



## From Cost Center to Growth Center: Paper Manufacturer Saves 40% of Revenue by Reducing Damage, Shortage & Delay Claims From 35% to Zero

### Identifying Barriers to Growth

The “On-time, In Full” initiative, now squeezing manufacturer profits by 3% for noncompliance, may have been started by Walmart in order to better compete with Amazon. However, there are ripple effects across the industry, and it’s impacting manufacturers whether they serve retailers like Walmart or not. Across the board, customers are placing greater expectation on their suppliers to be consistent and reliable.

Serving book printers and firms like UPM, a Wisconsin based paper manufacturer had a high estimated percentage of claims against shipments (30-35%) due to product damage and production shutdowns, as well as a lack of on time, in full deliveries. They were at risk of losing one of their largest customers because almost half of shipments had product damage or shortages. The damaged product effected 40% of our customers revenue.

**30 to 35%**  
of shipments had  
damage, delays,  
or wrong product  
quantities

**40%**  
of revenue put  
at risk because  
client expectations  
weren't met

**\$500,000**  
in claims for  
just one customer

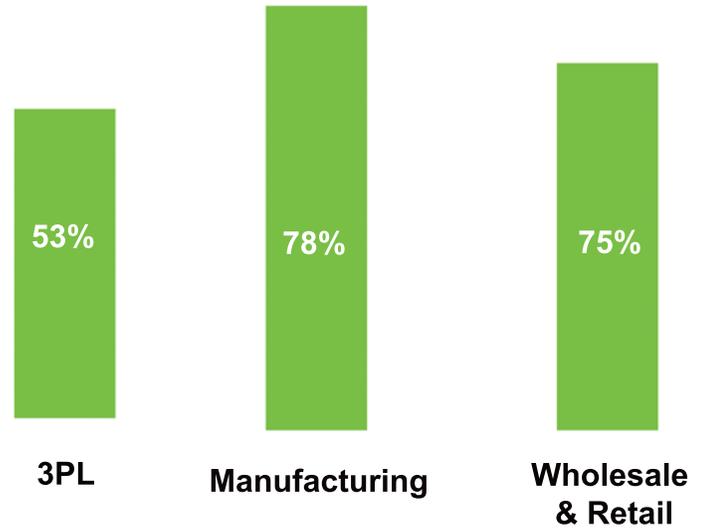
## Action 1: Redesign the Warehouse to Remove Time Inefficiencies & Reduce Product Handling and Damage

Most manufacturers and their 3PLs view the warehouse and distribution center as a cost center. Because of this, the 3PL that was previously responsible for our client's warehouse did not take the time to understand the paper manufacturer and their product flow.

The manufacturer, which has over 1,000 items (paper roll sizes and diameters) was set up with FIFO for all inventory. Rail cars were unloaded, and assuming it would be shipped together, all product from that car was stored together- but that is not how the product ships.

The manufacturer had two distinct inventory accounts— A true corporate account for future orders, and an account where the manufacturer creates a specific quantity of product for a pre-purchased customer order. The prior set up had pre-purchased orders mingled with those for storage, which resulted in digging through bays to locate product. Trucks were taking 4 hours to load, and rolls were being repeatedly handled, causing damage. The process was inefficient, and led to inconsistent loading of outbound shipments. There were numerous instances where the warehouse did not have capacity for the inbound shipments, and the manufacturer had to pay a demurrage fee for up to five days.

### % of Organizations Still Viewing the Warehouse and DC as a Cost Center



Source: Warehousing 2018: Three Key Technical Trends Modex

**55% of  
manufacturers  
do not use  
cross-docking**

By restructuring the warehouse to create 135 stage locations and 2500 storage locations, the manufacturer was able to operate like a true cross dock. As rail cars are unloaded, product for pre-purchased orders shipping within two days are moved into the staged location, ready to load. This results in only two touches per roll, minimizing damage and inefficiencies previously caused by a clogged warehouse.

Rolls for corporate inventory are placed in the storage locations divided by specific items and roll size. This reduces pick time from 3-4 hours, to 45 minutes. The warehouse no longer moves 20 rolls to reach the ones they need, and the warehouse now loads 135 trucks in the time it used to take to load 50 trucks. The result is more than a 250% increase in inventory turns, and studies show a 77% correlation between inventory turns and profitability.

## Action 2: Synchronize Inventory Speed with Your Product Shelf Life

### Cycle Count Frequency by Manufacturers and 3PLs:

2 to 6 times per year

60%

7 to 12 times per year

21%

> 12 times per year

14%

No Answer

5%

During the restructure process, hundreds of outdated rolls were found that needed to be returned to the manufacturer to re-pulp for new product. As one truckload of 7 rolls of product can be worth \$56,000, this was millions of dollars in inventory that should have been delivered to customers and mutually realized as profit.

In the past, 5-6 orders were short shipped every other day because the warehouse staff was unable to locate individual rolls. There was no cycle counting or tracking to validate inventory and inventory accuracy. If the product could not be found and the truck was waiting, the order would be short shipped, doubling the administrative work for both the shipper and consignee.

Focus has shifted from costs, to growth and protection of customers. Additional manpower was added to enable daily cycle counts which ensure clients receive their goods on time, in full. Daily cycles with physical inspection and validation also allow hidden damages to be found long before the truck arrives. Shortages have been zeroed—a result that would not have been possible when monthly or quarterly cycles left room for misplaced product.

