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The dawn of the mega-supplier

The dawn of the mega-supplier: Winning supplier strategies in an evolving auto industry

By Dean Donovan

What if buying a car were more like buying a computer? A shopper would begin by deciding what generation of engine she wanted in her sedan—say, a Cummins NTR with 200 horsepower, the reigning "Pentium" of car engines—and which interior model she wanted: say, the Lear B90 or B100. Then, with some aesthetic provisos and a price point in mind, she would shop across auto brands (many of which would offer the same engine and interior) until she found the car that best met her needs.

Suppliers are moving to fundamentally recast the automobile value chain by providing entire vehicle "systems" rather than piecemeal parts.

A similar process is already the norm in many industries. Consider bicycles. Today, a bicycle's overall concept and frame design are still the domain of the bicycle "maker." But nearly all the bike's components are made by specialized suppliers, in increasingly modular packages. Shimano, for one, has bundled derailleurs, brakes, shifters, pedals, cranks, and other components into tiered, modular packages (such as the top-of-the-line XTR or mid-level XT packages) that, much to the bike manufacturers' chagrin, have come to define the bicycle's performance level. In essence, Shimano's successful standardization of bike componentry has made it more difficult for the bike manufacturers to differentiate themselves, and forced many of them towards an uncomfortable parity with their competitors.

Unlikely as it seems, either of these scenarios could soon be a fitting analogy for the world's automobile industry. Today, the biggest and most powerful players in the auto industry are still the large assemblers—the Big 3 and their foreign competitors—who design and assemble the majority of their vehicles and hold the strongest brand equity with consumers. But suppliers are moving to fundamentally recast the automobile value chain by building and assembling entire "systems" of the car rather than providing a ménage of piece-meal parts.

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For instance, where once an assembler looked to one supplier for car seats, to another for upholstery, to another for interior lights, and so on, in the future these components will likely be supplied in one integrated system by an interior "mega-supplier," a specialist in providing complete, branded interiors to car companies around the world.

The move to mega-supplier is already occurring for a variety of vehicle systems. The eventual result will be a small group of suppliers—say, 10-15 companies—that will help define the new standards of the automobile industry. These players will wield enormous power with both assemblers and consumers, and will have the opportunity to create tremendous shareholder value. Many suppliers who fail to make the transition to mega-supplier will be eaten up by their larger competitors or driven from the business.

Clearly, suppliers must be prepared for this recasting of the industry's value chain. The first step in navigating the new landscape is to understand the fundamental shift in perspective that is developing among the world's largest auto assemblers.

Auto manufacturers: Redefining core competencies

For years, the world's automobile manufacturers have been insulated from the worst effects of true market competition by geographic boundaries, trade protections, and a relatively cozy oligopoly. Now, spurred by a wave of mergers and threatened take-overs, and under pressure from shareholders, analysts, and competitors, auto manufacturers are taking steps to regain their competitive edge and improve returns on capital.

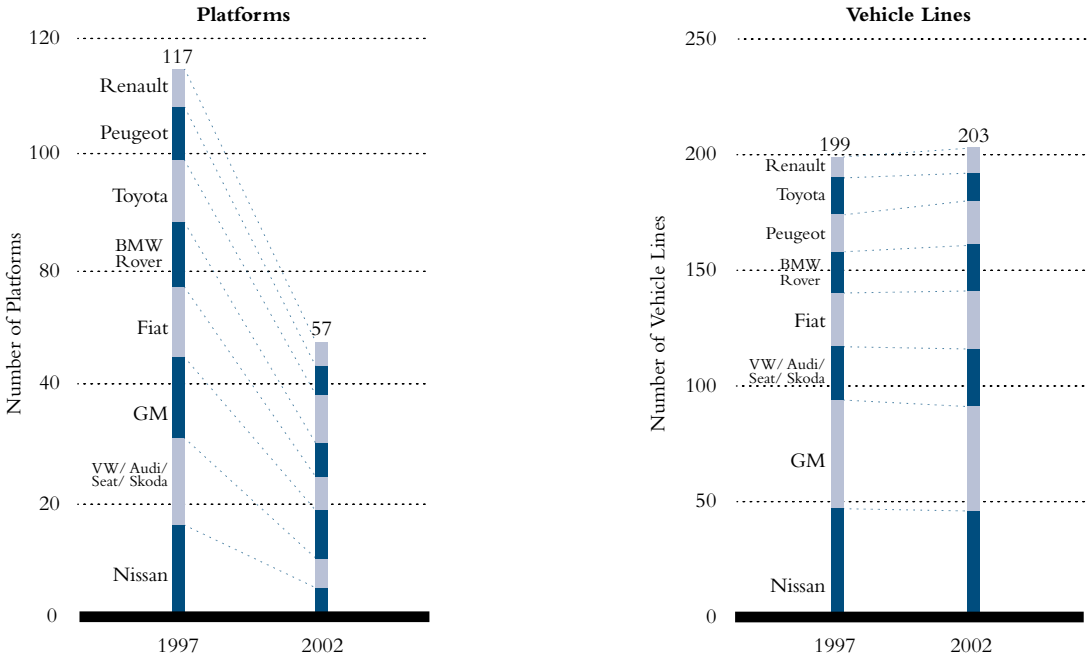
First, in an effort to better leverage existing assets and exploit maximum economies of scale, manufacturers have globalized their operations, selling automobiles in as many markets as possible.

