percent to 20 percent of inventory being held across the retail supply chain at any given time could be eliminated through improved planning, forecasting and replenishment methods. This amounts to amounts to $150 billion to $200 billion worldwide, and $40 billion to $50 billion in the United States alone. For your organization, a 15 to 20 percent difference in inventory levels could easily make the difference between poor fiscal performance and a robust bottom line; it could also determine your position in competitive markets.

There is also a matter of complying with customer supply chain requirements. Poor forecasting is costly enough when it causes you to overstock; but when it causes missed deliveries, the results are often steep non-compliance fines and damaged customer relationships.

Finally, forecast data impacts virtually all other processes in your supply chain system, so optimum supply chain performance will never be better than the accuracy of your forecasts.

Forecasting is essentially about predicting the future, which will always be an imperfect exercise. But software can now automate sophisticated statistical techniques to sharpen accuracy. That's where demand planning comes in.

>> Leveraging demand planning to improve forecast accuracy

Demand planning is used to create better forecasts. It allows the forecasting process to be broken into smaller logical parts—by customer, channel, territory etc.—and then reassembled to create a more accurate forecast.

For example, there may be two distinct types of customers: a few that are very large, and many that are small. One method would be to simply forecast inventory items based on the past. A demand planning process could forecast each large customer individually using a combination of collaborative methods. The collective group of small customers would have only their history (removing the large customer data) used to statistically calculate a forecast. These results would then be combined to create a more accurate result.

Demand planning uses different techniques to forecast new product introductions, deal with promotions and other sales or environmental events, spot trends and seasonality, replacement items and other forecasting needs. With multiple tools and views on demand, inventory policy and business plans can be aligned to put an organization in the best position to meet its business objectives and manage demand instability.

Excellent analytical tools need to be used to monitor the accuracy of forecasts, identify problems, and see trends in sales and booking. Early identification of these issues allow for quick reaction to maximize profit potential. Business intelligence needs to be universally available to all members of an organization providing each person views and tools that help provide form to their unique needs. Centralized, ubiquitous and consistency, are necessities to successfully creating and managing the demand process.

>> The Requirements

An ideal demand planning solution should include:

- **Superior processes.** To automatically capture up-to-date data from many sources including customers, sales and booking history, and process it.
- **Optimization.** To apply different forecasting techniques to logical business components that can be reassembled to create a more accurate forecast. The optimum statistical model should be calculated automatically.
- **Efficiency.** Ease of use and rapid execution for timely delivery of forecasts.
- **Analysis.** Multidimensional analysis to provide demand reporting and analysis to the entire organization.
- **Integration.** To enable seamless, automatic data sharing with other supply chain modules.

>> The Migration to Vendor Managed Inventory

Efficient, automated demand planning is a requirement for Vendor Managed Inventory. VMI is a relationship in which the supplier makes the main inventory replenishment decisions for the customer. This is also known as Efficient Customer Response (ECR), Just-In-Time Distribution (JITD), or Quick Response. By placing the decisions and responsibility with the vendor, more optimized inventory levels, shorter lead times and lower overhead can be achieved.

With VMI, suppliers can utilize information provided by the customer to monitor and replenish inventory levels at the customer site without interaction from the customer. The inventory may be owned by the customer or by the supplier (on consignment). The competitive advantage delivered with VMI includes consistent order processing, data availability for analysis, customer satisfaction, closer customer relationships and ultimately, customer retention.

VMI accepts a number of different transaction methods including EDI, and also includes scheduled billing options, which allow combining of the daily shipments into one invoice for a specified period of time.

VMI Requirements:

- Ability to handle both managed inventory and consigned inventory at the inventory and site level
- EDI support for: 852 (product data activity), 855 (purchase order acknowledgement) and 856 (advance shipment notification)
- Creation of suggested inventory replenishment models for each facility that can be released or modified as needed
- Recommendations for firm or in-process replenishments (cancel, reschedule in, reschedule out, surplus)
- Ability to configure "electronic shipment notice" requirements at the partner level
- Configurable billing options to allow scheduled billing at a partner and facility level (daily, weekly, bi-weekly, or monthly)
- Actual versus budget tracking by accounting department
- Handling of management fees in addition to billable transactions
- Flexible replenishment method including multiple variable safety stock calculation methods
- Calculation of lead times, EOQ, reorder points, and average usage (based upon demand formulas)

VMI Benefits:

- Lower inventory levels for both the customer and supplier, due to improved forecasting and reduced safety stock
- Reduced administrative costs, due to elimination of paper invoices, human error and discrepancies between order and shipment
- Increased sales, due to less out-of-stock situations, and investment in the most profitable inventory items
- Improved customer loyalty, due to greater value from the supplier, including reduction of out-of-stock issues, selection of best inventory to carry based upon actual usage, and valuable analytical services
- Increased stocking efficiencies, allowing more shelf space for additional items, and resulting in additional sales
- Lower transportation costs, due to better planning, including determining alternative shipping methods or routes

>> Case Study:
For The Franzus Company, Automated Demand Planning Boosts Sales Efficiency

For more than three decades, the Franzus Company has been an industry leader in travel accessories. Based in Beacon Falls, Connecticut, the fast-growing distribution company markets its products under the brand name Travel Smart™ through more than 500 retailers, including such giants as Wal-Mart, K-Mart and Kohl's. The products include travel appliances, electrical conversion products, travel convenience accessories, travel security, travel healthcare and auto accessories.

Franzus found its tedious manual forecasting system increasingly inadequate for forecasting demand for the company's extensive product portfolio—over 250 SKUs. Inaccurate forecasts were resulting in out-of-stock items.

"Manually inputting information for hundreds of products was not only time-consuming, it was also a process that was highly error-prone," said Lisa Reed, Franzus Sales Administrator and Category Manager. "And most of our large customers simply don't do back orders, so if we're out of stock, we simply lose the sale." According to Reed, the manual system was complicating efforts to achieve efficiencies in inventory management, as well as to identify and eliminate poor performing products.

Franzus decided to scrap the old manual system in favor of something far more integrated and automated. The company had already migrated from a Unix-based system to an integrated and comprehensive Microsoft Business Solutions enterprise system that included financials, order management, purchasing, advanced shipping management, and eCommerce. The company was ready to integrate the demand planning module offered by Microsoft.

The integration of the demand planning system into the Microsoft Business Solutions suite took only two weeks, during which time Franzus personnel went through three days of hands-on training by a Microsoft certified partner.

The new, automated demand planning system quickly yielded significant improvements. "After only a few months, the new system reduced the time required for forecasting by over 70%," said Reed. "And our forecasting accuracy, which was typically only 40% to 50% with the manual system, is now at 95%."

According to Reed, the system's flexibility allows for adjusting forecasts on the fly; so as more sales history is entered, seasonal sales patterns will be increasingly easier to spot and accommodate. "It has given us the capability to be more responsive to customer demand and it has virtually eliminated the risk of lost sales due to out-of-stock items," she said.

>> Microsoft Business Solutions: Winning Strategies for Distribution

Microsoft gives your mid-size business the same kind of information-leveraging power that, until now, has been available only to very large distribution organizations. Microsoft Business Solutions for Distribution are comprised of integrated and highly customizable systems that save time and money through every phase of your business—from e-commerce to accounting, from the warehouse to customers. It's a total enterprise solution that's simple and affordable. It can empower you to:

- Make smarter, faster business decisions
- Improve employee and business productivity
- Gain a competitive advantage

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