



Supply chain management in China auto

There are real money making opportunities for the many China-based auto manufacturers, but they get their supply chain right first

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Supply chain execution in China is addressed differently by each automotive OEM and their multinational company suppliers. Local players face their own unique hurdles as they rush to the world market. Effective supply chain management hinges on timely communication across the supply base. True JIT and/or JIS manufacturing is difficult to execute in a mature market; when you add the complexities of a developing region facing rapid growth, the challenges become exponential.

Local automotive standards and other regulations ensure some degree of complexity for foreign entrants to any market. Let's look at global supply chain communication strategies, an area that is ripe for optimisation. In this situation, we consider global tier one suppliers to face similar challenges to the OEMs they service and include them when discussing the overall OEM environment.

Global consolidation and international partnerships have been occurring for several years. Consider how OEMs communicate with their suppliers in North America, Europe or Japan. EDI has existed for many years and is widely adopted. Are there global standards? A central portal where all can connect and collaborate? Most definitely not. OEMs have had to implement and support regional communication standards wherever they go. Each OEM may prefer its native standard (or to leverage its regional portal conglomerate) as its primary

communication protocol but reality dictates that, "When in Rome, do as the Romans do."

Supply chain execution has been recognised to deliver strategic competitive advantage. Consider the fact that even in their home markets no OEM or tier one supplier wants to surrender their supply chain relationships to a third party service that is funded or actively sponsored by their direct competitors. This is a local barrier to the existing automotive portals and their attempts to reach critical mass. Furthermore, legacy environments, in-house expertise and even national pride prevent an OEM from one region choosing another region's standard or industry portal as their primary global solution. Most OEMs do have significant EDI adoption rates with their key suppliers and have some portal strategy, but this remains difficult to scale internationally. The end result is that the global communication of any OEM or tier one supplier requires multiple standards, interfaces, manufacturing configurations, 3PL services and support of unique supply chain configurations.

The China factor

Now let's consider the China market; supply chain management wasn't the first priority when companies entered China. Each OEM invested into China as a strategic growth market. "Get there quick" to establish brand recognition and begin capturing market share was the highest

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priority. China regulations require joint ventures as the automotive industry is part of their national strategic plan. As tier one suppliers quickly followed their OEMs customers and faced similar regulatory requirements. Most multinational companies now have multiple plants in different geographic regions across China. Some with different JV partners, most with different levels of IT sophistication and limited IT skills on site. Logistics is primarily outsourced as the local infrastructure was originally so immature it took dedicated businesses to ensure parts reached the plants in a timely manner. Staging buffer stock at the supplier or bonded customs warehouse, a regional 3PL warehouse or at the OEM plant is the standard not the exception. Lead times remain long if there is any deviation from plan and due to rapid market changes planning is more hope and educated guess than statistical analysis.

Now let's consider the Chinese automotive companies, the largest are state owned enterprises, others launched by entrepreneurs. Most have partnered with foreign OEMs, several of the biggest are vertically integrated owning hundreds of their own suppliers (which are legacy state owned enterprises or other JVs). Typically in a JV, the foreign partner retains IT infrastructure control or strongly recommends a solution that is designed for their specific manufacturing processes. The Chinese enterprise may have multiple JVs each with a discrete plant, one for each brand and in some cases with end products that compete with each other. The Chinese OEM faces completely unique manufacturing processes, supply chains and IT structures within each business unit. Last but not least the China government has advised that: there will be a China brand that competes at the global level, and that the existing OEMs in China will face government influenced consolidation to approximately 3 major players in the future.

Each of the China OEMs is in a race to develop their brand as a dominant player across China. They all want to have the size, market share and success to claim immunity and win this unique game of survivor. None of these companies is prepared to share their supply chains with other domestic competitors. A China automotive portal is less likely to succeed here than anywhere else in the world as the stakes are even higher. For any OEM that invests and does the early adopter work getting their suppliers onto an industry generic portal will only make it easier for their local competition to plug in, catch up and compete.

Drivers of change for the China automotive industry

- China's WTO membership opened the market to more multinational companies; they made significant investments following the lure of rapid

growth and high profits. This was followed by the cooling of the China economy and the result is excess automotive capacity.

