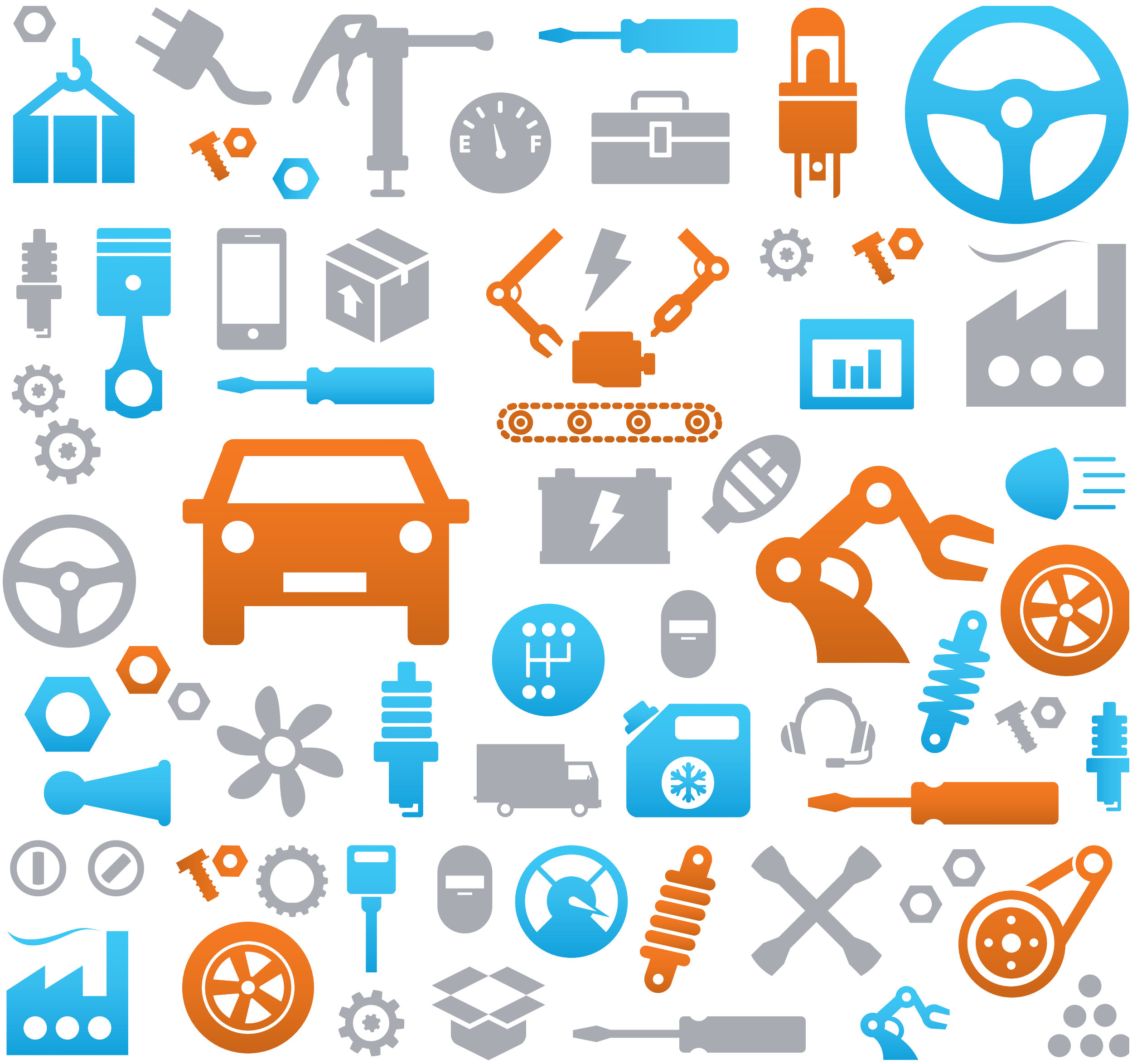
Executive Brief

Risks and opportunities in the new automotive industry

How automotive tier suppliers can reduce risk and succeed in today's unpredictable business environment



Highlights

Automotive tier suppliers can thrive if they understand how the industry is changing and know how to take advantage of these changes to reduce risk.

An era like no other

For many, the recent history of the automotive industry was nothing short of a disaster. Too many once-thriving firms no longer exist. Those that survived find themselves in a world with bewildering array of new risks, balanced in part by entirely new opportunities. In some cases, the greatest risk could result from failing to seize those opportunities while they last, or from failing to perceive new opportunities as they emerge.

