Changing lanes 2014-15

The automotive C-suite’s agenda

Randy Miller, Global Automotive Advisory Leader

21st Annual Automotive Outlook Symposium
Changing lanes 2014-15
The automotive C-suite’s agenda

1. Buckle up
   New sources of volatility

2. Drive loyalty
   Getting closer to customers

3. Take the fast lane
   Multidimensional competition

4. Digital tuning
   Operational efficiency

5. More miles per gallon
   Resource management

EY’s second annual automotive executive survey
100 global automotive respondents

Automotive C-suite executives

40

EY automotive partners

60
1. Buckle up

New sources of volatility — navigating uncertainty is business as usual

Continued volatility in the new normal

- Managing slowdown in emerging markets
- Hedging against currency fluctuations
- Predicting and planning for commodity prices
- Operating in an uncertain regulatory environment
- Balancing regional mismatches between capacity and demand

Trendicators

- **1.8m**
  - Sales decline registered by regions that fell in 2013, with 62% from emerging markets

- **US$7b**
  - Forex transactions' negative impact on European OEMs

- **17%-18%**
  - Standard deviation in iron ore and steel prices during 2012-13

- **+85% to -6%**
  - Changes in sales growth in Thailand

C-suite’s sources of volatility

- **90%** of carmakers selected emerging markets
- **70%** of carmakers identified emerging market regulations
- **>60%** of carmakers selected emerging market currency rates, raw material prices and the Eurozone
- **>68%** of suppliers identified demand from developed and emerging markets

Sources for trendicators: LMC Automotive, Global Light Vehicles 2013 review; European automakers’ financial publications; Metal Bulletin, via Thomson Datastream; LMC Automotive, Global Car and Truck Forecast, 4Q13; EY analysis.
1
Buckle up
New sources of volatility — navigating uncertainty is business as usual

C-suite’s views on impact and preparedness

Low
- Product-related regulations (Emission, fuel consumption, safety)
- Fuel and energy costs
- Currency exchange rates
- Regional EXIM trade
- Free-trade agreements

Preparedness
High
- Regulatory environment in developed markets
- Regulatory environment in emerging markets
- Demand from Eurozone and BRICS, other emerging markets
- Demand from North America, Japan and other developed markets

Illustrators
- Toyota’s profit doubles driven by weaker Yen
- Mercedes-Benz Cars aims 50% production outside Germany by 2020
- German OEMs counts on hedging as Euro strengthens
- BMW to halt South Africa expansion plans due to socio-political uncertainty
Drive loyalty
Getting closer to customers — new value propositions to strengthen relationships and increase wallet share

Reinventing retail experience for effective customer engagement and retention

Developing new solutions and securing a greater share of consumers’ spend on mobility

Using customer data and providing customized solutions while securing privacy

Enhancing the connected experience within vehicles

Deepening customers’ association with brands

C-suite’s major value proposition drivers

100% of captive finance executives selected bundled packages and alternatives to vehicle ownership

80% of carmakers selected incentives and vehicle pricing

>67% of carmakers and dealers selected demand for greater connectivity and infotainment

>74% of suppliers selected ownership of innovation and platform consolidation at original equipment manufacturers (OEMs)


Trendicators

5.3 months
Average research time (mostly online) spent by new car buyers in the US

1.3
Average dealership visits in the UK, down from 5 to 6 visits 10 years ago

50b
Number of connected devices creating data by 2020

5 GB
Expected or potential volume of data transfer per vehicle per month

12m
Number of car-sharing drivers globally by 2020
Drive loyalty
Getting closer to customers — new value propositions to strengthen relationships and increase wallet share

C-suite’s views on impact and preparedness

<table>
<thead>
<tr>
<th>Low</th>
<th>High</th>
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<tbody>
<tr>
<td>Disruptive</td>
<td>Supportive</td>
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- Incentives and vehicle pricing
- Decreasing attractiveness of vehicle ownership among youth in developed markets
- Convergence of digital and retail vehicle buying experience

- Role of digital/online resources in informing consumer choices
- Rising fuel prices and total cost of ownership

- Demand for used cars
- Product-related regulations (Emission and fuel consumption)
- Demand for multi-modal urban transport integration

- Growing middle class and young population in emerging markets
- Rapid urbanization
- Demand for greater connectivity

Illustrators

- BMW’s dynamic web site teaser selection
- Audi’s digital car showrooms in London, Beijing
- FordDirect, a digital marketing services organization
- Customer location data privacy concerns in the US
- Daimler’s suit of mobility services
Take the fast lane
Multidimensional competition — market leaders race ahead with differentiation, innovation and partnerships

