

KPMG INTERNATIONAL

ONE WAY

KPMG's Global Automotive Executive Survey 2011

Creating a future roadmap for the automotive industry

kpmg.com/automotive

Acknowledgements

The Global Automotive Executive Survey is KPMG International's annual assessment of the current state and future prospects of the worldwide automotive industry. In this year's survey 200 senior executives from the world's leading automotive companies were interviewed, including automakers, suppliers and dealers. The responses make for compelling reading and we would like to thank all those who participated for giving us their valuable time.

We would also like to acknowledge and thank the following senior executives who participated in in-depth interviews to provide further insight:

(Listed alphabetically by organization name)

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Oleg Lobanov

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Jan Nahum Executive Director Karsan Otomotiv Sanayii ve Tic. A.Ş.

Jayant Davar

Managing Director Sandhar Technologies (also President of the Automotive Component Manufacturers Association of India for 2009-2010)

Dr. Carl Friedrich Eckhardt

Head of Business Development Vattenfall Europe Innovation GmbH

Bernd Pichler

Managing Director (Commercial) Volkswagen (China) Impor<u>t Co. Ltd</u>

Foreword

After the seismic shock of the global economic crisis and the subsequent operational and financial restructuring of automotive businesses, recent sales figures are pointing to renewed growth worldwide but with no certainty about how long it will last.

New technology and changing business models are bringing fresh entrants into the sector, resulting in greater convergence with industries such as energy, electronics and IT, with borders becoming increasingly blurred. Managing such interdependencies is likely to be a key success factor in the future. Pressure from consumers and regulators has made fuel efficiency an ever-growing priority, to reduce both the environmental impact and the cost of running vehicles. And from a market perspective, the rise of economies such as China and India is creating a new competitive world order.

In many ways there is a two-tier global market in play. The more mature countries are struggling to cope with the problem of congestion and changing vehicle needs, while in up-and-coming regions there is a push to deliver low-cost cars to populations eager for greater mobility.

One factor is common worldwide: the need to continue to develop the technology that will produce efficient, affordable electric vehicles. Even though the industry is still in recovery mode, the pace of R&D is accelerating as the race for technical leadership intensifies. Issues such as safety – once thought to be largely resolved – are now receiving renewed focus as relatively untested technologies emerge. How such development is funded, and who will gain the upper hand, are two questions that will ultimately determine the future dynamics of the industry.

In this, KPMG's twelfth annual Global Automotive Executive Survey, we take a look at the current condition of the sector and explore some of the issues that could shape strategy in the coming years.

The survey involved interviews with 200 senior executives from the world's leading automotive companies, including automakers, suppliers and dealers. The responses from those at the heart of the industry give valuable insight into its current challenges and future opportunities. I'm confident that you'll find this a stimulating and thoughtprovoking read.



Dieter Becker Global Head of Automotive



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Executive summary Influencing the roadmap

42 percent of respondents expect domestic sales in China to exceed 18 million by 2015. Emerging markets continue to accelerate

China clearly dominates, but India gains ground

Brazil and Russia catch up, but at a far slower pace

Vehicle design will adapt to the environment

76 percent of respondents believe that vehicle design will be driven by urban planning. Urban planning will influence future mobility

Customer needs will go beyond single platform locomotion; valueadded elements will gain importance

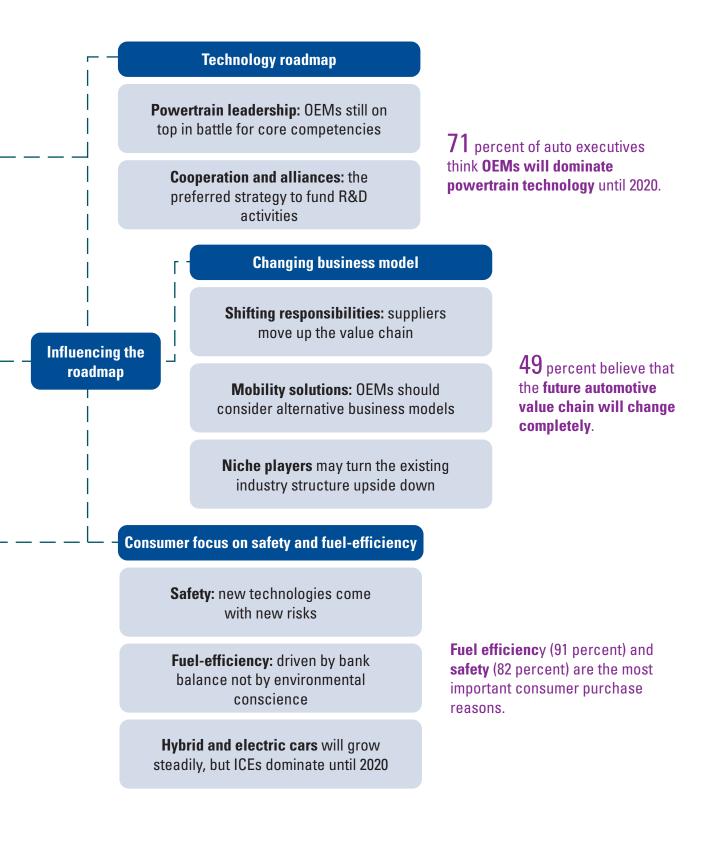
Overcapacity is a global issue

TRIAD: Despite restructuring, overcapacity is still an issue

Emerging markets are heading for overcapacity

Strategy to successfully manage overcapacity has not been found

Respondents believe **China**, **India and Brazil will be overbuilt** within five years.



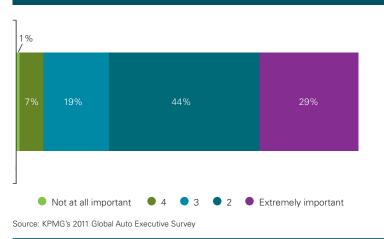
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Consumer trends Vehicles are now adapting to the environment, not vice versa!

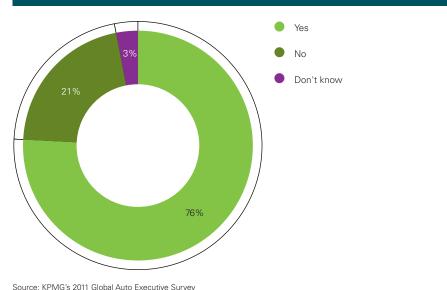
According to KPMG's 2011 Global Automotive Survey, vehicle design and engineering will increasingly be influenced by specific uses such as off-road, city, leisure or vacation. With growing environmental restrictions and urban planning making the streets ever more car-unfriendly, sales of energy-efficient vehicles are expected to rise. Although car sharing is a potential solution in urban areas, such mobility solutions have not yet been embraced on a wide scale.

Future vehicle design will be influenced by urban planning, environmental restrictions and customer needs

Almost three-quarters of respondents feel that car models should be defined by their purpose, be it off-road, city driving, commuting or leisure activities. This has implications not just for branding and marketing, but also for car ownership. It is impractical for most people to possess a different car for every situation, so this need may ultimately have to be addressed by increased car sharing or other integrated multi-platform mobility solutions. **73** percent believe future cars should be defined by their specific purpose.



Importance of defining vehicles by their purpose



Is vehicle design driven by urban planning?

Many large cities are restricting access to their inner core, like London, or forming "environmental zones" (as in Germany).

Whereas in the past, the car has influenced the design of towns and cities, the reverse now appears to be true, with a rise in low-emission zones, declining numbers of parking spaces, charges for entering certain areas and the proliferation of car-free streets and neighborhoods. New city concepts such as Masdar in the United Arab Emirates are effectively car-free, with (electric-only) vehicles confined to the underground. Seventy-six percent of respondents believe that urban planning will influence future vehicle design, which again points to a need to produce city-friendly cars and embrace alternative mobility solutions.

New York taxis march to the city's drum beat

In a radical departure, New York City has pledged to create a fleet of environmentally and people-friendly taxis. Dubbed the 'Taxi of Tomorrow' the new vehicles will have to meet exacting standards of safety, comfort and CO_2 emissions. The chosen manufacturer will have exclusive rights to supply the city's taxis for ten years; in the past, nine different types of car have been permitted.

One of the three candidates (the other two are Ford and Nissan) is Turkish automaker Karsan, whose proposed vehicle enables elderly or disabled passengers to embark or disembark with ease, and seats up to five, with space for wheelchairs, strollers, suitcases or shopping bags.

Critically, the engine compartment can accommodate a variety of engines and power sources, such as natural gas, hybrid or full electric, enabling the taxis to adapt to changes in technology. It even has a transparent roof to let passengers take in the full New York experience. With the notable exception of London, few cities have dedicated taxi fleets and this move demonstrates the growing influence of urban planning on vehicle design. "We applaud the Mayor's vision to modernize urban taxi travel," says Karsan Executive Director Jan Nahum. "The 'Taxi of Tomorrow' project represents a great opportunity to design a comfortable, modern, sustainable and accessible taxi that could become the model for taxi service around the world."

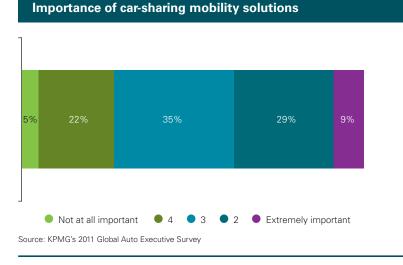
Source: KPMG research and input from Jan Nahum, Executive Director, Karsan Otomotiv Sanayii ve Tic. A.Ş.