Auto suppliers today must respond effectively to major market forces, in particular the macro trends of production and consumption growth shifting to the BRIC countries (Brazil, Russia, India, and China) as well as other markets in the Asia Pacific region. But determining how to respond strategically is not at all obvious.

The best way to thrive in today's automotive supply chain is to methodically understand the changes—predictable and unpredictable—and apply the lessons learned to dramatically speed up decision-making across the enterprise.

The risks

Understanding major automotive trends like global sales and production projections is certainly complex, but these trends evolve relatively slowly and most automotive managers have extensive experience in managing them. It's the abrupt, unpredictable events that disrupt the automotive supply chain from time to time that pose the greatest danger. In recent years, a series of unrelated, unpredicted events have knocked the worldwide auto industry off balance.

A few examples:

- Earthquake and tsunami in Japan: The 2011 earthquake and tsunami in Japan crippled production for major Japanese auto companies for months and, by extension, the global auto supply chain.
- Floods in Thailand: The fall 2011 flooding in Thailand, an emerging Asian auto industry hub, temporarily curtailed production by as much as 50%.[1] A Honda assembly plant was submerged during the flood; Toyota, Ford, and other companies stopped production at assembly plants because of flood-related supply chain disruptions.
- Bankruptcy in the US: The bankruptcies of US-based automotive companies General Motors, Chrysler, and Delphi between 2006 and 2009 was unforeseen a few years earlier. Bankruptcy had major and abrupt ramifications for these companies, their suppliers, competitors, and consumers.
- Fire and explosion in Germany: A March 31, 2012 explosion and fire in Marl, Germany at a plant operated by resin manufacturer Evonik killed two workers and caused a major worldwide shortage of a key ingredient in Nylon 12. The ingredient, Cyclododecatriene (CDT), is the only material specified for use in automotive fuel lines because of its unique combination of thermal, physical, chemical, and mechanical properties. The incident removed about 40% of the world's production of Nylon 12.[2] Months later, automotive tier suppliers were still grappling with the disruption and trying to avoid interruption of critical auto parts production and, by extension, the vehicles they go in to.
- Political unrest in Egypt. BMW and Volkswagen were forced to temporarily halt production and shipment of the vehicles they produce in Egypt because of the political upheaval that occurred in early 2011.

In a slightly different vein, automotive OEMs periodically issue mandated rule changes that can disrupt operations as much as an external event. For example, in 2010, the North American automotive industry had more than 122 OEM-mandated business rule changes, including additions and adjustments to electronic data interchange (EDI), barcode, and shipping requirements. General Motors introduced seven unique business rules and variations, while Volkswagen changed its business rules six times during the year.

The opportunities

There's no shortage of positive growth projections for the global auto industry. Global auto sales volume is projected to grow from approximately 80 million units in 2012 to upwards of 110 million in 2019.[3] This is a compelling growth projection, but it gives an incomplete picture of how automotive tier suppliers should respond operationally.

These numbers gloss over a critical trend—the major shift in the countries where the growth of production and consumption is outpacing the rest of the world. The trend information with the greatest value to tier suppliers is more specific. It's information like:

- Sales in the BRIC countries are projected to grow 50% by 2020, from 30 million light vehicles in 2012 to 45 million units.[4] This assumes, of course, that political stability and middle class growth will be maintained in these countries.

- Vehicle per capita in China and India indicates tremendous market potential when compared to the overall economic growth in those countries. In India, only 10 or 11 people per 1,000 own cars, compared to more than 500 per 1,000 in the United States. In recent years, the auto industry growth rate in India has exceeded 20%, according to the Society of Indian Automobile Manufacturers.[5] China's per capita income exceeded the world average of $4,200 in 2010, yet fewer than 15% of these more affluent Chinese households owned a car that year.[6] There's no doubt that millions of Chinese will use their increased income to purchase a vehicle in the next few years.
- Shifting production and consumption is already transforming the automotive supply chain. BorgWarner, which has sales of more than $7 billion, expects its percentage of sales derived from the Chinese market to grow from 6% in 2012 to 30% in 2017. Another major global supplier of powertrains, interiors, and electrical systems, Johnson Controls Power Solutions, expects production of batteries in China to grow from 17 million in 2012 to 30 million in 2017.[7]
- Joint ventures in China, India, and Southeast Asia pose challenges, create opportunities. To grow in many emerging automotive markets, like China, India and Thailand, suppliers must be open to forming joint ventures. The arrangement has inherent complexities, most notably the need for suppliers to align their business processes with those of their partners, and find ways to avoid letting slow decision making impede performance.[8] Joint venture activity in Thailand is particularly strong, with new joint ventures announced in late 2011 and early 2012 by Luxembourg-based International Automotive Components (IAC) and China-based Shanghai Automotive Industry Corporation (SAIC) among the most noteworthy.
- Sales in the US, Japan, and Western Europe will increase only gradually from 35 million units to a peak of 40 million in 2015. Between 2015 and 2020, overall vehicle sales will remain flat at 40 million in these countries.[9]

