

The Oracle Speaks on Supply Chain Visibility

My name is Isaac Edwards and I am the National Director of Distribution for a Sporting Goods Retailer. If you remember, the last supply chain business problem I was challenged with was how to fulfill three different sales channels (retail, internet and catalogue) from our Indianapolis Distribution Center. I spoke to the Oracle at length about the challenges of order allocation. He actually helped us select a Tier-1 Order Management System that allows our merchant, buying and allocations team to define, and more importantly, to develop their own allocation rules. The OMS solution we selected has a business rule and work flow rule engine that can be configured and customized by a super user without actually touching any software code.

If you remember, Oracle stated, "if you want to control" your outbound flow and improve your inventory turns, you need to monitor, control and have visibility to your inbound inventory. He also stated that the more variability you have with your inbound supply, the more critical it is to proactively manage the variability and provide visibility to exceptions to your buyers and allocation planning team. In addition, the longer or more extended your supply lines, the more you are at risk for variability. If you think about it, the Oracle is right, you cannot plan and allocate what you don't have visibility to.

Our CMO has been chartered to improve our inventory turns without impacting fill rates to our stores. When we designed our new Indianapolis DC, we designed it with a strategy of pushing 60% of our merchandise through a put-to-store process, or broken case flow through. We have our material handling solution, voice data collection and WMS configured and ready to go, but our current Legacy system could not pre-allocate using DISTROs. You will recall

a DISTRO is an order. It can either be a replenishment DISTRO or Purchase Order DISTRO. Think of a DISTRO as a sales order with no Header Information. It is simply a unique order id, SKU number, Quantity, Store Number, and Priority.

You may be asking, "why does visibility matter and why is it important for down-stream supply chain processes?" When we selected our OMS the Oracle was adamant about selecting a solution provider that could not only create DISTROs based upon an initial purchase order, but also have the ability to allocate merchandise to stores after the Purchase Order was created. Many companies pre-allocate inventory at the PO but it may take 60-plus days for the merchandise to arrive at our DC - and this is too much time to hard allocate a SKU and Quantity to a store. The ability to allocate inventory at any time is what the Oracle calls Purchase Order Flow Management. Due to the variability in most extended



supply chains your ability to create a Purchase Order and allocate inventory to stores 90 days in advance is almost impossible. At the least with our supply chain there it too much supply and demand variability to get the store allocation correct. It is even more complicated with our supply chain because we have five distribution centers in addition to our Indianapolis DC that services both stores and internet.

Therefore, if we want to use the concept of Purchase Order Flow Management and allocate our inventory at the last possible moment, then we need better visibility to work in process inventory and in-transit inventory from domestic and foreign suppliers.

I called the Oracle to seek his knowledge of Supply Chain Visibility solutions and the market-place, and explained to him what we were trying to accomplish.

The Oracle stated, that Visibility Solutions were a hot topic in the 90's, but unfortunately, many of the Visibility Solution providers had a hard time selling the value because most companies had a hard time justifying the ROI, or their legacy systems could not support advance allocation logic, not to mention that many retail organizations were not and are still not structured or aligned to support such theories and practices.

He went on to state, that in recent years that the solution providers have changed their technology architecture and applications from a perpetual license model to a SaaS model (service as a software), but more importantly they have increased the data connectivity with trading partners, which include but are not limited to freight forwarders, steam ship lines, rail, full truckload and less than load carriers. These solution providers have created collaboration frameworks that allow for data connectivity and "one version of the truth." It is the ability of the solution provider to on-board the end customer, manage the data connectivity, and manage the application and database that is now making supply chain visibility affordable, in many cases with less than a year payback.

I asked the Oracle how it is possible to get a year pay back on a visibility solution. He stated that supply chain visibility solutions have matured beyond tracking freight. The solutions have matured to a point where they are managing purchase orders and acknowledgment, providing in process inventory visibility, supplier quality assurance, packing slip creation, commercial invoice creation, electronic sea-way bill creation, forward cargo receipt creation, vessel appointment and scheduling, vessel departure, vessel arrival, and discharge notice. In addition, Tier-1 Supply Chain Visibility solutions have

the ability to plan shipments, which include container cubing and consolidation, global transportation optimization, and carrier invoice audit and payment.

