As the automotive industry starts its second century, it is dominated by a handful of large players. But while mergers, spin-offs, consolidations, and record sales volume over the last five years have created unprecedented size, they have not created a sustainable model for long-term shareholder value.

Today’s automotive leaders face new and pressing challenges, including rising customer expectations, disruptive new technologies, and intensifying competitive pressures. Success in the second automotive century will depend on finding new ways to create value and distribute the value benefits.

Today, the industry faces some harsh competitive truths:

- massive global consolidation continues to erode total shareholder value throughout the industry;
- excess production capacity and other asset redundancies are widespread;
- established economy of scale strategies such as globalization and platform de-proliferation – the move toward more variety from fewer vehicle platforms – have failed to deliver the anticipated financial and relationship benefits; and
- collectively, costs and liabilities increase, while margins continue to erode.

Clearly, this situation is unsustainable. Competitive advantage will not be attained by size alone. What’s required is a new model for the industry — one that is based on collaborative relationships with suppliers and others. This article proposes a new business model for the automotive industry — one that is based on the concept of the high-performing collaborative community. With research to back up our assertions, we show how this new model of collaboration holds the key to creating more value and producing more efficiency than is possible through the old models, regardless of company size.

To unlock the full potential of collaboration, traditional behaviors and attitudes will have to change. Despite years of partnering initiatives between suppliers and vehicle manufacturers, an undeniable aspect of industry behavior is that when the chips are down, the Vehicle Brand Enterprises (VBEs) consistently compel their suppliers to cut costs — a tactic known as the squeeze — and rarely give them the opportunity to provide creative alternatives.

Additionally, when things go wrong, a culture of blame rather than collective responsibility tends to dominate. But the squeeze model is no longer working. This article sets out an alternative vision for the automotive industry.
A vision of the future

By 2008, the competitive landscape of the automotive industry will have been transformed. While companies will continue to seek competitive advantage by maintaining tight control on costs throughout the supply chain, the industry will have entered a new era in which success will depend on three critical factors:

1. **Customer responsiveness** – understanding changing market demands to create products and services that meet and exceed customer expectations.
2. **Faster speed to market** – using integrated/collaborative design and development capabilities to bring new products and services to market faster than competitors.
3. **Innovation** – rapidly assimilating new technology into vehicular systems.

To compete and win on these fronts, leading manufacturers will need to embrace a new business model. In essence, this model takes the form of a race between closely integrated collaborative communities of manufacturers and suppliers. The leading players in these communities will increasingly operate with skills proven in other industries, especially the high-tech sector. They will form tight-knit collaborative communities that compete against each other for margin and market leadership.

These networks or “packs” will be differentiated by speed, as well as other capabilities. The most successful collaborative model will form the “leading pack”, with membership requiring a high level of capability to remain in the elite group. The contest will not be a sprint, but a long distance race requiring endurance, teamwork and strategy. By comparison, the current “squeeze environment” is a “demolition derby” where each car is trying to use its size to shunt the others off the road.

High performance collaborative communities will compete on three dimensions:

1. **Speed** – how quickly they innovate products and services.
2. **Interdependency** – how well they network processes, distribute value and share risks.
3. **Cost** – how well they eliminate shadow investments and redundant assets.

Companies that act now to begin migrating to the new model will pull ahead of their rivals. Over time, these successful manufacturers will create collaborative communities capable of rapid response and meeting high standards. Using common architecture, metrics and standards, they will benefit from cross-community design and development. Instead of sourcing components at lowest cost, they will compete on speed and best-of-breed functionality.

Genuinely symbiotic relationships will allow community members to focus on their core activities – what they do best – and leverage the capabilities of collaborative partners. By operating as a community, they will be able to pull innovation through the supply chain to enhance customer responsiveness, accelerate time to market, and rapidly assimilate new technologies into their products. This in turn will enhance customer satisfaction and loyalty, improving margins and generating a higher return for shareholders.

The road to collaboration

Driving the new model are six forces that by 2008 will have transformed the automotive landscape:
**An imperative to create value faster**

The last five years have established a successful model for consolidation, but not for value creation. Large-scale consolidation in the industry has resulted in an overall reduction in shareholder value. In the very near future, industry leaders will need to demonstrate that they can operate a value creation model. That model holds the key to both consumer and shareholder satisfaction. Moving ahead, the most successful business models will be those that facilitate multi-enterprise collaboration within the design and engineering environment, creating value faster than competitors and providing new strategic options for both community members and consumers. In the process they will increase operating margins and differentiate from competitors.

**Further consolidation and scale**

In the past five years, vehicle manufacturers and suppliers have consolidated significantly. Today the industry is dominated by a group of nine global VBEs, which together represent over 90 percent of global light vehicle output. The top six account for more than 80 percent of this output, as shown in Exhibit 1.

