



Press Release

J.D. Power and Associates Reports: Owners Cite Fuel Economy-Related Technologies and In-Vehicle Smartphone Integration as Features They Are Interested in Purchasing in Their Next Vehicle

Autonomous Driving Technology Continues to Gain Consumer Interest

WESTLAKE VILLAGE, Calif.: 25 April 2013 — Vehicle owners have a high interest in technology related to fuel economy, device/application linking for smartphones, wireless connectivity, natural language voice activation and a variety of infotainment features for their next vehicle, according to the J.D. Power and Associates 2013 U.S. Automotive Emerging Technologies StudySM released today.

The study measures vehicle owner interest and purchase intent for emerging automotive technologies, both before and after the market price is revealed. Among vehicle owners who say they “definitely would” or “probably would” purchase these features in their next vehicle, the highest percentage select the following five technologies both pre-price and at market price:

<u>Pre-Price Feature Interest</u>		<u>Market Price Feature Interest</u>	
Device/Application link ¹	82%	Fuel economy indicator (at \$50)	72%
Fuel economy indicator	79%	Device/Application link (at \$250) ¹	67%
Active shutter grille vents	76%	Active shutter grille vents (at \$150)	61%
Natural language voice activation	74%	Wireless connectivity system (at \$300)	58%
Next generation head-up display (HUD)	74%	Surround-view camera system (at \$550)	48%

Energy Technologies Fuel Vehicle Owner Interest

Of the 22 technology features included in the 2013 study, fuel economy indicator and active shutter grille vents—both energy-related technologies—capture among the highest interest from vehicle owners. Fuel economy indicator is second highest in pre-price feature interest, followed by active shutter grille vents. In recent years, automotive brands have rolled out fuel economy assisting technology, which has helped increase familiarity with the technology and its benefits. The active shutter grille vents feature is currently available on select domestic vehicles. Among owners who recently purchased from one of the domestic makes that offers a model with active shutter grille vents, 83 percent indicate pre-price interest in the feature, which is 7 percentage points higher than the study average at 76 percent.

Not unexpectedly, purchase interest declines across all features when a price is introduced. However, fuel economy indicator and active shutter grille vents have among the lowest drops in interest once price is introduced (decreasing 7 percentage points and 16 percentage points, respectively), compared with other technology features examined in the study. In part, fuel economy indicator and active shutter grille vents maintain vehicle owner interest because of their lower relative pricing at \$50 and \$150, respectively.

¹ Device/Application link is only asked of smartphone owners.

“Vehicle owners are continually aware of rising fuel costs and the need for better fuel economy. As they have come to understand the benefits of new automotive technology, they are increasingly interested in those that allow them to manage their fuel consumption with greater efficiency and help better manage their cost at the pump,” said Mike VanNieuwkuyk, executive director of global automotive at J.D. Power and Associates.

Smartphones Getting Smarter—In-Vehicle Connectivity Must Follow

During the past five years, there has been rapid adoption of smartphones. More than 67 percent of vehicle owners have a smartphone, while ownership of traditional mobile phones has plummeted to 28 percent in 2013 from 82 percent in 2007, when J.D. Power began measuring ownership of traditional phones. Smartphone technology has revolutionized the way owners have engaged in countless personal and professional activities from their vehicle.

Vehicle owners have high expectations for their smartphone to easily integrate with the system in their vehicle. They want to use their smartphone in-vehicle with the same ease and functionality they have become accustomed to in their personal or business life. However, a key challenge is that many owners keep their vehicles for more than five years, and software upgrades for device linking technology lags the introductions of new smartphones.

“Automakers have an important opportunity to gain a competitive advantage by working side by side with smartphone and application developers to provide a seamless smartphone experience for in-vehicle control of GPS/mapping, music, weather, search tools, travel and more,” said VanNieuwkuyk. “These connections to smartphone applications need to be robust, affordable and simple to access and use in a vehicle environment.”

In the 2013 study, 82 percent of vehicle owners with smartphones cite pre-purchase interest in an in-vehicle device/application link that would connect their smartphone to their vehicle’s infotainment system, compared with 78 percent in 2012. Owners want their infotainment system powered by their smartphone to keep their vehicle technology up to date. The physical proximity of one’s smartphone continues to be a concern, as vehicle owners struggle with the limitations of hands-free technology, generating interest in natural language voice activation systems.

Vehicle owners in Generation Y (born 1977-1995) are more likely to be interested in device application linking technology at every price level, but the largest interest increases from 2012 are among Early Boomers, those who were born between 1947 and 1953 (increasing 7 percentage points pre-price; 14 percentage points at \$250), which indicates high potential to purchase this technology. Pre-price purchase interest is also higher among men, compared with women, and owners of compact sporty and midsize premium sporty cars, compared with owners in all other vehicle segments.

Autonomous Driving—Gaining Small Interest and Trust

Fully autonomous driving is still a relatively new concept. While market price interest rises slightly (21% in 2013 vs. 20% in 2012), overall acceptance has room to grow. In recent years, various semi-autonomous driving modes have been implemented in vehicles, particularly those in premium segments. There is greater interest in semi-autonomous modes such as emergency braking and steering (40%) and automatic park assist (32%) than in a fully autonomous mode.