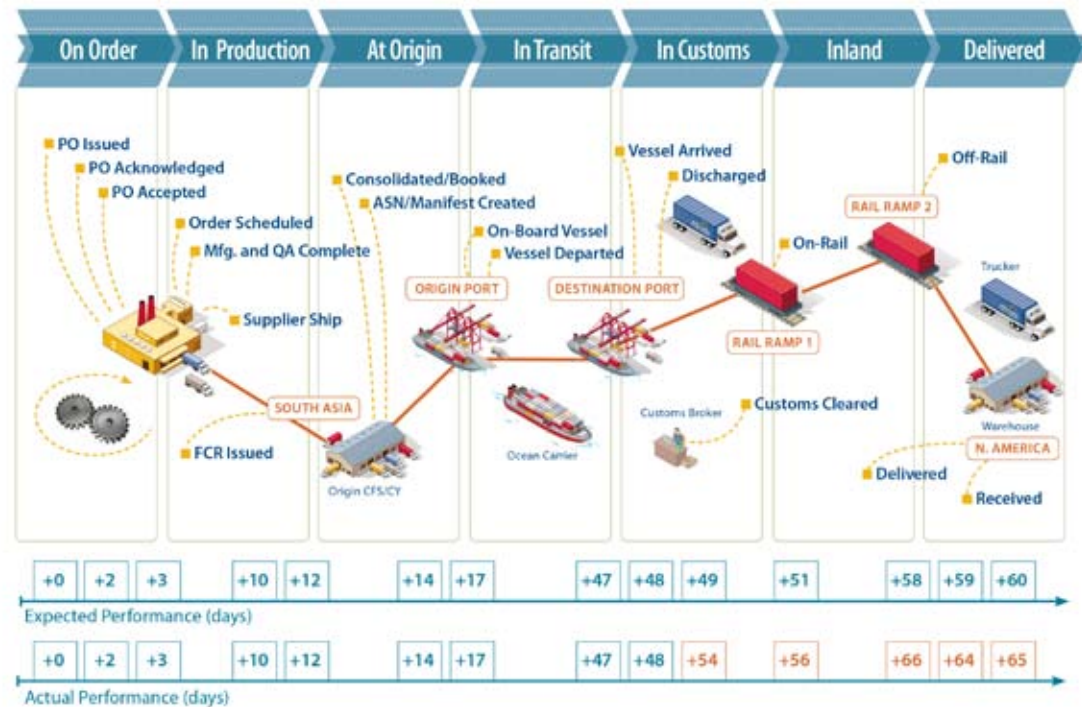
The Oracle said the value levers are based upon minimizing variability within our inbound supply chain. This is accomplished by reducing cycle time, but also by being proactive based upon events and alerts. He stated it is like measuring your pulse. A healthy supply chain pulse should beat at 60 beats per minute. If it starts to beat at 80 or 50, and you are constantly monitoring your pulse, you will immediately notice the rate change and proactively modify your behavior. However, if a drastic rate change occurs and you are not instantly aware, the consequences can be dire.

One of the key value levers is inventory reduction. He said most buyers add in-transit cycle time to the SKUs they are responsible for to protect themselves from variability. However, by doing so they introduce additional safety stock into the supply chain. For example, if it takes 17 days for inventory to arrive from a factory with an origin in Hong Kong, but the buyer has no confidence in the supplier or inbound logistics and adds an extra five days of in-transit lead time, the buyer will effectively add five days of in-transit safety stock. If you have \$50M of in-transit inventory and 600 forty TEUs on the water, that is now 22% more safety

stock that you have procured. Let's assume your company as a rule carries 15% safety stock. Your buyers have added \$1.65 million of extra in-transit inventory, which is a one-time capital cost reduction and an \$82.5K annual interest reduction, assuming 5% cost of money.

WOW! And this is just one example the Oracle provided. There are opportunities in managing carrier allocation and compliance, contract optimization, ocean audit, LTL consolidation, and the big one - labor reduction. We spend a lot of money managing the data, and information flow between our suppliers in China and our Inbound Logistics team to ensure that we are compliant with US Customs. The Oracle pointed out that new 10+2 and Importer Security Filing is going to be difficult for importers of record.

In summary, inbound logistics and supply chain visibility is the key to managing an effective and efficient retail or CPG supply chain. Unfortunately, my company like many others, put the cart before the horse and focused a lot of attention on outbound logistics, from our DC's to our stores. Had we first focused on how to effectively and efficiently move inventory from our suppliers to our US Distribution centers, and on our allocation



logic, our Distribution Centers would have been designed differently, more optimally. I just had an epiphany... I know why the Oracle refers to our existing facilities as warehouses and not distribution flow centers.

This article is authored by Jim Barnes, President at enVista. For more information about this article, please contact us at 877-684-7700 or via email at inforequest@envistacorp.com.