

Newest Vehicle Technologies Going Unused—Many Owners Don't Intend to Ever Use Them, J.D. Power Finds

Genesis Ranks Highest Overall for Tech Innovation; Hyundai is Highest-Ranking Mass Market Brand

TROY, Mich.: 6 Oct. 2021 — While new-vehicle technology is a leading reason why buyers choose one vehicle over another, many new vehicles are equipped with some features that they want no part of, according to the J.D. Power 2021 U.S. Tech Experience Index (TXI) Study,SM released today. This ends up being costly to automakers and buyers alike.

“New-vehicle prices are at an all-time high, partly as a result of an increased level of content,” said **Kristin Kolodge, executive director of human machine interface at J.D. Power**. “This is fine if owners are getting value for their money, but some features seem like a waste to many owners.”

The study finds that, for more than one in three advanced technologies, fewer than half of owners have used the technology in the first 90 days of ownership. Non-users most often say they don't need these technologies. For example, 61% of owners say they have never used the in-vehicle digital market technology, and 51% of those saying they have no need for it. Owners feel similarly about the driver/passenger communication technology, with 52% saying they have never used the technology, and 40% of those saying they have no need for it.

When technology is effectively executed in a vehicle, it positively influences an owner's decision to purchase another vehicle equipped with that technology. The highest execution scores in the study are for camera rear-view mirror and ground view camera, both of which are ranked among the top three by owners wanting them on their next vehicle.

“J.D. Power has a wealth of transactional data showing that automakers suffer a hit to profits and sales velocity if they build the wrong mix of features on their vehicles,” Kolodge said. “The TXI research quantifies the benefits when there is alignment between what owners truly want and what the automakers produce.”

Following are key findings of the 2021 study:

- **Dealers can influence how owners feel about value of technology:** Dealer demonstrations at delivery are instrumental in keeping owners engaged with emerging technologies. For example, for safe exit assist technology, owners can get a very strong understanding of the system when they learn it from a dealer. Without dealer education, however, owners often do not fully understand the technology and its value, presenting a challenge for its overall acceptance. Similarly, when a dealer demonstrates trailer assistance technology, satisfaction improves to 8.69 (on a 10-point scale) compared with 7.83 for learning from an outside source. However, owners are more than twice as likely to learn about this technology from an outside source (71%) than from a dealer (30%).
- **Some technologies make driving experience better, while others do not:** Many owners indicate poor performance with interior gesture controls technology, which responds to hand motions instead of touch. Owners of this feature indicate an extremely high 41 problems per 100 vehicles (PP100). This technology also has the lowest overall satisfaction score in the study for a second

consecutive year. In contrast, one-pedal driving technology offered in some electric vehicles receives very high satisfaction levels and owners cite relatively few problems (8 PP100).

- **Tech desires not always transferable across global markets:** J.D. Power TXI studies for the United States and China include 21 of the same advanced and emerging technologies, but scores for owner satisfaction vary by country. While camera rear-view mirror technology receives high scores in the United States, owners in China have the most problems (18 PP100) with this technology. For ground view camera technology, 62% of U.S. owners say they “definitely will” want the technology again, while only 24% of owners in China say the same.
- **Tesla’s unofficial score is highest in study:** Tesla receives an Innovation Index score of 668 (on a 1,000-point scale). The automaker is not officially ranked among other brands in the study as it doesn’t meet ranking criteria. Unlike other manufacturers, Tesla doesn’t grant J.D. Power permission to survey its owners in 15 states where it sells vehicles. Based on that limitation, Tesla’s score is calculated based on a sample of surveys from owners in the other 35 states.

Highest-Ranking Brands

Genesis ranks highest overall and in the premium segment with an Innovation Index score of 634, offering a high level of advanced technologies across its product lineup. In the premium segment, **Cadillac** (551) ranks second, followed by **Volvo** (550), **BMW** (545) and **Mercedes-Benz** (523).

Hyundai ranks highest in the mass market segment with a score of 519. **Kia** (510) ranks second, followed by **Nissan** (502), **Subaru** (499) and **GMC** (498).

Advanced Technology Award Recipients

The TXI Study analyzes 36 technologies, which are divided into four categories: convenience; emerging automation; energy and sustainability; and infotainment and connectivity. Only technologies classified as advanced are award eligible.