"In China, a number of cities, such as Shanghai, restrict the number of car licenses at different times to avoid congestion and pollution. In future you may only be allowed to register a vehicle that is electric or hybrid."

Bernd Pichler, Managing Director (Commercial) Volkswagen (China) Import Co. Ltd

However, when questioned on how to meet such challenges, only nine percent of the auto executives in the survey feel that car sharing mobility solutions will be an extremely important part of their future strategy. Of course, not everyone shares such a view; some businesses have already started exploring mobility service offerings, such as Daimler with its urban car-sharing service 'car2go', and 'Mu' by Peugeot. Also Renault-Nissan is focusing on new business opportunities through an electric vehicle car-sharing collaboration with Project Better Place. Such a forward-thinking approach could become the competitive edge that will accelerate these companies into a leadership position in a realigned automotive value chain.

Interestingly, although the emerging markets still retain a strong emphasis on expanding car ownership, cities such as Shanghai in China are already restricting car usage. The logical next step could be to integrate mobility solutions. Mobility solutions do not appear to be a central part of most companies' strategies. Only 9 percent believe the concept to be extremely important.



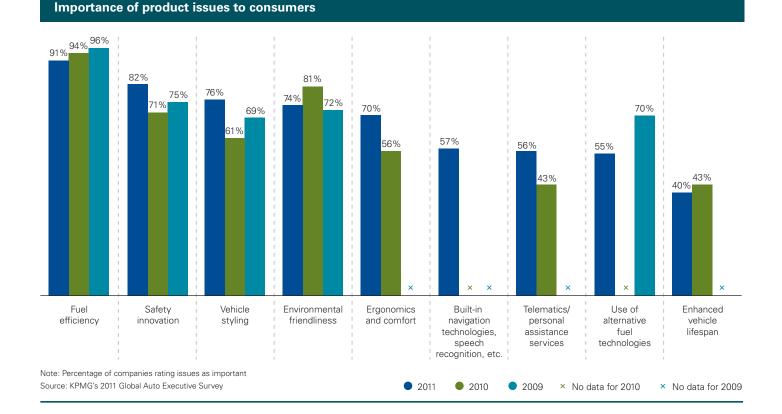
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Consumers demanding fuel efficiency and safety

With rising oil costs and fears over future supplies, it's no real surprise that fuel-efficiency is considered the single biggest factor for consumers when buying a vehicle, although its importance has declined considerably relative to the 2009 and 2010 surveys. Interestingly, despite a heightened focus on the green agenda, less than a third of respondents cite environmental friendliness as "extremely important," suggesting that buyers are driven more by their bank balance than their conscience.

Safety continues to influence buying decisions, with 82 percent of respondents rating this as important for consumers. As new powertrain technology develops and potentially unstable alternative forms of fuel are introduced into the marketplace, safety innovation may once again become a key point of differentiation. By combining technological superiority with safety leadership, e-car manufacturers and e-component suppliers could rise above their competitors.

Respondents from Asia Pacific consider safety as the single most important consumer issue, which suggests that price is not the only selling point in markets like China and India, especially as the middle classes expand in numbers and demand secure vehicles. Safety has the potential to once again become a key differentiator and a source of competitive advantage in both mature and emerging markets.



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KPMG comment: New technology brings new risks

Car safety has been an intrinsic part of automotive development for many years, and this year's survey shows that it ranks high on the agenda for consumers, automakers and suppliers alike. In mature markets at least, vehicle safety is now seen as a "must have" hygiene factor and rarely positioned as a point of differentiation. And while safety is of growing interest in emerging markets, there is a trade-off with vehicle price amongst the aspirational middle classes keen to own a car.

However, technology is once again putting the spotlight on safety, with the advent of batteries and fuel cells for electric vehicles. As these new technologies are introduced to the marketplace, consumers may start to be concerned about the stability of the energy source and risk of combustion or other issues. Until quite recently, even some of the relatively small lithium batteries in laptops were at risk of exploding without warning. As more and more vehicles start to be powered by new technology, the potential for combustive batteries and other dangers rises, giving both suppliers and OEMs the chance to establish a lead in safety as a means of gaining vital competitive advantage.

Comfort is a further challenge that could test the skills of powertrain engineers eager to bring on lower-cost, long-distance, fast electric cars. Having grown accustomed to the benefits of air conditioning and climate control (which makes a big demand upon battery power) consumers may be unwilling to compromise on such comforts in an electric vehicle. It is therefore likely that electronic power components will be the real differentiators of future electric vehicles, as they manage the efficient flow of energy through the vehicle itself.

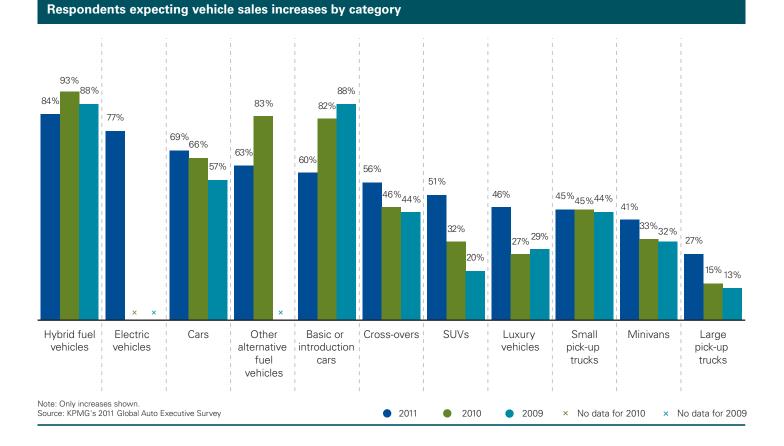


Hybrid and electric vehicles are growing fast but total sales are still far behind

Given the desire for more economical engines, the vast majority of auto executives (around eight out of ten) believe that hybrids and electric cars will enjoy the biggest growth of any vehicle category over the next five years. However, total sales are still expected to lag well behind traditional internal combustion-powered cars over this period due to some significant challenges that have not yet been resolved, including: safety, reliability, comfort, image and, undoubtedly, cost.

"In the short run the focus is on hybrids. We're launching a Touareg hybrid in 2011, which is still a powerful car. Most customers want to be environmentally friendly but don't want to compromise on performance."

Bernd Pichler, Managing Director (Commercial) Volkswagen (China) Import Co. Ltd



A majority of respondents do not foresee a reasonably priced, mass-market electric vehicle being available for at least five years.

The responses to this year's survey suggest that consumers are slow to shift their allegiance from preferred vehicles such as SUVs. Despite being much maligned by environmentalists, these cars remain popular, although more are becoming hybrids, which may satisfy the owners' conscience.

In Asia Pacific, growth in SUV as well as luxury vehicles sales is predicted to be far higher than in other regions, reflecting the aspirations of a fastgrowing middle class in China and India. According to Bernd Pichler, the desire for status symbols is intense: "People in China want to be seen driving imported premium cars, including SUVs, even though high duties make them far more expensive. Locally-built cars are distinguished by the brand name in Chinese characters on the back, yet this subtle difference accounts for a huge price gap."

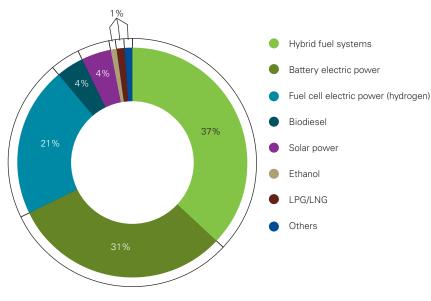
Although still high, the expected growth rate of basic or introduction cars has fallen behind the newer alternative technologies when compared to the previous year's (2010) survey. This indicates that emerging markets are serious about clean, efficient cars.

Hybrid systems and batteries receiving the greatest investment

The auto executives taking part in the 2011 survey show a clear preference for investing in hybrids and electric cars, which reflects the relative maturity of these technologies on the existing technology roadmap. Even if it is still quite far away from mass market production, hydrogen is often considered the most sophisticated propulsion technology to power e-cars and is still an area of investment for more than a fifth of the executives interviewed.

Surprisingly, investments in liquid petroleum gas (LPG) and liquid nitrogen gas (LNG) options are not considered important, despite the fact that these fuels, especially LPG, are already readily available and the infrastructure exists in many parts of the world. As only two percent of all respondents envisage these alternative fuels attracting significant investment, the sector may be missing an opportunity to at least develop a larger niche. Automotive companies appear to be investing in the more mature, green technologies, but gas, which is already available, is barely on the agenda.

Industry investments over the next five years in alternative fuel technologies



Note: Only greatest investment shown Source: KPMG's 2011 Global Auto Executive Survey

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KPMG comment: Responding to the changing landscape

The trend towards cars that meet specific customer needs signals a move away from multi-purpose vehicles. You may want an SUV to take your family to the countryside, but in future, strict regulations may forbid you from driving it to work in the city. And your small, low-emission commuter car may not be practical for leisure activities.

Car sharing schemes are proving increasingly popular with city dwellers, many of whom find it impractical to own a vehicle. They give customers access to a wide range of models with varying cargo space, and provide a great opportunity to focus less on selling cars and more on enabling people to move.

Such mobility solutions can enable OEMs to access customers via longer- or shorter-term rental. And with a more integrated approach, travelers can go from a shared car to train, air, tram or bus to reach their destination, all set up by one service provider, offering an easy, seamless journey.