The consolidation among automakers, however, pales in comparison to the pending consolidation of suppliers. We predict that, by 2010, there will be no more than 20 to 30 major systems suppliers globally. Yet, as with VBEs, scale alone will be no guarantee of success.

**A greater need for production and process agility**

Agility, flexibility, and speed to market are the required characteristics of a successful twenty-first century automotive enterprise. But it’s clear that there’s a fundamental trade-off between scale and agility.

Companies have invested heavily in more responsive manufacturing processes, just-in-time inventory systems, synchronized design and development processes, and the like. These techniques are now universal. As such, they no longer confer competitive advantage. And there seems little more agility to be squeezed from the old model. In the next few years, successful
automotive players will be those that move to a new model that embraces agility as its modus operandi.

But perhaps the most compelling reasons to embrace agility, flexibility and speed are the imminent, profound technological breakthroughs in vehicle engineering, and the advent of software in the car.

**The advent of new technology in vehicles**

The incorporation of software and X by wire technologies into vehicles opens the door to substantially decreasing the number of parts in a vehicle module. In the near future, these new technologies will make it possible to replace entire mechanical sub-systems within the vehicle, driving further changes to the supply chain. These are the next generation of disruptive technologies that will force fundamental changes in value chains.

In addition to new technologies, other influences, such as environmental, regulatory and energy issues, also promise to transform the car and revolutionize the automotive supply chain.

**Accelerating innovation of products and services**

While scale and agility are the price of entry into the global auto industry, innovation is the differentiator. The industry is now recovering from a five-year binge of unprecedented sales volume, spin-offs, mergers and acquisitions by re-focusing on a back-to-basics strategy. Today, the consumer is king once more, great product is essential, and innovation is the key to sustainable value creation.

The inherent costs associated with rapidly innovating, developing, and delivering new technologies and products to customers will force companies to re-think their competitive positions and behaviors. In the future, competition will cease to be between individual companies. Instead, it will shift to the community level. Those companies that can assemble the best supply communities and accelerate consumer-centric innovation faster than their competitors’ networks will be the winners.

**Increasing customer expectations**

Even though the need for a new business model has been mounting, and is now manifest, the industry has survived for a century without this type of transformation. So why must it change now?

Consumers are increasingly demanding. Meaningful competitive differentiation will be impossible without understanding and managing customer relationships. As product quality and reliability have become almost ubiquitous and technology options become standard features in the interests of competition, consumers have inexorably increased their expectations in regard to choice and value.

The industry’s push model – which has sought to stimulate demand to absorb excess capacity – has exacerbated this further. By proliferating incentive use and contributing to price deflation, it has fuelled consumer demands for high value packages.

As choice has increased, VBEs have had to look to new methods of enhancing their value proposition to create and sustain competitive advantage, and translate it to customer satisfaction and loyalty.

But relative improvements in satisfaction and loyalty versus the competition grow ever harder to achieve. Today’s consumers have increasingly high expectations of their cars and trucks, and of the companies that make and brand them. As Exhibit 2 demonstrates, each succeeding consumer generation has had raised expectations. In the coming years, this process will accelerate.

For example, consumers will demand the latest refinements in ride quality, safety features and braking, while also clamoring for expanding levels of in-car information and entertainment. In part, this reflects the shift in perception about the role of the personal vehicle. Consumers increasingly expect their vehicles to be mobile offices, entertainment suites, and informational receptacles.
Consumers are also becoming more demanding in other ways. While expectations for satisfaction with their purchases are expanding and intensifying, fewer consumers are prepared to wait for the delivery of their vehicles. New and innovative approaches to product development will be required in an industry that has historically had lengthy product lifecycles.

The present squeeze practices in the automotive industry serve an old model of customer relationships – one with more lead time, traditional technology, less personalization, less differentiation, and incremental increases in customer expectations. Serving a new kind of customer will require a new business model.

The era of the high-performing collaborative community

A collaborative community is a highly iterative, high-intensity group of enterprises that can operate and innovate at high speed to recognize and meet consumers’ needs before the competition. However, the creation of such a community fundamentally challenges the traditional automotive model.

The starting point is to identify the right companies to build mutual value. Collaborative product commerce (CPC) provides the framework under which multiple-company collaborative communities can flourish and deliver long term sustainable value.

The key elements of CPC are:
- seamless program management with visibility across the extended enterprise;
- internal process improvement (timing, budget, status, issues, and communication);
- collaborative partner process improvement (timely and open communication of changes in design or production requirements);
- collaborative product development;
- efficient consumer responsiveness (product configuration and option management); and
- effective business partner relationship management.

The benefits of a CPC approach include significant cost reduction, shorter cycle times and the development of consumer-centric products and services, which create and sustain competitive
advantage. CPC is the strategy that can resolve the fundamental tension between size and agility, address the need for redefined business relationships, and shape the new business models for the second automotive century.