- **Cadillac Escalade** is the premium model receiving the convenience award, for camera rear-view mirror technology. **Ram 1500** is the mass market model receiving the convenience award, also for camera rear-view mirror technology.
- **Lexus IS** receives the premium model emerging automation award, for reverse automatic emergency braking technology. **Hyundai Elantra** is the mass market model receiving the emerging automation award, for front cross traffic warning technology.
- **Lexus IS** receives the award for infotainment and connectivity in the premium segment, for virtual assistant connectivity to vehicle technology. **Kia K5** receives the infotainment and connectivity award in the mass market segment, also for virtual assistant connectivity to vehicle technology.

The 2021 U.S. Tech Experience Index (TXI) Study is based on responses from 110,827 owners of new 2021 model-year vehicles who were surveyed after 90 days of ownership. The study was fielded from February through July 2021.

The TXI Study complements the J.D. Power Initial Quality Study (IQS)SM and the J.D. Power Automotive Performance, Execution and Layout (APEAL) StudySM by measuring how effectively each automotive brand brings new technologies to market. The TXI Study combines the level of adoption of new technologies for each brand with the excellence in execution. The execution measurement examines how much owners like the technologies and how many problems they experience while using them.

For more information about the U.S. Tech Experience Index (TXI) Study, visit <https://www.jdpower.com/business/automotive/us-tech-experience-index-txi-study>.

See the online press release at <http://www.jdpower.com/pr-id/2021100>.

About J.D. Power

J.D. Power is a global leader in consumer insights, advisory services and data and analytics. A pioneer in the use of big data, artificial intelligence (AI) and algorithmic modeling capabilities to understand consumer behavior, J.D. Power has been delivering incisive industry intelligence on customer interactions with brands and products for more than 50 years. The world's leading businesses across major industries rely on J.D. Power to guide their customer-facing strategies.

J.D. Power has offices in North America, Europe and Asia Pacific. To learn more about the company's business offerings, visit JDPower.com/business. The J.D. Power auto shopping tool can be found at JDPower.com.

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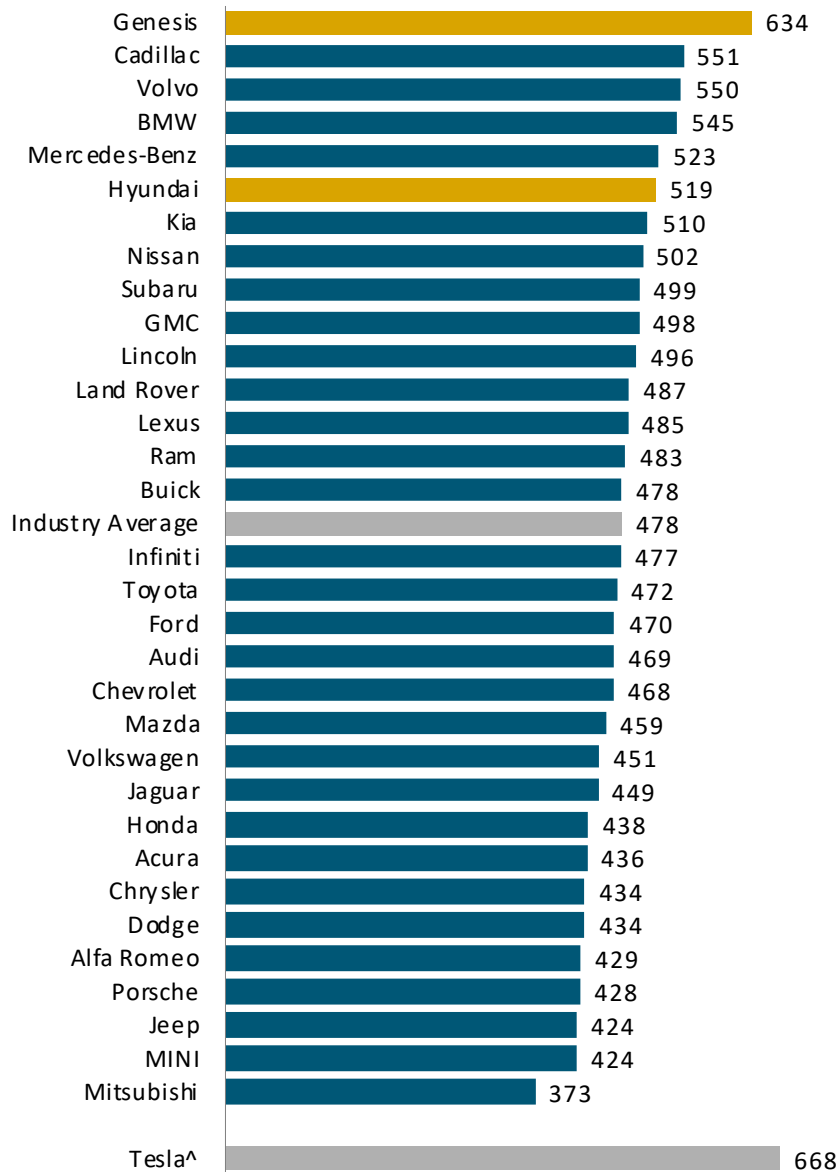
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NOTE: Four charts follow.

