McKinsey & Company

A closer look at the world's largest smart EV market

McKinsey China Auto Consumer Insights 2025

September 2025

About the report

This report is based on a recent comprehensive survey of Chinese automotive consumers.

— We surveyed 2,498 consumers using online sampling. The survey ran from fourth quarter 2024 to first quarter 2025.

— The sample covers 19 major cities across China representing a range of demographic attributes, including tier-one, -two, -three, and -four cities, as well as North China, Northeast China, East China, Central and South China, Southwest China, and Northwest China.

— The report is divided into groups by age, income status, car purchasing experience, existing car brands and types, and more. Based on the car purchasing decision-making process, the report analyzes consumers' attitudes, brand preferences, purchasing habits, and car experience in depth.

Authors
Mingyu Guan
Daniel Birke
Thomas Fang
Tony Zhou

Introduction

The Chinese auto market has made significant progress on the transition to electric vehicles (EVs) since the trend started in China about ten years ago. Electrification and smartification have gained momentum, especially in the past five years, and lessons from the Chinese market can be extracted for the global automotive transformation. Indeed, the technological changes underway are not only influencing the preferences and behaviors of Chinese consumers but also shaping the evolution of the global automotive industry. For the first time, Chinese consumers are defining the direction of a global industry.

McKinsey has followed the changing preferences and behaviors of Chinese auto consumers and studied the underlying drivers of this evolution for a decade. This report draws on the McKinsey China Auto Consumer Survey 2025 to reveal four primary insights (see sidebar, "About the report"):

I. **Competition is shifting from price to innovation.** China's automotive market is caught in an escalating price war, but steep discounts have yielded only marginal sales growth. In contrast, consumers are actively embracing new models and cutting-edge technologies. This divergence suggests automakers may find more success competing through innovation than through relentless price cuts.

II. **Incumbents are starting to fall behind as the landscape reshuffles.** Chinese OEMs have earned consumer recognition in the EV sector through technology innovation. While many incumbent multinational brands are still perceived as premium, some are struggling to convert their legacy appeal into pricing power for EVs. These global players are faced with the challenge of building on the reputation they established during the internal combustion engine (ICE)-only era to meet the needs of today's smart and electrified automotive market.

III. **Plug-in hybrid and extended-range technologies have become mainstream in the electrification trend.** A growing number of battery electric vehicle (BEV) owners show regret about their BEV ownership experience, because they are dissatisfied with the charging experience. But plug-in hybrid EVs (PHEVs) and extended-range EVs (EREVs) are steadily gaining popularity because they offer an easy refueling experience and a practical solution to range anxiety.

IV. **Technological democratization is leading to scenario-based differentiation.** Compared with the past few years, this year's respondents show higher awareness of autonomous driving. They know about the technology's advanced features, express satisfaction with its performance, and expect to see higher-level automation. As smart technologies become more widespread, the trend of "technological democratization"—which is making vehicles with advanced technical features more affordable—is pushing OEMs to prioritize features and experiences that fit actual user scenarios as a key differentiator. However, broader adoption in China will require OEMs to educate consumers to ensure that these features are used safely and effectively given current technological limitations.

Competition shifts from price to innovation

Key insights:

— A considerable proportion of consumers expressed a desire to trade up when buying a new car to replace their existing cars.

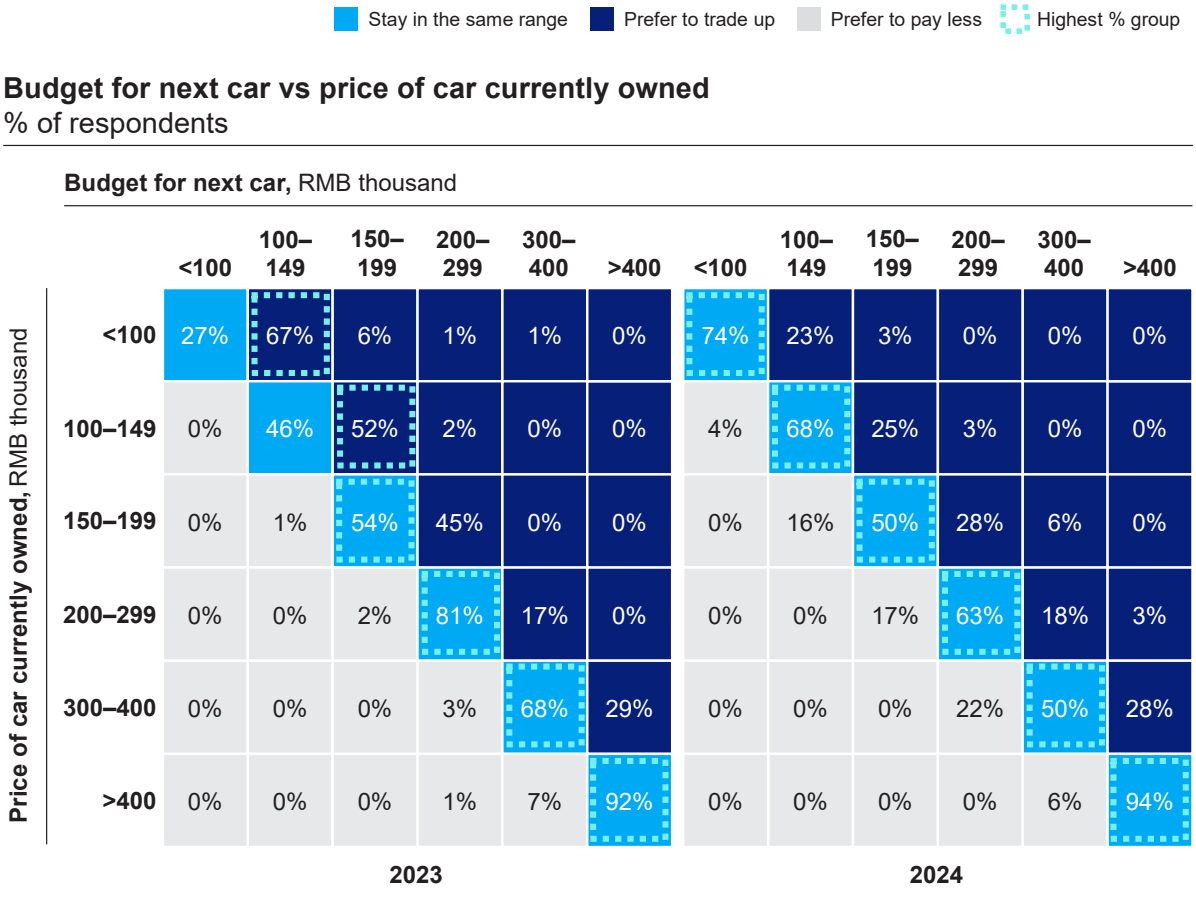
— The effect of automakers' price wars on boosting sales is quite limited, far from matching the massive investment required to wage such price competition.

— In comparison, consumers are embracing the "technology war," indicating that innovation-driven consumption is gradually becoming mainstream.

The changing budget decisions of Chinese consumers when buying new cars have always been an important topic for the industry. Our survey shows that most consumers, when purchasing their next cars, tend to stay in the same price range of their current cars. Still, some 20 to 30 percent of consumers say they want to trade up for their next car purchase (Exhibit 1).

Exhibit 1

For their next car purchase, most Chinese consumers stay within the same price range or upgrade to a higher price class.



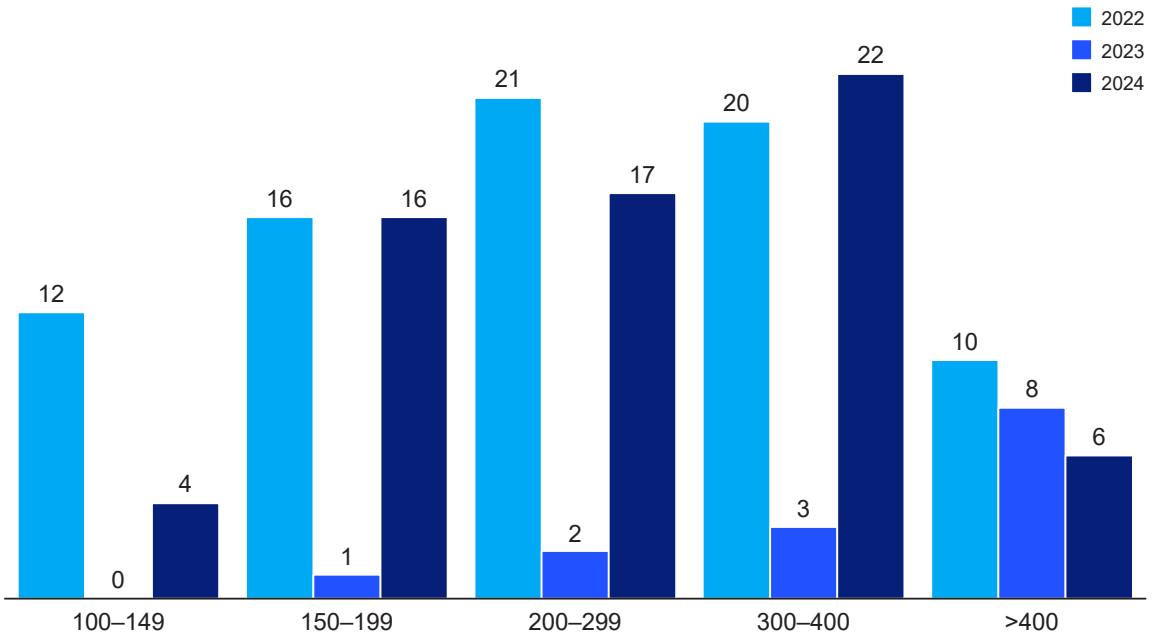
Source: McKinsey China Auto Consumer Survey across the years

We also find that owners of cars in certain price ranges are more likely to move to a lower budget range (than the current car) for their next car purchase compared with 2023 (Exhibit 2).

Exhibit 2

The percentage of consumers who plan to downgrade increased among owners of midpriced cars.

Consumers who plan to downgrade, by price of car currently owned
% of respondents, RMB thousand



Source: McKinsey China Auto Consumer Survey across the years

McKinsey & Company

— Few car owners who paid between 100,000 and 150,000 RMB for their current cars want to downgrade for their next car purchase, indicating a strong willingness to upgrade to better vehicles among entry-level consumers.

— Owners of cars worth more than 400,000 RMB showed less inclination to downgrade than last year, reflecting their purchasing power and interest in new models and technologies.

— However, in the remaining segments, the proportion of car owners who want to downgrade has significantly increased and is close to the 2022 level. A variety of factors could be causing this. For example, as price competition in China's passenger-car market intensifies, consumers can now buy a new car with better performance and functions at a lower cost. This will doubtless affect consumers' budget planning for their next car.

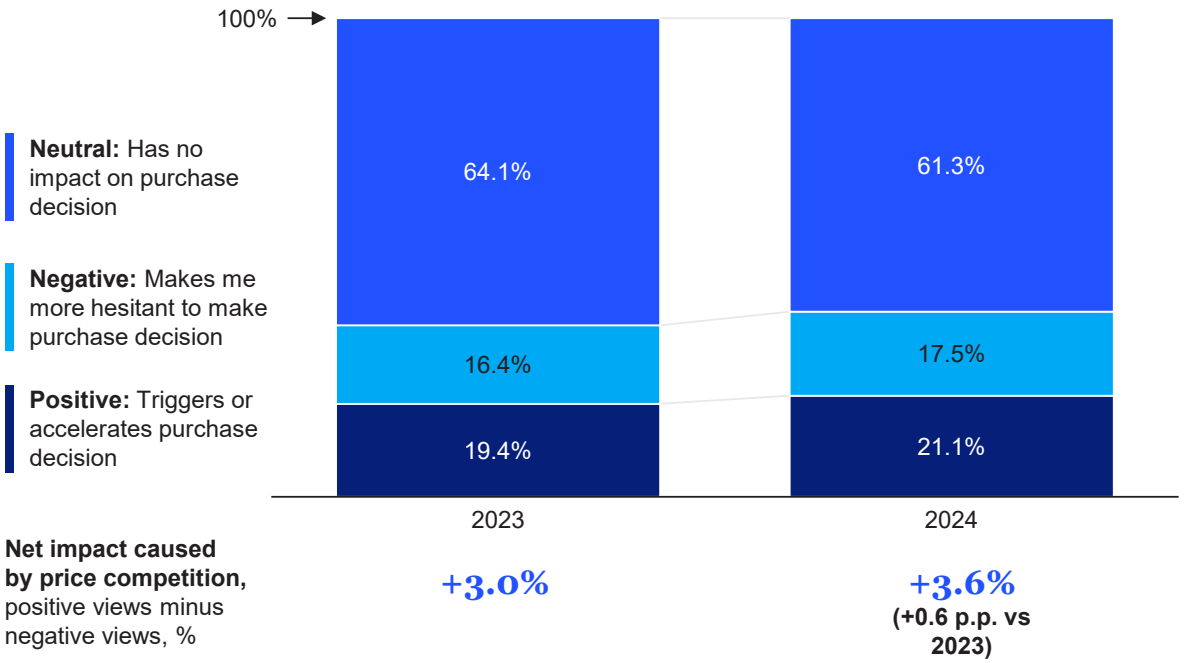
Exhibit 3

Although the pricing competition escalated in 2024, it resulted in very limited additional net demand.

Question: Does the price competition have a positive or negative impact on your new-car purchase decision?

Consumer attitudes toward price competition

% of respondents



Source: McKinsey China Auto Consumer Survey across the years

McKinsey & Company

The pricing competition in China's auto market is intensifying. In a previous China Automotive Consumer Survey, we found that consumers were largely unimpressed by the price competition—the net stimulus effect was only 3 percent (calculated as the percentage of consumers with a "positive" view of the price war—those who felt it stimulated or accelerated their purchasing decision—minus those with a "negative" view, who believed it delayed or discouraged their decision). In this year's survey, the net stimulus effect has increased slightly to 3.6 percent (Exhibit 3). However, considering the huge costs involved—discount rates in the ICE car market rose by nearly eight percentage points in 2024 compared with 2023, and those in the EV market rose by nearly five percentage points[1]—the additional 0.6 percentage point gain in net stimulus is clearly not worth the expense.

[1] McKinsey analysis of "Research on the volume and price performance of the passenger car market in 2024," Autohome Data Platform, February 20, 2025.

At the same time, R&D efficiency improvements are continuing to shorten the release cycle of new models and new technologies in the Chinese market. Our survey asked consumers about their attitudes toward this technology competition to understand whether it has stimulated consumers' interest in new models and new technologies or encouraged them to delay their purchase because they expect to see better technologies in the future. The results show that significantly more consumers applaud the shorter release cycle of new models and technologies than they do price competition: The net stimulus of the former is 10.8 percent, far higher than that of the latter (3.6 percent). Moreover, as household income goes up, the stimulating effect of accelerated R&D also becomes stronger (Exhibit 4). This indicates that consumers are more motivated by innovative technologies than by price competition.

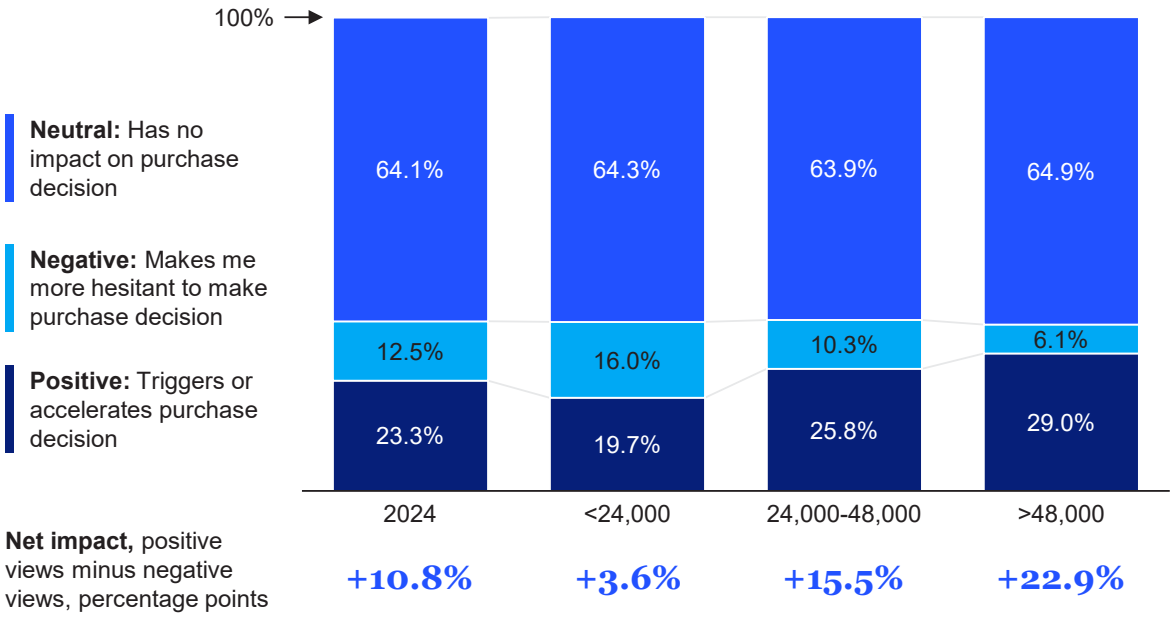
The takeaway for OEMs is that competing through innovation is more effective than engaging in pure price competition. OEMs can shift to a strategy of providing better technological features for the same price, which not only better meets consumers' expectations but also protects OEMs' products and brand positioning.