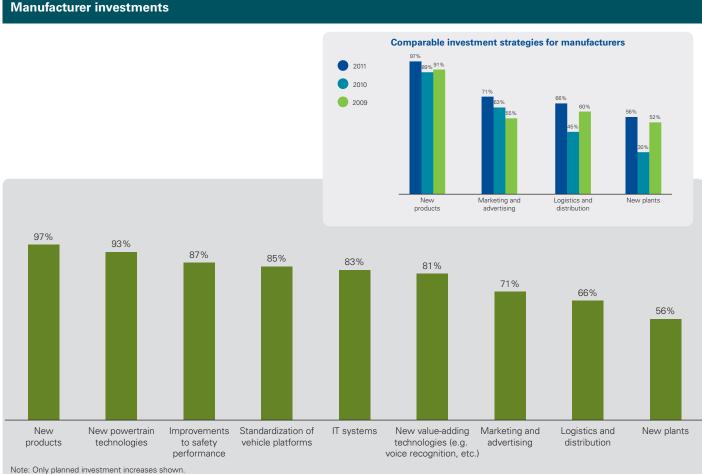
With many different players forming part of a "mobility grid," automotive companies may have to compete to own the customer interface, coordinate the various transport modes, and ensure that their own vehicles are a central part of the offering. Energy utility providers could become a critical component of these grids as electricity in cities becomes the primary source of power for moving people. This scenario involving automotive companies and energy providers mirrors the challenges in the communications industry, where telecommunications, entertainment and IT companies are converging. To take a leadership role, companies must determine how best to manage the interconnected network that will form the future mobility grid.

The challenge of alternative mobility solutions is more immediate in mature markets where the concentration of car ownership is higher; in emerging nations the emphasis is still on selling more affordable vehicles to a growing and aspiring middle class population. As Jayant Davar, Managing Director of Indian component manufacturer Sandhar Technologies explains: "While some parts of the world are looking at smaller cars to minimize the carbon footprint and become more fuel-efficient, in India the essence of a small car is one that is cheap."

However, this situation is changing fast and densely populated cities like Shanghai or Delhi may soon need new ways to manage and move travelers. As congestion grows, it won't be possible for everyone to possess a car, despite the affordability of locally produced vehicles; in addition to conventional sales approaches, it might be a smart move to put mobility solutions on the roadmap in emerging markets.

Future business models Changing roles for automakers and suppliers?

With the capital markets still recovering, automotive companies are seeking strategic partners to help fund the rising number of technological innovations. These alliances may shift responsibilities, with suppliers investing heavily in product improvements and new manufacturing technologies in order to undertake some assembly tasks that are currently in the scope of OEMs. However, the survey indicates that automakers will continue dominating powertrain manufacturing for at least 10 years. Whether such supremacy continues into the era of electric engines remains to be seen.

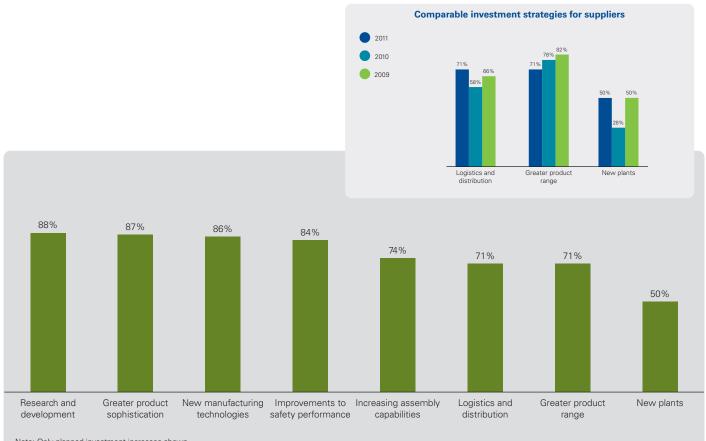


Source: KPMG's 2011 Global Auto Executive Survey

New products and technologies are the primary focus for manufacturers and suppliers

Manufacturers and suppliers' top investment strategies are to develop new and more sophisticated products, both of which receive greater emphasis than in the 2010 survey. And with powertrain technologies remaining a high priority for OEMs, it seems that the main players are working hard to stay on top of their traditional core areas of competence. According to the survey, suppliers see new manufacturing technologies as another imperative, which could signal a desire to climb up the value chain and establish themselves as contract manufacturers.

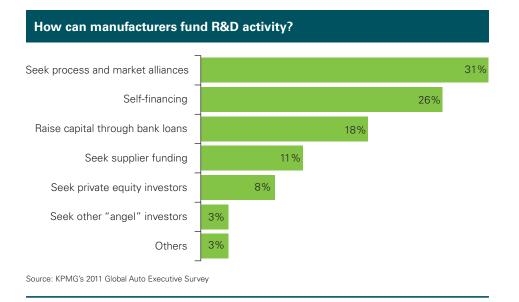
Supplier investments



Note: Only planned investment increases shown. Source: KPMG's 2011 Global Auto Executive Survey

The drive to innovate spurs process and market alliances

When asked how manufacturers could raise funds for R&D over the next five years, the most common response (from 31 percent of respondents) was to seek process and market alliances, with only 18 percent expecting to raise capital through bank loans. However, this issue showed a strong regional bias; alliances were far more popular amongst auto executives from Europe, Middle East and Africa and the Americas, whereas those from Asia Pacific had greater confidence in their ability to secure loans. Joint activities may further blur the differences between suppliers and manufacturers.



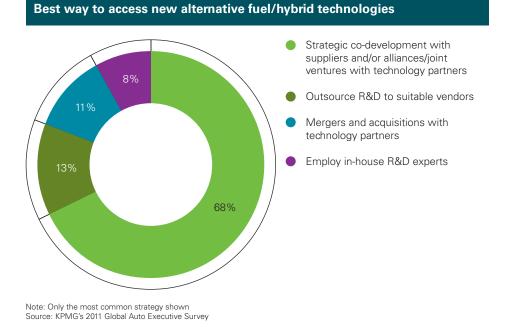
Alliances can also be a good way to access specialized technological knowhow as well as help share risk and cost. This is particularly relevant to hybrid and electric powertrain technology development. Over a third (68 percent) of survey participants believe that such development will be achieved either through alliances or joint ventures with technology partners, or via strategic co-development with suppliers.

"India does not have a long-standing legacy of R&D and design, so to date we've had to either import the technology or form alliances with foreign companies."

Jayant Davar, Managing Director Sandhar Technologies (Indian component manufacturer)

"To be competitive at a global level, Russian carmakers need to partner with global OEMs, to reap the benefit of their strong engineering and design knowledge. There are many examples of partnering, including AVTOVAZ with Renault Nissan and Sollers with Fiat."

Oleg Lobanov, Executive Vice President of Finance and Corporate Development, Chief Financial Officer AVTOVAZ



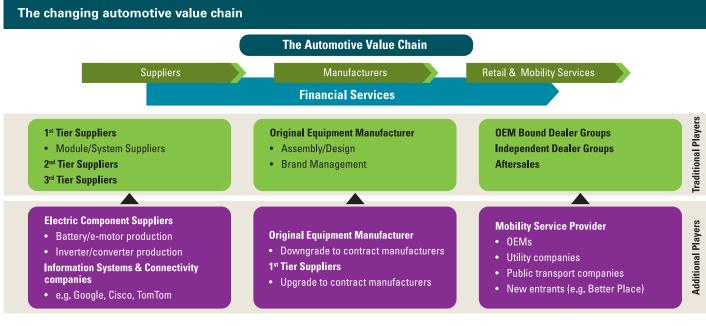
Emerging OEMs could seek foreign process and manufacturing know-how to develop competitive cars and technologies.

"Cooperation is absolutely necessary as electro-mobility is a composite of many industries. Neither the automotive industry nor the Energy Sector will be able to carry out all this innovation on their own."

Dr. Carl Friedrich Eckhardt, Head of Business Development Vattenfall Europe Innovation GmbH **68** percent believe alliances are the best way to develop new technology.

Changing roles and new players within the automotive value chain

Half of those involved in the survey (49 percent) feel that the automotive industry could evolve a completely new business model, where existing interrelationships between OEMs, suppliers and dealers could change radically. The potential new value chain could involve any combination of module manufacturers, assemblers, vehicle manufacturers/car designers and finally mobility service providers/vehicle providers/city builders. In this brave new world, the traditional players would have to carve out their respective roles. As the brand custodian, automakers would have to consider how to continue to manage the customer relationship, and whether to retain ownership of core powertrain R&D capability. Notably, respondents from the Asia Pacific region were the most open to such a change in industry structure. **49** percent believe the automotive value chain has to change to cope with future challenges.

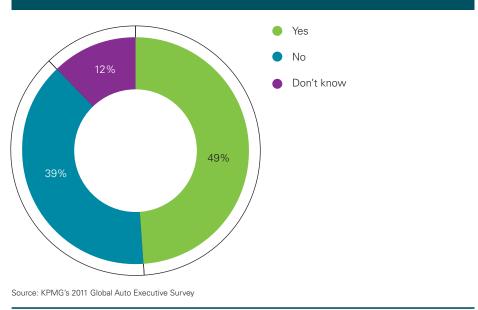


Source: KPMG's 2011 Global Auto Executive Survey

"In future there could be two parallel worlds, with some people addressing OEMs, others Vattenfall for Green eMobility Packages. Our main aim is to use the electric car batteries as storage systems for renewable energy sources.

