Staying in Sync

Three Best Practices for Tightening the Connection with Your Customers and Suppliers

Highlights

- Automotive sales are picking up.
- Market conditions are changing rapidly.
- We explain 3 best practices to stay on top.
- Learn how new IT solutions can help.
# Table of contents

- Executive summary ................................................................................................................. 3
- The news is good ...................................................................................................................... 3
- Three best practices for meeting the challenges ........................................................................ 4
- New IT solutions fit the bill, support best practices ................................................................. 9
- Where to start? ......................................................................................................................... 10
- Consider Infor ......................................................................................................................... 11
Executive summary

The days of widespread upheaval and uncertainty in the automotive industry are behind us, as market recovery takes hold. Yet automotive companies are struggling with new issues. How do you meet demand variability and increased vehicle complexity and differentiation, manage ongoing struggles with capacity, and maintain a supply chain made even more fragile by recent events in Japan?

Flexibility in global sourcing is the key. That’s what we mean by “staying in sync” from one end of your supply chain to the other—being able to respond to your customers, adapt to flexible production, and direct your supply better and faster than ever before. New approaches and solutions are available that help automotive companies do just that. Read about them now.

The news is good

The ARC Advisory Group reports that the US market was leading the way in late 2010 with the best single-sales month since the Cash for Clunkers-fueled August 2009.¹

While the North American market recovers at an expected 11% growth rate in 2011, and the recovery continues with unabated strong growth in countries like China, the EMEA and APAC markets still struggle domestically. The good news is that both European and Japanese carmakers are seeing their sales increase in North America and China. With manufacturing operations in both regions, these carmakers have big opportunities to respond—and thereby mitigate sluggish sales in their own domestic markets.²

In addition, automotive analysts project that global new light-vehicle sales will reach 76.5 million units in 2011. This would be 6% higher than the 2010 total and would smash the previous record of 70 million units in 2007, indicating that the global automotive market is back and thriving.³

This graphic, from J.D. Power and Associates, illustrates the rebound in US light vehicle sales.

2. Slansky, ARC Highlights.
3. Slansky, ARC Highlights.
Yet with the good news come new challenges for automotive companies—whether OEM or Tier 1 suppliers, remanufacturers, specialty vehicle producers, or aftermarket part and service providers. How quickly can your company re-source its critical materials and components while keeping inventory low and quality high? You must be able to stay in sync across the entire reach of your supply chain—from customers to suppliers and back again.

**Three best practices for meeting the challenges**

Your customers depend on you now more than ever to supply them on time with the right quantities at their speed. Your job is to make that happen no matter what it takes. You must have a lean and flexible supply chain that can readily adapt to changing and complex market conditions.

To make things even tougher, you must reinvest wisely, so as not to overbuild or overinvest in production capacity and inventory, only to face the unfortunate prospect of bottom-out history repeating itself.

Sound like an impossible task? It’s not, as more and more companies are proving today. Here are three practices that are guiding companies like yours to successfully meet the new challenges of today’s resurgent automotive market.

**Respond to your customer**

... and adapt more quickly to changing market conditions.

With 19% of US consumers saying they are likely or very likely to consider an electronic vehicle when buying their next car, it’s clear that market demands are changing rapidly.

It’s also clear that we are entering the age of mass customization. Customers expect innovation; they want to drive a vehicle that is unique to them. This requires OEMs to offer more flexibility and options, with no increase in production costs. In response, suppliers must be able to meet this challenge as well. Service levels and customer quality requirements are continuing to increase. The bar continues to rise and manufacturers, as well as aftermarket service providers, must step up to the challenge.

Are you really in touch with these changing demands, and are you agile enough to respond to them and ship the right product at the right time? Your inability to deliver to exact customer demand equals lost business and penalties, and ultimately costs you money. Shutting down an assembly line is not an option. You need to know exactly what your customers require and you need to know it now. To be successful, you must be in constant communication with your customers so that you have the necessary information to take action.

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EDI is essential, but not the only tool you need.

Solid electronic data interchange (EDI) is central to this communication challenge, but is certainly not the only element involved in being a responsive company. The Materials Management Operations Guideline for Logistics Evaluation (MMOG/LE) is instructive here. Published in 2004, the MMOG/LE is a self-assessment tool that enables companies to rank their material planning and logistics performance and gain guidance toward top performance in the industry. It is supported by the nonprofit Automotive Industry Action Group (AIAG) as well as its European counterpart, Odette International.