Exhibit 4

The accelerated product development cycle has had a significant positive impact, especially among higher-income consumers.

Question: Does the shortened car launching cycle have a positive or negative impact on your new-car purchase decision?

Consumer attitudes toward accelerated development cycle
% of respondents, household income in RMB



Source: McKinsey China Auto Consumer Survey 2025

McKinsey & Company

Incumbents start to lag behind

Key insights:

— The number of brands in consumers' initial consideration sets (ICSs) has increased but is still far less than the number of new brands.

— While leading multinational brands maintain an advantage in premium and luxury recognition, they have failed to translate this advantage into sales premiums.

— Disruptor brands have gained extremely high consumer awareness in the EV market, outperforming their incumbent counterparts.

— Chinese OEMs have earned relatively strong consumer recognition on technology-related dimensions.

New brands are increasingly part of consumers' initial consideration set

As the competition in China's auto market intensifies, several leading attackers have gained considerable traction, while some incumbent brands are struggling to compete. Since 2021, 20 new brands have emerged (each of which has monthly sales exceeding 1,000 units), while nine incumbent brands have exited the market (Exhibit 5).

When consumers want to purchase a car, they create an ICS, collect more information about each brand in that set, and make their final purchase decisions. How will consumers' ICSs change as more new brands emerge?

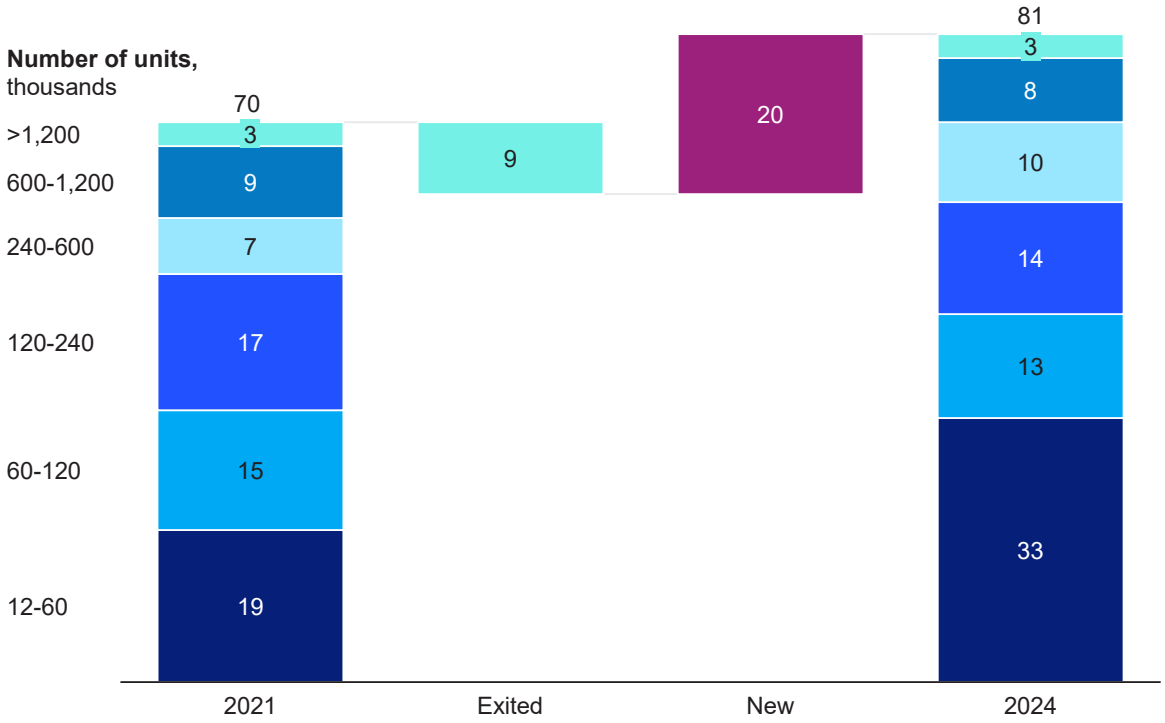
The survey finds that the average number of brands in consumers' ICSs is still low despite the addition of a significant number of new passenger-car brands in the Chinese market. From 2021 to 2024, the number of brands included in an average ICS increased from 2.5 to 3.4 (Exhibit 6).

Exhibit 5

In the past three years, 20 new brands have become available to consumers.

Passenger-vehicle brands in China

Number of brands[1]



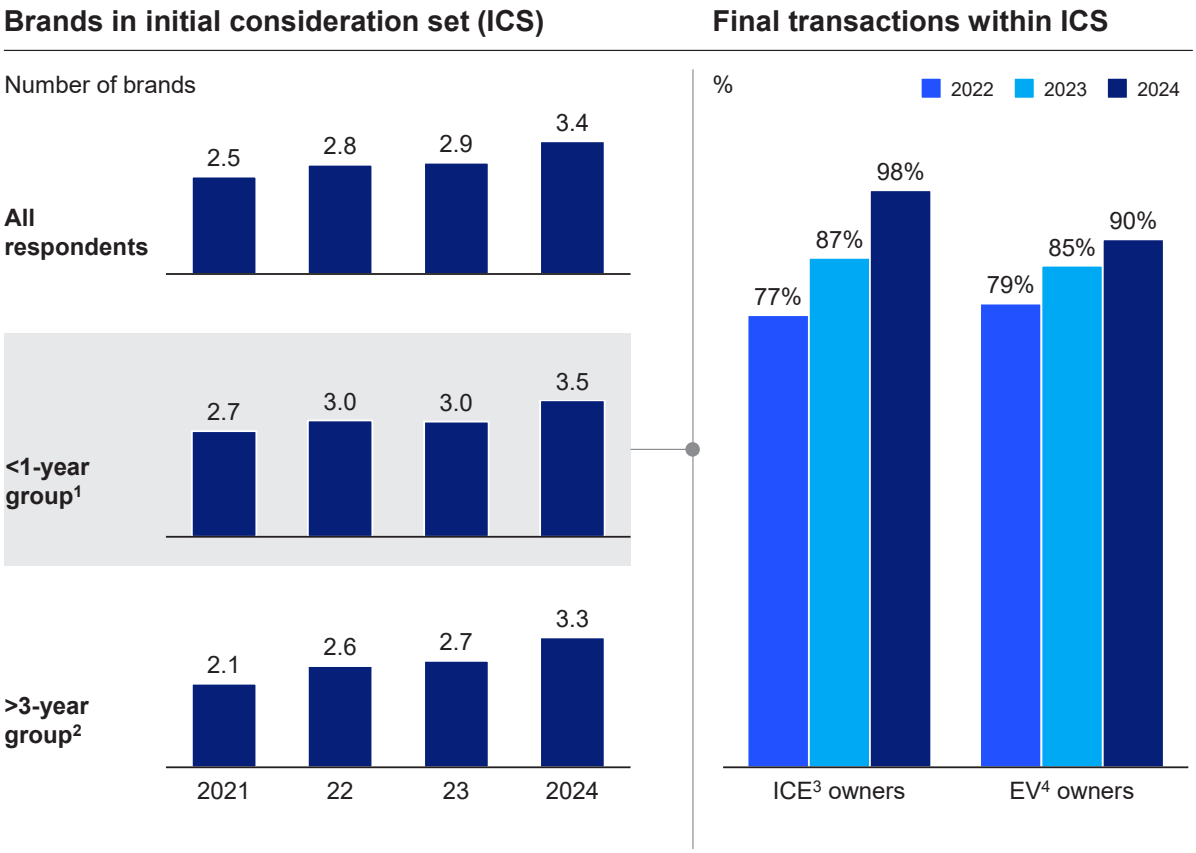
1. Including all brands with sales of more than 12,000 units in China in 2021 and 2024; brand number split by annual sales volume.

Source: China New Car Insurance Registration Database

McKinsey & Company

Exhibit 6

The average number of brands in consumers' initial consideration sets remains low despite the addition of 20 new brands to the Chinese market.



1. Survey participants who bought their car in the 12 months prior to the survey.
2. Survey participants who bought their car at least 3 years before the survey and plan to buy a new one in the next 12 months.
3. Internal combustion engine.
4. Electric vehicle.

Source: McKinsey China Auto Consumer Survey across the years

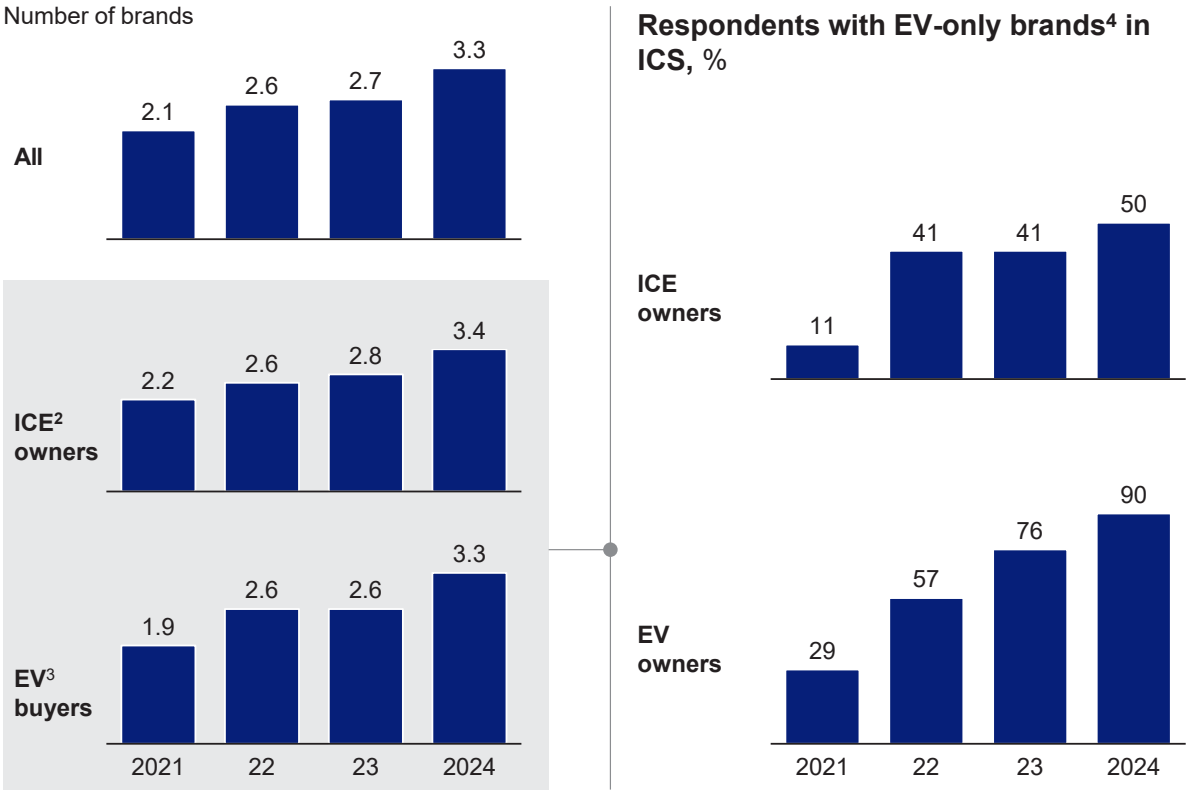
McKinsey & Company

The survey indicates that 98 percent of ICE buyers and close to 90 percent of EV buyers end up purchasing brands from within their ICSs. In other words, no matter how hard a brand works on product definition, R&D, procurement, and production, those efforts are not likely to be reflected in sales unless consumers are already interested in that brand.

The share of EV-only brands in an ICS increased for respondents who purchased their current cars at least three years ago and plan to buy a new one in the next year (Exhibit 7), whether they currently own EV or ICE cars.

Exhibit 7

Brands that produce only electric vehicles are increasingly popular among the initial consideration sets of experienced car buyers.



1. "Buyers" includes survey participants who bought their car at least 3 years before the survey and plan to buy a new one in the next 12 months. ICS is initial consideration set.
2. Internal combustion engine.
3. Electric vehicle.
4. Brands that manufacture only EV cars.

Source: McKinsey China Auto Consumer Survey across the years

McKinsey & Company

— The proportion of EV owners with EV-only brands in their ICS grew from less than 30 percent in 2021 to 90 percent in 2024.

— The proportion of ICE owners with EV-only brands in their ICS increased from about 10 percent in 2021 to 50 percent in 2024. That is, half of respondents who purchased their current ICE cars at least three years ago and plan to buy a new car in the next year included EV-only brands in their ICS.

Shifting ICSs reflect the evolving landscape of China's premium-car market. We analyzed the percentage of premium German brands (Benz, BMW, and Audi) and emerging premium EV brands (including an American brand and some leading Chinese brands) in consumers' ICSs (x-axis: percent in consideration), as well as the percentage of buyers who initially included them in their ICS and ultimately purchased one (y-axis: percent of winning).

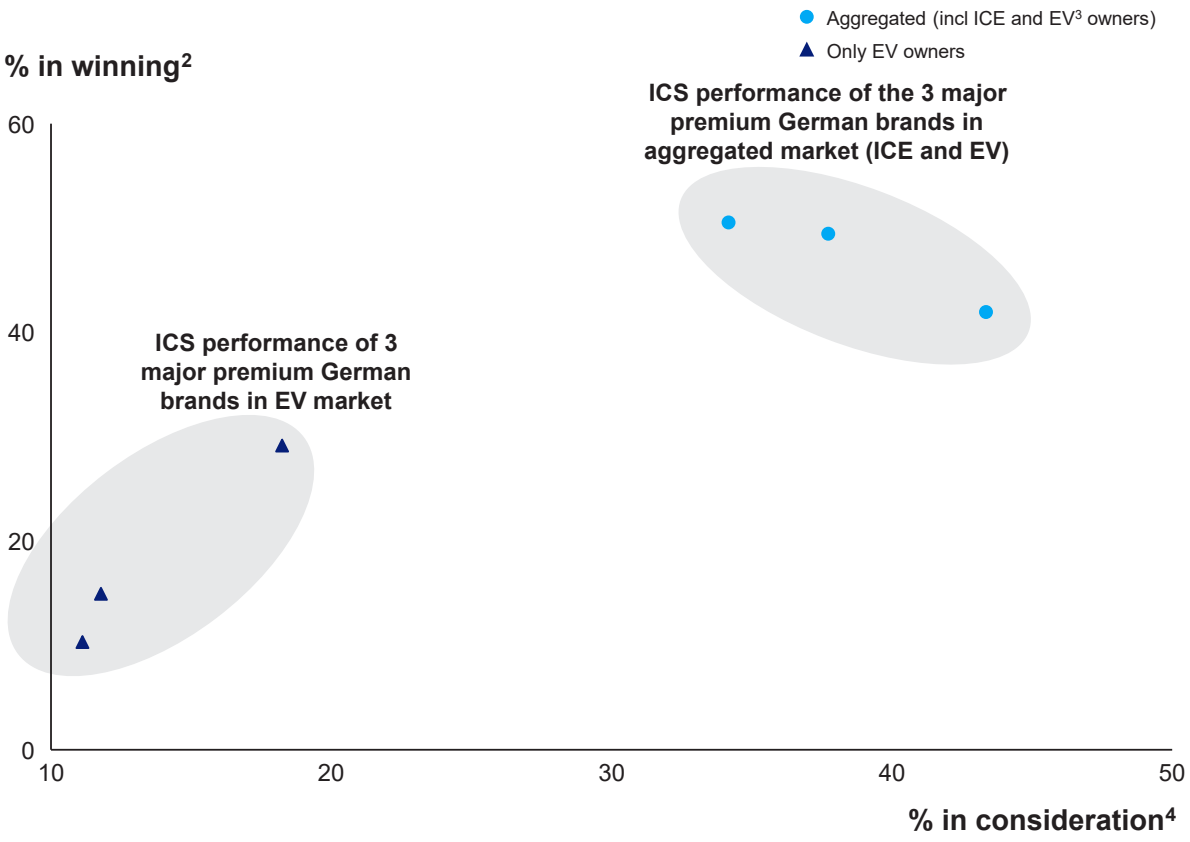
— Because competitive dynamics vary between the overall market and the EV market, brand performance between the two markets also varies.

