Automotive Technological Advancements in China Reach New Heights, J.D. Power Finds

Mercedes-Benz, AVATR, Lynk & Co and ZEEKR Rank Highest in Respective Segment

SHANGHAI: 8 Aug. 2024 – The scores for new vehicle owners' perceptions of 39 advanced technologies and eight basic technologies when first introduced to the market, measured in an overall industry TXI Innovation Index, this year reaches a record high of 550 (on a 1,000-point scale), an increase of 22 points from 2023, according to the J.D. Power 2024 China Tech Experience Index (TXI) Study,SM released today.

The study, now in its fifth year, measures the TXI Innovation Index—which consists of the Technology Execution Index¹ and Market Depth Index,² both of which are equally weighted—to determine how effectively each automotive brand brings technologies to market. The indices combine the level of adoption of new technologies for each brand with the excellence in execution. The Execution Index examines how much owners like the technologies and how many problems they experience while using them.

The Market Depth Index score has reached a record high at 195, with an increase of 44 points from 2023. Meanwhile, the Technology Execution score has risen to 872 in 2024 from 854 in 2023, indicating a continuous upward trend in the development of industry intelligence.

"Under the fierce competition in China's auto market, automakers are ramping up their efforts on smart technologies, significantly enhancing the Market Depth Index," said **Elvis Yang, general manager of auto product practice at J.D. Power China**. "Smart cabin technologies are still the most frequently used and preferred for repurchase. As automakers upgrade their smart car solutions, this trend will likely continue. However, complaints about the stability and accuracy of these technologies are also rising. Automakers must balance innovation with quality control to provide a great smart experience for vehicle owners."

Following are additional findings of the 2024 study:

- New-energy vehicles (NEVs) lead the Market Depth Index: In 2024, the Market Depth Index for premium NEVs reaches 327 points, significantly ahead of premium internal combustion engine (ICE) vehicles by 117 points. In the mass market, NEVs (246) also outpace ICE vehicles (155). Despite the significant gap in market depth, the difference in performance between these two categories is minimal. Mass market NEVs score 873 compared with 870 for mass market ICE vehicles, a difference of only 3 points, while the gap between premium NEVs (883) and premium ICE vehicles (875) is just 8 points.
- Number of perceived advanced technologies rises for a fourth consecutive year: In 2024, owners perceive an average of 4.9 advanced technologies in their new vehicle, an increase of 1.1 from a year ago, marking four years of continuous growth. This indicates that in the highly competitive China auto market, while automakers are competing with the number of advanced technologies, new vehicle owners are also increasingly perceiving and using these in their daily driving.

¹ The Technology Execution Index is formulated from respondents' overall experience and the total problems experienced with the advanced technologies they have and use. The index weights are derived from survey responses using multivariate linear regression. As a result, the index weights could differ by study market or study year.

² The Market Depth Index is a measurement of the penetration level of advanced technologies. The calculation encompasses the popularity of equipping and usage of advanced technologies.

- New owners prioritize smart cockpit technologies: New-vehicle owners show a strong preference for purchasing smart cockpit technologies such as online navigation, intelligent voice assistants and digital keys, while their interest in smart driving is relatively low. This suggests that smart cockpit technologies are more widely accepted by new vehicle owners in China and are a key factor in their vehicle-buying decisions.
- Complaints about cockpit technology functionable and accuracy problems increase: Complaints about instability or inaccuracies have risen for three consecutive years, reaching 46% for smart cockpit technologies and 39% for smart driving technologies. These increases show that as smart technologies become more widespread and are used more frequently, new vehicle owners are placing higher demands on functionable and accuracy.

Highest-Ranked Brands

Mercedes-Benz ranks highest among premium internal combustion engine (ICE) models with a score of 598, followed by **Lincoln** (575) and **Land Rover** (569).

AVATR (660) ranks highest among premium new-energy vehicles (NEVs), followed by **NIO** (654) and **IM** (644).

Lynk & Co ranks highest among mass market ICE models with a score of 578, followed by GAC Trumpchi (573) and EXEED (571).

ZEEKR ranks highest among mass market NEVs with a score of 667, followed by **XPeng** (657) and **Li Auto** (651).

The 2024 China Tech Experience Index (TXI) Study is based on responses from 30,052 ICE vehicle owners who purchased their vehicle between June 2023 and March 2024, as well as 8,830 NEV owners who purchased their vehicle between July 2023 and January 2024. The study includes 198 ICE models from 45 brands and 93 NEV models from 40 brands. The study was fielded from December 2023 through May 2024 in 81 major cities across China.