MMOG/LE identifies 10 elements as shortfalls in responding to customers. They include such things as inaccurate barcode labels, lack of automated ASN data generation, and inadequate storage location labeling. Yet such details point to larger issues that a company should examine first in its efforts to offer optimum responsiveness to its customers. Indeed, we at Infor™ have found that successful companies have distinct similarities in today's market: They all score high marks in achieving the following benchmarks when it comes to quickly meeting customer demand:

- They have enterprise visibility across their production machines, demand, and all of their supply chain capabilities.
- They properly plan tooling, machines, and all resources.
- They accomplish the same amount of throughput with fewer costs.
- They have the ability to meet true Just-in-Sequence (JIS) and Just-in-Time (JIT) requirements and deliver exactly what is needed.
- They receive supply "right to the line" and "right on time."
- They can schedule down to the hour, minute, and second, and in sequence if needed.
- They have the exact supply, the exact resources, at the exact time to produce the product exactly when their customer wants it.
- They give suppliers the same level of planning detail that they have—orders, delivery locations, times, and forecasts.
- They have synchronization across all operations—internal, external and outsourced.

Adapt to flexible production

When you're out of synchronization, you're out of control. You're constantly fighting emergencies and reacting to the changes at hand. Lack of timely communication up and down the supply chain makes you vulnerable to the Bullwhip Effect—when you don't realize the need to change until it is already too late to do so. As a result, you're spending more on people, machines, and material. The chain reaction this causes is upsetting the balance of all of your production and resources. By proactively matching demand with your supply, you will align resources, material and labor, and bring flexibility to your entire operation. Such flexibility is essential to hold steady in the shifting landscape of today's recovering economy.
The key is to achieve operational excellence. Automotive manufacturing leaders are now focused relentlessly on that goal, because they understand how vital it is to balance production and resources. There are a number of reasons for this, but figures from recent IDC Manufacturing Insights research\(^5\) show that the most critical driver is the need to explore and exploit markets cost effectively.

Indeed, the retention and growth of existing customers, and the reduction of operational costs, dominate boardroom thinking. OEMs and their tier suppliers throughout the automotive supply chain are looking at operational excellence initiatives to deliver increased customer fulfillment while cutting expenditures.

They are adopting such manufacturing approaches as Kanban, serialization, sequencing, lean manufacturing, repetitive manufacturing, and cellular manufacturing. Whatever approaches you take, the following capabilities will help you remain flexible and maintain the balance you need to produce effectively and meet the demands of change in the automotive marketplace. Working with automotive companies like yours for many years, we at Infor know these capabilities are keys to adapting to flexible production and reducing costs:

- Converting customer's demand immediately into order visibility—forecast order, firm order, or sequenced shipment
- Conveying the order directly into the ERP system and knowing exactly what your customer wants (raw materials, labor, machines, tooling, etc.)
- Immediately letting suppliers know what they need to deliver—all orders are automatically “pushed” to suppliers
- Generating shop floor orders automatically and immediately
- Reducing waste by producing exactly what is needed
- Increasing profitability by reducing waste and non-value-added processes
- Increasing the ability to fulfill customer demand by optimizing use of resources
- Scheduling resources to optimal usage levels
- Scheduling all resources for optimal production
- Scheduling to prevent bottlenecks and inefficiencies
- Scheduling outside suppliers as part of the integrated production system
- Receiving an early warning of out of control processes and deviations
- Having visibility into the supply chain to see upcoming problems

**The role of IT in adapting to flexible production.**

To implement such capabilities across your enterprise, it is essential that you be able to maintain multiple IT systems better, more effectively. Automotive companies have a proliferation of systems that they have to maintain on a daily basis—a costly undertaking that delivers minimal added value. These systems span an entire alphabet of acronyms: ERP, EDI, SCM to name but a few.

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It’s not just a case of the number of these systems, but the myriad changes each system must undergo to continue enabling business. Legislative examples include import and export rules, changes to taxation and of course, government regulations, while customers may mandate changes such as the need to track components from fabrication or the provision of transport details for carbon reporting.

Making these changes requires technical staff and management, further increasing costs. Stripping the processes down—for example, only having to make one set of changes to a central database that updates all EDI customers, suppliers, and trading partners—can yield big returns.

Simplified, leaner processes can then be embedded and, where possible, automated to further reduce operational costs. The technology systems in use are critical to this automation; manufacturers need to be able to deploy these systems quickly when new business is won. Yet few automotive suppliers have the time and resources to invest in looking for a new EDI vendor in each new market.

**Outsourcing makes sense.**

These hurdles make a compelling case for outsourcing the development and maintenance of IT systems, leaving the automotive supplier to expand into new markets with different languages or business rules, and bid on new projects with the confidence that they remain compliant. As the global auto market is shifting its focus from the mature market to emerging markets like China and India, the speed to implement IT systems becomes even more critical.