— Premium German vehicles have much better ICS performance in the overall market than in the EV market (Exhibit 8).

Exhibit 8

Major premium German brands perform poorly on initial consideration sets within the electric vehicle space.

Percentage of ICS-entering vs eventual winning in sales; for a few brands only[1]; for recent car buyers (<1 year), 2024



Note: ICS is initial consideration set.
1. Weighted average per actual premium EV sales mix in 2024 of 3 major premium German brands, 1 premium US EV brand, and 3 premium Chinese EV brands.
2. Percentage of buyers who ultimately purchased a brand in their ICS.
3. ICE is internal combustion engine. EV is electric vehicle.
4. Percentage of brands included in consumers' ICSs.

Source: McKinsey China Auto Consumer Survey 2025

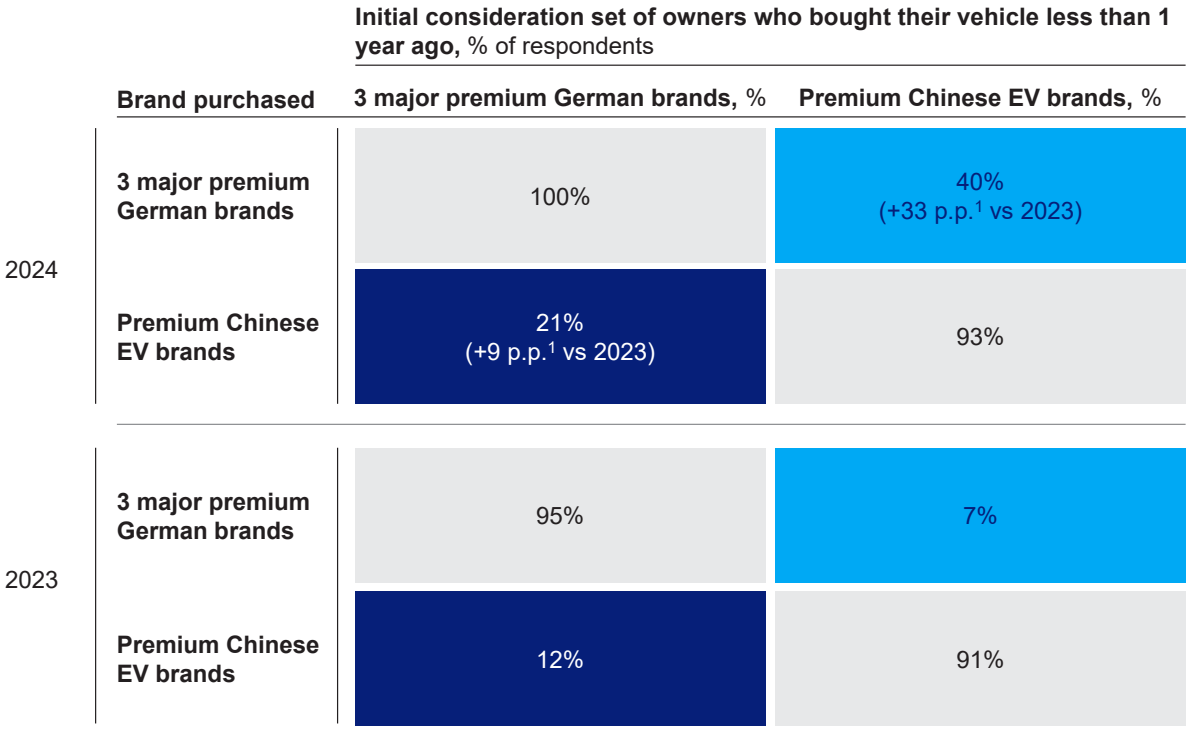
McKinsey & Company

— This difference shows that although leading premium multinational brands had a strong reputation in the ICE-only era, they struggle to leverage this reputation to sell EVs.

We also find that buyers of premium German and premium Chinese EVs are more likely to include each other's brand groups in their ICSs: In 2024, 21 percent of premium Chinese EV buyers included premium German brands in their ICS, up from 12 percent in 2023. Only 7 percent of premium German brand buyers included premium Chinese EV brands in their ICS in 2023, but this number soared to 40 percent in 2024 (Exhibit 9).

Exhibit 9

Buyers of traditional premium multinational vehicles are increasingly likely to consider premium Chinese electric vehicles.



1. Percentage points.

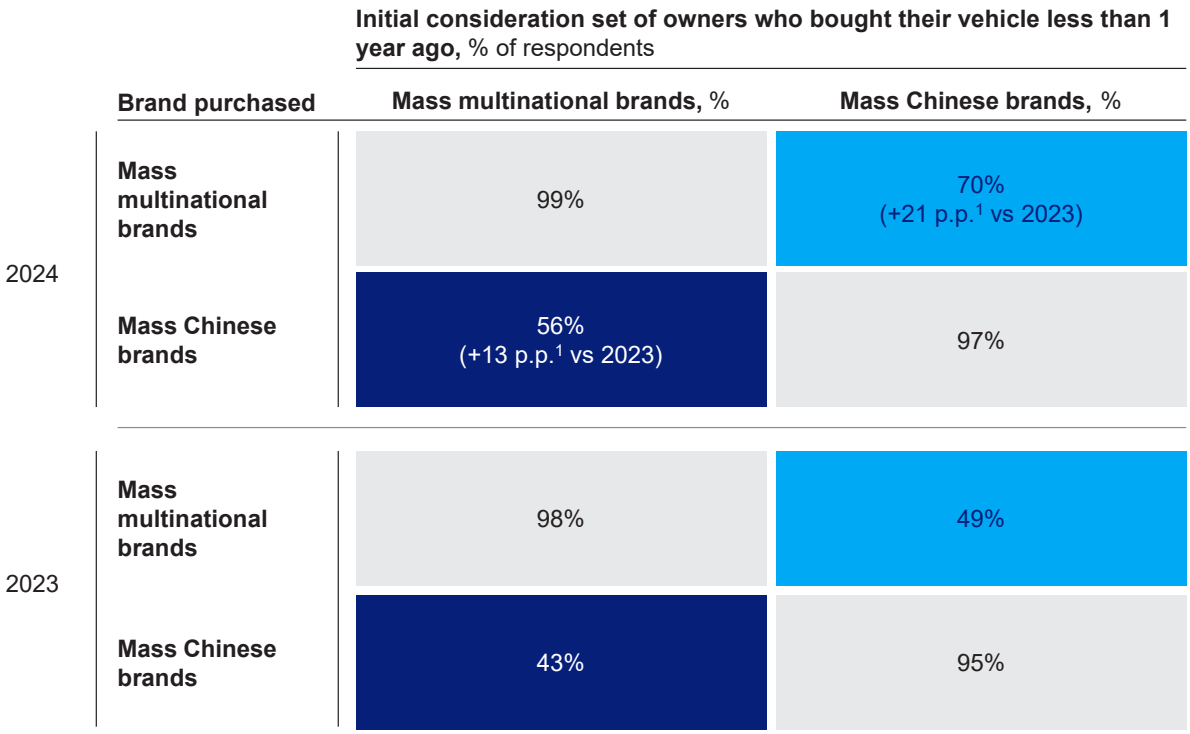
Source: McKinsey China Auto Consumer Survey across the years

McKinsey & Company

A similar trend appears in the mass segment (Exhibit 10). Fifty-six percent of mass-Chinese-brand buyers included mass multinational car brands in their ICSs, slightly higher than in 2023 (43 percent). And while only 49 percent of mass-multinational-brand buyers included mass Chinese brands in their ICSs in 2023, this soared to 70 percent in 2024. In other words, seven of ten buyers of mass multinational brands considered buying a mass Chinese brand. This poses a huge challenge to the marketing and dealer systems of multinational OEMs.

Exhibit 10

Chinese brands are rapidly gaining traction in the mass segment.



1. Percentage points.

Source: McKinsey China Auto Consumer Survey across the years

McKinsey & Company

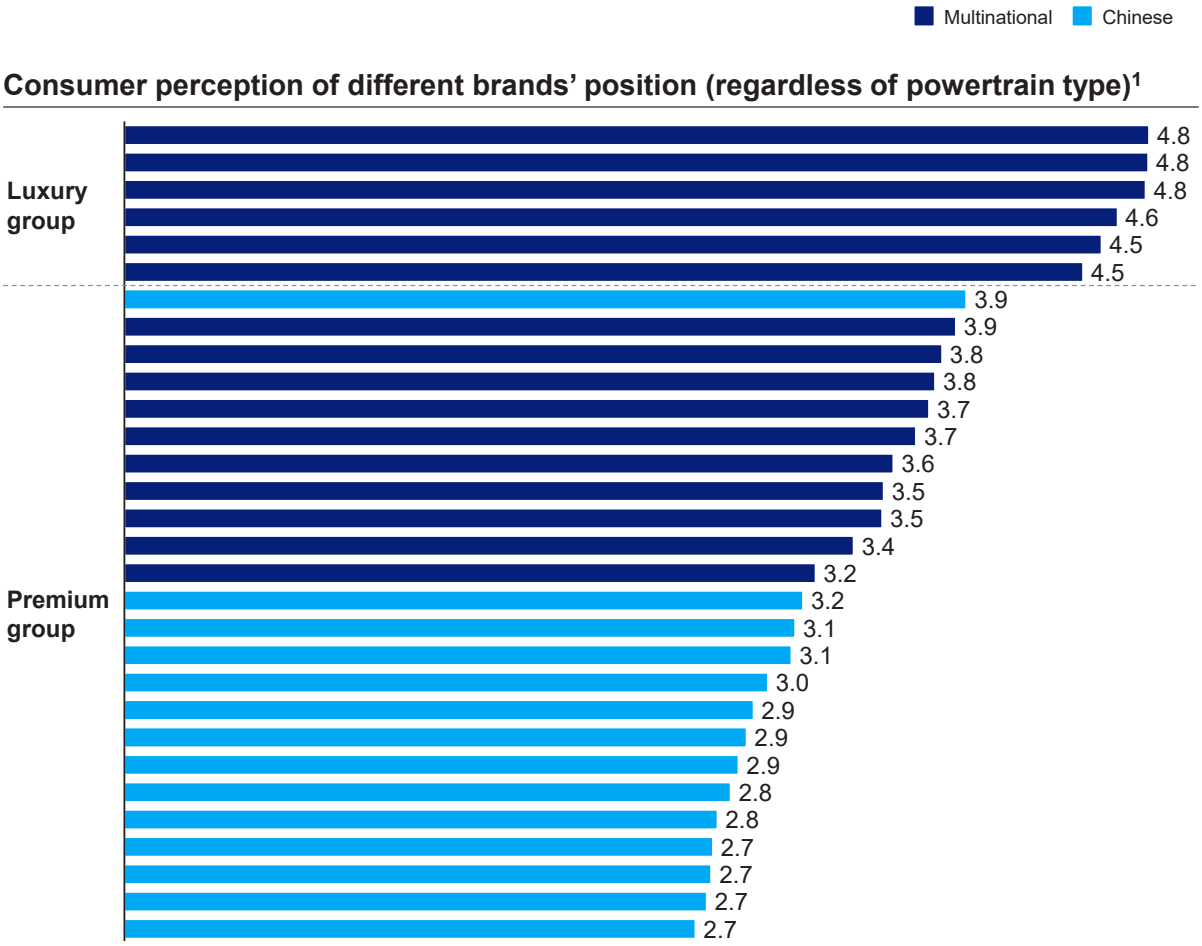
Perception of premium and luxury brands

Our survey incorporated quantitative research on brand perception. Specifically, we categorized automotive brands into five tiers: entry level (one point), volume segment (two points), near-premium (three points), premium (four points), and luxury (five points). Respondents were asked to classify brands based on their perceptions (Exhibit 11), which led to some key findings:

Exhibit 11-a

Multinational brands keep their advantage in premium and luxury recognition, but Chinese brands are starting to gain traction.

Question: Which position matches the given brands?

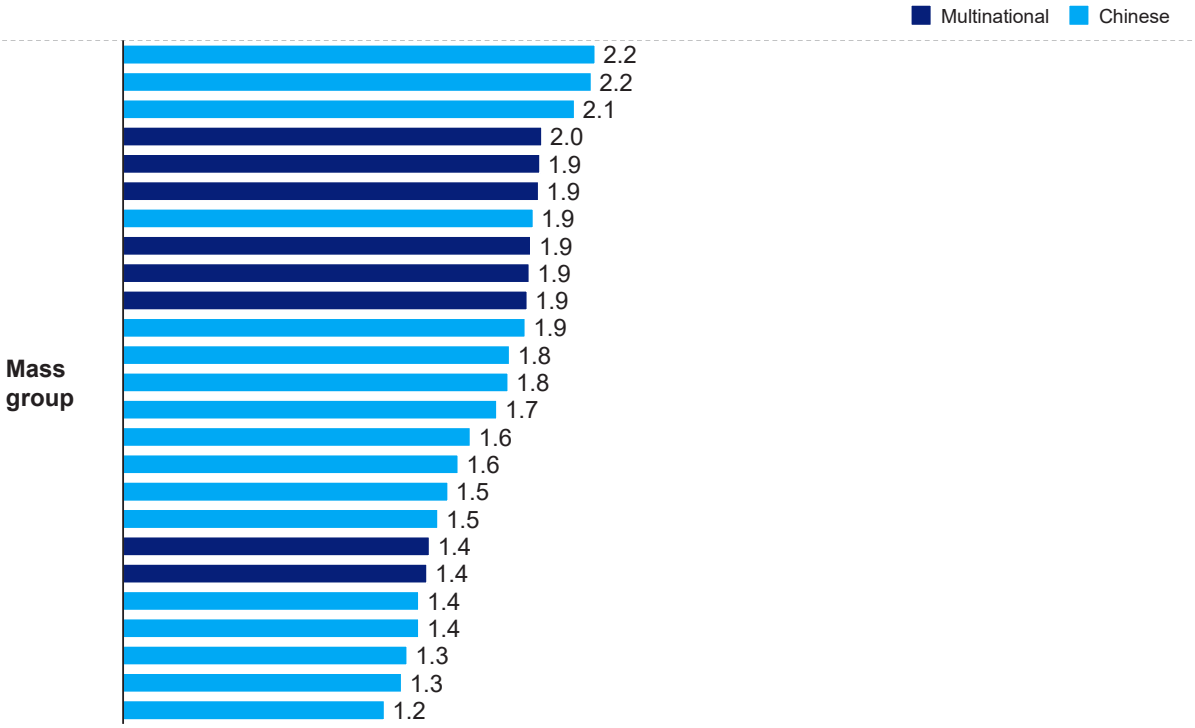


1. Weighted average score of each brand (luxury, premium, near-premium, volume segment, entry level, rated from high to low as 5, 4, 3, 2, 1 points respectively).

Exhibit 11-b

Multinational brands keep their advantage in premium and luxury recognition, but Chinese brands are starting to gain traction.

Question: Which position matches the given brands?



1. Weighted average score of each brand (luxury, premium, near-premium, volume segment, entry level, rated from high to low as 5, 4, 3, 2, 1 points respectively).

Source: McKinsey China Auto Consumer Survey 2025

McKinsey & Company

— Chinese consumers differentiate automotive brands into three distinct clusters: luxury, premium, and mass.

— Incumbent brands dominate all luxury positions.

— Incumbent brands maintain significant advantages in the premium cluster, indicating sustained consumer recognition of their decades-long brand equity despite challenges from electrification and smartification.

— Several disruptor brands have entered the premium cluster, but most of them lag behind incumbents. Notably, one disruptor leads the entire premium cluster, highlighting its success in branding and competitiveness.