- Profits are dropping as OEMs use discounts and other traditional mechanisms to capture market share. As always, they pressure their suppliers to reduce costs to shore up margins.
- Facilities in China now have the quality and cost efficiency to support export business.
- The China auto industry will continue to grow for the foreseeable future, at what pace remains an unknown.
- Local China OEM vehicles are quickly reaching export standards and some have lower costs than their JV competitors.

The current situation and direction

- Most China OEM plants whether JV or local have ERP (though there are some that still don't). Most JV tier one suppliers also have ERP. Many tier one state owned enterprises and tier two suppliers do not have ERP. This will evolve in the coming years but change takes time, and it will be years till all tier one suppliers have sophisticated ERP capabilities.

- Most OEMs have a capable logistics infrastructure in place. Whether they have outsourced this function or developed it in-house, the movement of parts and finished goods in a timely manner is not a significant issue.

- Most OEMs / tier one companies in China manage their supply chains manually. There is poor visibility of their supply chain's ability to execute. Customer facing has limited visibility of demand and little sharing of real time forecasting / scheduling.

- Finished vehicle distribution is evolving and has many channels across China. ATP / CTP is more related to drawing down buffer stock than suppliers executing true JIT manufacturing. This adds significant costs and inefficiencies.

- Qualified IT personnel in China are hard to find or can be costly to retain.

Export capability is a priority for many China operations. The global business unit can use a cost effective source to aid their international margin challenges. Chinese enterprises that export successfully will earn recognition and improve their "survivor" potential. To be a global player (JV or local enterprise) all of these organisations must meet global supplier performance criteria. A deterrent is their long lead times and inflexible supply chain models. Inability to handle traditional EDI is a good example of a China supply chain ►



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► management barrier that isn't an issue in most other parts of the world. Inbound data from overseas via portals or other web based solutions may suffice in the beginning, but this is not an optimal solution when supporting multiple international regions, standards, business processes and time zones.

Strategy and options for success

When plants are running below optimum output, it is typically a time to look at cost cutting and efficiency improvements. The adage remains true that, "Every dollar saved in cost is equal to ten dollars of new sales." Now is a perfect time for automotive companies in China to evaluate their supply chain models and optimise for both short and long term effect.

ERP systems, production systems, logistics models and supplier communication should all be under review now. As IT staff can be a part of the challenge, review opportunities to consolidate applications into regional data centres. World class outsource data centres are now available in China if ownership of these facilities isn't strategic to your company. Note this is not the same as outsourcing your supply chain relationships!

How do you manage your supply chain? What are the requirements for your China operations to be world class exporters? Can you improve collaboration with the supply base? EDI in traditional forms or via a purpose built web solution can reduce lead times, order data errors, improve receiving goods processes, payment cycles and shorten lead times.

Change management is crucial to success in China. People are resistant to change round the world, and the Chinese culture is thousands of years old and more resistant than most. User acceptance to any new business process must be included as part of any successful strategy.

Evaluate your supply base, and assess their abilities to collaborate with your company for improved efficiencies. Ask yourself the following questions: Do they have ERP, production planning, WMS or

inventory management systems? Do they have a supply chain strategy of their own? Can they support traditional EDI via VAN or internet (EDIINT versus web based) How will they support you for export business? Warranty tracking, export compliance (hazmat documentation, etc.). Are they ready?

Evaluate your logistics service provider for similar abilities and their plans for improvement.

Opportunities for profit and growth

The China market will remain strategic and provides long term opportunities for profit and growth for automotive companies. Supply chain execution will directly impact the profits your company sees from this market.

How you collaborate with your domestic China suppliers and global supply chains is "low hanging fruit" for improvement. It can easily be addressed with existing industry standard B2B / EDI applications. Remember your China operations will need to deal both domestically and globally so they will require versatile solutions.

Additionally, China OEMs will each have their own supply chain model, they may be your partner, but their priority is domestic dominance. You need to be able to support them as well as the international market. Don't expect them to use a portal from overseas or follow a standard or process that doesn't fit the local environment.

Selecting the right solution should include consideration for the ability to: support global industry standards (multiple standards such as ANSI X12, EDIFACT, VDA, JAMA EDIFACT and so on, not just the one used at HQ); double byte and Chinese language capabilities; easy to learn and easy to use interfaces; support of your best practice JIT / JIS processes; consider vendors with: local execution capabilities; international automotive domain expertise; China market experience; and, supplier rollout and change management capabilities.

The bottom line result will be cost savings and improved efficiencies that can be leveraged for significant competitive advantage. ☐