Moving towards a value creating model

Collaboration has been a feature of the automotive industry for many years. Yet companies have largely failed to reap the potential benefits of collaboration or to optimize its value. Exhibit 3 measures shareholder value over one- and three-year periods for major global automotive manufacturers and suppliers. These measurements demonstrate not only the failure to realize all potential value, but also the potential for this value to be destroyed if industry behaviors do not change.

The transition to a collaborative model requires strategic leadership. The formation of new communities will not happen as a natural evolution from the lower forms of collaboration that currently exist. Senior management initiatives are required to overcome existing barriers that prevent true collaboration.

The benefits of CPC will only be gained by companies that individually commit and then collectively work with others to change their current industry business model.

For automotive companies there are six key steps:

(1) **Make collaboration the centerpiece of strategy.** Set a strategy that is based on collaboration. The aim should be to identify a community of partners that can create superior performance in one (or more) of three critical areas: customer responsiveness, speed to market, and innovation. Over time, this will enhance customer satisfaction and generate a higher return for shareholders.

(2) **Anticipate and respond to disruptive forces.** In the next few years three disruptive technologies/forces in particular will impact on the automotive industry – an increasing use

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**CPC** is a collection of tools, practices, and relationships that optimize the capabilities within a collaborative community of trading partners. It is the application of a cohesive e-business framework to all facets of the product lifecycle, ultimately enabling the connection of the consumer to the product development process. By enabling all players within an extended enterprise to gain access to the same information simultaneously, CPC allows issues related to product development, commercialization, and lifecycle management to be efficiently addressed.
of electronics in vehicular design (hardware and software); a shift to alternative energy sources (initially through hybrid vehicles which offer fuel alternatives); and increasing environmental requirements (recycling). Collaborative responses need to be formulated with key community partners rather than in isolation.

(3) **Build a better business model.** Work with community partners to identify key areas where collaboration can create a superior business model. Initial aims should be to: improve cost structure (get lean); increase speed to market (get fast) and build interdependencies (engage and lock-in best-of-breed partners).

(4) **Execute on initial collaboration goals.** As a first step towards wider collaboration, work with partners to enhance product development. Use collaborative product development to lower product development costs and to bring innovative products to market faster. Success in this area will help seed collaborative initiatives across the community.

(5) **Focus on core competencies and eliminate redundant processes.** As key collaboration targets are met and trust increases, community members will be able to outsource more and more non-core activities. This will be critical, as community members will need to continually hone their core competencies to remain at the forefront of their specialist fields. Over time, a virtual enterprise will be created, and community members will be able to leverage the value their community partners bring.

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**Exhibit 4  Telematics – possible extended mobile collaborative community**

![Diagram of Telematics – possible extended mobile collaborative community](source: IBM Business Consulting Services)
(6) **Share value within the community.** Rewards must be proportionate to the impact a member adds to the community. In other words the value distributed should be proportionate to the value contributed. Otherwise best-of-breed suppliers will be tempted to jump ship. High-performing (and stable) collaborative communities will be those that find new and creative approaches to value distribution.

**On the brink of a new era**

As the second automotive century begins, the road ahead looks very different from the one that automotive companies faced at the start of the last century. But what remains unchanged is that the combination of superior technology and past achievements is no guarantee of long-term success or sustainable shareholder value – witness the literally dozens of one-time automotive leaders that have vanished into history.

Success will come to those companies that build a better business model. The three dimensions of speed, community interdependency and cost will define relationships between companies. Sustainable competitive advantage will be based on processes that allow for faster, new and different products and services to be created to fill consumer needs. In such an environment, the old model of manufacturer-supplier relationships governed by suspicion, and competing interests will be unsustainable.

The automotive industry will shift to a model adapted from the high-tech industry – where effective collaboration is already the norm among industry leaders – in which specialized players rapidly reconfigure the value chain around specific products, services and projects. This will be achieved through collaborative communities that evolve within a supportive business environment.

**Now or never**

The tools for collaboration in a complex automotive supply chain are now available. The need for new collaborative processes is clear. The transition to the new model will not be easy. But it will, in the end, prove less painful than trying to sustain the twentieth-century model in the twenty-first century. The mastery of collaboration will prove a defining and indispensable strategy for the automotive leaders that will emerge early in the second automotive century.

The companies that move quickly to build collaborative communities will pull ahead of their competitors. These early movers will be at the forefront of redefining the industry model. The alliances they form will be with the best-of-breed suppliers – effectively locking out their rivals. By 2008, they and their partners will look back at the road behind them – a road littered with the wrecks of one-time competitors that couldn’t, wouldn’t, or simply didn’t, switch to the collaborative model quickly enough.

By 2008, the transformation of the industry will already be at full speed. By then it will be too late to react. The time to prepare for collaboration is now.

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**Acknowledgment**

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