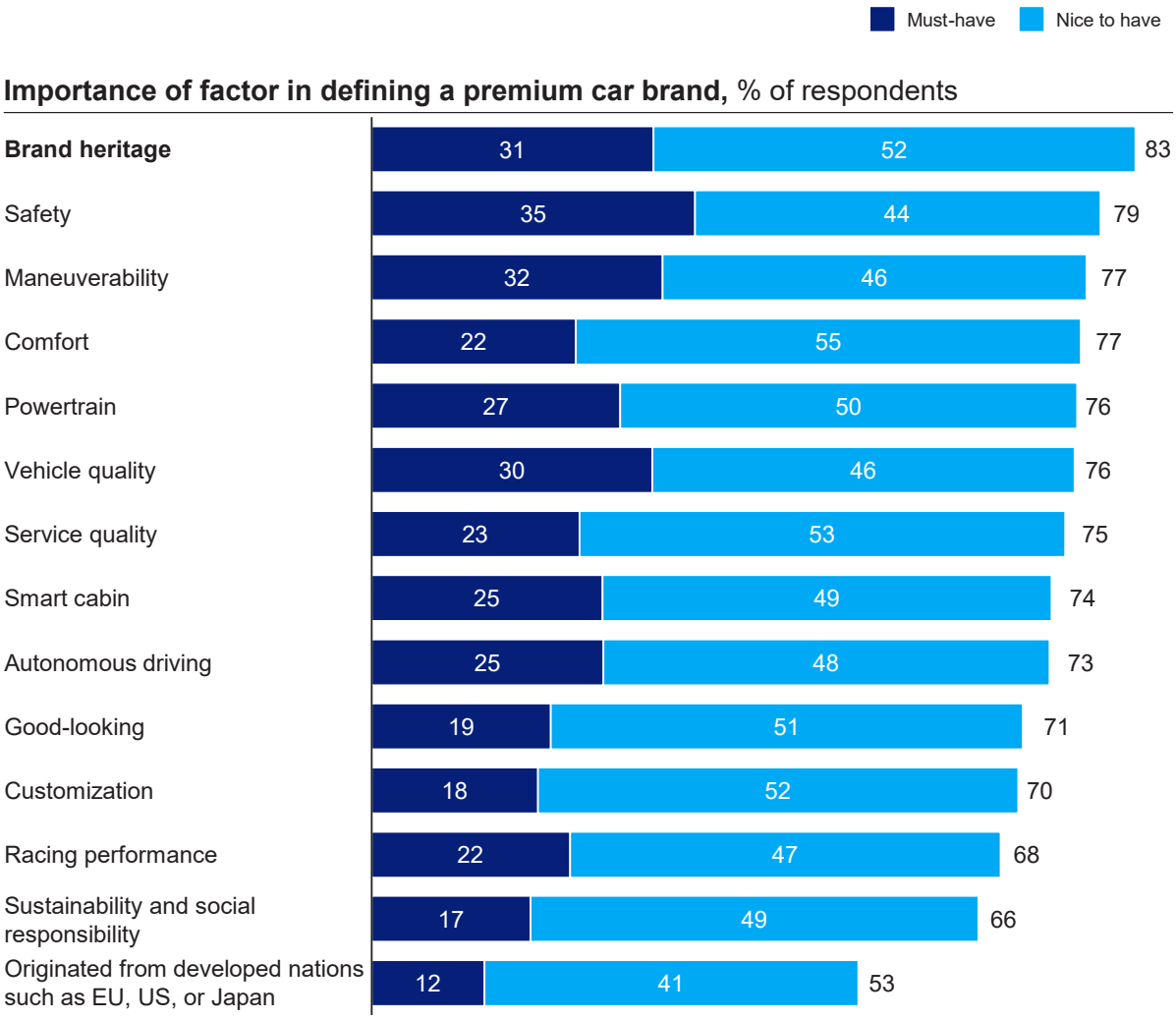
— Disruptor brands dominate the mass cluster, outperforming incumbent competitors.

We asked respondents what defines a premium car brand in an effort to identify “must have” and “nice to have” factors among attributes such as brand heritage, safety, and maneuverability (Exhibit 12).

Exhibit 12

Brand heritage is seen as the most important factor in defining a premium car brand, but its leading advantage is marginal.

Question: What defines a premium car brand?, % of respondents



Source: McKinsey China Auto Consumer Survey 2025

McKinsey & Company

— “Strong brand heritage” ranked as the most important factor in a premium automotive brand. However, when compared with subjective factors such as safety, maneuverability, comfort, and power, the leading advantage of brand heritage, a purely emotional factor, is not significant (for example, the rating of brand heritage is only four percentage points higher than the number-two factor, safety).

— This explains why one Chinese brand, despite being newly established, could take the lead in the premium segment. Although this young brand doesn’t have much brand heritage, it can ride on the technological strengths of its parent company. This brand has achieved revolutionary breakthroughs in safety (for example, sailing in the water), maneuverability (such as tank-like turning), comfort (such as significant performance enhancement enabled by suspension breakthroughs), and power (more than 1,000 horsepower), thereby gaining higher recognition from consumers.

— In terms of must-haves, brand heritage ranks lower than more subjective factors such as safety and maneuverability. This again illustrates that the leading advantage of brand heritage over rational factors is not stable.

— Among all factors, “originated from developed nations such as the European Union, United States, or Japan” is regarded as the least important.

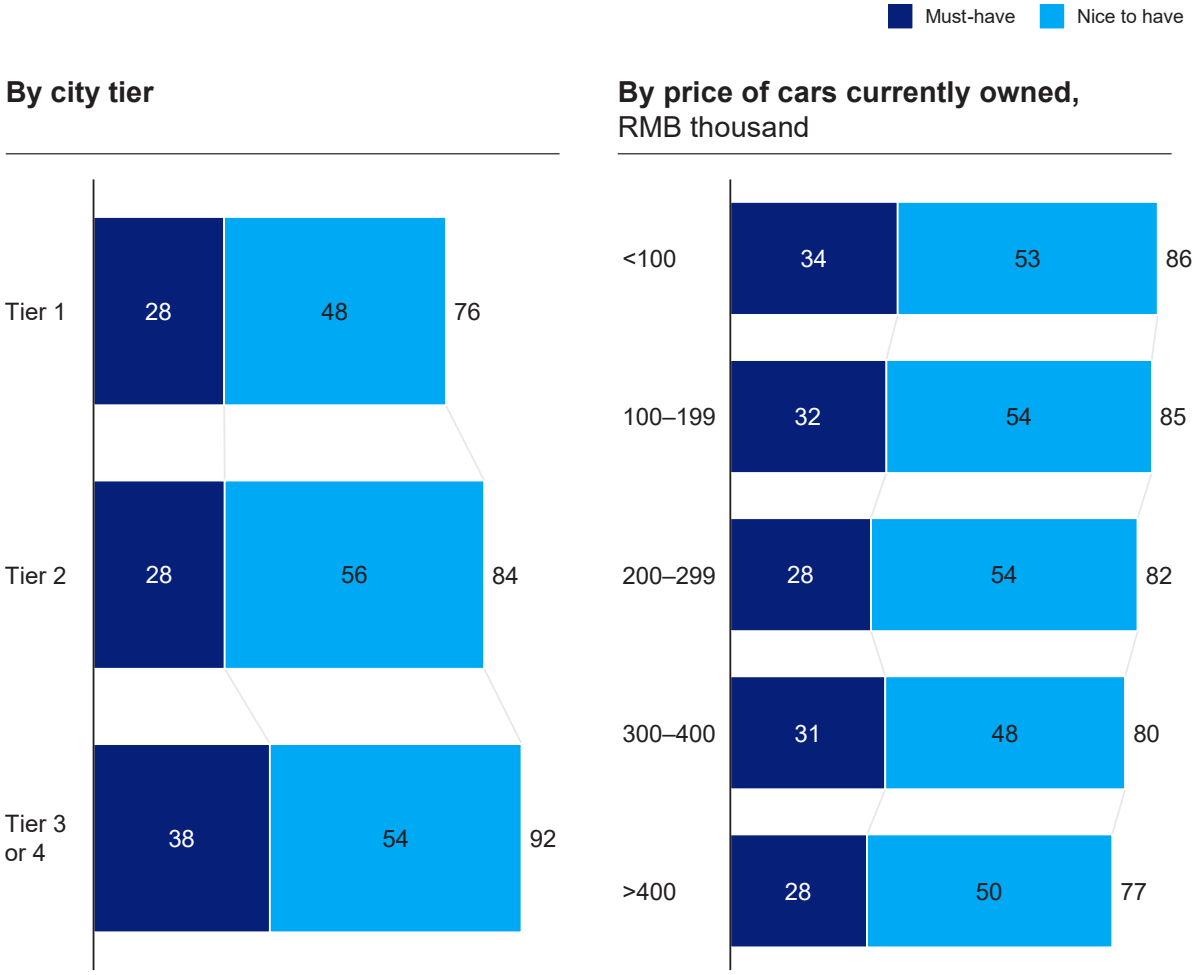
At the same time, we also found that the importance of brand heritage varies among respondents from different backgrounds. Relatively speaking, respondents from lower-tier cities and owners of low-priced models are more likely to assign importance to brand heritage (Exhibit 13). This indicates that high-income consumers and residents of high-tier cities are less influenced by the purely emotional factor of brand heritage and care more about other factors. This shift may spread to other consumers, given that consumption trends in China’s leading tier-one cities are seen as a leading indicator for the whole country.

As mentioned earlier, incumbent automotive brands generally enjoy higher recognition as premium or luxury brands than their disruptor counterparts. However, this has not translated into higher price advantages in the market. Traditionally, Chinese consumers have been willing to pay a higher premium for foreign brands, but this tendency has diminished in recent years: 50 percent of respondents said they were not willing to pay a higher premium for multinational premium EVs than for Chinese ones—on par with 2023 but higher than 2022 (47 percent). Among those willing to pay a premium, most are willing to pay only a very limited amount, with only 3 percent indicating a willingness to pay more than a 20 percent premium (Exhibit 14). This also supports our previous takeaway: Although leading multinational premium brands gained reputation in the ICE-only era, it is difficult to capitalize on this reputation in the EV space.

Exhibit 13

Consumers from low-tier cities and those with cheaper cars see heritage as a more important factor.

Importance of “brand heritage” in defining a premium car brand; % of respondents; current car price in RMB

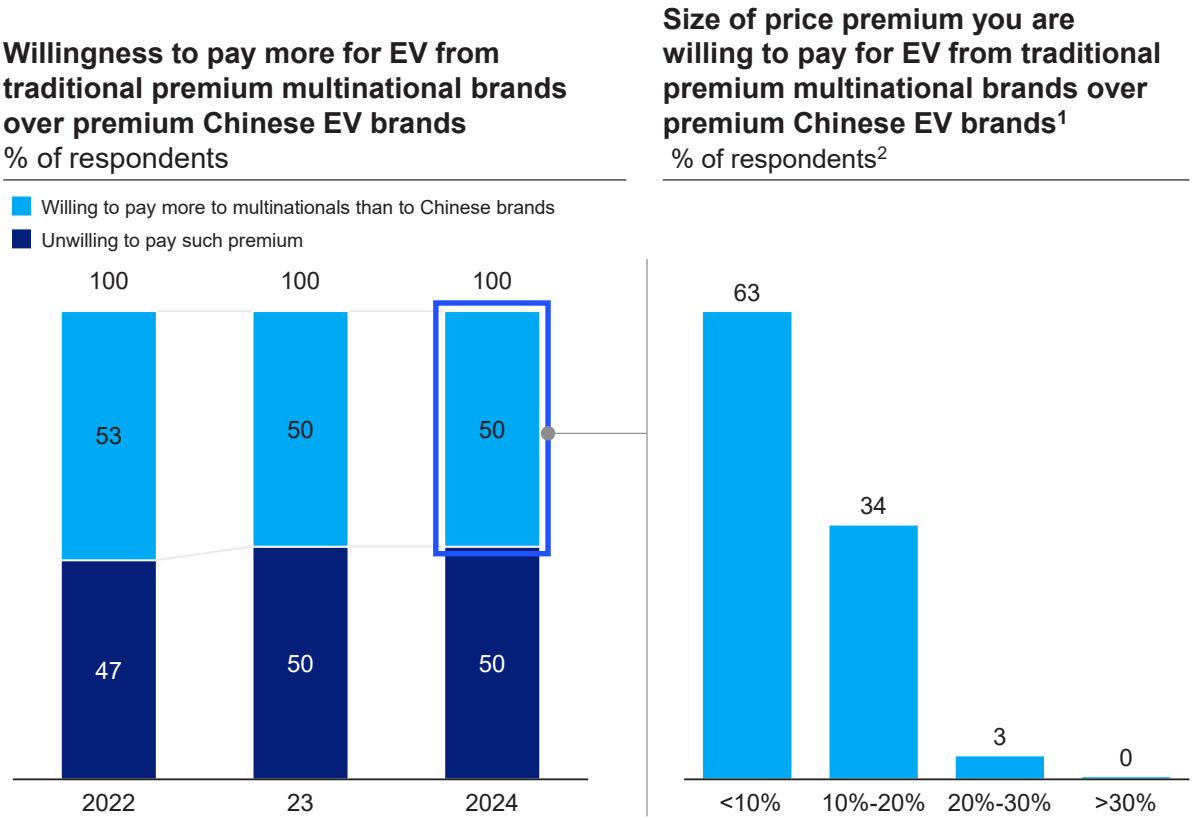


Source: McKinsey China Auto Consumer Survey 2025

McKinsey & Company

Exhibit 14

Multinational brands' high premium recognition does not convert to higher willingness to pay in the premium EV space.



1. Respondents who are willing to pay more for traditional premium multinational EVs in the latest survey.

Source: McKinsey China Auto Consumer Survey across the years

McKinsey & Company

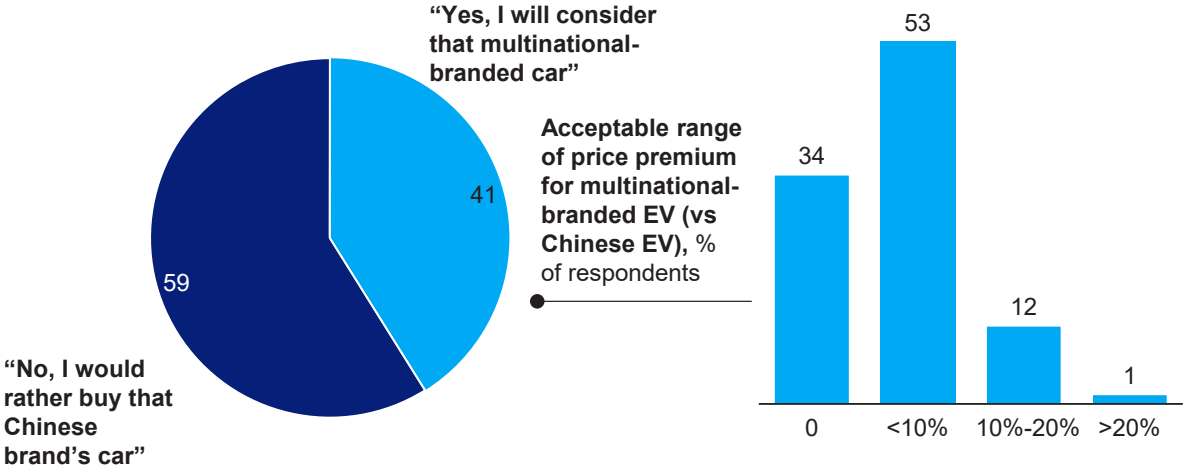
Some multinational brands are collaborating with leading Chinese OEMs to incorporate advanced Chinese technologies in their models, some of which are expected to launch within a year or two. Only about 40 percent of survey respondents indicated a willingness to consider buying such models, and only about 1 percent were willing to pay a premium higher than 20 percent for them (Exhibit 15). The combination of premium multinational brands and Chinese technology does not guarantee high consumer interest. Against the backdrop of brand deglamorizing and technological democratization, it is imperative to explore how to maximize the brand equity of multinationals and combine them with Chinese intelligent technologies to create synergies that are worth more than the sum of their parts.

Exhibit 15

Incorporating Chinese technology into premium multinational brands does not guarantee good sales.

Question: Would you consider a multinational-branded EV that incorporates technology from a Chinese OEM?

Respondents who would consider a multinational-branded EV that incorporates technology from a Chinese OEM, % of respondents[1]



1. Incl recent buyers of EVs priced >200,000 RMB and consumers who are considering buying an EV with budget of >200,000 RMB.

Source: McKinsey China Auto Consumer Survey 2025

McKinsey & Company

Brand awareness in the EV space

We asked consumers which brands come to mind when talking about EVs. Almost all of the top answers—those with a mention rate of more than 20 percent—were Chinese OEMs, with only one American EV brand. Incumbent German brands were rarely mentioned, and their mention rates have declined since 2023 (Exhibit 16).

If we look more closely at the automotive brand that consumers mention first, incumbents are clearly less commonly cited: Not only do their rankings fall further behind, but their mention rates are also significantly lower than those of the top-ranking Chinese EV brands (Exhibit 17).

Exhibit 16

Incumbent multinational brands are less likely to gain strong consumer awareness when entering the electric-vehicle space.

Question: When talking about electric vehicles, which brands come to mind?

2024 electric-vehicle brand awareness rankings

↑ xx Rise in rank ↓ xx Drop in rank

Ranking	Brand origin	Change in rank, 2024 vs 2023	Respondents %	Ranking	Brand origin	Change in rank, 2024 vs 2023	Respondents %
1	**China**	↑ 1	68.0	11	**Germany**	↓ 4	13.3
2	**US**	↓ 1	64.6	=11	**China**	↑ 2	13.3
3	**China**	0	35.3	13	**China**	↓ 3	12.4
4	**China**	↑ 1	27.9	14	**China**	↓ 2	11.6
5	**China**	↑ new	26.3	15	**China**	0	9.6
6	**China**	↓ 2	25.5	16	**China**	↓ 5	9.5
7	**China**	↑ 25	21.2	17	**Sweden**	↑ 9	7.6
8	**Germany**	↓ 2	17.8	18	**China**	0	5.6
9	**Germany**	↓ 1	16.0	19	**China**	↓ 2	5.3
10	**Germany**	↓ 2	13.7	20	**Japan**	↓ 4	3.4

Source: McKinsey China Auto Consumer Survey across the years

McKinsey & Company

Exhibit 17

When asked which electric-vehicle brand comes to mind first, consumers are less likely to cite incumbent multinationals.