The China Tech Experience Index (TXI) Study, which complements the J.D. Power China Initial Quality Study SM (IQS) and J.D. Power China Automotive Performance, Execution and Layout (APEAL) Study, SM is used extensively by automakers and suppliers worldwide to provide an overview of how vehicle owners in China perceive the advanced technology features in their new vehicles and to help the industry address any problematic areas before the technologies are made widely available across automotive portfolios, thus improving the future owner experience.

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 55 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, please visit <u>china.jdpower.com</u> or stay connected with us on <u>J.D. Power WeChat</u> and <u>Weibo</u>.

Media Relations Contacts

Mengmeng Wang, J.D. Power; China; +86 21 8026 5719; <u>mengmeng.wang@jdpa.com</u> Geno Effler, J.D. Power; USA; 001-714-621-6224; <u>media.relations@jdpa.com</u>

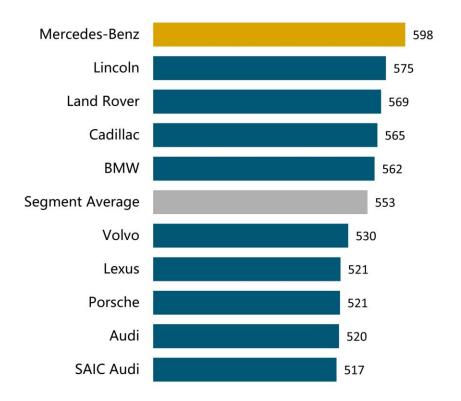
About J.D. Power and Advertising/Promotional Rules <u>www.jdpower.com/business/about-us/press-release-info</u>

NOTE: Four charts follow.

Premium ICE Models

Innovation Index

(Based on a 1,000-point scale)



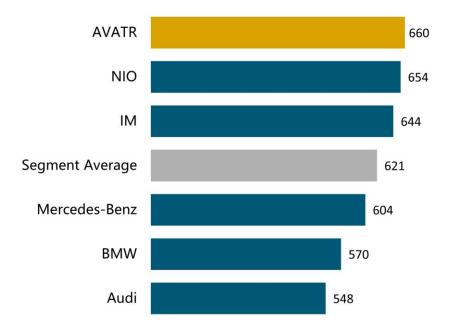
Notes: Makes with small sample size (n=30~99) and insufficient sample (n<=29) are not displayed for ranking.

Source: J.D. Power 2024 China Tech Experience Index (TXI) StudySM

Premium NEVs

Innovation Index

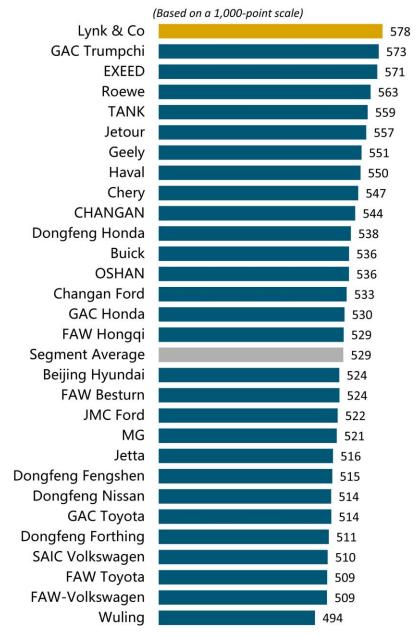
(Based on a 1,000-point scale)



Notes: Makes with small sample size (n=30~74) and insufficient sample (n<=29) are not displayed for ranking.

Source: J.D. Power 2024 China Tech Experience Index (TXI) StudySM

Mass Market ICE Models Innovation Index



Notes: Makes with small sample size (n=30~99) and insufficient sample (n<=29) are not displayed for ranking.

Source: J.D. Power 2024 China Tech Experience Index (TXI) StudySM

Mass Market NEVs

Innovation Index

(Based on a 1,000-point scale) ZEEKR 667 **XPeng** 657 Li Auto 651 AITO 647 Voyah 631 WEY 630 DEEPAL 617 Tesla 596 Denza 590 Leap Motor 584 Smart 582 Segment Average 576 ORA 563 Haval 561 GAC AION 556 Galaxy 552 NETA 552 BYD 545 Baojun 525 SAIC Volkswagen 518 Buick 511 Geometry 511

Notes: Makes with small sample size (n=30~99) and insufficient sample (n<=29) are not displayed for ranking.

Source: J.D. Power 2024 China Tech Experience Index (TXI) StudySM