Second, manufacturers are seeking to combat an unintended consequence of globalization: increased complexity. Consumers in new markets often demand customized vehicle models. This requires increased complexity in the form of product and model proliferation, logistics, and manufacturing process variations. This complexity raises costs and hampers efforts to capture the full benefits of scale economies. To counter this, OEMs are standardizing as many elements of their vehicles as possible. Toyota, for instance, shares the same engines across a broad variety of vehicles. And, analysis of eight global car manufacturers indicates they plan, collectively, to halve the number of vehicle platforms they offer by the year 2002, while slightly increasing the number of vehicle lines. ***(Figure 1)*** Standardization is viewed as a key weapon in the OEMs' battle against complexity—it reduces the need for unique production assets, lowers variable costs, speeds time to market, and improves the flexibility of global production capacity.

Finally, car manufacturers are re-defining their core competencies and focusing on what they do best—marketing, distribution, and vehicle design and integration—while also acquiring skills in increasingly critical activities such as financing and leasing. Although the OEMs are retaining certain "core" design and manufacturing capabilities (most notably of the power train), they are aggressively outsourcing the design and manufacture of many other vehicle systems. The potential benefits for the OEMs are large: significantly reduced cost structures as they outsource to more efficient suppliers; and the ability to refocus assets on higher returning investments.

But there is risk for the OEMs in this strategy, too. As they retreat up the value chain, leaving more and more of the car's design and manufacture to suppliers, they encourage the creation of a powerful new class of industry player whose interests are only partially aligned with their own.

***Figure 1*: Platform consolidation**



Suppliers: Evolving to fill the OEM Vacuum

As the OEMs pull back, they invite ambitious suppliers to provide larger pieces of the car and contribute a higher percentage of the value-added in each vehicle. Suppliers who can successfully fill this OEM vacuum will claim a larger share of the industry's "profit pool"—the sum of profits generated throughout the entire automobile industry—and will ultimately be able to generate tremendous shareholder value.[1]

A number of suppliers are already taking steps to assume this new mega-supplier role. Lear Corporation, a leader in seat manufacture, now seeks to provide entire interior modules that include seats, upholstery, dashboards, door panels, and other pieces. To realize this strategy they have spent over $1.5B in acquisitions in the last five years, purchasing the makers of everything from arm-rests and visors to carpet and air conditioning systems. Lear has added customers as they have added capabilities, and from 1994-1998 grew sales from $3.1B to $8.4B while increasing operating income from $182MM to $550MM[2].

Other suppliers are taking similar steps. At the root of their efforts is a common economic goal: a reduction in the overall systems cost of assembling an automobile. Consider a typical car seat. Although a seat is one of the simpler pieces of an automobile, it incorporates many parts—the seat frame and cushioning, the track upon which the seat slides, pads that attach to the seat, electronics and motors to power the seat, and so on. Many of these parts were previously built by different suppliers, and to integrate these pieces into the vehicle, the OEM had to design (or at least prepare specifications for) each part, coordinate with and purchase from each supplier individually, and assemble and install each seat.

[1] *For a discussion of the profit pool concept, please see Orit Gadiesh's and Jim Gilbert's excellent article:* Profit Pools: A Fresh Look at Strategy (Harvard Business Review, *May-June 1998.*

[2] *Sales and operating income estimated for 1998.*

In addition, many OEMs still employ different seat designs for different vehicle lines—requiring many unique components—and lack the cross-functional capabilities needed to standardize. This leads to an even higher number of parts and suppliers, and lower purchasing volumes per part.

