



Mitigate Risk and Ensure
On-Time Delivery

LIVESOURCE BUSINESS CASE



Manufacturers strive to grow market share and revenue, defend their positions in existing markets, and improve customer experiences. Yet, they face a myriad of threats that impact their time-to-market, costs, and performance quality. In particular, organizational silos complicate collaboration with an increasingly complex supplier network. All of this contributes to delays in product launch.

Outsourcing offers many benefits. But suppliers also expose manufacturers to extreme risks that result in lower margins, millions in lost revenue, and potential damage to their brand and reputation.

Leveraging a launch portal designed to address the complex requirements of the manufacturing industry greatly improves transparency and communication. It helps to mitigate potential risks and positively transforms the product launch process.

Supplier Master: A Single Source of Truth

It sounds simple enough: maintain a single global database for all suppliers and associated information. Yet, manufacturers often struggle maintaining supplier master data. Many global manufacturers have grown through acquisition. Each organization comes with its legacy systems, supplier numbering and naming conventions and procedures. For example, one business unit may have blacklisted a supplier with no process in place to share this information with other business units—other than by word of mouth. As the volume of data produced in a modern manufacturing operation rapidly grows, it's difficult to reign in disparate and non-standardized information.

While ERPs seem like a logical place to manage supplier data, there are challenges. First, ERP systems track only minimal supplier data, mostly financial information. It is not unusual for a manufacturer to track over 400 data points for each direct material supplier: certificates, regulatory compliances, OEM audits, financial, quality and on-time delivery information. Only a dozen of these data elements can be stored in the ERP.

The second challenge is that ERPs are primarily internal solutions, typically lacking easy-to-use external portals for the collection and maintenance of supplier information. Most, if not all, of this critical supplier data must be updated on a monthly or annual basis. A manufacturer with 1,000 direct material suppliers often maintains 400,000 data points across the supply base.

WHAT'S THE RISK?

- Incomplete and inaccurate supplier data

WHAT'S THE COST TO THE BUSINESS?

- Lower margins due to expedited costs associated with sourcing from a different supplier at the last minute
- Fines from the OEM for shutting down their product line
- Loss revenue associated to the product shut down
- The lost opportunity to bid on future work because of poor performance on current projects

Item Master: Managing a Single Information Set Throughout Product Launch

Like supplier master data, it's critical to have a single source of truth for the BOM and the multitude of items it contains. Engineering owns the BOM and item library, and typically manages them through a product lifecycle management (PLM) system. Unfortunately, downstream departments such as Purchasing and Quality generally don't have access to the PLM. To make matters worse, manufacturers may use different PLMs across different business units.

▶ WHAT'S THE RISK?

- Items could exist in different business unit systems with no way to identify them as the same item
- Not being able to identify the various locations and uses of an item during a product recall

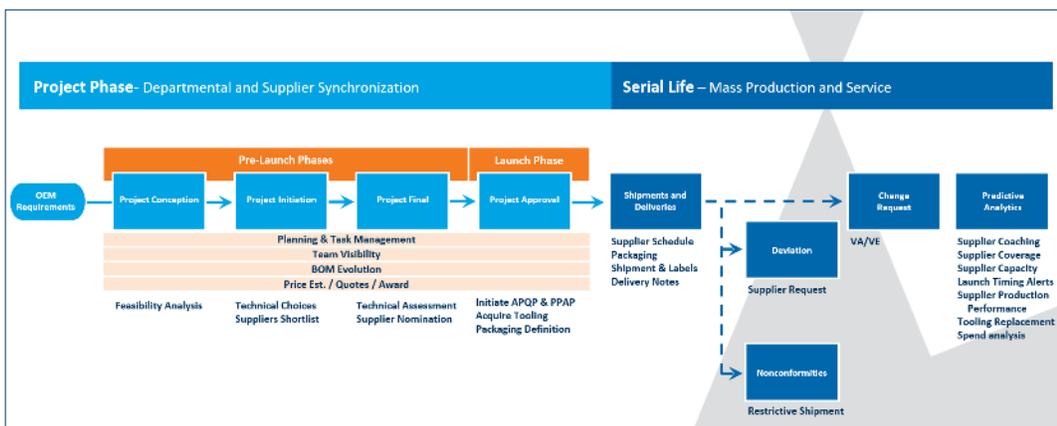
▶ WHAT'S THE COST TO THE BUSINESS?

- Business units not coordinating items and paying different prices for the same part
- Extended damages by not fully managing product recalls

The Product Launch Process

Launch: Managing Continuous Change Between Engineering, Purchasing and Quality

The pre-production process begins with establishing the requirements for a product. Engineering provides an initial BOM associated with the product, which is submitted to Purchasing for cost estimates. At this phase, Purchasing relies on historical cost data from similar products to develop high-level cost estimates. In later phases, the manufacturer's suppliers provide competitive quotes through RFQs to confirm final cost estimates.



Once the manufacturer is awarded the business by the OEM, the process enters the launch phase. The Purchasing team confirms the best and final price from selected suppliers, nominating each supplier for approval by other departments. Upon approval, suppliers are awarded the business and Purchasing records the original purchase order price.

Over the next one to two years, Purchasing, Quality, and Engineering prepare for production. The Quality team initiates an APQP/PPAP for each part, by supplier location. It is important to continuously track the supplier's quality approval progress to ensure the completion date aligns with the start of production date.