Question: When talking about electric vehicles, which brand comes to mind first?

2024 electric-vehicle brand awareness rankings (1st pick only)

Ranking	Brand origin	Respondents %
1	**China**	18.6
2	**US**	15.1
3	**China**	6.7
4	**China**	6.5
5	**China**	6.0
6	**China**	4.6
=6	**China**	4.6
8	**China**	2.8
9	**China**	2.4
10	**Germany**	2.2
11	**China**	2.0
12	**Germany**	1.8
=12	**China**	1.8
=12	**China**	1.8
15	**Germany**	1.7
=15	**Germany**	1.7
=15	**China**	1.7
18	**China**	1.2
=18	**China**	1.2
20	**China**	1.0

Source: McKinsey China Auto Consumer Survey 2025

McKinsey & Company

Exhibit 18 shows a brand distribution chart based on premium brand recognition (x-axis) and EV brand awareness (y-axis).

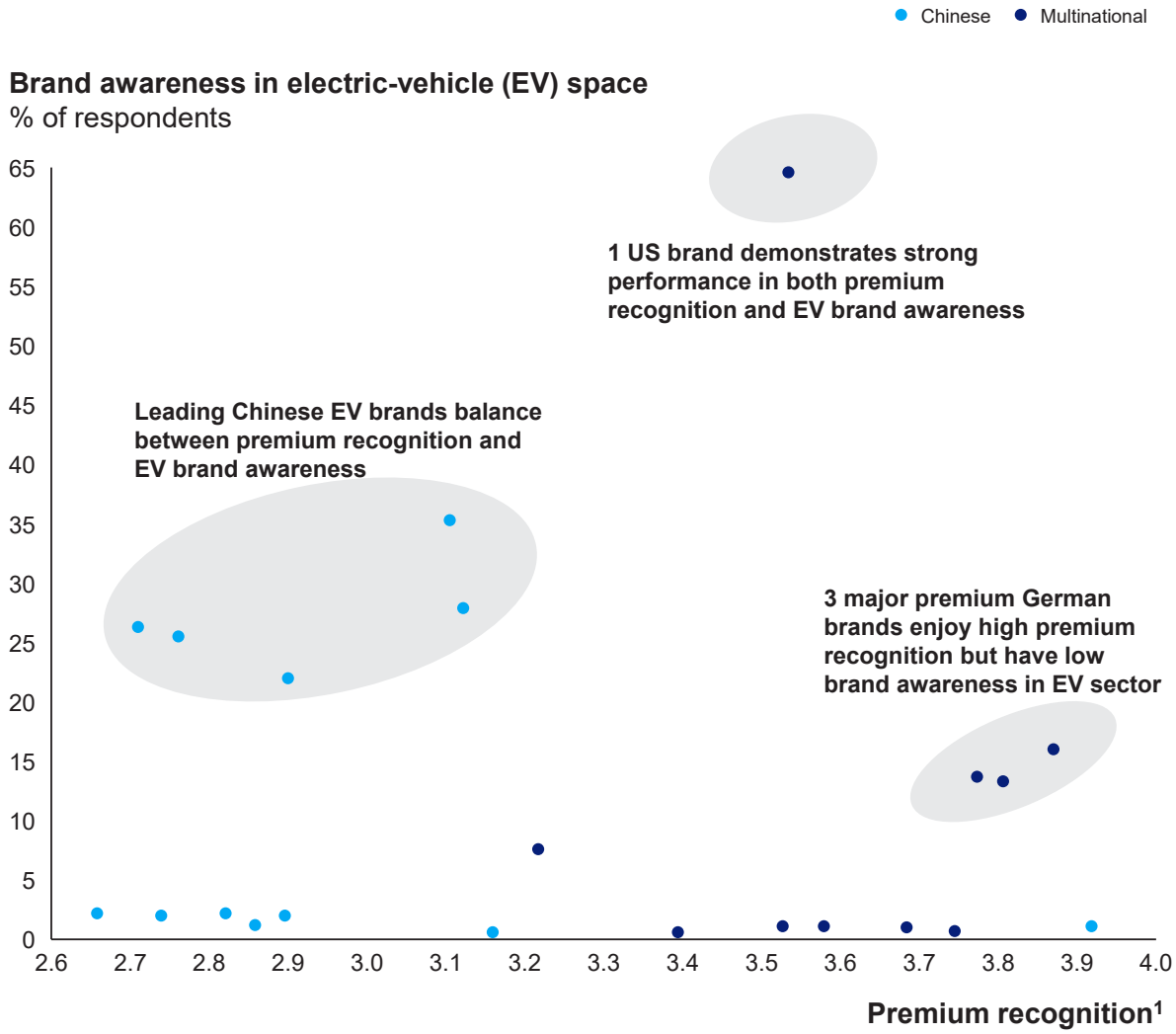
— Only one American EV brand ranks high on both dimensions.

— Although premium German brands received high scores in the dimension of premium recognition, their EV brand awareness fell behind.

— Some leading Chinese EV brands, though scoring lower than premium German brands in premium recognition, perform well in EV brand awareness, showing a more balanced positioning in the market.

Exhibit 18

Other than one US brand, no multinational brands performed well in both premium recognition and electric-vehicle brand awareness.



1. Weighted average score of each brand (luxury, premium, near-premium, volume segment, entry level, rated from high to low as 5, 4, 3, 2, 1 points respectively).

Source: McKinsey China Auto Consumer Survey 2025

McKinsey & Company

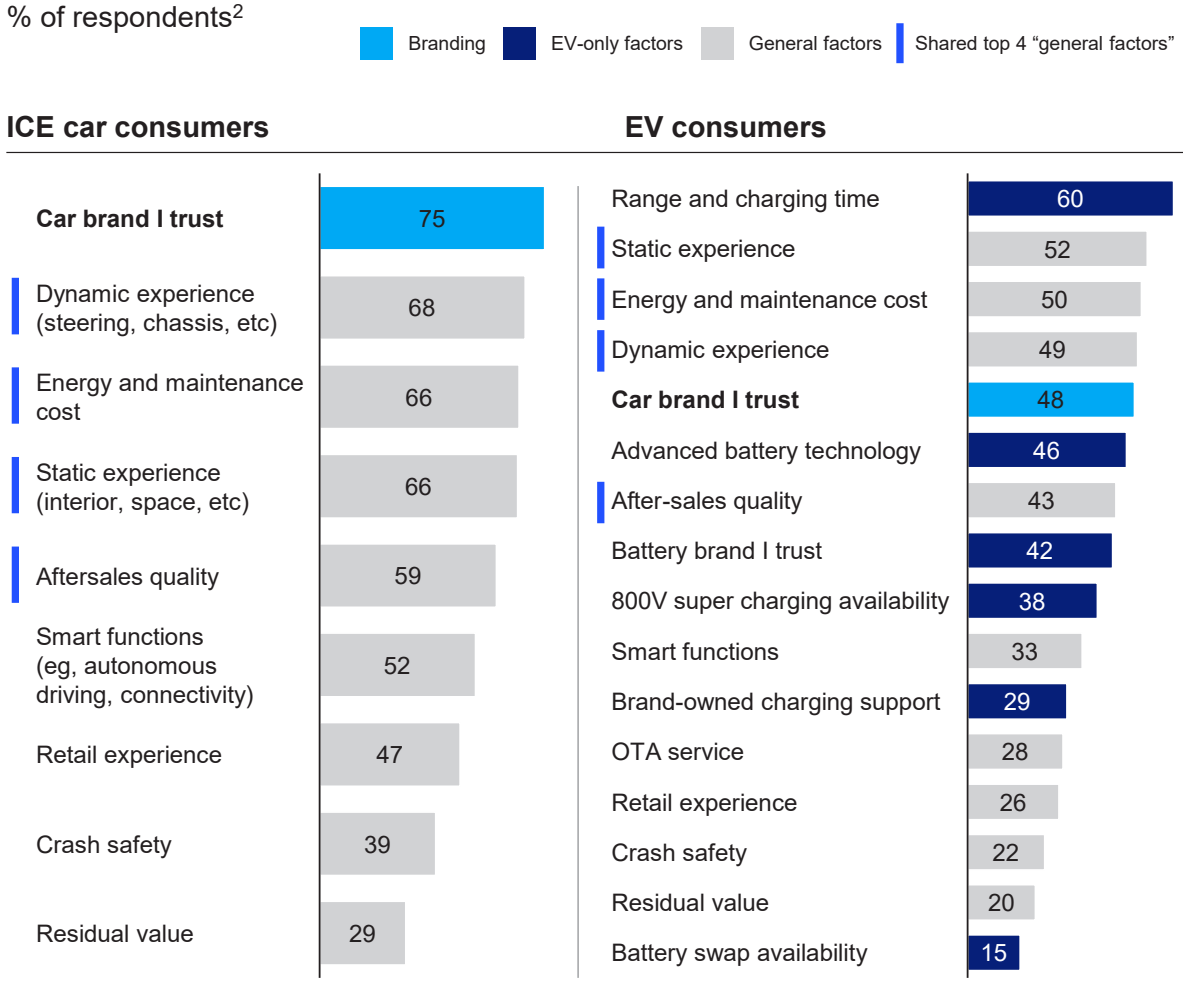
The performance disparity between premium recognition and brand awareness in the EV space is ultimately due to weakened brand influence among EV buyers. Branding is regarded as the top key purchase factor among ICE owners, while EV owners rank it at number five (Exhibit 19).

Exhibit 19

Branding is much less important to electric-vehicle buyers than to internal combustion engine car buyers.

Key buying factors of ICE car buyers vs EV buyers[1]

% of respondents[2]



1. ICE is internal combustion engine; EV is electric vehicle.
2. EV buyers have more options, so the % of respondents between ICE and EV is not directly comparable.

Source: McKinsey China Auto Consumer Survey 2025

McKinsey & Company

Previous surveys of Chinese automotive consumers uncovered many overlapping buying factors for EV owners and ICE owners, and those persist in this year's survey. Some general factors such as static or dynamic experience, vehicle ownership costs, and after-sales service receive nearly identical importance rankings from ICE and EV owners, after excluding brand-specific and EV-unique factors (such as range, charging, and battery). This further supports our earlier viewpoints: As EV technology matures in the future, with similar performances in range, charging, and battery across EV brands, the importance EV buyers place on branding may come to resemble that of ICE buyers. For leading OEMs, the key to win in intense market competition will be strengthening both technological capabilities and brand perception, embedding a distinctive brand image in consumers' minds.

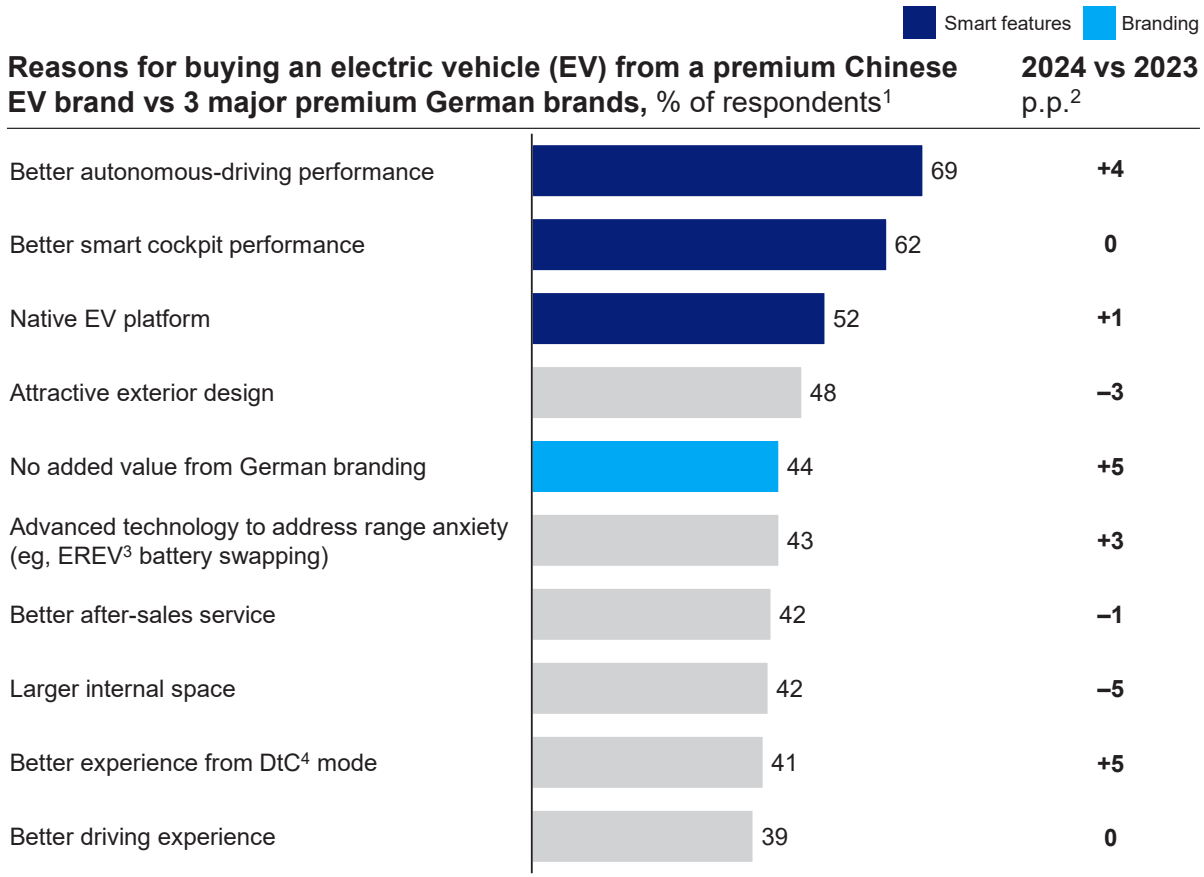
Meanwhile, we discovered striking differences in consumer priorities across premium segments.

Owners of Chinese premium EVs stated that technologies such as autonomous driving (AD) performance, smart cockpit, and native EV platforms are the primary reasons for choosing Chinese premium brands over premium German brands (Exhibit 20). This preference was stronger in 2024 than in 2023.

In contrast, when owners of EVs made by incumbent multinationals were asked similar questions, brand-related considerations (for example, trust in multinational brands' overall quality) emerged as the core buying factor (Exhibit 21). Additionally, price discounts have become increasingly relevant for this consumer group, rising from number four in 2023 to number two in 2024. Clearly, substantial price discounts, rather than the comprehensive performance of multinational premium EVs, are the primary driver for these consumers.

Exhibit 20

Buyers of premium Chinese electric vehicles place greater value on smart features and less on traditional premium German brands.