When an OEM purchases pre-assembled seats from a single mega-supplier for multiple vehicle lines, costs are lowered throughout the value chain. First, because the mega-supplier controls all aspects of the seat's design, manufacture, and assembly, it can standardize components and designs across different seat models, lowering the number of unique parts required. This provides a host of system cost benefits. Tooling costs can be amortized over higher parts volumes. Production runs can be lengthened and set-up times reduced. Inventory levels can be lowered for both supplier and OEM. Labor and manufacturing complexity can be reduced. Purchasing becomes much easier for the OEM, as it must deal with only one seating supplier and buy many fewer unique parts. Capital utilization is improved for the supplier as demand forecasting is simplified, and so on.

Other cost savings can be realized with a systems-based approach. Duplicate design and assembly activities can be eliminated between OEM and supplier. Product design, manufacture, and assembly, which were previously conducted at different locations (design and final assembly at the OEM, manufacture at a host of suppliers), can now be handled in one place. And assembly labor costs, which will primarily be borne by the mega-suppliers, are often cheaper for suppliers than for large OEMs.

Even after the vehicle is out of the factory, savings ripple through the industry value chain. Lower complexity reduces the likelihood of quality problems in the vehicle, and fewer unique parts lowers the costs to retailers, wholesalers, and service establishments of purchasing and inventorying after-market parts.

Car seats is one of the simplest examples of this systems-based approach, but even here the savings can be significant. One American OEM took advantage of a nascent mega-supplier relationship and standardized seat components on a handful of vehicle models. As a result, the OEM was able to increase purchase volumes of certain components dramatically (up to 700% in some cases) while eliminating other components, and eventually negotiated a 17% price reduction with its suppliers.

The cost and quality benefits of a systems-based approach are potentially huge; how suppliers and OEMs divide the savings will depend on individual negotiations. The benefits for the OEMs are clear under any scenario, however: lower costs, higher quality vehicles, and the opportunity to re-deploy assets to higher-returning investments. It is for these reasons that 90% of senior level purchasing decision-makers interviewed at American OEMs indicated that their sourcing of systems and modules will increase over the next five years.

Future mega-suppliers also stand to gain from the industry's restructuring: mega-suppliers eventually will become powerful, branded providers of complex systems selling to multiple OEMs all around the world. In many cases, they will lead the industry in the technological innovation and design of their vehicle systems (wresting this role from the assemblers) and account for an increasing percentage of the car's value. If they succeed in developing significant brand equity with the consumer (something previously unheard of for anyone but OEMs and after-market suppliers of parts and services) they could also command tangible price premiums from the OEMs.

As a result of this evolution, the mega-suppliers will create tremendous shareholder value and devour or drive out weaker players who fail to make the transition to a systems-based architecture.

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The road to mega-supplier: Strategies for surviving and winning

Broadly speaking, there are four strategic options for suppliers in today's evolving automobile industry: assume a leadership position as one of the handful of industry mega-suppliers; merge with or be acquired by a mega-supplier; supply the mega-suppliers; or exit the business. Although different companies will encounter varying degrees of success with each of these strategies, our discussion focuses on the steps required to become a mega-supplier. Some of these steps require immediate action; others will become more relevant (and feasible) as the industry evolves and industry roles and business models solidify.

Step 1: Reduce costs by providing systems, not parts

First and foremost, aspiring mega-suppliers must develop a competency in providing a whole vehicle system, rather than individual components or sub-systems. For the seat manufacturer, having systems integration capabilities means being able to design, manufacture (or procure), and assemble all the components of a car seat while reducing costs from what the OEM currently incurs. Achieving system cost reductions will require a thorough understanding of the OEMs' cost structure and will ultimately require collaboration with the OEMs in design and cost engineering. Without this fundamental and difficult achievement—the reduction of costs in a chosen vehicle system—the rewards of the mega-supplier will remain illusory.

Step 2: Design an acquisition strategy to build systems integration capabilities and competitive scale

To offer a complete vehicle system, mega-suppliers will need a broad range of capabilities, most easily obtained through acquisition. Before aspiring mega-suppliers begin acquiring other companies, however, they must have a clear definition of the vehicle system they will produce, and a thorough understanding of how the pieces will fit together to lower system costs. For instance, an interior mega-supplier might ask: Does a steering wheel belong in an interior system or in the steering system? Companies that make acquisitions without a clear definition of their vehicle system and its boundaries will find themselves managing multiple businesses with minor synergies—a sure recipe for under-performance.