Engineering continues to refine the BOM based on internal requirements or feedback from the OEM. This not only impacts the PPAP, but could require modifications to tooling that may have already been built. Communication between Engineering, Purchasing, Quality, and suppliers is critical during the launch phase. Purchasing needs to track BOM changes and the impact on the program's original cost. The cost will "walk"—changing from the original proposed cost to an updated cost at the start of production. So Purchasing must be able to identify the party responsible for price changes to ensure margins are maintained.

WHAT'S THE RISK?

- Missed changes in the BOM, resulting in incorrectly made items
- Missing the target production launch date due to difficulties in communication between departments

WHAT'S THE COST TO THE BUSINESS?

- Expedited costs given missed launch dates
- Paying for increased costs due to continuous changes in the BOM

Start of Production: Managing Quality Processes

The production phase ushers in a different set of challenges: a manufacturer sends purchase orders and updates supplier schedules via email to smaller suppliers who do not support EDI. The supplier manually enters the order into their system, creates packaging, and prints shipping labels to the manufacturer's specifications. This manual process is difficult for suppliers. Plus it leaves the manufacturer with no visibility into a supplier's status in filling the order. Further, it can result in data errors, leading to unexpected supply chain disruption with little or no warning to the manufacturer.

The manufacturer's quality engineers inspect parts received from suppliers. Many have teams of quality engineers responsible for working with troubled suppliers, as it is important for the manufacturer to identify suppliers that are having difficulties delivering parts on-time or with poor quality. The sooner the quality team identifies a supplier in trouble, the better chance of avoiding a supply chain disruption and higher costs. Needed parts may need to be sourced through alternative suppliers while the original supplier issues are resolved.

Most organizations only recognize this impact through high-level KPIs such as on-time delivery. In many cases, lower than anticipated on-time delivery performance also indicates other negative trends: high expedited costs, insufficient inventory in some locations or excess inventory in other locations. Most manufacturers lack a system and the data that can drill into the root causes of low KPIs.

WHAT'S THE RISK?

- Issues with unidentified root causes, resulting in persistent problems

WHAT'S THE COST TO THE BUSINESS?

- Poor communication and underperforming suppliers can erode margins
- Result in loss revenue
- Severely damage a manufacturer's reputation and stock price
- Result in the loss of future revenue

The Reality of Current Systems

Enterprise systems, such as PLM, QMS, and ERPs, only address a segment of the business processes for an NPI. They are unable to manage the comprehensive data required to fully understand where bottlenecks and risks exist across the supply chain.

The overwhelming majority of data associated with NPI is managed in thousands of spreadsheets stored on shared drives or employees' laptops. It's nearly impossible to standardize and aggregate this data. Because the root causes of supply chain issues span multiple departments, it's difficult for manufacturers to determine the true impact that direct materials suppliers have on their business.

The lack of visibility creates challenges and delays in launch and production phases, resulting in lower margins and millions of dollars in lost revenue. Depending on the size of the manufacturer, missing the yearly on-time delivery KPI by 10% could result in millions, if not billions, of dollars in losses. The inability to track the cost walk of a program from inception to production may lead a manufacturer to absorb a 5-10% increase in costs. Losing track of tooling locations and usage is another serious detriment to the bottom line. All of these disruptions add up to huge losses affecting a manufacturer's revenue.

Global Support Requirements for Thousands of Users

As much as 25% of manufacturer employees participate in product launch activities. Additionally, the number of supplier users is 6X the number of internal users. Mid-size manufacturers have thousands of active supplier interactions each month, and larger manufacturers can have tens of thousands of users. These are typically global users who require support in multiple languages to ensure adoption. Even the best product will fail if users are not willing to use it. When determining a path forward, it is important to take this into account.

Developing Internal Systems vs. Purchasing a Commercial Solution

When beginning to address these supply chain challenges, departments typically identify a specific problem to address in isolation. Then they engage internal IT resources. At first glance, this approach appears to make sense: internal IT projects are suited to address projects with a limited, well defined scope. This is particularly important, because funding is viewed as a one-time expense. On-going support and maintenance are often not part of the funding plan for internal IT projects.

However, the complex business processes of product launch span multiple departments and include collaboration with external suppliers. This makes solving upstream supply chain problems more comparable with enterprise systems, rather than point solutions. These systems require long-term planning, funding, and thorough business analysis to ensure that business processes and data are properly integrated. In these cases, commercial solutions are more likely to achieve the project's long-term objectives and provide ongoing maintenance and support.

LiveSource is a Proven Solution

LiveSource brings expertise in building, deploying, and supporting global solutions that simply can't be found in internal IT teams. Supporting all business processes in product launch and serial life, LiveSource modules are fully integrated, so all parties have access to data in real-time, replacing the risks associated with spreadsheets and emails. LiveSource analytics enables users to easily create in-depth analysis, alerting manufacturers of suppliers that need more attention and support.

LiveSource is more than a single point solution to solve challenges specific to one department, but a platform to streamline and mitigate risk across all areas of product launch. Global customer support is available in every region, speaking with customers and their suppliers in seven languages. Additionally, LiveSource will onboard and train suppliers, so the manufacturer isn't responsible for managing that aspect of support.

With regular input to the product roadmap from active customers, LiveSource continues to heavily invest in the product. The solution is built specifically for direct material manufacturers, built to connect disparate systems and siloed departments, and built to easily adapt to changing needs through configuration. In 2019, the equivalent of more than 35 man-years of new development were added to the core product.

Direct material suppliers represent a significant percentage of a manufacturer's annual spend. Lack of visibility and control of these suppliers has a huge impact on margins, revenue and the company's reputation. Partnering with LiveSource is the best way to reduce risks, improve efficiency, lower costs and avoid costly supply chain disruptions.

Know what's coming with LiveSource.