This graphic, from the University of Michigan’s College of Engineering, shows the dynamic growth in China’s automotive industry.
**Direct your supply**

... and tackle complexity by communicating better and faster with your suppliers.

At the risk of stating the obvious, the automotive industry is inherently complex. The most obvious example is a car itself, with anywhere between 15,000 and 20,000 parts sourced from all over the world.

In analyzing this complexity, the term “supply chain” is a slight misnomer. Chains imply interconnectedness, but in a simple, single, linear fashion. For carmakers and those that supply them, this “chain” is closer to a sophisticated array of networks of trading partners (TPs).

Regardless of the position of any individual business in any of these networks, the entire automotive industry has had to respond to profound customer changes. Most dominant among these changes has been the shift in global demand patterns, as new markets grow and mature ones evolve. This has become the perfect breeding ground for even greater complexity.

For example, special editions and regional variations of car models demand changes in production with profound ramifications throughout suppliers. Meanwhile, at the macro-economic level, there is evidence that the mass market is dying and will be replaced by multiple niches, each of which will require dedicated resources to successfully exploit.

Against such a backdrop it is no surprise that in recent IDC Manufacturing Insights research, 43.8% of Western European automotive manufacturers reported they face greater complexity, with a further 18.8% claiming they face a significantly more complex market.

For automotive manufacturers and those in their supply networks, complexity can be most clearly seen in the time, resources, and management taken up by handling multiple trading partners with individual, often idiosyncratic information technology systems, ranging from ERP to barcoding/RFID to financial management. For example, the salary of a supply chain manager is a cost of this complexity, as is the time taken to assess the availability of a given component or sub-assembly, and the impact on delivery of a finished product.

Another significant cost comes in the time and resources needed to communicate to these networks. The greater the number of trading partners, the more complex it becomes to keep everyone in the loop. EDI is often relied upon as the main carrier, but implementations of EDI need to interface with multiple systems such as differing ERP solutions, creating yet another layer of complexity.

In the face of this complexity, it is even more difficult for automotive companies to direct their supply. Do your suppliers know what you need and do they know it fast enough? Are they able to tell you what they can supply and when they can supply it? Synchronized communication with your suppliers on demand, replenishment, quality, and costs is critical. You’ve got to be able to let your suppliers know what you need immediately.

6. IDC Manufacturing Insights.
How do you do it?

If you are the final manufacturer, you could mandate one set of systems to all suppliers, but this would quickly become unworkable and would likely lead to some suppliers going under from the cost of change. Suppliers to the OEMs have found from past history that, even with standards such as X.12 and EDIFACT, significant investment had to be made to meet individual OEM requirements. Following the same practice with your suppliers will add cost and complexity that the supply chain cannot afford.

An alternative option is to consolidate all relevant EDI functions onto a single platform that is ERP-independent and requires no investment by suppliers to participate and, as a result, can fit in with all existing systems throughout your supply network. This not only gives you the ability to cut through the complexity of the different systems in use, but can “fill in the gaps” of those systems without recourse to expensive new technologies. This boosts the return on existing ERP investments.

As a manufacturer or Tier 1 partner, you can focus on your core business by using standard EDI products with trading partner rules sets built in. Following on from this, you can realize savings from standardization and less maintenance—reducing costs and allowing you to redeploy staff to higher value tasks.

Other best practices for directing supply include:

- Presenting the suppliers’ demand immediately how they want it, in a delivery method of their choice (web, email, EDI, instant messenger)
- Connecting all suppliers into the supply chain (all they need is a PC and an Internet connection)
- Enabling flexible decisions about procurement methodologies by supply chain managers
- Tracking a long supply chain with global track and trace

Such practices have another benefit besides reducing costs and making you more efficient. They also help you present “one face” to all your customers, instead of continually having to reinvent yourself depending on the supplier you are dealing with.

**New IT solutions fit the bill, support best practices.**

According to IDC Manufacturing Insights, many companies are under-invested in IT, and have not recognized the role that IT can play in enabling operational excellence. One of the biggest concerns that emerges in IDC’s survey is the total cost of ownership for ERP, but it doesn’t have to be that way. Indeed, new IT solutions available today can go a long way toward helping automotive companies stay in sync with their customers and suppliers and meet the challenges discussed in this paper.

For more than 25 years, Infor has been helping companies in all segments of the automotive supply chain keep pace with intense and constantly changing business requirements. At the core of this strategy lies Infor10 Automotive, a modern manufacturing and distribution industry suite with well-developed automotive functionality.