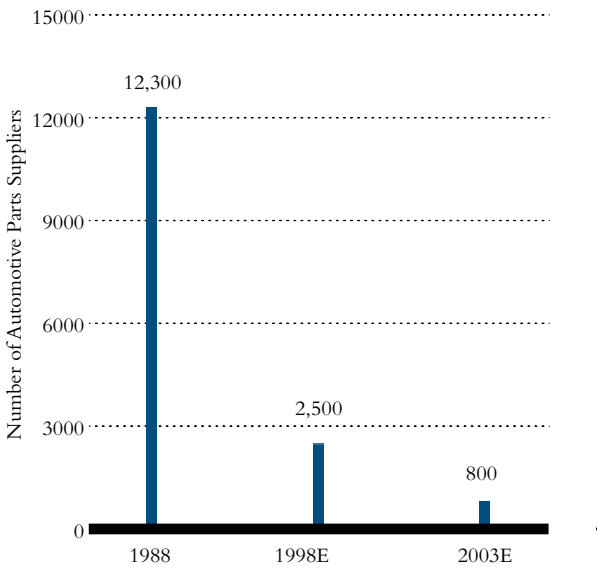
Just having the ability to build and integrate a vehicle system will not be enough to win, however. Competitive scale is still a crucial element in determining the winners and losers in the supplier arena. Once a mega-supplier has built a systems integration capability in their chosen vehicle system, they must shift the focus of their acquisition strategy towards maximizing scale and competitive position. The companies that can build genuine systems integration capabilities, lower costs to the OEM, and achieve significant scale advantages versus competitors will have an early lead in the battle to control their chosen vehicle system.

Car manufacturers are re-defining their competencies and focusing on what they do best—marketing, distribution, and vehicle design and integration.

With the advent of mega-suppliers the balance of power will shift away from OEMs—the question is to what extent.

Potential mega-suppliers who wish to pursue a strategy of acquisition will have to move quickly, however—industry consolidation is already well advanced. In the ten years from 1988 to 1998, the worldwide number of automobile parts suppliers shrank from more than 12,000 to approximately 2,500. ***(Figure 2)*** Further consolidation is expected as the systems-based approach gains favor, and competition for the makers of certain highly specialized parts and sub-systems will be intense. The acumen of players in designing and quickly executing an acquisition strategy could be the key determinant of who becomes the leader in each vehicle system.

***Figure 2*: Auto supplier consolidation (1988-2003E)**



Step 3: Standardize vehicle systems within and across manufacturers

Once a mega-supplier is able to produce a vehicle system with significant cost savings, it must then establish itself as the pre-eminent supplier of that vehicle system and cement a more stable relationship with the OEMs. Both of these aims will be aided by designing vehicle systems that can be "standardized" within and across OEMs—in other words, used in multiple models of an OEM and eventually by multiple OEMs. Success will yield increased scale and lower system costs for both supplier and OEMs, and will give the mega-supplier a cost advantage over competitors who lack comparable scale.

Step 4: Consistently innovate to raise OEM switching costs

There are already natural switching barriers in place for the OEM: changing suppliers often requires OEMs to re-configure assembly lines and even redesign elements of the car, both very expensive propositions. But as mega-suppliers standardize their systems in order to sell them to multiple manufacturers, they will have to work harder to discourage OEMs from switching suppliers at will. Mega-suppliers who gain major OEM contracts will need to work closely with the OEMs to push the technology, performance, and cost barriers of different vehicle systems, create longstanding collaborative relationships, and share the resulting savings in prices that competitors can't match.

To solidify their position with the OEMs, mega-suppliers should continually re-examine the architecture of vehicles to find new ways to eliminate costs. One idea that is likely to bear fruit is the concept of supplying "modules" or "corners" of the car that combine multiple vehicle systems into one modular package. Imagine the assembly efficiencies to an OEM of receiving the entire front end of a car—complete with steering, braking, safety, suspension, and other relevant systems—from a single supplier in one modular package that can be easily combined with other modules for final assembly.