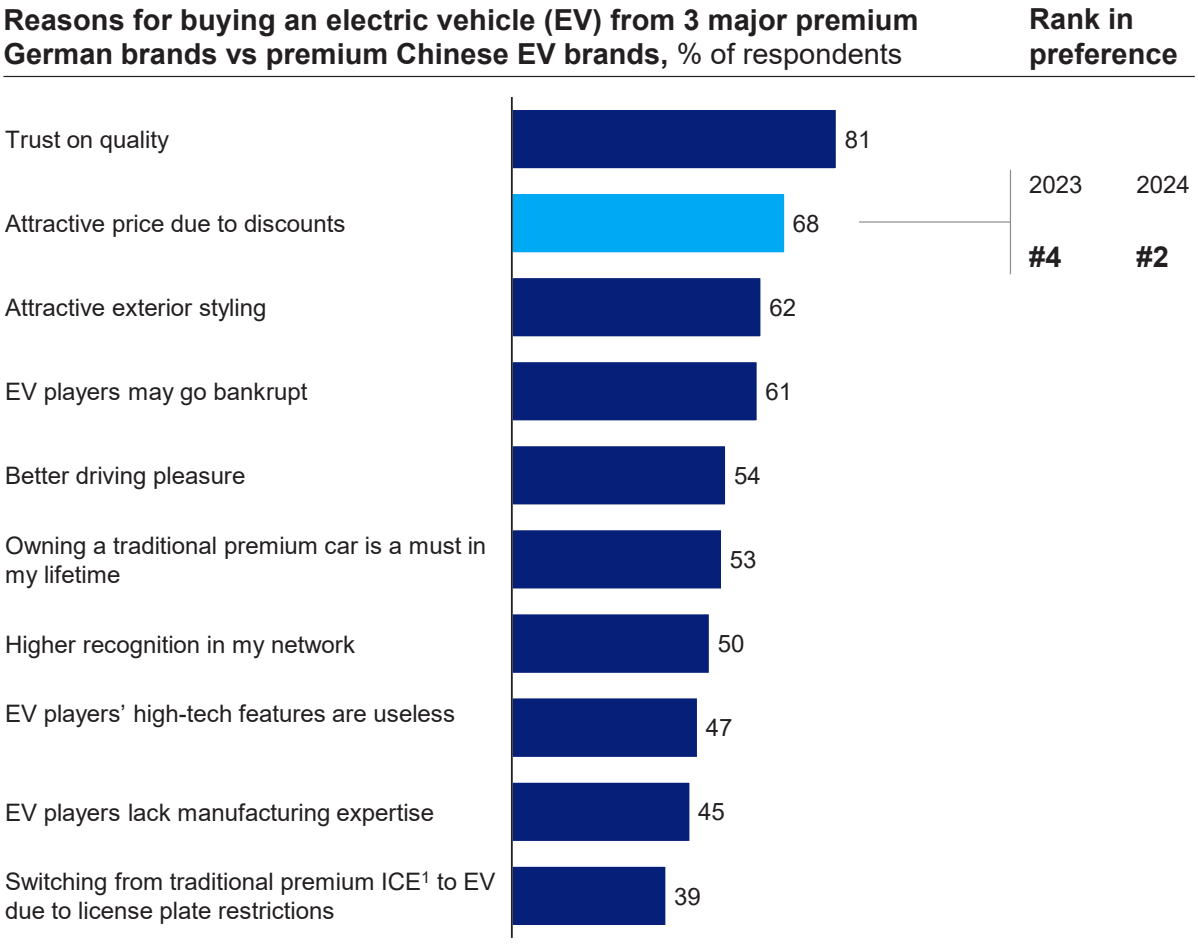
1. Incl owners of 10 premium Chinese EV brands.
2. Percentage points.
3. Extended-range electric vehicle.
4. Direct-to-consumer.

Source: McKinsey China Auto Consumer Survey 2025

McKinsey & Company

Exhibit 21

Discounted prices are becoming an increasingly important factor for buyers of EVs from traditional premium German brands.



1. Internal combustion engine.

Source: McKinsey China Auto Consumer Survey across the years

McKinsey & Company

Brand perceptions on traditional versus technological attributes

How did consumer perceptions toward different brands change? The progress Chinese auto brands have made in product quality, energy consumption, intelligence, and electrification in recent years is a critical factor in market recognition. To demonstrate this, we listed several brand attributes (including traditional evaluation dimensions such as vehicle quality, energy consumption, and safety, as well as emerging technological dimensions such as smartification and electrification) and recorded the brands that can be associated with such attributes as perceived by respondents:

— In traditional evaluation dimensions such as energy consumption, comfort, driving experience, safety, and vehicle quality, multiple Chinese brands rank among the top ten in each category (Exhibit 22). This marks significant progress from four years ago.

Exhibit 22

Consumers perceive Chinese brands to be leaders on traditional dimensions such as energy efficiency and comfort.

Country of origin, top 10 brands in traditional dimensions % of respondents											Number of Chinese brands in top 10	
											2024	2020
Energy efficiency	China	South Korea	Japan	China	Japan	Japan	China	China	China	China	6	0
Comfort	UK	China	China	China	China	US	China	China	Japan	Germany	6	2
Driving pleasure	Germany	China	Italy	Sweden	UK	China	Germany	UK	Germany	Germany	2	2
Safety	Sweden	UK	Germany	China	Germany	China	China	UK	UK	China	4	1
Quality	Germany	Sweden	China	China	Germany	UK	UK	China	Italy	China	4	1

Source: McKinsey China Auto Consumer Survey 2025

McKinsey & Company

— In technology intensity attributes such as "EV powertrain technology," autonomous driving, and smart-cockpit technology, Chinese OEMs account for most of the top-ranking brands compared with traditional multinational OEMs (Exhibit 23).

We then focused on premium German brands and several top premium EV brands (including a US brand and some top Chinese premium brands), calculated the average score of the brands in this group in key dimensions, and measured the gap between brands and the average (Exhibit 24).

— Premium German brands' advantage in traditional dimensions is as obvious as their disadvantage in emerging technological dimensions.

— Emerging premium EV brands have different evaluation results on traditional dimensions, though no overwhelming disadvantage has emerged. In safety, exterior, comfort, and vehicle quality, some emerging premium EV brands already have received similar evaluation results as premium German brands.

— Emerging premium EV brands have a significant advantage in the emerging technological dimensions, sharply contrasting with the performance of premium German brands.

Exhibit 23

On tech-savvy dimensions, Chinese brands are clearly recognized as market leaders over traditional multinational brands.

Country of origin, top 10 brands by technology dimensions % of respondents											Number of Chinese brands in top 10
Advanced electric-vehicle powertrain	US	China	China	China	China	China	China	China	China	China	**9**
Autonomous driving	US	China	China	China	China	China	China	China	China	Germany	**8**
Smart cockpit	China	China	US	China	China	China	China	Italy	China	China	**8**

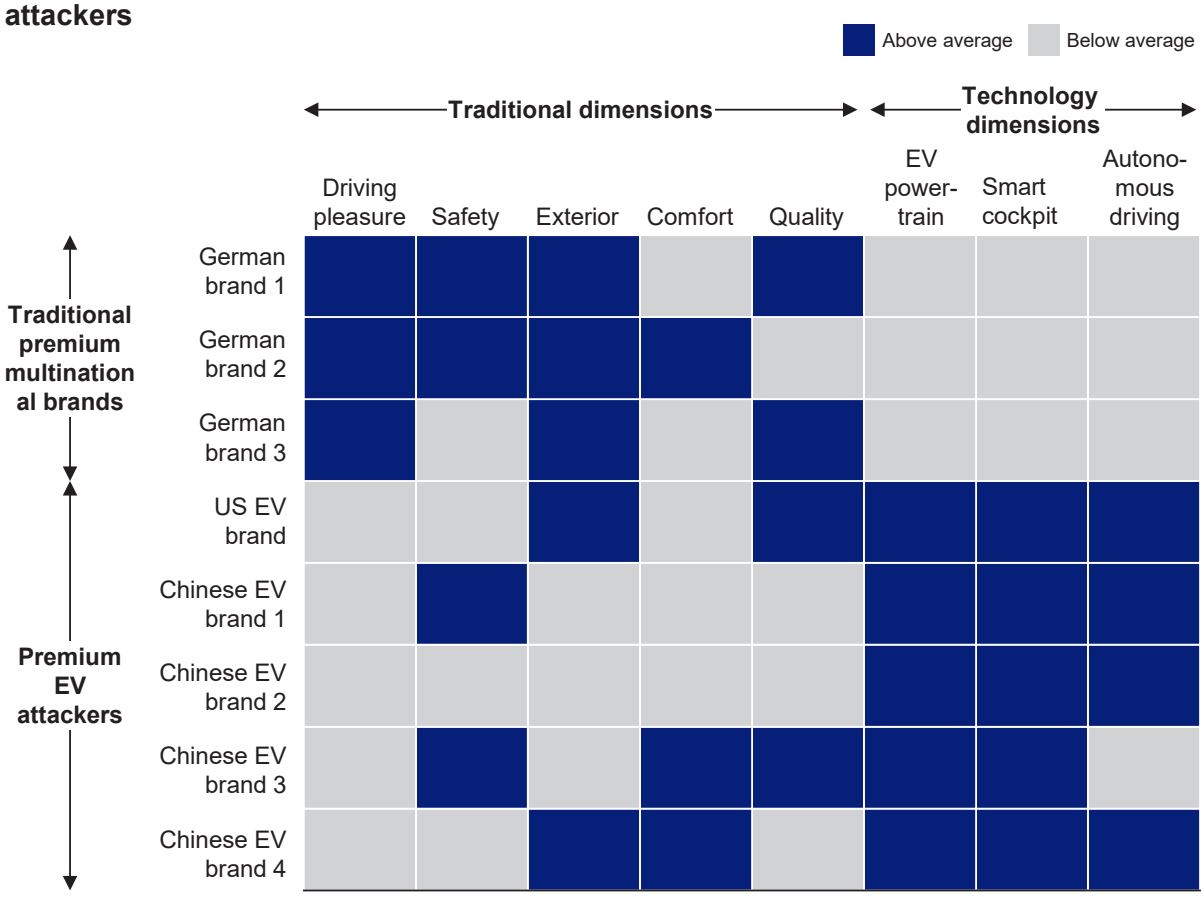
Source: McKinsey China Auto Consumer Survey 2025

McKinsey & Company

Exhibit 24

Traditional premium brands lead in perceptions of traditional dimensions, but electric-vehicle attackers are catching up.

Brand image score, 3 major premium German brands vs premium electric vehicle (EV) attackers



Source: McKinsey China Auto Consumer Survey 2025

McKinsey & Company


charging
85%
Start
Stop
Payment 12$
Charging time 33 m

Plug-in hybrid and extended-range technologies have become mainstream in the electrification trend

Key insights:

— A growing number of battery electric vehicle (BEV) owners, dissatisfied with charging inconveniences, are reverting to ICEs.

— Meanwhile, PHEVs and EREVs are steadily gaining popularity, offering consumers the convenience of easy refueling and a practical solution to range anxiety.

— The rise of PHEVs and EREVs created a window of opportunity for the development and optimization of public charging infrastructure.

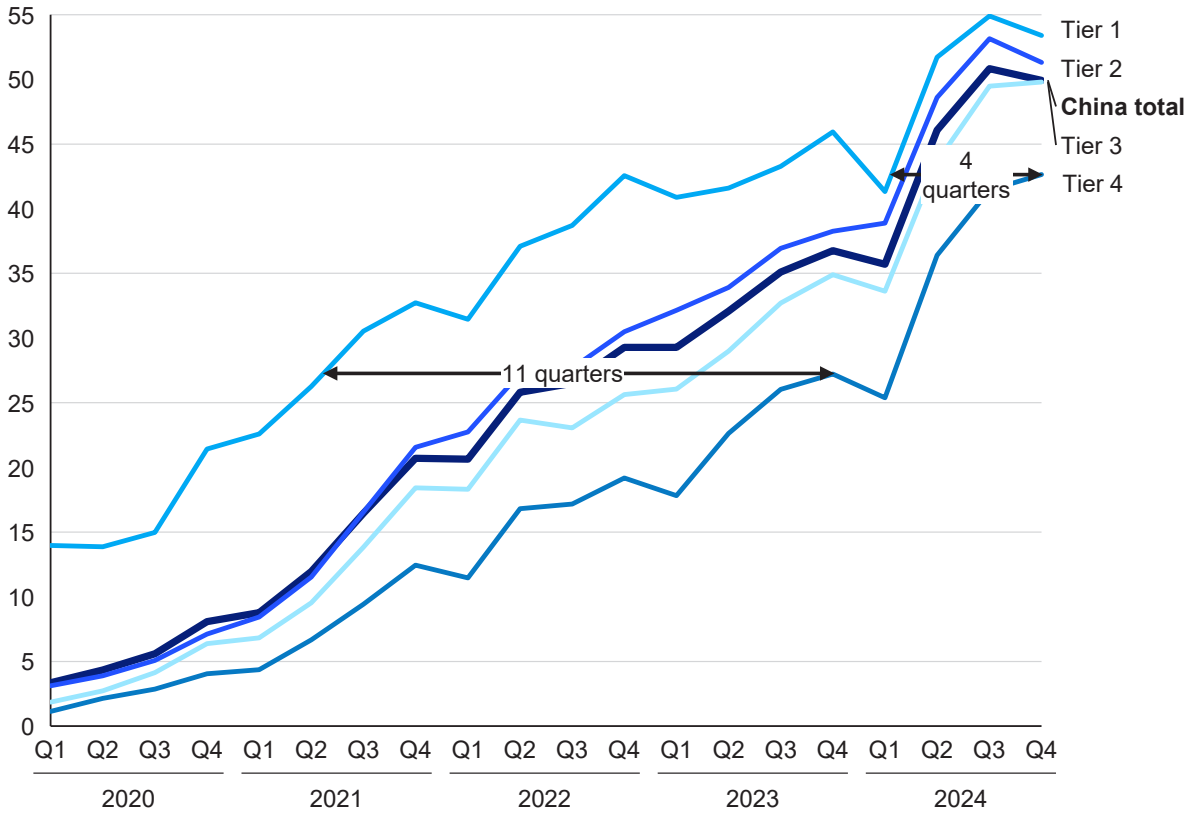
EV penetration sustained robust growth in 2024, building on its 2023 high of 33.7 percent, with soaring penetration observed not only in tier-one and tier-two cities but also across tier-three and tier-four cities (Exhibit 25). Particularly striking is that the gap in EV penetration between lower- and higher-tier cities is narrowing significantly—from a lag of 11 quarters to just four quarters.

An essential reason for the continuous increase of the already high EV penetration is that consumers prefer the user experience of EVs. In almost all comparable dimensions, we found that the user experience of EV owners is better than those of ICE-vehicle owners, which sets a solid foundation for the further increase of EV penetration (Exhibit 26).

Exhibit 25

Electric-vehicle penetration in China has increased across city tiers, and the penetration gap between tier-one and tier-four cities has narrowed significantly.

Electric-vehicle penetration in China by city tier, %

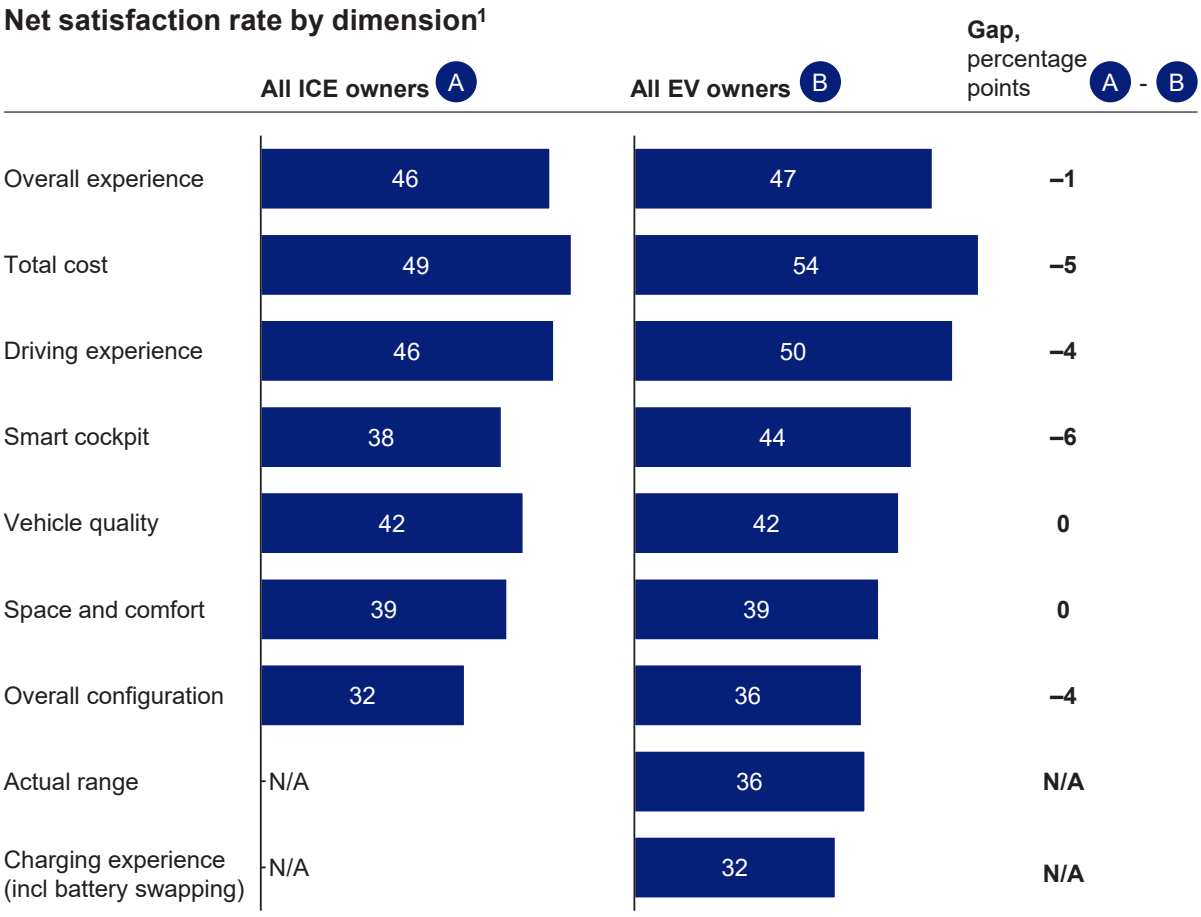


Source: China New Car Insurance Registration Database

McKinsey & Company

Exhibit 26

Electric-vehicle owners continue to be more satisfied than owners of vehicles with internal combustion engines.