C-suite’s top drivers for competitive advantage

- **77%** of executives selected success in high-growth markets (geography and segment)
- **86%** of captive finance executives selected integration with OEMs and dealers — more than 70% also selected flexible IT systems
- **74%** of suppliers selected competitive pricing, incentives and financing
- **>60%** of carmakers selected bundled ownership packages, collaboration across the ecosystem and providing fuel-efficient, low-emission vehicles

**Trendicators**

<table>
<thead>
<tr>
<th>Trendicator</th>
<th>Value</th>
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<tbody>
<tr>
<td>US$102b</td>
<td>OEMs spending on R&amp;D and innovation in 2013</td>
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<td>~5,000</td>
<td>~5,000 new auto patents granted in the US per year</td>
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<tr>
<td>US$25b</td>
<td>Potential market size of connectivity by 2025</td>
</tr>
<tr>
<td>US$6.2b</td>
<td>Potential market size of car-sharing services by 2020</td>
</tr>
<tr>
<td>62%</td>
<td>Organizations have not aligned their information security strategy to their risk appetite or tolerance</td>
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Take the fast lane
Multidimensional competition — market leaders race ahead with differentiation, innovation and partnerships

C-suite’s views on preparedness

Low

- Leveraging online, digital and social media for marketing and sales
- Innovative financing and retail strategy for alternate powertrain vehicles
- Used car services
- Maintaining/improving margins on vehicles/services

Preparedness

High

- Presence/success in high growth markets (geography/segment)
- Providing fuel efficient and low emission vehicles (alternate powertrain, light weighting)
- Leveraging online, digital and social media for product development, supply chain management
- Providing connected vehicles (telematics)

Competitive advantage initiatives

Illustrators

- Renault – Nissan deepen alliance to save EUR4.3 billion
- Open Automotive Alliance by Google
- BMW’s priority on next growth markets
- Ford’s innovative 1L Eco Boost engine drives sales
- VW’s Direct Express aftermarket service
Digital tuning
Operational efficiency through digital transformation — restructure the business for flexibility and high-return performance

- Leveraging IT, data analytics and enterprise intelligence to drive operational efficiency
- Pulling down silos — enabling global sharing and effective utilization
- Creating flexible manufacturing strategies and business functions
- Embedding analytics to solve business problems
- Intelligent monitoring of value chain performance — distribution network and supply chain

C-suite’s critical business processes

- **80%** of carmakers selected customer analytics
- **60%** of suppliers identified optimizing global manufacturing footprint
- >**50%** of carmakers identified data integration across geographies, IT process optimization, analytics around operating processes and supply chain, and data security
- >**57%** of captive finance executives selected multi-channel management and compliance and regulatory reporting

**Sources for trendicators:** The Economist Intelligence Unit Survey, February 2013; EY’s Global Information Security Survey, October 2013; LMC Automotive, European Automotive Sector Outlook, 2012; Unleashing the Value of Traceability Data in the Auto Industry, Teradata Corp, 2012; EY analysis.

**Trendicators**

- **77%**
  - Companies with leading data also tend to have better financial performance

- **22m and 5.3m**
  - Vehicles recalled in the US and China, respectively, in 2013

- **27**
  - Platforms to comprise 50% of global LV production by 2016 (versus 31 in 2012)

- **~US$45b**
  - Amount spent by auto sector annually on warranty and recalls

- **1 trillion**
  - Pieces of traceability data generated each year for regulatory, warranty and recall control
Digital tuning
Operational efficiency through digital transformation — restructure the business for flexibility and high-return performance

C-suite’s views on priorities and preparedness

Low
- IT process optimization
- Standardizing business structures
- Platform consolidation

High
- Business intelligence and data analytics around vehicle performance
- Flexible production systems
- Data security and integration across locations

Focus of business processes

- Reducing time to market
- Reducing product lifecycle for shorter shelf life
- Pulling down silos across organisations

- Business intelligence and data analytics around customers

Illustrators

- Daimler moving IT in-house to save €150 million/year

- BMW’s modular production strategy

- Volvo’s 1 platform for all cars

- OEMs shift buying from complete seating to seat components

- High dealer employees turnover in Brazil – high cost of training/retention
More miles per gallon
Resource management — optimizing resources, capital and technologies for high performance

Critical business resources

Supply chain sustainability

Cash reinvestment strategies

Fostering talent to drive innovation

Access to technology — lightweighting, powertrain, connectivity

C-suite’s critical resources

>65% of executives selected talent for innovation and talent for technical functions

>56% of executives identified talent for management functions

71% of captive finance executives identified talent for compliance and regulatory issues

50% of carmakers selected supply chain security and visibility in emerging markets

Trendicators

US$221b
Cash and equivalents balance of top 10 OEMs at the end of 2013

88%
Automotive executives see credit availability as either stable or improving

33,000
Auto component jobs at risk in Australia following OEMs’ exit plans

8%-9%
Decline in franchised dealer network across major European markets

75% to 50%
Decline in share of traditional steel in cars made in Europe over 2010–20