7. IDC Manufacturing Insights.
Infor10 Automotive addresses the requirements of OEMs, specialty vehicle manufacturers, companies that manufacture licensed components, aftermarket parts manufacturers, service parts suppliers, and companies that remanufacture used parts for resale.

Part of the Infor10 Automotive industry suite, Infor10 Supplier Exchange [SupplyWEB] is an advanced, web-enabled supplier relationship management solution that facilitates effective, efficient collaboration and execution between automotive/discrete manufacturers and their suppliers. Other Infor solutions help, too. Not every ERP solution is automotive ready—able to handle all your EDI needs and the requirements of all your OEM and trading partners. With Infor10 Automotive Exchange (AutoConnect), you can run efficient communications on a single platform, globally. You get a single ERP-agnostic solution, with automotive trading partner rules built in, which is continuously updated based on the constant changes in the automotive industry.

The Infor10 Automotive Exchange also normalizes customer demand. This means that it can manage customer-specific demand information in releases, shipment instructions, sequence message, Kanban signals, etc. It also can provide one face to all customers, sitting on top of ERP systems so all customer demand is visible in one database. This is an enormous benefit for companies struggling to keep up with the rapidly changing customer demand that drives the enterprise.

These solutions are helping automotive companies stay in sync with customers and suppliers. The challenges to doing so may seem complex, but they are not insurmountable, as proven by the Infor customers that are gaining a strong foothold in today’s emerging market. So, how are they doing it?

• First, they have tools and processes in place to offer optimum responsiveness to their customers.
• Second, they are implementing operational excellence initiatives to deliver increased customer fulfillment while cutting expenditures.
• Third, they are cutting through the complexity of multiple systems by standardizing on a single system to direct their supply, and in the bargain, are able to present one face to customers and partners.

And finally, these companies have made investments in solid solutions that offer a low total cost of ownership and deliver results quickly in today’s rapidly changing marketplace. By applying supply chain improvements and best practices and improving visibility within their four walls, they are creating a well-connected, transparent supply chain. The result is higher customer satisfaction, stronger supplier relationships, and the ability to maintain (or regain) profitability.

Where to start?

If you’re considering making changes in your systems and approaches to meet the challenges of the resurgent economy, review the following checklist of detailed capabilities that today’s successful companies possess.

• Release accounting: Can you maintain cumulative records for releases from OEMs and to Tier 2 suppliers?
• EDI support: Can you provide electronic communication of release and ASN information, both to OEMs and Tier 2 suppliers?

• Lean manufacturing production control: Does your scheduled or repetitive production without work orders minimize shop floor reporting requirements and support lot and serial number tracking?

• Barcode labeling shipment verification: Can you support the labeling of product to OEM requirements? Do you have the ability to explicitly verify shipments and capture serial numbers for ASN?

• Sequenced shipping: Can you accept “broadcast” for sequencing parts in shipments as they will be used on the assembly line?

• Fine control of shipments: Is your scheduling of shipments tight enough to accommodate small delivery windows to customers and help you avoid high penalties for not being on time?

• Accounts Receivable support for alternate payment schemes where no invoice is sent: Can you support processes such as Evaluated Receipts Settlement, Pay on Use, Pay on Shipment of Completed Vehicle?

• Program management: Does you IT system provide support for bidding, estimating, and prototype phases of product?

• Feature-based assembly: As Tier 1 players take more responsibility for major subsystems, can you build and deliver highly optioned products in sequence on progressive assembly lines?

• Multi-mode manufacturing: Can you accommodate lower volume products, such as heavy equipment parts, as well as some machined parts that do not justify a dedicated production line and are still produced to work order?

**Consider Infor.**

The checklist can also help you see how you stack up against the competition. Use it to develop a roadmap for your own strategic plan to stay ahead. Today's solutions can help you achieve these capabilities for your own organization—and answer “yes” to each of the questions in the checklist.

What's more, you can leverage today’s solutions to meet the challenges discussed in this white paper:

• Adapt more quickly to changing market conditions and respond faster to your customers? Check.

• Cut your costs and balance your production by achieving top-notch operational excellence? Check.

• Communicate better and faster with your suppliers and customers so you can direct your supply more efficiently than ever before? Check.

The result? Greater market share at lower total cost of IT ownership. To learn more, contact Infor today or visit our website at www.infor.com.
About Infor.

Infor is a leading provider of business software and services, helping more than 70,000 customers in 164 countries improve operations and drive growth. To learn more about Infor, please visit www.infor.com.

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