Note: ICE is internal combustion engine; EV is electric vehicle.

1. Net satisfaction rate = % of respondents giving ≥9 points minus % of respondents giving ≤2 points; on a scale of 1 to 10 with 10 being most satisfied and 1 least satisfied; inapplicable data excluded.

Source: McKinsey China Auto Consumer Survey 2025

McKinsey & Company

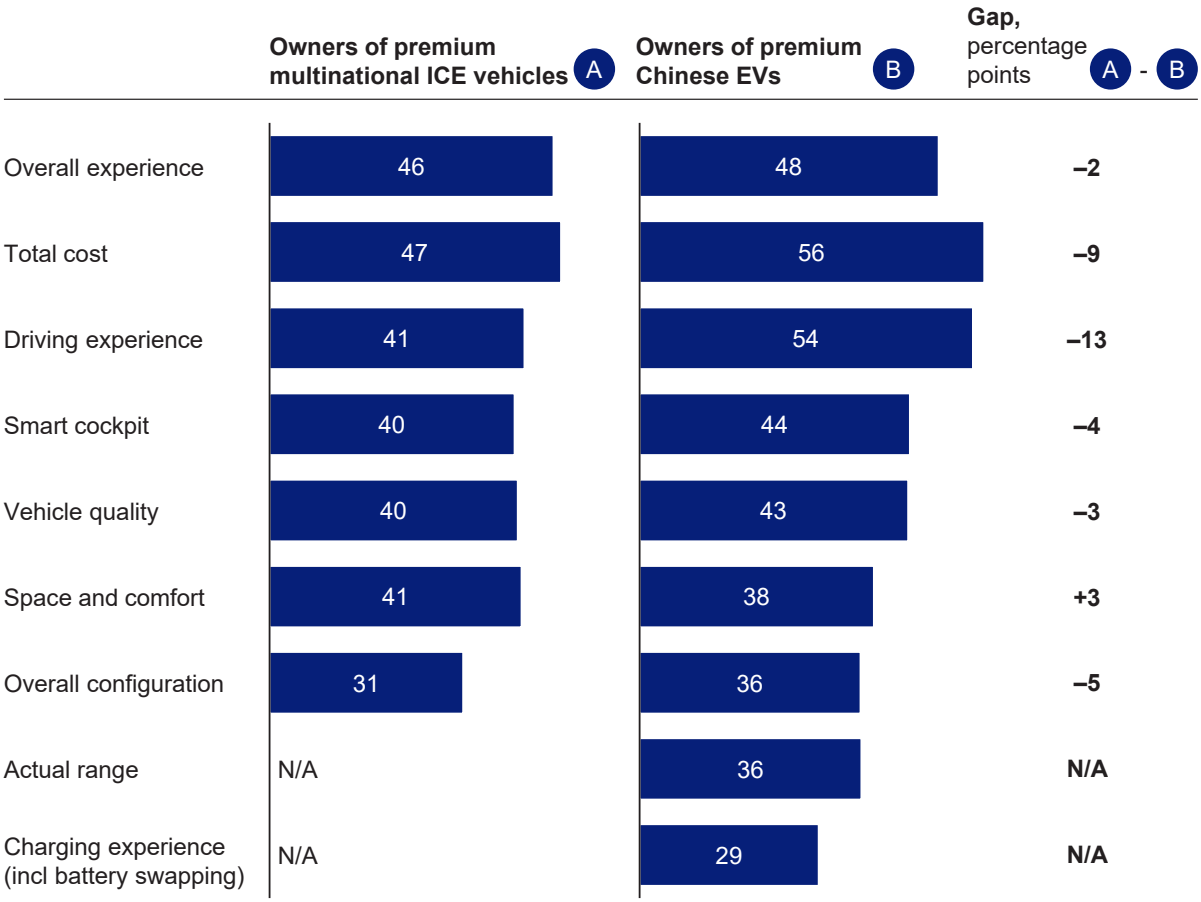
Meanwhile, our survey found that user satisfaction with Chinese premium EV brands is higher than that of multinational premium ICE brands in most dimensions of vehicle experience (Exhibit 27).

The variance in user satisfaction between the two groups is also reflected in net recommendation rate (Exhibit 28). Specifically, the customer net recommendation score of multinational premium ICE brands dropped from 35 percent in 2023 to 31 percent in 2024, while the score of Chinese premium EV brands remained at the higher base of 45 percent.

Exhibit 27

Owners of premium Chinese electric vehicles are more satisfied than owners of premium multinational traditional cars.

Net satisfaction rate by dimensions[1]



Note: ICE is internal combustion engine; EV is electric vehicle.

1. Net satisfaction rate = % of respondents giving ≥9 points minus % of respondents giving ≤2 points; on a scale of 1 to 10 with 10 being most satisfied and 1 least satisfied; inapplicable data excluded.

Source: McKinsey China Auto Consumer Survey 2025

McKinsey & Company

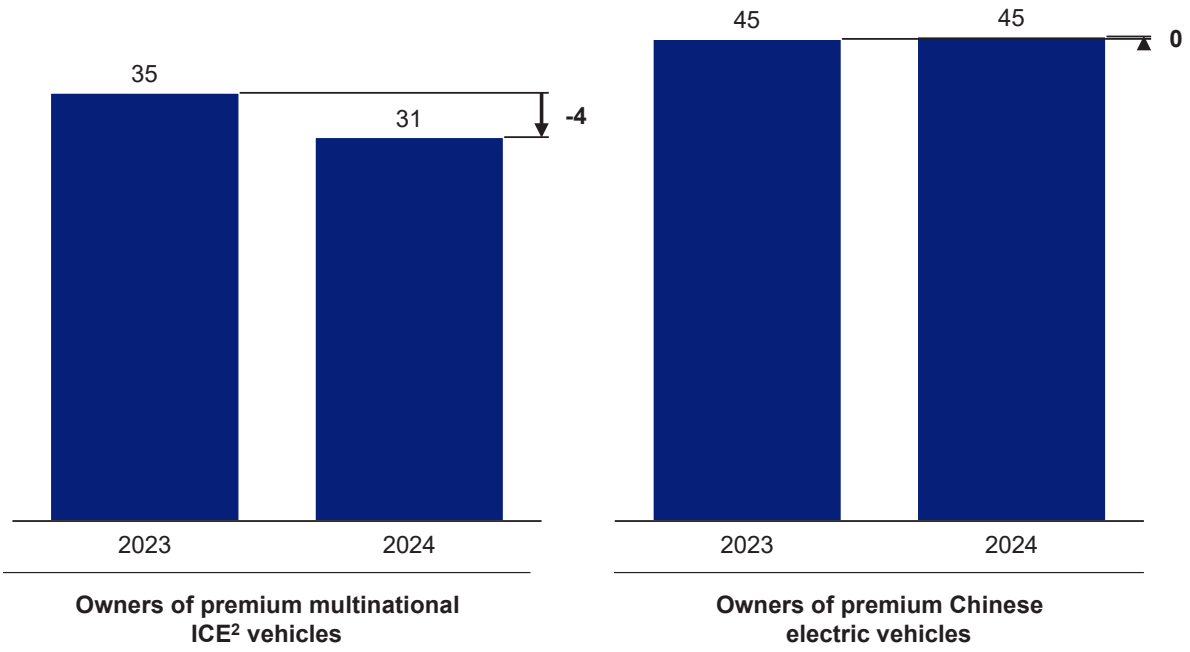
Exhibit 28

Owners of premium Chinese electric vehicles are more satisfied and therefore more willing to recommend their brand.

Question: Are you willing to recommend your current brand to others?

Consumer willingness to recommend current car brand to others, % of respondents

Brand net recommendation score by group[1]



1. Score = % of respondents giving ≥9 points minus % of respondents giving ≤2 points; on a scale of 1 to 10 with 10 being most willing to recommend and 1 least willing to recommend.
2. Internal combustion engine.

Source: McKinsey China Auto Consumer Survey across the years

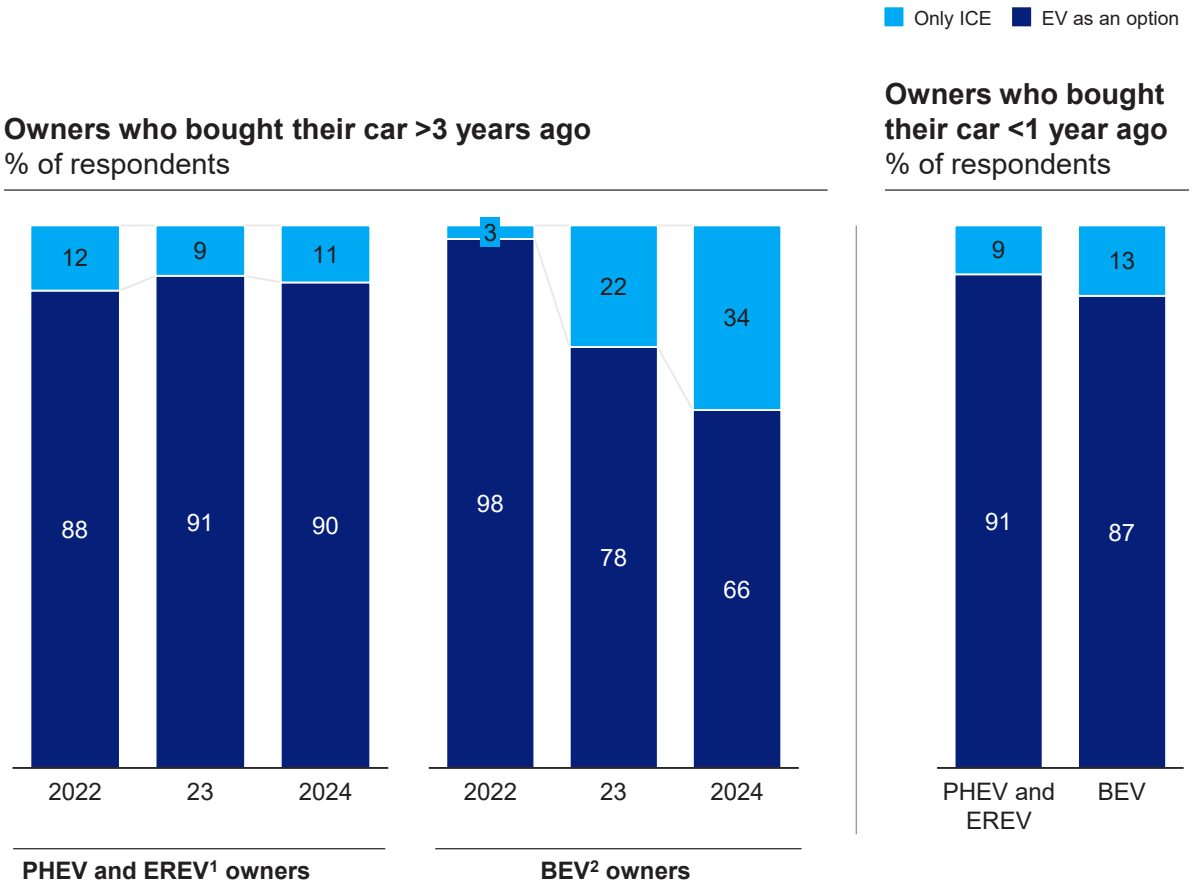
McKinsey & Company

While EV owners have relatively higher satisfaction rates, not all of them are entirely satisfied. The "regret rate" of PHEV and EREV owners (that is, those who indicated they would revert to ICEs for their next car purchase) accounts for only about 10 percent, both for owners who have had their cars for more than three years and for those with ownership of less than a year (Exhibit 29). The regret rate among BEV owners is higher, rising to 32 percent in 2024 from 22 percent in 2023 for BEV owners who bought their cars more than three years ago. Even BEV owners who purchased their car in the past year have a regret rate of nearly 13 percent.

Exhibit 29

Owners of plug-in hybrid electric vehicles and extended-range electric vehicles are less likely to experience regret over their purchase.

Powertrain preference for next car purchase, by type of car owner



1. Plug-in hybrid electric vehicles and extended-range electric vehicles.
2. Battery electric vehicles.

Source: McKinsey China Auto Consumer Survey across the years

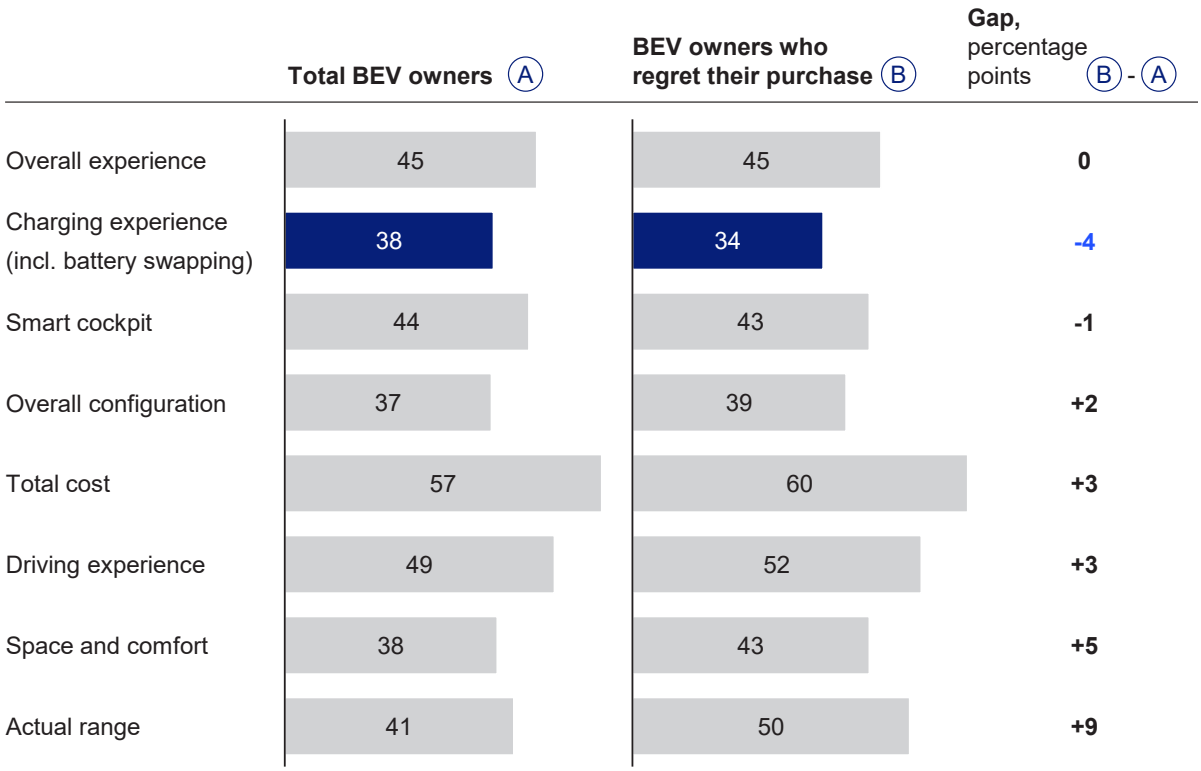
McKinsey & Company

After analyzing the satisfaction rates of BEV owners who have owned their car for more than three years, we found that the largest satisfaction gap between BEV owners with regrets and all BEV owners is with the refueling experience (Exhibit 30), which highlights the fundamental reason why some BEV owners have regrets.

Exhibit 30

BEV regreters' low satisfaction on charging experience is leading to their mindset shift to ICE for the next car purchase.

Net satisfaction rate of battery electric vehicle (BEV) owners who bought their car 3 years ago[1]



1. Net satisfaction rate = % of respondents giving ≥9 points minus % of respondents giving ≤2 points; on a scale of 1 to 10 with 10 being most satisfied and 1 least satisfied; inapplicable data excluded.