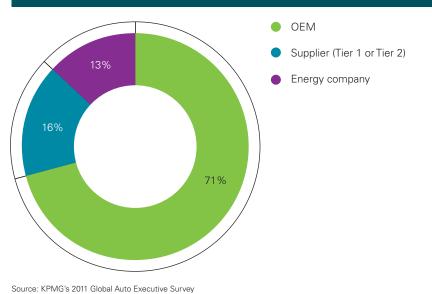
I believe that a utility provider can service eMobility. But we should be realistic. Even if we reach a million electric cars in Germany by 2020, [Vattenfall] will generate little extra business: Electricity consumption would then equal 0.5% of overall demand, and only a third of electric vehicles may be connected to our supply grid at any one time."

Dr. Carl Friedrich Eckhardt, Head of Business Development Vattenfall Europe Innovation GmbH



Will the auto supply chain realign?

However, such a move may still be some years ahead, as OEMs are not yet ready to concede the battle for dominance of powertrain technology. When asked who would control this critical aspect of the market in ten years time, 71 percent believe it will continue to be OEMs. Indeed, many of them are trying to establish a firm foothold in electric powertrains through production of battery cells and packs, as well as e-motors. Despite such efforts, the balance of power in powertrain technology may undergo a radical shift as suppliers and energy companies, which were not even on the radar three years ago, seek to take a more dominant role in electric vehicle manufacturing. 71 percent of auto executives think OEMs will still dominate powertrain technology by 2020.



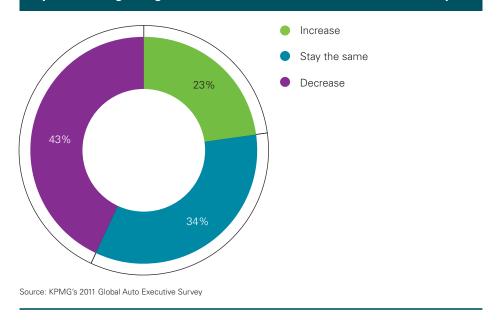
Who will dominate in powertrain until 2020?

Government subsidies necessary for electric vehicles

The majority of auto executives surveyed acknowledge that the recent round of government subsidies has tailed off, with 43 percent expecting subsidies to decrease. Despite these observations, many feel the state has a role to play in accelerating the affordability of electric vehicles. Almost four in ten (38 percent) would like to see subsidies in this area. which could be in the form of direct contributions to R&D or through tax breaks to buyers of electric cars. The United States is making a clear commitment by investing US\$150 billion over 10 years to accelerate the commercialization of plug-in hybrids, promote development of commercial scale renewable energy,

encourage energy efficiency, invest in low emissions coal plants, advance the next generation of biofuels and fuel infrastructure, and begin transition to a new digital electricity grid. They have also allocated an additional US\$2 billion towards the development of electric vehicle batteries and related components.¹ Such an approach is also prevalent in China, as the government seeks to make the People's Republic a leader in battery design and production. Beijing has pledged approximately US\$17 billion to fund efficient drive train technologies, including R&D support for automakers, as well as subsidies of as much as US\$8,800 to electric car buyers in 26 cities.²

Many respondents believe electric cars will not be affordable without subsidies.



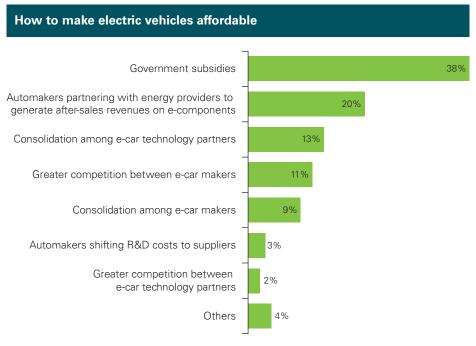
Expected changes in government subsidies in the automotive industry

1 GKVS, 2009

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² FORTUNE magazine: http://tech.fortune.cnn.com/2010/10/19/china-charges-into-electric-cars/

Many respondents believe electric cars will not be affordable without subsidies. Certainly it is unique in the history of automotive developments for the financing of new technologies to be mainly derived from subsidies. To get the most out of any subsidies, governments should let automotive engineers set the agenda. They should also avoid linking CO_2 directly to any single technology, as this could hold back other potential solutions.

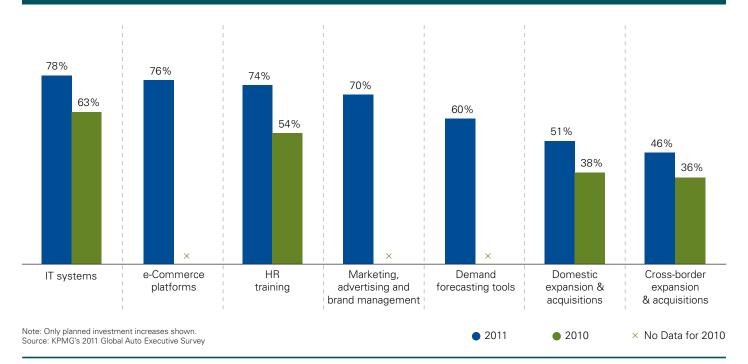


Source: KPMG's 2011 Global Auto Executive Survey

Dealers focused on sales, service and IT

The growing importance of e-commerce in the automotive industry has put considerable pressure on dealers by enabling consumers to access detailed vehicle information such as design, condition (for used cars) and compare prices. Consequently, dealers are keen to harness the power of the web to boost their own business.

And with cars improving in reliability, there are fewer opportunities to connect with customers over repairs and services. Given these challenges, it is understandable that over threequarters of respondents expect dealers to increase their investment in tools that help improve customer relationships. Considering the proportion of investment to return, dealers have big challenges. The necessary investments, including real estate, marketing and inventory purchasing, is significantly higher for retail businesses than for engineering or manufacturing. It is therefore harder for dealers to be profitable. Dealers should invest in managing customer relations in order to keep ownership of the direct interface with the customer.



Expected increase in investment by dealers

If, as some of the survey findings suggest, the automotive industry is heading for a new business model, dealers may be able to play a role in providing mobility solutions, or get more involved in financing, leasing and full service provision over a car's lifetime. The survey results show dealers have relatively less interest in expanding organically or through acquisitions, either domestically or overseas, which reflects the largely fragmented, regional structure of the dealership market. However, if integrated mobility concepts expand, dealers may have to re-think their horizons and incorporate customers' cross-border travel needs.

Do dealers have the capability to become providers of mobility solutions?

The dealer's view AMAG: Brand is the key

Bernhard Soltermann, Managing Director of the Import Division of AMAG Automobil- und Motoren AG, explains how Switzerland's largest VW brands dealership is meeting its challenges.

"Unfavorable exchange rates have had a big impact on our business, increasing the number of parallel imports and putting considerable pressure on margins, although we have managed to negotiate more equitable transaction prices with the factories. Another challenge is the lack of gualified personnel in the after-sales business, where capacities need to be built up rapidly due to the aging of vehicles in Switzerland. Although we are recognized as a strong, trusted brand throughout Switzerland, we have partly had to use recruitment agencies to try to find appropriate people.

We're a dedicated Volkswagen dealer but we're lucky in that VW has a very wide range of brands to suit every taste, from economy to premium, plus the important range of commercial vehicles. This lets us compete against any other dealer, regardless of the category. And being with a single supplier also means there are synergies on spare parts and other aspects of the business, such as the broader approach towards fleet customers. We offer a wide range of brands and have a network of roughly 80 owned outlets, covering most parts of Switzerland and making it attractive for nationwide fleet owners to deal with a single source for both sales and after-sales aspects.

So far the internet has had a moderate impact on our new car business as a large proportion of the Swiss population is by nature conservative and would rather deal with a wellknown and trustworthy regional dealer like AMAG with strong brands. However, we do appreciate the power of e-commerce and are currently refining our web presence on all levels and aspects.

Car sharing is an interesting phenomenon that is gathering pace. We're not in this space yet but are



certainly considering it as we have some interesting retail sites around major cities to locate vehicles, so it could be a natural move. But not everyone makes much money out of such solutions so we want to be confident of the business case in the mid-term.

Consolidation is not really happening in a big way in Switzerland. Smaller businesses can survive on a relatively small number of sales per year, profiting from the after-sales opportunities coming from the aging car population in Switzerland and often involving parallel imports of used cars with attractive per-unit profits without any big investments in facilities or stocks. Therefore, I don't see this situation changing dramatically in the medium-term.

Electric cars as a significant volume of total sales is some time away

and hybrids aren't quite there yet either since the cost of the current generation of hybrids hardly justifies the fuel saving. However, we are happy that more and more hybrids are becoming available since, apart from pure sales-volume thinking, it is a technology statement that hardly any big manufacturer can afford to pass up these days. What we are witnessing, though, is a move away from larger engines, as the smaller four cylinder ones are now very efficient and powerful at the same time - even for the larger, premium models. The VW group is certainly the leader in downsizing technology. Therefore, for the mid-term, we see this trend continuing strongly until powertrain technology really takes another big leap forward – then electric vehicles could become more relevant due to a much higher 'total system performance' than it can offer today."