More miles per gallon
Resource management — optimizing resources, capital and technologies for high performance

C-suite’s views on need and preparedness

Low
- Supply chain security/visibility in emerging markets
- Technology for connected vehicles
- Talent for management functions (strategy, finance, marketing)

High
- Credit for operations and supply chain
- Traditional raw materials (steel)

Preparedness

Continuity/pre-condition
- Technology for alternate powertrain vehicles
- Light-weight materials (aluminium, reinforced steel)
- Talent to drive innovation

Competitive advantage
- Talent for technical functions (manufacturing, quality)
- Supply chain security/visibility in Europe
- Talent for technical functions (manufacturing, quality)
- Supply chain security/visibility in Europe

Illustrators
- Toyota’s US$40 billion cash deployment plan
- Honda’s Now, Next and New Circle
- Hyundai’s World Skill Olympics
- Ford’s social media hiring campaign in the US
- BMW to mass produce carbon fibre
Key considerations for the C-suite

- Buckle up: New sources of volatility
- Take the fast lane: Multi-dimensional competition
- More miles per gallon: Resource management
- Getting closer to customers: Operational efficiency
- Drive loyalty: Digital tuning

Operating and performance considerations
Investing and capital considerations

Changing lanes 2014-15: The automotive C-suite’s agenda
## Operating and performance considerations

<table>
<thead>
<tr>
<th>Key themes</th>
<th>Operating and performance considerations</th>
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</thead>
</table>
| **Buckle up**                   | ► Implement driver-based insight, data analytics and scenario modeling  
► Implement global capacity management-sharing framework  
► Optimize hedging strategy for currency and input cost fluctuations  
► Assess readiness for regulatory changes in local markets  |
| New sources of volatility       |                                                                                                                                                                               |
| **Drive loyalty**               | ► Adopt customer life cycle approach to identify touchpoints to cross- and up-sell  
► Converge digital and physical experience of brand  
► Implement transparent customer data privacy policy  |
| Getting closer to customers     |                                                                                                                                                                               |
| **Take the fast lane**          | ► Leverage connectivity and captive finance to identify new revenue streams  
► Provide greater autonomy to local centers of innovation  
► Evaluate sustainability of brand position and value proposition  |
| Multidimensional competition    |                                                                                                                                                                               |
| **Digital tuning**              | ► Leverage IT and data for greater visibility into distribution network and supply chain  
► Standardize and centralize processes around logistics, supply chain, IT and finance  
► Develop a global shared services strategy  
► Develop flexible production systems and focus on converting fixed costs into variable costs  |
| Operational efficiency          |                                                                                                                                                                               |
| **More miles per gallon**       | ► Identify programs to attract and retain talent to drive innovation  
► Focus on greater visibility and accountability in the supply chain, particularly in emerging markets  
► Promote diversity and inclusiveness  |
| Resource management             |                                                                                                                                                                               |
### Investment and capital considerations

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<thead>
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<tbody>
<tr>
<td><strong>Buckle up</strong>&lt;br&gt;New sources of volatility</td>
<td>► Enhance business modeling and cash forecasting systems  &lt;br► Stress test investment business cases  &lt;br► Build flexibility into emerging markets investments  &lt;br► Integrate government incentives, direct loans and guarantees in capital-raising strategies</td>
</tr>
<tr>
<td><strong>Drive loyalty</strong>&lt;br&gt;Getting closer to customers</td>
<td>► Assess potential investment opportunities and risks associated with new segments and business models  &lt;br► Renew digital marketing investment strategy</td>
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<td><strong>Take the fast lane</strong>&lt;br&gt;Multidimensional competition</td>
<td>► Form need-based and strategic alliances, JVs and acquisitions to gain technology and/or geographic coverage  &lt;br► Capture and monetize synergies from partnerships and identifying key performance indicators  &lt;br► Leverage credit and cash availability to pursue vertical and horizontal integration</td>
</tr>
<tr>
<td><strong>Digital tuning</strong>&lt;br&gt;Operational efficiency</td>
<td>► Improve the quality of information flows to support enhanced visibility of liquidity and cash risks and opportunities  &lt;br► Balance cost reduction with sustainable process change</td>
</tr>
<tr>
<td><strong>More miles per gallon</strong>&lt;br&gt;Resource management</td>
<td>► Embed a cash culture with clear performance metrics  &lt;br► Maximize return to shareholders with effective reinvestment strategy  &lt;br► Benchmark leading-class performance and pursue targeted change</td>
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Thank you

Randy Miller
Global Automotive Advisory Leader
T: +1 313 628 8642
E: randall.miller@ey.com
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