“Fully autonomous driving is slowly working its way into the mindset of vehicle owners by way of those who utilize semi-autonomous driving features with comfort and confidence,” said VanNieuwkuyk. “While it will take more time for vehicle owners to embrace fully autonomous driving, the gateway for acceptance is underway given relatively strong interest in many semi-autonomous features.”

Men show high interest at market price for low-speed collision avoidance (58%), emergency braking and steering (42%) and fully autonomous driving (23%). Younger owners are more interested in emerging driving technologies, with Generation X (born 1965-1976) having the highest market price interest in low-speed collision avoidance (59%) and Generation Y having the highest market price interest for emergency braking and steering (44%).

Research conducted by J.D. Power's Consumer Insight and Strategy Group² to track social media activity regarding automotive energy, device/application linking and autonomous driving technology finds:

- Consumers believe that vehicle infotainment systems are inferior to their smartphones and tablets and want more mobile apps and control of software updates to integrate with their vehicle.
- Energy technology mentions on social media have shown a notable increase within the past year, as consumers have placed a heightened emphasis on saving fuel. However, fuel economy-conscious vehicle owners seem to struggle with the unfamiliarity of stop/start technology and many social media mentions focus on how to turn this feature off altogether.
- Interest in fully or semi-autonomous driving features primarily originates from wanting to have the latest technology, with the safety benefit being an added bonus. However, consumers still want the responsibility of driving their own vehicle until these technologies fully gain consumer confidence and trust.

The 2013 U.S. Automotive Emerging Technologies Study is based on responses from more than 16,758 vehicle owners. The study was fielded in March 2013. The study includes 22 primary technologies, each with related secondary technologies such as; analyses on infotainment/connectivity safety- and energy-related emerging features; a key emerging technologies packaging exercise; an emerging technologies adoption calculator; and an expanded psychographic and lifestyle-driven analysis.

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² Social media research on automotive emerging technology includes information from October 2012 through April 2013, consisting of more than 46,000 online mentions across various social media channels.

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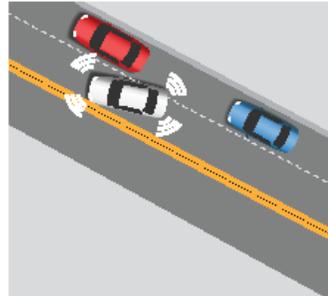
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NOTE: One infographic follows.

SPOTLIGHT | Autonomous Driving Update

Based on findings from the J.D. Power and Associates 2013 U.S. Automotive Emerging Technologies StudySM

Fully- and semi-autonomous driving is still a relatively new concept. While interest has risen slightly since last year, overall acceptance has room to grow. Drivers interested in fully- or semi-autonomous driving features want to have the latest technology, with the safety benefit being an added bonus. However, consumers still want the responsibility of driving their own vehicle until these technologies fully gain consumer confidence and trust.

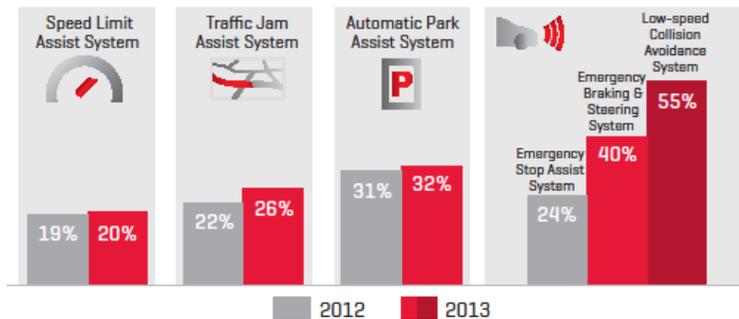


21%

Percent of drivers interested in Autonomous Driving Made in 2013, vs. 20% in 2012

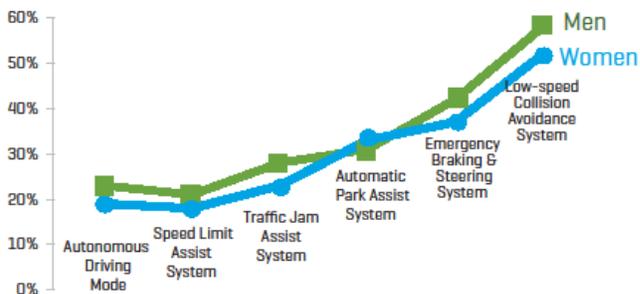
"I don't know if I'm a fan of some of these so called 'self driving' features. I'm afraid it will lead to even more drivers paying less attention to what they are doing."

Interest in Semi-Autonomous Features on the Rise



Interest in Autonomous Features by Gender

"The [car] has park assist which shows the sides and the rear - which is what completely sold my wife since she is not so great at parking in tight parking spots."



Verbatims are from research conducted by J.D. Power's Consumer Insight and Strategy Group

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