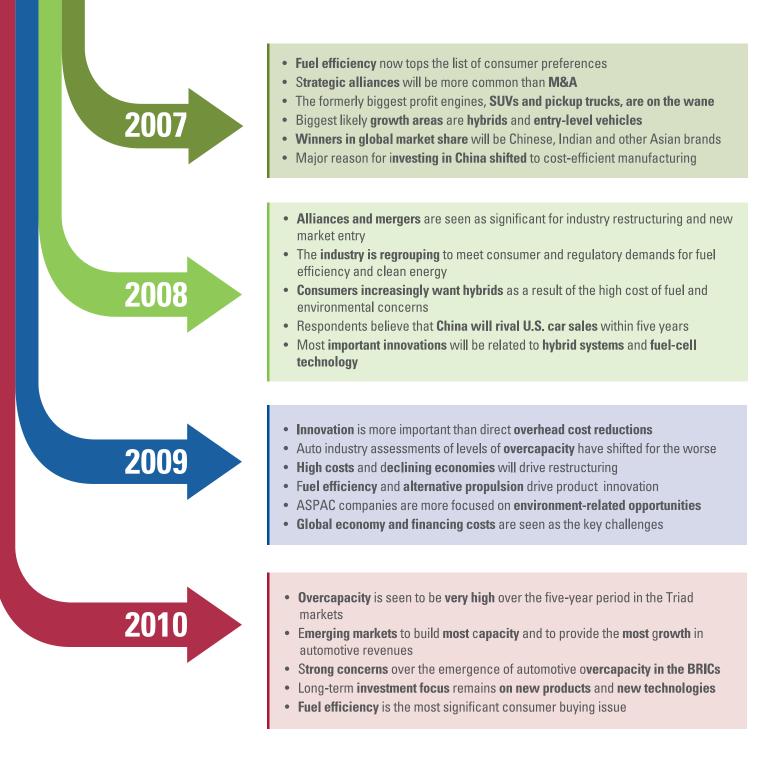
Looking back Major automotive industry issues over the last seven years

- Consolidation is expected throughout the industry
- Luxury vehicles will continue to grow in market share
- Safety innovations expected to garner the biggest investments
- The need to control costs is becoming a way of business life
- Fuel efficiency will jump in consumer purchase criteria
- Quality is the number one industry issue
- Global overcapacity is not as much of a worry
- Foreign OEM and supplier investment in China will increase
- Safety is organic to the industry and will be an ongoing major focus
- Fuel efficiency is now a key industry issue
- New technology will be as important as new models in attracting customers
- The auto **business' growth is shifting** from North America and Western Europe to Asia and Eastern Europe
- **Global overcapacity:** one in three thinks it is greater than 20 percent
- Biggest gains in market share: small, inexpensive cars and hybrids, both prized for fuel efficiency
- **OEMs** are expected to be the **most profitable** segment, with captive finance companies right behind
- Main reason for investing in China is still to sell to Chinese consumers, rather than manufacturing for export



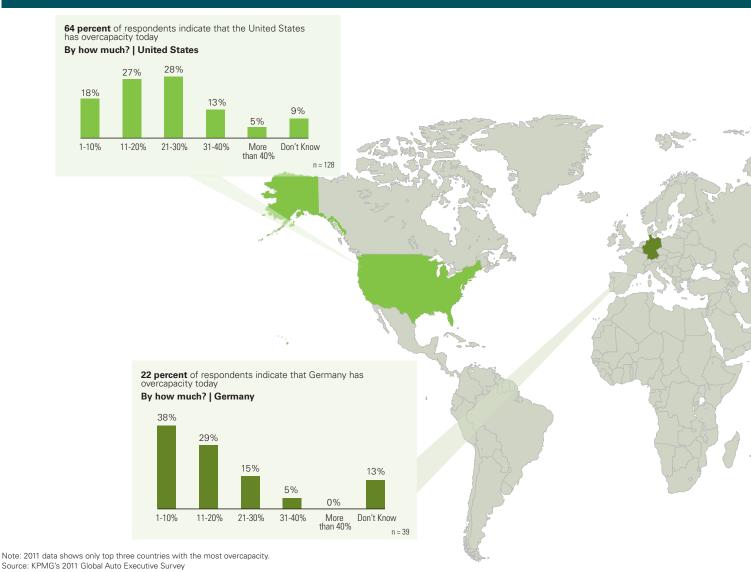
2005

2006



Performance and profitability Attaining a balanced global footprint

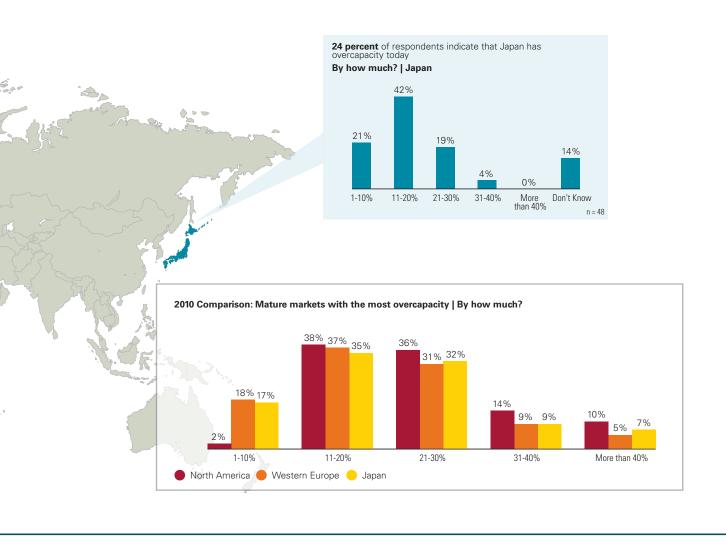
The automotive industry is still facing overcapacity in both mature and emerging markets, as the major players seek a balance between rationalization and expansion. Merger and acquisition activity is down on 2010, with OEMs and Tier 1 suppliers the most active as they try to access new technologies.



Mature markets with the most overcapacity

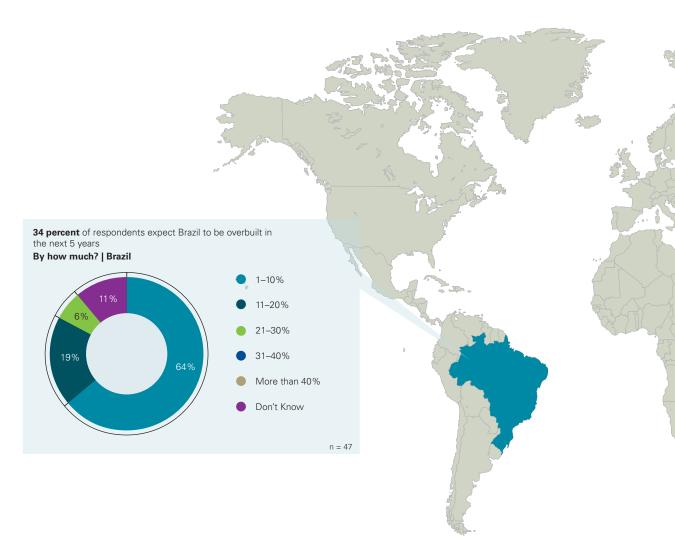
Overcapacity is a continuing concern – not only in mature markets

Despite extensive rationalization, respondents still consider the US the most overbuilt country. However, in comparison to the corresponding 2010 survey, fewer believe overcapacity exists and a majority also feel that the surplus capacity is now lower. Close to twothirds of all survey participants believe the US is the most overbuilt market, followed by Japan and Germany.



The problem of overcapacity also seems to be affecting emerging markets, with China and India both expected to be overbuilt within the next five years; in 2010 most thought this timeframe would be five-to-ten years. Over a quarter of executives expect China to be overbuilt by more than 20 percent by 2015. Given the accelerating pace of domestic sales growth in emerging markets and the substantial investment that has already gone into building production capacity in those markets, accurate forecasts are hard to make. Over a quarter of executives expect China to be overbuilt by more than 20 percent by 2015.

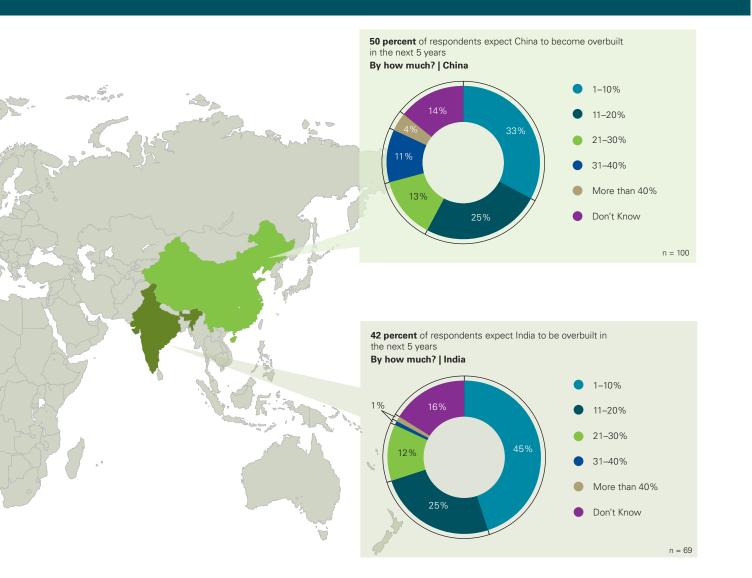
Growth markets with the most overcapacity in five years



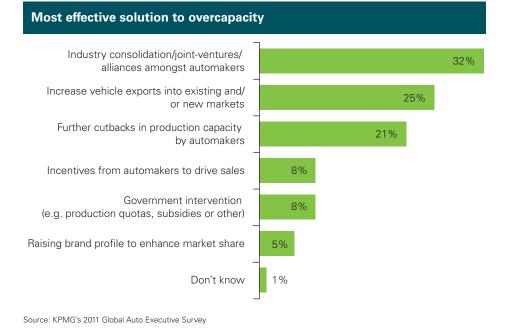
Note: Only top three countries with the most overcapacity shown. Source: KPMG's 2011 Global Auto Executive Survey

"Overcapacity (in China) is a consideration but if we do not invest in our plants then we'll miss out on sales opportunities...It's a risk worth taking."

