WHY MANUFACTURERS NEED
GREATER SUPPLY
CHAIN VISIBILITY

Cre**8**tive
TECHNOLOGY AND DESIGN

Why Manufacturers Need Greater Supply Chain Visibility

INTRODUCTION

Manufacturers rely on a host of third parties to create an efficient supply chain. Suppliers send the raw materials you need to create the goods your customers order. You then send out those orders with carriers and distributors. If one aspect of the process falters, the whole chain suffers.

Even with today's available technology, resources, and know-how, 40% of manufacturers still lack real-time visibility into their supply chains. This puts manufacturers in a never-ending game of catch-up, with too much time spent one step behind. Suddenly boosting production to meet an unexpected increase in demand, for example, could stall production because your materials couldn't arrive on schedule. The list of potential game-changers goes on and on.

In this guide, we'll explain the challenges that arise from an inefficient supply chain and how visibility into your supply chain (in real time) can ease those challenges. We'll then discuss ways you can start implementing greater visibility into your supply chain.

With the right course of action, visibility can improve customer relationships, efficiency, and productivity. As with any solution, the first step is recognizing and understanding the problem.

The Challenges of Low Supply-Chain Visibility

INVENTORY PLANNING IS OFTEN REACTIVE

Without visibility into your supply chain, you can't predict the number of orders you'll need to fulfill or the quantities of material you'll have to order. During upticks in demand, you risk falling behind while you wait for the needed materials to arrive. The delays in delivering customer requests can reflect poorly on your business and drive customers to seek competing suppliers in the future. Sudden, unplanned demand also puts a strain on your employees, who may have to work overtime to complete an influx of orders.

On the other hand, unexpected drops in demand can leave you with a stockpile of goods that aren't leaving anytime soon. Depending on the goods you produce, stock time can affect quality or potency, and eventually the value of your goods. You may be forced to slow production until the existing inventory is shipped out, which can mean unexpected cuts to your staff's hours.

KEEP IN MIND

You're not the only one who struggles when unexpected demand hits. Placing numerous last-minute orders with your vendors complicates your ongoing business relationship with them as well. How do you feel about clients who give you plenty of advance notice compared to ones who place orders with minimal lead time? Be the better client to your vendors and they'll treat you better in return.

IT'S HARD TO PLAN FOR UNEXPECTED EVENTS

"Expect the unexpected" is easier said than done when you have little visibility or communication with others in your supply chain. Your vendors may have last-minute issues that prevent them from delivering materials to your warehouses. If you find this out only days before (or after) the materials were due, your team has to scramble to come up with an alternative solution and mediate discontented customers.

Your customers may have to delay order confirmations or payment, which will slow your business productivity, hinder the start of projects, and leave your internal operations teams to adjust on the fly.

Inclement weather or transportation issues can impact the delivery schedule across the supply chain with no advance warning. Wile these situations themselves are often unavoidable, a lack of communication with your vendors only exacerbates the issue, leaving your team in the dark until it's too late and production is hours – or days – behind.

YOU CAN'T FOLLOW THE ORDER'S ENTIRE JOURNEY

Let's consider a shipment of goods that arrives damaged at your customers doorstep. Did the damage occur on the cross-country flight? On the truck from the runway to the final destination? Was it mangled in the hands of your production team, or after it left your facility?

A lack of visibility means you are essentially sending your goods into the unknown. You won't know about shipment delays or damages until a package arrives at its destination (or doesn't). Little visibility into the supply chain process makes it hard to identify how and why issues occurred.

If you can't pinpoint the source of the issue, there's no way to prevent it next time. All you can do is sit and hope you packages arrive on time and in good shape.

INCOMPLETE RECORDS

Many manufacturers still rely on manual maintenance processes. This leaves room for incomplete or consistent record-keeping of equipment issues and repairs. What if one worker thoroughly details every single repair performed on the machine while another gives only a brief summary?

Manual logging can also result in an incomplete record of current inventory. If the required parts aren't available, it drags out machine downtime unnecessarily.

Manufacturers who still log maintenance manually rarely back that information up, meaning if there's loss or damage to their lone source of maintenance information, it's gone forever.

HOW SUPPLY CHAIN VISIBILITY SOLVES CHALLENGES

MORE ACCURATE FORECASTING AND PLANNING

The more visibility you have into your supply chain, the better you can forecast peaks and valleys of demand to prevent stock overflow and back orders. This enables you to plan ahead for your staffing and bring on temporary/seasonal workers only when needed.

With clear visibility across all stages, you can also track inventory, raw material, and other necessary supplies in real time. Your workers will be better able to prepare for unpacking, processing, and shipping materials and goods when needed.

OPTIMIZED TRANSPORTATION

Supply chain visibility gives you an advantage when working with parties downstream. Having visibility into each stage of the supply chain gives you a better understanding of transportation costs and quality of service. With this knowledge, you can negotiate contracts with your vendors that best suit both of you.

You can also foresee and account for potential transportation delays or other slowdowns in vendor processes which may affect your own production or customer satisfaction.

Should something go wrong during the transportation of you goods, supply chain visibility enables you to identify precisely what went wrong and at which point in the process. With this knowledge, you can prevent similar problems in the future.

INCREASE ADAPTABILITY

Visibility into the supply chain gives you an irreplaceable resource: real-time information. With timely updates about your supply chain, your company can smoothly handle last-minute production changes.

If a material order is going to be late, your staff can adjust the day's schedule. If a customer order needs to be shipped much sooner than expected, your employees have time to push that order ahead of others without creating a bottleneck in the process. If a certain carrier method is unavailable, you can turn to the best alternative. Supply chain visibility means your production won't be thrown entirely off track by small changes because you'll see them coming and adjust accordingly.