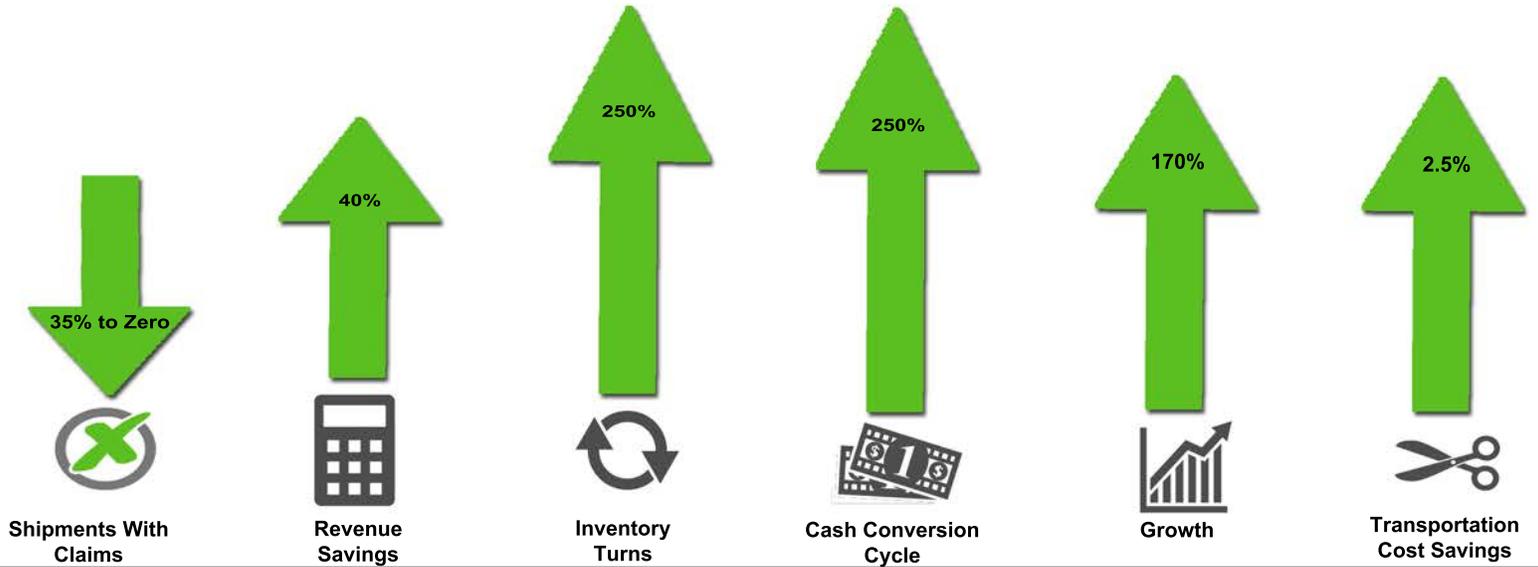
## Action 3: Implement New Processes to Synchronize Shipper and Customers Sustainability

With pick and load times reduced through the strategic alignment with corporate and customer business objectives, the warehouse is able to implement best practices.

For example; final quality checks are completed before loading product onto trucks. To avoid incurring the additional cost and delays from sending damaged product back to the mill in Michigan, the warehouse staff has been trained to slab off damaged paper, and wrap them to protect the rolls from becoming loose and easily damaged and also reweigh the rolls. The warehouse also utilizes the WMS custom capability to reprint roll labels with the correct weight and item.



## Achieved Results:



## Future Opportunities:

RGL understands that 3PLs are an extension of your team, and a collaborative growth partner that help your supply chain evolve, scale, and meet your specific needs. In working with the manufacturer to identify next steps towards their objectives, additional growth opportunities were uncovered and await exploration:

### 1 Synchronize all plants, warehouses, and DCs with technology to reduce safety stock, customer delays, and inefficiencies.

The manufacturer views the Green Bay DC as an extension of the Michigan plant in their ERP, resulting in a gap in visibility for the made-to-order business. Carriers call to schedule pick up appointments, but often the product is still at the plant in Michigan, and the manufacturer must delay carrier pickup. Configuring their ERP within two locations could alleviate these issues. It would allow the manufacturer's customer service team to assign orders to ship from the correct location, and see when an order shows product in the incorrect location.

### 2 Standardize damaged handling processes company-wide for \$180,000 annual cost savings

At this time, only the Green Bay warehouse fixes damage issues, re-weighs and re-labels product rolls on site, instead of sending damaged product back to the Michigan plant. This efficiency allows the Green Bay warehouse to manage additional orders that other warehouses cannot handle. By standardizing across all 3 additional DC's , an estimated \$180,000 in savings can be achieved.

### 3 Remove unnecessary manual processes to increase efficiency by 35%

We have identified problems that are currently solved by time-consuming manual processes; for example, when the manufacturer fails to accurately document product on a truck, the warehouse doesn't receive the transaction, and data has to be manually entered so inventory can be received and associated with the original shipment. We have seen the manufacturer scan several rolls to one railcar, but the products are physically in a different railcar. When this happens, the manufacturer has to manually fix the Over short & Damage Shipments. Additionally, at times the manufacturer has forgotten to process an entire railcar into their SAP system, and in order to receive and allocate inventory in both the SAP and WMS systems, the data has to be manually uploaded from an Exel spreadsheet into the WMS system. Finding innovative ways to remove these manual processes has the potential to increase efficiency by 35%.