J.D. Power 2021 U.S. Tech Experience Index (TXI) StudySM

Overall Innovation Ranking

(Based on a 1,000-point scale)



Note: [^]Brand is not rank eligible because it does not meet study award criteria.

Source: J.D. Power 2021 U.S. Tech Experience Index(TXI) StudySM

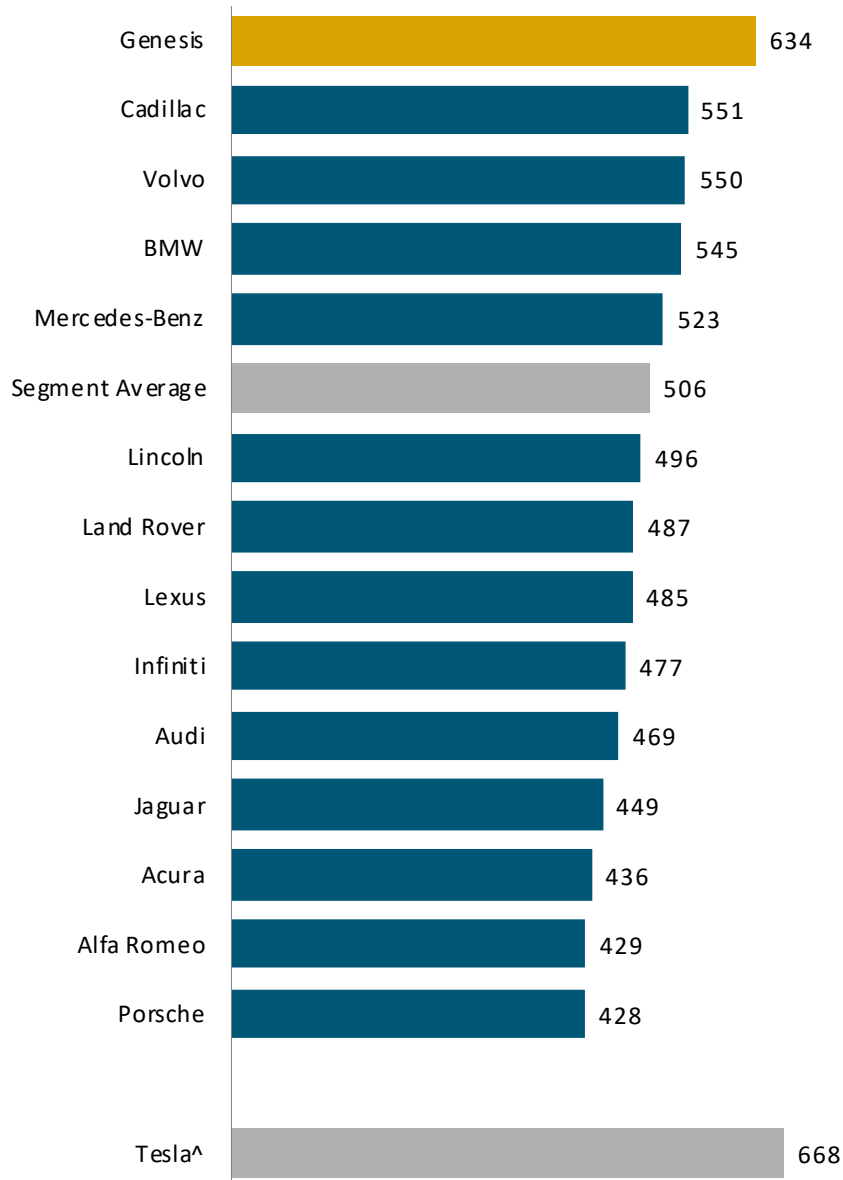
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J.D. Power 2021 U.S. Tech Experience Index (TXI) StudySM

Overall Innovation Ranking

(Based on a 1,000-point scale)

Premium



Note: ^Brand is not rank eligible because it does not meet study award criteria.