Bernd Pichler, Managing Director (Commercial) Volkswagen (China) Import Co. Ltd



While acknowledging the challenge of overcapacity, many OEMs are still investing in manufacturing plants for cars and trucks in China and India, as they are concerned about losing out to competitors. The respondents differed on how to address this issue, with consolidation amongst automakers seen as the single most effective way to reduce overcapacity. While auto companies also feel they can increase vehicle exports into existing and/or new markets, this option may be limited, as OEMs are rapidly building factories in many of these countries, thus reducing their own export opportunities. It remains to be seen how sustainable this market presence will be; and how flexible these facilities could become if demand changes. Exporting to other markets is seen as an effective strategy for reducing overcapacity – but for how long?



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KPMG comment: Balancing growth with capacity

In the past three years the global automotive industry has undergone extensive rationalization, particularly in the more mature markets in US, Japan and Europe, as well as in Russia. Yet despite all these changes, the majority of senior auto executives taking part in this survey still see overcapacity in key markets around the globe.

In the US, manufacturers might argue that capacity is now down to manageable levels and that some slack is advisable to provide the flexibility to cope with an upturn. In Europe, where labor laws tend to be stricter, the major players have had to moderate their downsizing activity to some extent, and may still be looking for further reductions. Notwithstanding the substantial capacity reductions already put in place, there is capacity available to respond to demand from the market as the economy recovers. What remains to be seen is whether OEMs will strive to generate greater demand through customer incentive programs. If we see a return to the types of incentivization that the US and European markets offered in 2008 and 2009, it could potentially lead to further, unsustainable overcapacity.

In order to compete in the race for market share in China, OEMs have had to rapidly invest in plants in this country to meet demand. As Bernd Pichler, Managing Director (Commercial) Volkswagen (China) Import Co. Ltd comments: "In the past we couldn't keep up with demand, and with the market growing annually by double-digit percentages, we can't afford to hit the brakes now. Of course, we must balance the need to keep up with market demand with the danger of overcapacity, but if we do not invest in our plants then we'll miss out on sales opportunities, which will be snapped up by our rivals. Even though some of our plants could potentially become surplus to requirements in a few years, it's a risk worth taking."

Nevertheless, it does seem likely that China and India will see some overcapacity within the next few years, so the industry may have to brace itself for some casualties, as it cannot simply expect to continually find new export markets.

For example, China's auto output surged 39.4 percent year-on-year to 9.7 million units from January to July of 2010. Meanwhile, China's auto sales 'only' increased to 8.2 million units in that same period, up 28.6 percent from the previous year.³ With many OEMs planning to significantly increase their production capacity in China, and already exporting substantial numbers of units to this country, it is quite likely that domestic supply will exceed demand. Interestingly, domestic production and sales figures for the Indian car market already showed an excess capacity of 17.6 percent in the April 2009-March 2010 period.⁴ One region that has not had a lot of focus is Africa, which could present a growth opportunity. However only 3 percent of respondents expect customer demand to grow quickly on that continent over the next five years.

Source: China Automobile Technology and Research Center (CATF Source: Society of Indian Automobile Manufacturers (SIAM)

In the battle for market leadership, Chinese brands and VW are in front

In terms of increasing global market share, respondents expect Volkswagen to be the biggest winner over the next five years, surpassing last year's number one Hyundai/Kia. VW's acknowledged strength is a broad product portfolio from small cars to luxury vehicles. And through truck brands such as MAN and Scania, they are adding new segments to their portfolio. With a dominant 13 percent share in China in 2009, VW also has a strong base in the world's biggest growth market.⁵ As a group, Chinese brands are forecast to enjoy the greatest growth, at an even faster pace than was predicted in the 2010 survey, while Indian brands are thought to be expanding but at a slower rate.

Respondents believe that Chrysler will suffer the greatest decline in market share over the next five years. The survey results also point to some uncertainty about GM's future: only 40 percent suggest that this company will improve its market share and 36 percent feel it could actually go down. This is a surprising result given the recent recovery in GM's share price, suggesting that the marketplace is still reacting to its June 2009 bankruptcy filing.

Russian brands are not expected to grow particularly strongly, despite the Russian government's efforts to stimulate local production of foreign brands through greatly increased import duties. Despite improved performance, Chrysler and GM are not expected to enjoy large growth.





Respondents believe Volkswagen – as a single brand – will enjoy the biggest growth in global market share over the next five years.

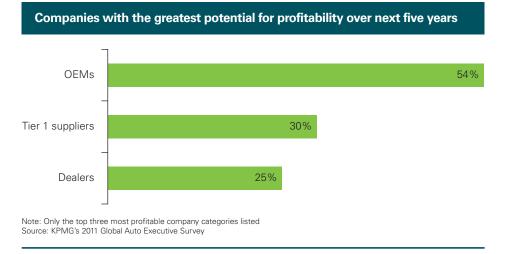
73% 68% 48% 43% 36% 33% 32% 32% 29% 25% Chrysler General Motors Mitsubishi Fiat Subaru/Fuji Note: Only 'decrease' responses shown. Source: KPMG's 2011 Global Auto Executive Survey 2011 2010

Bottom 5 - Respondents expecting decrease in global market share

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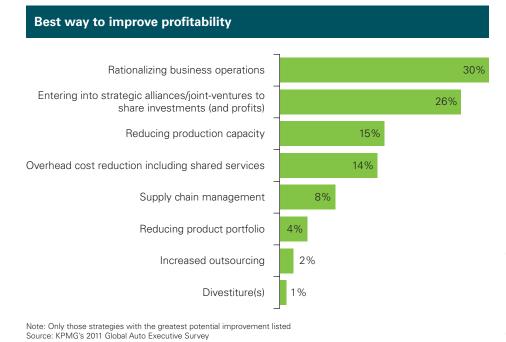
Rationalization and alliances expected to lead to profitability

OEMs are expected to be the most profitable automotive companies over the next five years. Although this year financial services companies did not appear in the top three in the assessment of industry profitability, in KPMG's 2010 Global Auto Executive Survey this sector was rated as having the greatest profitability potential. Financial services appear to present an interesting investment opportunity for the automotive industry, particularly in emerging markets where the sector is relatively underdeveloped, with a dearth of OEM captive banks. If government restrictions in markets such as China can be overcome, financial services could attract considerable investment. Daimler, Volkswagen and BMW are already offering financing and leasing in China and India, in anticipation of significant market growth within their captive financial services arms. OEMs are expected to be the most profitable automotive companies over the next five years.



Respondents agree that the two most effective strategies to achieve profitability are rationalization and the building of strategic alliances. Reducing production capacity is a

further option, which is perhaps at odds with the extensive investment in plants already being undertaken in the industry, especially in Asia but also in the United States.



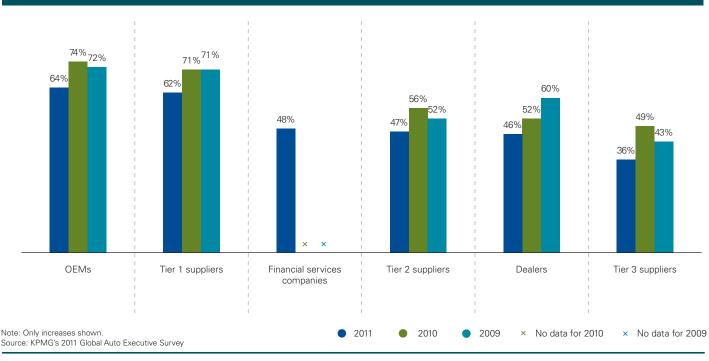
While the automotive industry is strongly focused on cost control and profitability, it is also continuing to drive innovation. The race to deliver new products/new technologies at an affordable cost ultimately means the customer wins.

<image>

Merger and acquisition activity is declining

In comparison with the 2010 survey, merger and acquisition activity appears to have gone down for all types of automotive business, with OEMs and Tier 1 suppliers remaining the most active. These companies may be seeking to acquire new competencies to establish themselves in the future automotive value chain. Respondents from the Americas region see Tier 1 suppliers as particularly active in mergers and acquisitions, suggesting that US suppliers are keen to take a bigger role in manufacturing.

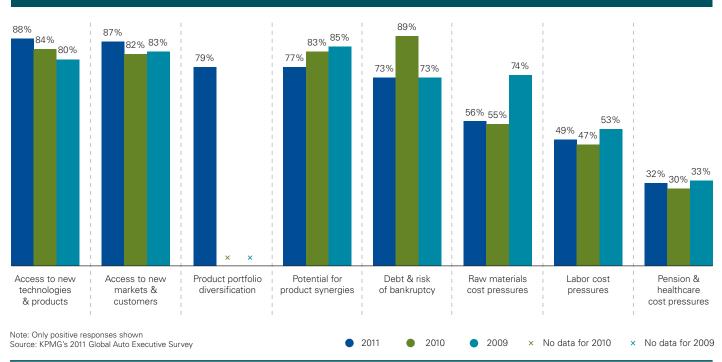
From a regional perspective, respondents feel that mergers will be more common in Asia (excluding Japan), as well as Central/Eastern Europe and Russia, with Chinese and Indian companies being the main acquirers, as evidenced by recent mergers between Geely and Volvo, and Tata Motors and Jaguar Land Rover. Compared with the 2010 survey, M&A activities are expected to decline.