Volkswagon's Resende plant and GM's Blue Macaw project, both in Brazil, represent two early attempts at modular production. Resende was established with the ambitious goal of reducing production costs by 50%. Although the jury is still out, some benefits have already become apparent: labor hours per truck, for instance, have fallen from 52 to 35. The biggest advantages of modular production, however, may come from increased production flexibility. In the system at Resende, vehicle designs, assembly procedures, and production mix can be changed much more easily than on a standard assembly line. As a result, VW can better adjust its output to the demands of the market, reducing the costly pricing pressures associated with slow-moving inventories. Innovative partnerships like these benefit the OEM greatly while also making it very difficult for them to switch suppliers on short notice.

Step 5: Ingredient-brand the systems

Once the boundaries of each vehicle system have been defined, mega-suppliers may begin to build some equity with consumers by "ingredient-branding" certain systems—advertising their branded systems directly to consumers much as Intel has done with their micro-chips. Mega-suppliers can do this in a number of ways: by acquiring and leveraging well-known after-market brands; by licensing other established brands for their products (much as Ford's Visteon division licenses JBL's name for its high-end stereos); and by aggressively advertising and promoting their own brands.

One American OEM took advantage of a nascent mega-supplier relationship and saved 17% on their car seat purchases.

Under ideal conditions, ingredient branding would create consumer "pull" for the mega-supplier's brand, increasing the likelihood that OEMs would offer that system in their vehicles, and providing suppliers improved negotiating leverage with the OEMs. The success of ingredient-branding strategies, however, will depend in large part on the willingness of consumers to accept an entirely new class of branded products. Today, only the OEMs themselves and after-market parts manufacturers enjoy any brand equity with consumers, and the after-market firms appeal primarily to the small segment of true auto aficionados. Whether the average consumer will ever be interested in a specific brand of the exhaust system on sport utility vehicles, let alone pay a premium for it, remains to be seen.

End games: Determining the industry balance of power

In the future, there will be fewer, larger companies dominating the auto industry. Mergers and acquisitions will trim the number of global manufacturers, and those that remain will be focused on a narrower set of activities: marketing, distribution, and vehicle design and assembly. At the same time, there will be fewer, larger suppliers. Tier 1 mega-suppliers will provide entire systems—and possibly modules—to multiple manufacturers worldwide, and will package their products so that on any given vehicle the number of suppliers that the OEM works with is in the teens rather than the hundreds. By working together, OEMs and mega-suppliers will be able to lower systems costs, improve automobile quality, and introduce new and better technology more rapidly than today. This cooperation will also help the OEMs cope with their most urgent pre-occupations: reducing the scope of their operations, re-deploying assets for greater returns, and reducing complexity.

As a result of the industry supply chain being reshaped, however, the current balance of power between suppliers and assemblers will change. Who will control the flow of industry profits in the future, and who will have the greatest hold on consumers? With the advent of mega-suppliers, the balance of power will shift away from OEMs—the question is, to what extent? Ultimately, the ability of mega-suppliers to capture a larger portion of the industry's profit pool will depend on two things: the fragmentation of the supplier base within each vehicle system, and the success of mega-suppliers in generating product pull with consumers.

Consider a scenario where several mega-suppliers compete with each other to supply the same vehicle system—say, braking systems—to OEMs. If each OEM utilizes multiple braking suppliers and can switch between suppliers at minimal cost, suppliers will have little negotiating power with the OEMs, nor clout with the consumer.

Conversely, if one mega-supplier can supply brakes for most or all of the models of a majority of the OEMs, can erect switching barriers for the OEMs, and can demonstrate that their presence on a vehicle can impact a consumer's purchase decision, they should be able to command a price premium from the OEM.

This price premium in effect shifts a larger portion of the industry's profit pool to the mega-supplier. The mega-supplier can then re-invest these profits in technological and cost innovation and in advertising and marketing to improve their position vis-à-vis competitors and the OEMs. This cycle of system dominance and profit re-investment will not only further separate the winning and losing suppliers in each vehicle system, but could over time lead to a fundamental shift in the distribution of the profit pool between suppliers and OEMs.

How all these industry dynamics will play out is unclear, but one thing is certain: the automobile industry is undergoing a fundamental restructuring. Players who design and quickly execute a sound mega-supplier strategy will have a chance to create enormous shareholder value and to influence the long-term evolution of the industry. Those who fail to act quickly or who ignore the sea change that is occurring may soon find themselves left out in the cold, as relevant as a buggy-whip maker in the era of the Model T.

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