Source: J.D. Power 2021 U.S. Tech Experience Index(TXI) StudySM

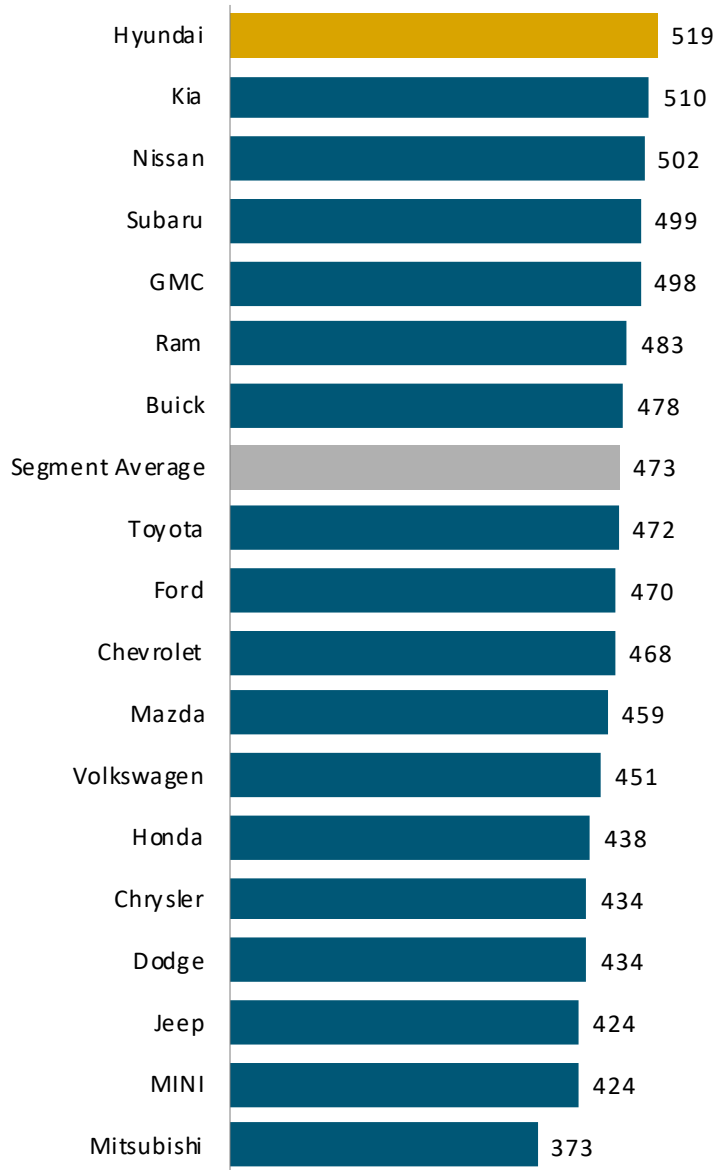
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J.D. Power 2021 U.S. Tech Experience Index (TXI) StudySM

Overall Innovation Ranking

(Based on a 1,000-point scale)

Mass Market



Source: J.D. Power 2021 U.S. Tech Experience Index(TXI) StudySM

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J.D. Power 2021 U.S. Tech Experience Index (TXI) StudySM

Top Models per Tech Category

Advanced Technologies

Convenience

Top Premium Model

Cadillac Escalade

Tech: Camera rear-view mirror

Top Mass Market Model

Ram 1500

Tech: Camera rear-view mirror

Emerging Automation

Top Premium Model

Lexus IS

Tech: Reverse automatic emergency braking

Top Mass Market Model

Hyundai Elantra

Tech: Front cross traffic warning

Infotainment and Connectivity

Top Premium Model

Lexus IS

Tech: Virtual assistant connectivity to vehicle

Top Mass Market Model

Kia K5

Tech: Virtual assistant connectivity to vehicle

Rank-eligible technologies must have at least four models among at least two corporations with sufficient sample to be eligible for award consideration. In the Energy & Sustainability technology category, these criteria were not met, thus no awards have been issued.

Source: J.D. Power 2021 U.S. Tech Experience Index (TXI) StudySM

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