IMPROVED CUSTOMER INSIGHTS

Though the concepts don't seem directly related, supply chain visibility helps you better serve your customers. With visibility into the parts of the process that take place outside your facility, you can better analyze the costs, benefits, and risks associated with every customer. This can help you manage:

- Customer Segmentation: With a greater understanding of every customer's cost and benefit, you can group your consumers into segments. This allows you to complete more detailed forecasting for each specific segment.

- Identified Opportunities: If you produce one product for a client and notice that you have the equipment and means to produce other products to better serve that same client, you can pursue the opportunity. Opportunities to deepen relationships with your existing customers come from understanding not just the services they want from you, but the services they're not thinking of that you could provide. This requires an in-depth knowledge of your own supply chain

- Unnecessary Burdens: Some customers may not be worth serving. Visibility into your supply chain can give you a clearer picture of how much each client truly costs you (in time, resources, and money) for their particular demands. If you are dedicating a lot of effort specialized product that aren't generating much return, it may be worth having a discussion with your client.

HOW TO INCREASE SUPPLY CHAIN VISIBILITY

COMMUNICATE CLEARLY WITH ALL VENDORS

Creating a visible supply chain requires the cooperation of all parties involved. Manufacturers like yourself can take charge by starting conversations about what's expected from each party. Have an individual conversation with each vendor. Points to cover in those conversations include:

- Availability: What are the days and hours of availability for each party in your supply chain? This is particularly important when parties operate in different time zones.

- Emergency Protocol: In the event of an emergency, who is the main point of contact for each vendor? When should other contacts (supervisors or other departments) be brought in?

- Order and Payment Timelines: Set timelines for vendor commits and customer payments. By what date should you expect supplies to arrive at your warehouses? Within what time window do you expect payment? Consider setting consequences for deviating from those timelines.

With clearly defined expectations in writing, you can build trust with all those involved in your supply chain. If you know your shippers come every weekday at 4 p.m., you staff can prepare packages for that time. If you know when to expect payment from each customer (within a reasonable window), you can plan out future investments with a better idea of expected cash flow. You can also have confidence that you've set channels for communication, so if you vendors must deviate from the usual schedule, they know exactly how and when to contact you to keep you in the loop.

COMMUNICATE CLEARLY WITH INTERNAL TEAMS

Communication with outside parties is a two-way street; if you expect your vendors to keep you updated with timely and clear information, you should offer the same level of communication from your side.

That means your internal processes must function with smooth, open communication. To achieve this, define your ideal processes and structures for each department. Then, identify metrics – also known as key performance indicators (KPIs) – to monitor those processes and ensure they meet your standards.

There are many KPIs you can track. Some of the most important for supply chain management include:

- Manufacturing Cycle Time: How long does it take from the start of production to the time the goods reach the customer?

- On-Time Delivery to Commit: What percentage of your products arrive to the customer on time?

- Yield: What percentage of you products are produced correctly the first time?

- Returns: How often do customers return products?

- Inventory Turnover: How fast is your inventory moving out of the warehouse?

With KPIs like these, you can identify areas to improve upon and set realistic goals for your internal teams. These are called SMART goals – specific, measurable, actionable, realistic, and time-based – and you should discuss them with your teams and revisit them at regular interals. Implementing an Enterprise Resource Planning (ERP) system can help you track and work towards these goals by helping your teams monitor data and communicate with each other in real time.

INVEST IN TECHNOLOGY

Take advantage of a variety of options that give you more visibility, both internally and with others across your supply chains.

- Enterprise Resource Planning (ERP): ERP software is popular throughout the manufacturing industry for its ability to integrate all segments of the production process into one location, allowing for smooth and fast communication across parties. Wit all of your data stored in one central location, your company and your decision-makers have access to the data they need in real time, including order fulfillment, inventory levels, scheduled maintenance, and more. ERP software excels in inventory management by creating trackable records of each item, monitoring quantities of materials (for your forecasting), and linking to the relevant suppliers.

- Predictive Analytics: Predictive analytics programs help solve many of the problems we've already discussed. By processing large data sets (i.e. Big Data), these programs can create models to predict upcoming demand, like traditional forecasting. Predictive analytics also looks at you manufacturing processes to identify the chances of a harmful event or anomaly occurring (i.e. risk management).

- RFID Tags: The Internet of Things (IoT) enables the use o Radio Frequency Identification (RFID) tags. These small, lightweight devices accompany packages during shipping, and send data to systems used by shippers and manufacturers. Insights into shipment conditions (e.g. temperature, sudden impact, and damage) can help parties quickly diagnose issues that arise en route and react accordingly.

CONTINUOUS IMPROVEMENT

Manufacturers around the globe are always looking for ways to gain a competitive advantage. Today, one of those ways is greater supply chain visibility. You can continuously improve internal processes through increased efficiency. By leading the charge on establishing standards with third parties, others will look to you as the leader within your supply chains. Leveraging technology like IoT can enable your workers to adapt to any change.

Indeed manufacturers are always facing new sets of challenges. Changing customer preferences put products in and out of demand. There's the constant balance between preventative and routine maintenance while keeping costs low. Environmental pressures put pressure on manufacturers to develop more eco-friendly processes, from material sourcing to waste disposal.

The value of supply chain visibility is clear, yet some manufacturers have yet to move forward. It's up to firms like yours to push the industry forward. The benefits extend to everyone.

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