Expectations of M&A activity over the next five years

The biggest drivers behind M&A activity are access to new technologies and access to new markets. This view is in contrast to the 2010 survey, where the single biggest reason was to reduce debt and avoid bankruptcy, and reflects the gradually improving economic climate over the past year. However, only a few automotive businesses (12 percent) view mergers and acquisitions as the most effective way of accessing new powertrain technologies, possibly due to the upfront costs of such transactions at a time when capital is scarce. As mentioned, alliances are viewed as a more cost-effective option. And whereas a few years ago mergers and acquisitions were carried out to reduce labour costs, the trend from the last three KPMG surveys suggest this is no longer the case. The biggest drivers behind M&A activity are access to new technologies and access to new markets.

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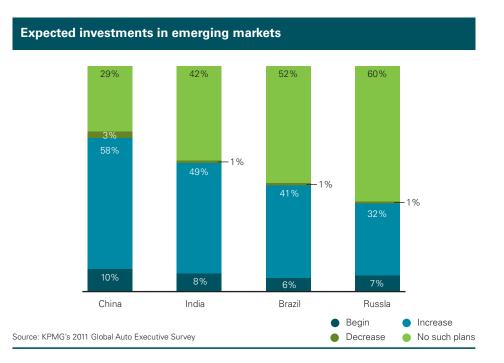


Reasons for considering mergers and acquisitions



Emerging market trends China dominates but India is rising

Almost all survey respondents agree that China will remain the largest producer and seller of cars in five years. China is also considered the biggest investment target.



China in the lead

As expected, most of those taking part in the 2011 survey (86 percent) believe that China will continue to enjoy the greatest number of car sales and produce the most vehicles by 2015. Forty-two percent of respondents expect domestic sales in China to exceed 18 million in the next five years; with some sources already publishing domestic sales figures of 14.7 million from January to October 2010, this may well be a conservative expectation.⁶

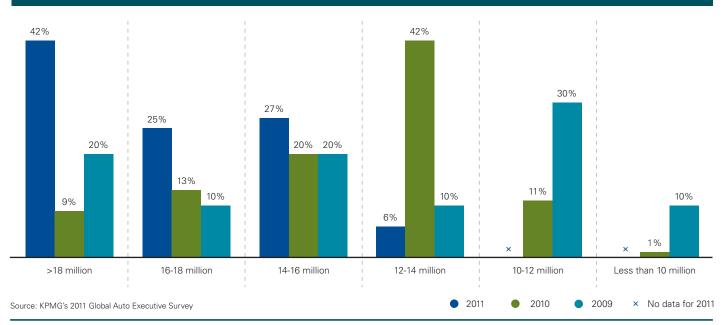
Although a majority think China will break the one million export figure within five years, some still feel it will take considerably longer to move well beyond this figure. **42** percent of respondents expect domestic sales in China to exceed 18 million by 2015.

⁶ China Daily, Automakers benefit as domestic sales soar. December 13, 2010.

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"While it has incredible growth potential, the Chinese market is also fiercely competitive. Foreign OEMs tend to produce higher quality, premium vehicles, with local firms aiming for the more mass market, affordable vehicles. However, the whole market is changing quickly, and because non-Chinese businesses have to work through joint ventures, there is a considerable knowledge drain to the local partner. This is helping Chinese automakers catch up fast and move up the value chain. The established foreign players can't rest on their laurels and must push ahead with R&D and patent innovation to keep ahead."

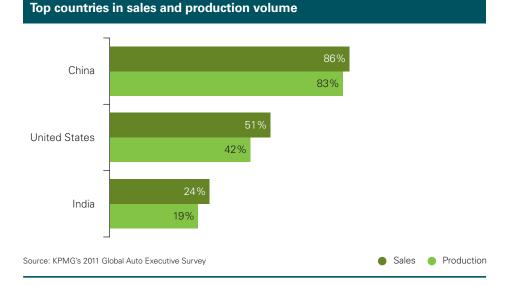
Bernd Pichler, Managing Director (Commercial) Volkswagen (China) Import Co. Ltd



Five-year horizon: Sales volume expectations of China (Cars and commercial vehicle units)

India is on the fast track

While China is clearly the most popular country for investors, India is also generating great interest. Fifty percent of respondents plan to increase investment in the Indian automotive market, which is quite a leap from 2010, when the equivalent figure was just 34 percent. Automotive businesses in the Americas appear to be the most likely to invest more in India. Within five years, survey respondents predict India will be third behind China and the United States in terms of global production and sales, although a majority believe India will not exceed 10 percent of global automotive market share (by revenue) within this time period. Companies from the Americas appear especially keen to invest in the Indian automotive market, according to the survey.



According to the Society of Indian Automobile Manufacturers (SIAM), India exported 0.45 million and sold 1.95 million vehicles in the domestic market in 2009. A substantial majority of respondents foresee that number rising to between three and five million cars in five years' time. Industry experts expect domestic sales to reach 3.5 million by 2015 (a growth rate of 13% per year), which is consistent with our survey findings.

Given the tremendous growth potential within the Indian market, its automakers are understandably focused domestically. Tata Motors has achieved a remarkable feat having introduced the Nano into the domestic market for a price that some had deemed impossible. However, recent media coverage suggests that sales of the Nano are dropping due to various factors, making future sales difficult to predict. Survey respondents do not expect India to make or sell a significant number of cars overseas before 2015. "Nobody thought that the Tata Nano – which retails at around US\$2000 – could be achieved. Having seen our success with this model, others want to build small, low-price cars in India for export around the world. But our main focus is on the huge potential of the domestic market. To reach just 100 cars per thousand people, India will have to produce 25 million vehicles per year.

India faces three main challenges that must be overcome for it to achieve its growth objectives: firstly, to develop a larger and qualified pool of technical people; secondly, to build a greater R&D base through alliances and government funding; and thirdly, to improve the infrastructure to drive growth."

Jayant Davar, Managing Director Sandhar Technologies (Indian component manufacturer)

KPMG comment

Despite its challenging infrastructure, the combination of demographics and relative democratic stability give India considerable potential. The government started to take active steps to loosen restrictions on foreign businesses as early as 1991, and those efforts are now coming to fruition. With an entrepreneurial culture, a young population, and a growing middle class, India could be a strong challenger to China's dominance over the next two decades.

Brazil increasingly popular

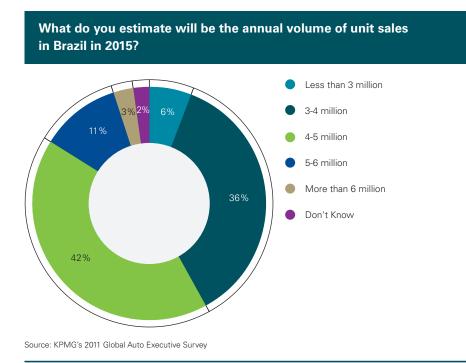
Brazil has leapt up in popularity since 2010, when just 22 percent of respondents said they would increase their investment in this country.

The 2011 number is a healthy 41 percent and, perhaps not surprisingly, a huge 70 percent of auto firms from the Americas expect to invest more in Brazil.

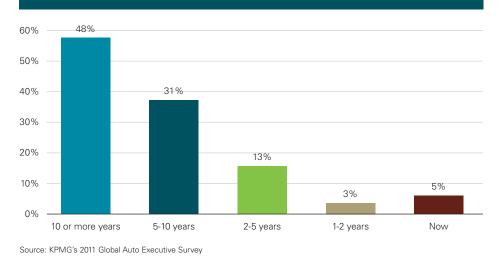
Just over three million cars were sold in Brazil in 2009⁷, and a majority (56 percent)

of survey participants believe the 4 million barrier will be beaten within five years. However, total global market share is expected to remain below 10 percent (in terms of total industry revenues) for the foreseeable future.

Few respondents believe that Brazil will become a major exporter of cars in the next few years, or indeed manufacture over a million vehicles in other markets in that time frame. **56** percent of respondents believe car sales in Brazil will beat the 4 million barrier within five years.



⁷ANFAVEA (National Association of Motor Vehicle Manufacturers)



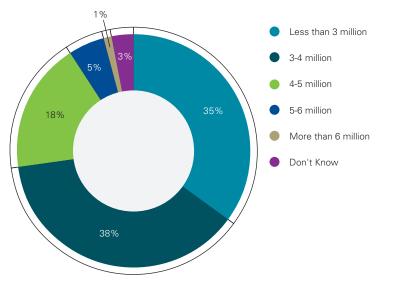
When do you think Brazil will manufacture a significant number (1 million + per year) of cars in other markets?



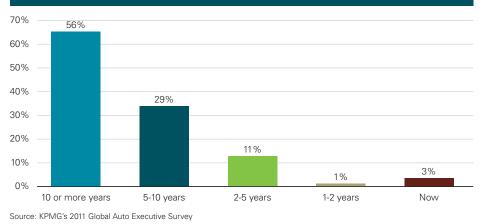
Russia still playing catch-up

Almost two-thirds of respondents feel that Russia will more than double its sales volume again to around three million vehicles within five years, although the country is unlikely to exceed ten percent of worldwide market revenue share in this time period. In spite of ambitious government initiatives to stimulate local production and encourage inward investment, Russia is not expected to be a major global player in terms of selling or manufacturing abroad for at least five years – or perhaps longer.