The implications

While there is clearly growth potential for auto suppliers in the established US, European, and Japanese automotive markets, there is much greater opportunity in the BRIC countries and other countries in the Asia Pacific region. This shift in the location of auto production and auto consumption from established to emerging markets and other similar shifts dictate that auto tier suppliers create new systematic ways to:

- Quickly detect immediate and longer-term changes in demand and other business requirements.
- Understand the implications of these changes on their current operations and supply chain.
- Analyze the changes from all possible angles to determine the best response, in both the short term and long term.
- Act on the analysis through sound decision-making and streamlined communications throughout the enterprise.

The new auto industry dynamics and the need for more sophisticated information analysis and streamlined communications have created a capabilities gap in the software infrastructure at many automotive tier suppliers. Traditional enterprise resource planning (ERP) solutions were not designed to address the added complexity and need for faster decision-making in today's automotive industry. The new marketplace environment has created additional needs for improved business intelligence and better ways to distribute the results of information analysis to people charged with using the information.

Learn to adapt

The automotive industry emerged from the latest worldwide slump a much different industry. It's not just that demand for automobiles and trucks is shifting to the BRIC countries, and the overall APAC region and that production capacity is making a similar shift. The way the industry does business has changed. Product cycles are now shorter. There is a greater premium on innovation in products and business processes. There is more emphasis on fast decision making in emerging markets like China, India, and Southeast Asia, where companies are attempting to achieve the pace set by the leading Japanese companies.

In evaluating how to adapt, auto tier suppliers should look for enterprise software capabilities that help them:

- Bring innovative new products to market faster. Streamline product design process and product introduction processes, in part by improving collaboration within the enterprise and across the supply chain.

- React more quickly to market changes. Proactively match demand with supply and align resources, labor, and materials.
- Make faster and smarter decisions. Better cope with volatility by understanding demand changes more quickly and make accurate data readily available and easy to use for everyone in your organization.
- Communicate proactively across the supply chain. Create an integrated communications system that allows you to proactively communicate with your suppliers to improve supply, replenishment, quality, and costs.
- Control costs. Dealing with transformative change often brings an increase in operational costs. The right automotive solution for the future will allow you to control costs while adapt and streamline business processes.

Prepare effectively

Now is the time to take action. In the coming years, Auto suppliers that find a way to gather and analyze information faster and put it in the hands of employees who need it to make faster, smarter decisions will be the companies that gain competitive advantage. The key to success will be finding an automotive-industry specific solution that can be implemented quickly and affordably today, so your company wastes no time transforming its operations.

Let Infor Automotive help

Infor™ Automotive is a modern, industry-specific business solution designed to give automotive companies the ability to react to new requirements faster. With Infor Automotive, you can access the information you need in one place, in real-time, in order to make more confident decisions and take advantage of new opportunities.

[1] Karl Wilson, "Thai Industry survives floods," China Daily Asia Pacific, May 11, 2012, http://www.chinadailyapac.com/article/thai-industry-survives-floods

[2] David K. Platt, "Nylon 12 shortage sparks industry action," Plastics News.com, May 30, 2012, http://www.plasticsnews.com/headlines2.html?id=25575

[3] Mike Wall, Director, Automotive Analysis, IHS Inc. "Automotive Industry Outlook: Navigating the Recovery," April 19, 2012.

[4] IHS Data Insights, IHS Inc. 2011.

[5] India car sales jump 8.3%, double-digit growth eyed," NY Daily News, http://india.nydailynews.com/newsarticle/4ffc6735c3d4ca5c6d000013/india-car-sales-jump-8-3-double-digit-growth-eyed

[6] Yang Jian, "Despite slowing economy, China's auto market is poised to grow in 2012," Automotive News, December 30, 2011.

[7] Charles Child, "Despite slowdown, suppliers bet on China," Automotive News, June 11, 2012.

[8] "China's Automotive Market," Arthur D. Little, 2011, page 1.

[9] IHS Data Insights. IHS Inc. 2011.

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