What do you estimate will be the annual volume of unit sales in Russia in 2015?



Source: KPMG's 2011 Global Auto Executive Survey



When do you think Russia will manufacture a significant number (1 million + per year) of cars in other markets?

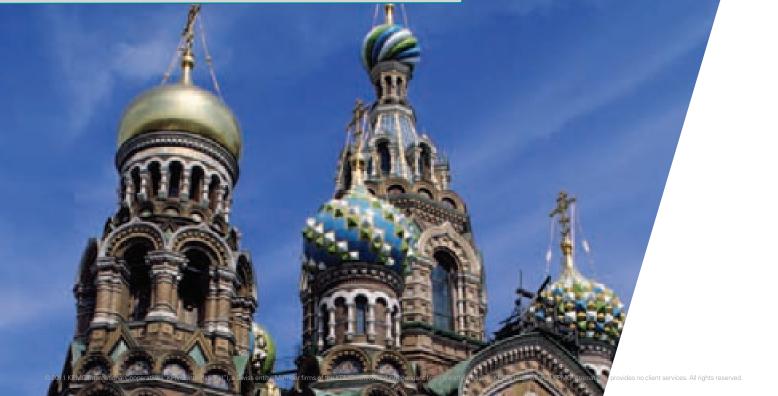
Only a third of auto executives surveyed expect investments to increase in Russia, with carmakers in Europe, the Middle East and Africa the keenest, emphasizing the importance of geographic proximity. "A year ago we were simply focused on survival. Now – thanks to help from the Russian government – we've settled debts with suppliers, improved cash flow, reduced interest payments and moved to a more stable financial position. We're now able to think about development strategies, partnerships, and producing a new model range.

Russia's geography has an impact upon the cars we sell in the more remote regions of the Federation. We make vehicles that are simpler and easier to repair, with a small and affordable range of spare parts that are readily available in gas stations or at widely spread service points."

Oleg Lobanov, Executive Vice President of Finance and Corporate Development, Chief Financial Officer AVTOVAZ

KPMG comment

The Russian government has done much to encourage inward investment and bolster in-country car production, to create jobs and transfer manufacturing skills, as well as automotive technology, to the local market. Some European companies have already begun producing in Russia; Germany's Volkswagen has built a car production facility in the city of Kaluga, while the French car maker Renault has bought a 25 percent stake in AVTOVAZ. Tagaz has teamed up with Hyundai and Kia, BMW and GM with Avtotor. In fact, of the 19 Russian OEMs, 17 represent or have joint ventures with international automakers.



Conclusions Laying the foundation for a future roadmap

The automotive industry faces some major challenges that could determine its future shape. In order to stay ahead, the major players should consider if, when and how they address the following issues:

Integrated mobility solutions

A changing approach to travel, along with an evolving urban landscape, has created both threats and opportunities for the automotive industry. By pioneering mobility solutions that encompass multiple modes of transport, auto companies can own the customer interface and extend their brands to new sectors.

Vehicle models based around applications

Future mobility demand will be influenced by specific customer needs such as commuting, leisure and city travel. If a single car is no longer sufficient for an individual or family, then automakers may want to get more involved in car sharing schemes.

Leadership in safety innovation

Once considered a "given," safety is back on the agenda as more and more vehicles become powered by new technology. Safety can once again become a brand differentiator for both established and new players.

Pooling knowledge to achieve technical superiority

R&D increasingly requires alliances and joint ventures to spread costs and risk and share knowledge. However, in partnering with others, automotive companies should keep a close eye on profitability and retain the technology, know-how and brand reputation that they are famous for.

Seeking efficiencies

Despite the extensive rationalization efforts of the past years, many companies are trying to achieve further efficiencies in their processes. Business leaders should seek out the most effective change management approaches to boost such initiatives. Investments in new business segments, like finance and leasing, especially in emerging markets, could open up new areas for profitability. Seek to manage the **mobility grid**

Better respond to **vehicle purpose** expectations

Re-focus on **safety**

Share risk through alliances and **retain a strong brand**

Rationalize, collaborate and invest in new areas to **achieve profitability**

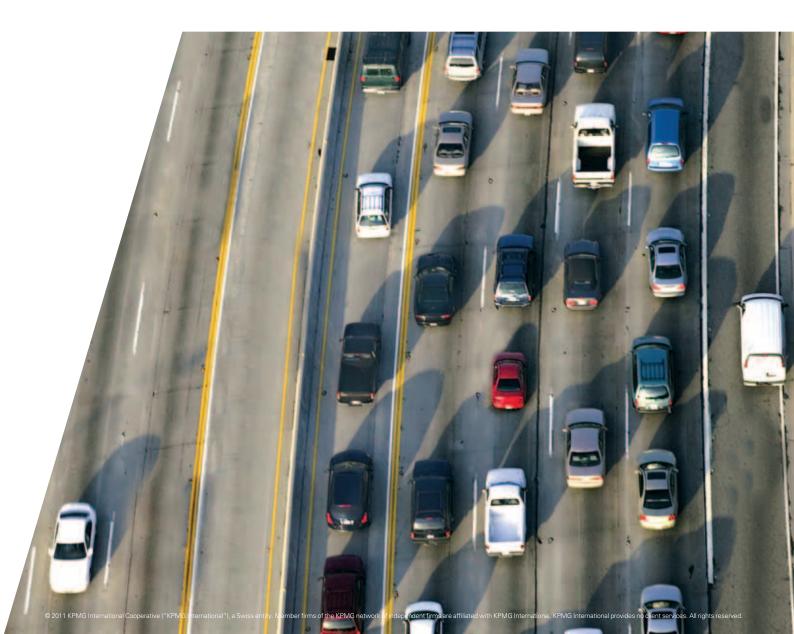
Consider alternatives to resolve overcapacity

With overcapacity becoming an issue even in emerging markets, automotive companies can develop a longer-term global strategy that balances risk with reward and embraces alternative business models, including moving into new market sectors.

Look beyond China

While China has the greatest potential at present, there are also excellent opportunities to grow in India, which has a young, well-educated English-speaking population, a democratic system and an expanding middle class. Competition in India may not be quite as fierce as in China, offering a chance to gain a strong foothold. Make better use of existing plants; build in **flexibility** to use plants in other ways

Accelerate investment in India

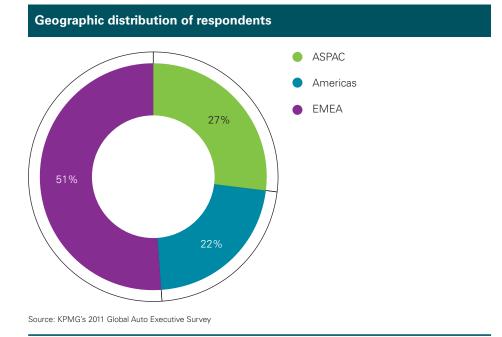


About the survey

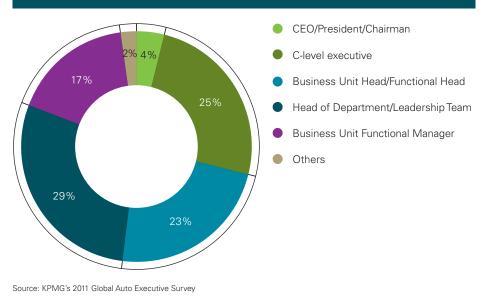
A total of 200 automotive executives participated in the survey, over half of whom are business unit heads or higher. The respondents come from all parts of the automotive value chain including vehicle manufacturers, Tier 1, 2 and 3 suppliers and dealers.

Fifty-one percent of the executives are based across Europe, Middle East and Africa, 27 percent in the Asia-Pacific region and 22 percent in the Americas. All the participants represent companies with annual revenues greater than US\$100 million and more than a quarter work for firms with revenues greater than US\$10 billion.

The respondent interviews, which were held by phone, took place in September and October 2010.

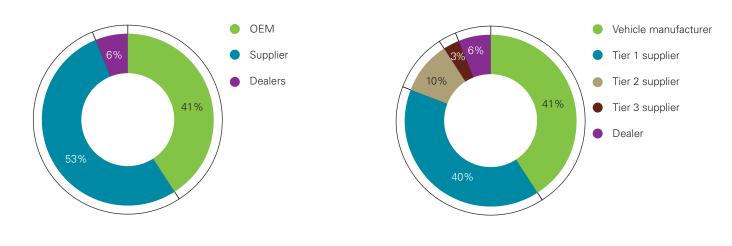


Respondent job titles

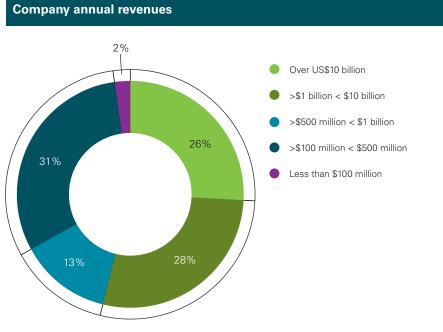


Company categories





Source: KPMG's 2011 Global Auto Executive Survey



Source: KPMG's 2011 Global Auto Executive Survey

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