Source: McKinsey China Auto Consumer Survey 2025

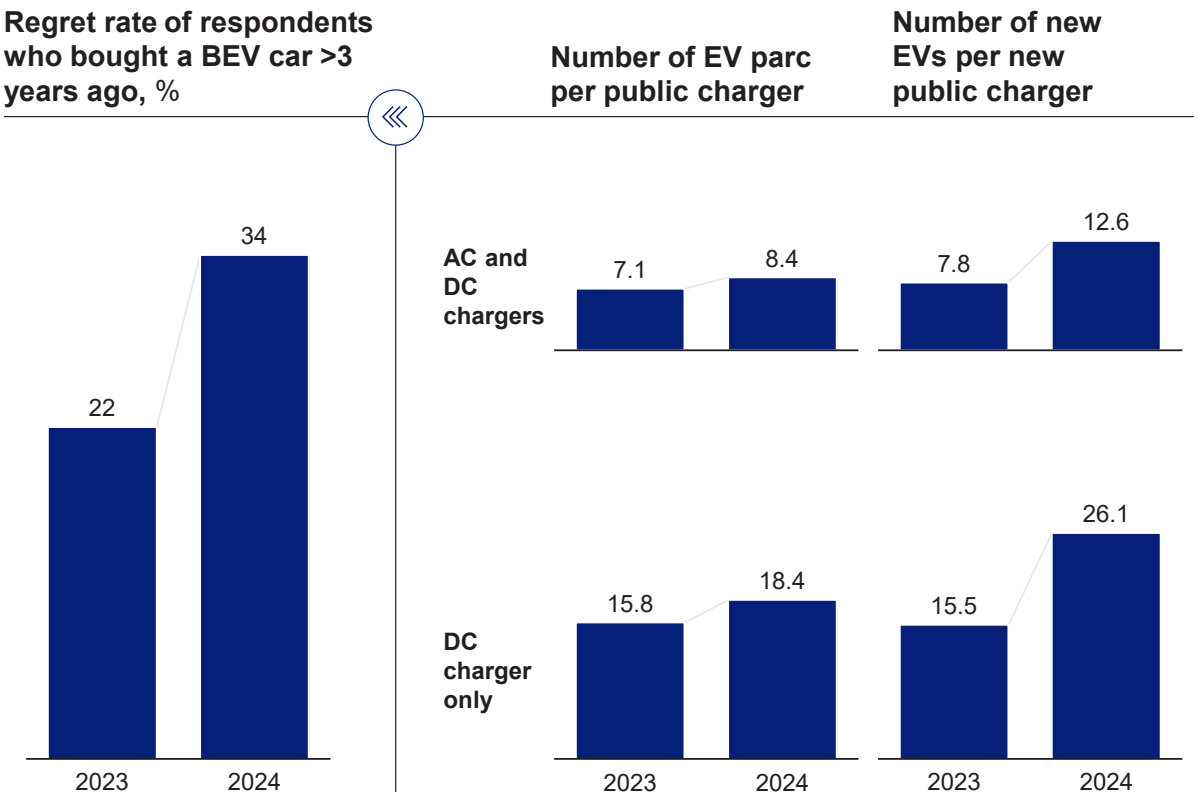
McKinsey & Company

BEV owners' dissatisfaction with the refueling experience is reflected in variances in the vehicle-to-pile ratio (Exhibit 31): China's vehicle-to-pole ratio (AC+DC) increased from 7.1:1 in 2023 to 8.4:1 in 2024, based on public charging pile (AC+DC)[2] and cumulative EV parc; looking at new public charging piles and 2023–24 annual EV sales, the new vehicle-to-pole ratio increased from 7.8:1 in 2023 to 12.6:1 in 2024. The vehicle-to-pole ratio for public DC charging piles has exhibited a comparable deterioration trend. Clearly, the (relative) tightening supply of public charging piles has led to a deterioration in the refueling experience, which in turn has caused an increase in the regret rate among BEV owners. This also sets higher requirements for the development of a refueling network in the coming period.

2 AC charging in China is typically seven kilowatts (kW), while DC chargers work at a much higher charging power, usually above 50 kW and some up to 500 kW.

Exhibit 31

Worsening electric-vehicle charging conditions have increased dissatisfaction among owners of battery electric vehicles.



Note: BEV is battery electric vehicle; EV is electric vehicle.
Source: McKinsey China Auto Consumer Survey across the years; EVCIPA

McKinsey & Company

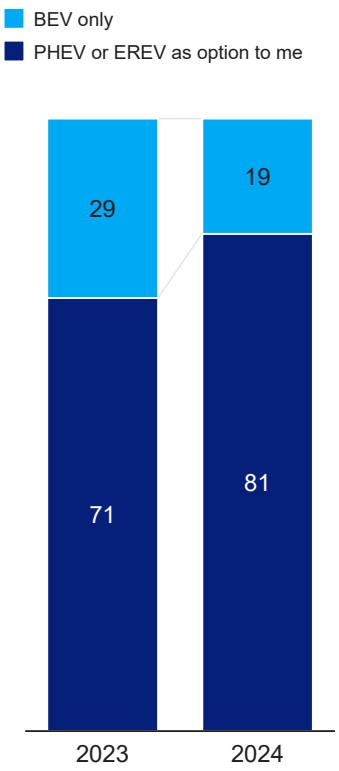
Amid rising regret rates among BEV owners, PHEVs and EREVs have demonstrated robust sales performance and growing consumer preference. A majority of potential EV buyers in our survey included PHEVs and EREVs in their consideration sets, rising from 71 percent in 2023 to 81 percent in 2024 (Exhibit 32).

We further surveyed existing and potential buyers to investigate their motivations for considering PHEVs or EREVs. Factors related to charging and range—such as "PHEV/EREV pure-electric range being sufficient for daily commutes" and "range anxiety during long-distance travel"—and pricing or cost factors such as "narrowing price gap between PHEV/EREV and ICEs" and "low residual value of BEVs" are key drivers of consumer preference for PHEVs and EREVs.

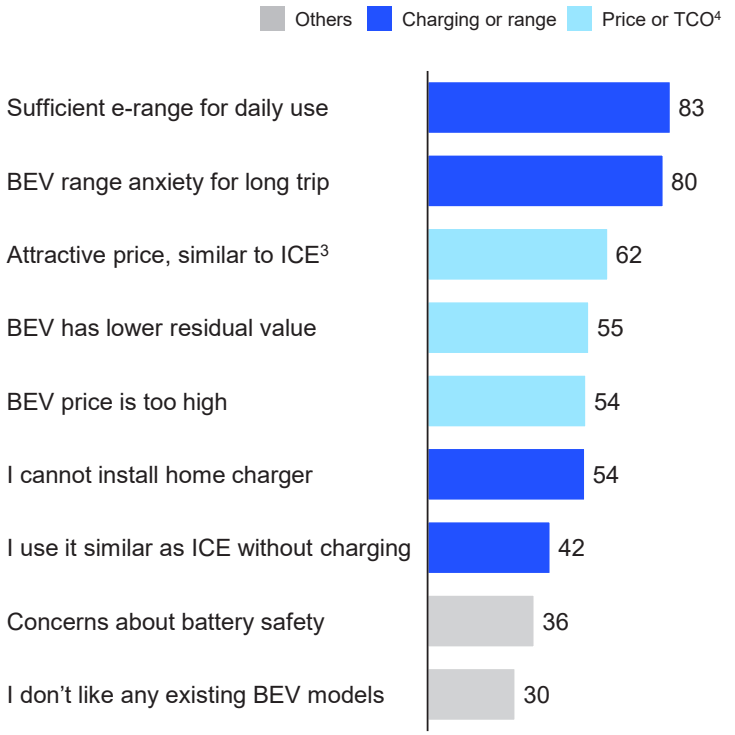
Exhibit 32

Increasing acceptance of plug-in hybrids and extended-range electric vehicles is based mainly on range and refueling advantages.

Powertrain considered
% of respondents considering electric vehicle (EV)



Reasons for preferring PHEV or EREV vs BEV[1]
% of respondents[2]



1. Plug-in hybrid electric vehicle, extended-range electric vehicle, and battery electric vehicle.
2. Consumers who either currently own a PHEV or EREV car or are considering buying one.
3. Internal combustion engine.
4. Total cost of ownership.

Source: McKinsey China Auto Consumer Survey across the years

McKinsey & Company

PHEV and EREV owners are widely perceived as preferring fuel-powered mode for daily use, with extremely limited use of pure-electric mode. We surveyed these owners regarding the approximate proportion of their total range driven in pure-electric mode (Exhibit 33). The results indicate that pure-electric mode accounts for about 50 percent of the travel range for PHEV and EREV owners—far higher than the proportion of electric-only range in these vehicles' total range (approximately 20 percent). This not only demonstrates that PHEV and EREV owners have a strong preference for pure-electric mode but also addresses skepticism about how "vehicles with fuel tanks" can contribute to emission reduction.

PHEV and EREV owners' preference for pure electric mode is also reflected in their refueling habits: Nearly 50 percent of owners said they "prefer charging," while only about 2 percent said they "never charge."

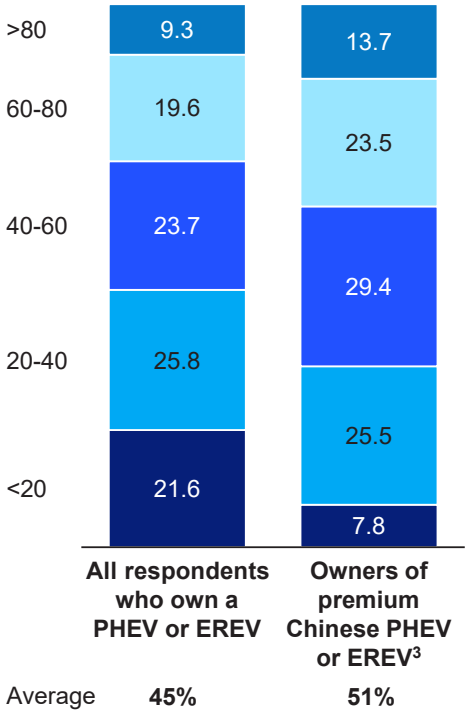
Exhibit 33

Owners of plug-in hybrid and extended-range electric vehicles treat their cars as if they were battery electric vehicles.

Miles driven in EV mode

% of respondents who own a PHEV or EREV[1]

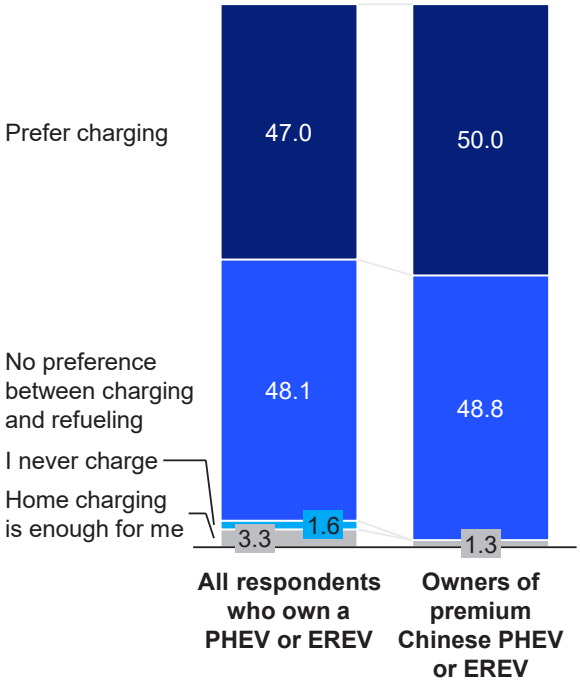
Question: How much do you drive in EV mode as an approximate percentage of total miles driven?



Charging behavior

% of respondents who own a PHEV or EREV[2]

Question: Which of the following matches your charging behavior when you use a public charger?



Note: EV is electric vehicle; PHEV is plug-in hybrid electric vehicle; EREV is extended-range electric vehicle. Figures may not sum to 100%, because of rounding.

Source: McKinsey China Auto Consumer Survey 2025

McKinsey & Company

The observed anomalies among BEV owners are unlikely to derail China's momentum in the electrification transition. Public charging infrastructure is highly likely to encounter transitional supply shortages, especially during peak hours and holidays, because of the rapid growth of the EV parc. PHEVs and EREVs have gained popularity among some segments because of their unique advantages. The rise of PHEVs and EREVs has created a window of opportunity for the development and optimization of public charging infrastructure.

Technology democratization empowers better user experience

Key insights:

— Significant progress has been made in the popularity and consumer perception of autonomous driving. According to the survey, respondents had higher awareness of AD features, AD satisfaction, and desire for more sophisticated AD features compared with previous years.

— Other than advanced AD, consumer demand continues to rise quickly for high-tech specifications such as long e-range and fast charging capabilities. Even buyers of medium- and low-priced vehicles demonstrate significant interest in these features.

— At the same time, sophisticated interior design combined with quality chassis and other technical specifications are expected to become crucial differentiators for OEMs in market competition

In 2024, China's automotive sector saw significant advancement of AD technologies. More and more new car models launched by leading Chinese OEMs have AD features that allow vehicles to drive autonomously in urbans areas with heavy traffic.

This technological advancement, coupled with the subsequent market penetration of AD, has improved consumer understanding of autonomous driving. (Exhibit 34). Survey data reveals a marked increase in respondents' exposure to AD features, AD satisfaction, and desire for more sophisticated AD features than in previous years. These developments collectively lay a good foundation for the next stage of "tech democratization."

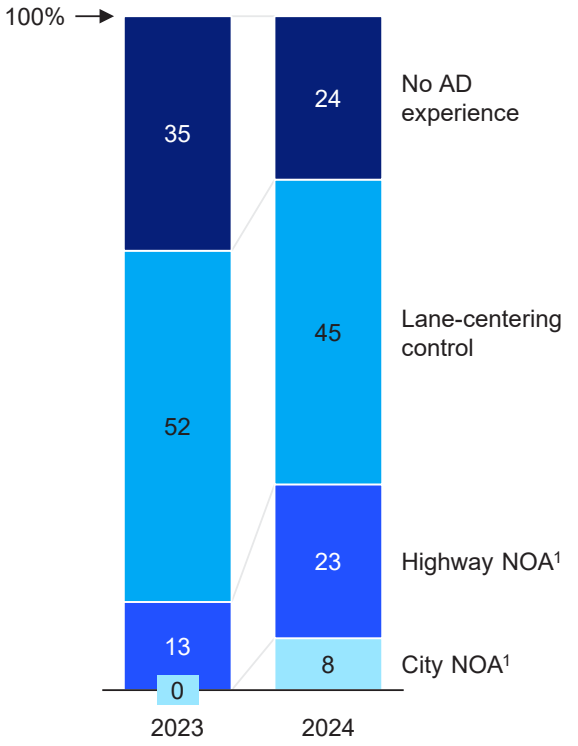
Meanwhile, broader adoption of AD in China will depend on OEMs' ability to communicate the technology's capabilities and educate consumers to ensure that these features are used safely and effectively within current technical limitations.

Exhibit 34

Consumer perceptions of autonomous driving have improved across all comparable dimensions.

Exposure to autonomous driving (AD)
% of respondents

Question: Which AD features have you used?



Satisfied with AD
% of respondents

Question: Are you satisfied with the AD feature(s) that you have used?

	2023	2024
No AD experience	N/A	N/A
Lane-centering control	45%	54%
Highway NOA[1]	66%	68%
City NOA[1]	N/A	46%

Want to upgrade AD
% of respondents

Question: Do you want to upgrade to a higher grade of AD?

	2023	2024
No AD experience	47%	62%
Lane-centering control	19%	31%
Highway NOA[1]	40%	51%
City NOA[1]	N/A	33%[2]

1. Navigation on autopilot.
2. Upgrade to L3/L4-capable private cars.

Source: McKinsey China Auto Consumer Survey across the years

McKinsey & Company

Chinese EV buyers have an expanding array of configuration options, even for vehicles with affordable prices. Alongside advanced driver-assistance systems and smart cabin supported by an AI assistant, choices include extended range, ultrafast charging, and comfort-focused amenities such as multiple displays and zero-gravity seats. For enhanced driving dynamics, premium options now include air suspension systems and rear-wheel-steering technology. These many options raise critical questions: Which features are the nonnegotiable "must-haves" for consumers, and which capabilities are the key differentiators in product competitiveness? Our survey addresses these critical considerations.

The results (Exhibit 35) show strong demand for long e-range, fast charging, and AD—features now perceived as indispensable even among price-conscious buyers across vehicle segments. This suggests that the presence or absence of such features is a "veto" item that has a direct impact on consumers' decision to purchase a car.

Comfort amenities (such as multiple displays and zero-gravity seats) and driving experience enhancements (such as air springs and rear-wheel steering) are increasingly becoming key product differentiators. As vehicle prices rise, consumer demand for these premium features has grown significantly. Notably, the share of buyers willing to pay extra (beyond MSRP) for such upgrades continues to expand. This trend suggests that OEMs can strategically position these features across different price ranges for differentiation.

The research also reveals limited consumer recognition of AI smart-cockpit assistants. Adoption of this innovation has been restricted to only a select group of OEMs because of its complexity, and most consumers remain unfamiliar with the AI voice assistant and its revolutionary impact on in-vehicle experiences. Without direct engagement, potential buyers have trouble understanding the benefits of such technology. However, the growing popularity of open-source large language models (LLMs) is likely to make this technology much easier to develop. Leading automakers are poised to pioneer the integration of AD and smart-cockpit technologies, making smart cockpits a central market focus.

With the growing adoption of AD, vehicles are transitioning from mere transportation tools to personalized "second living spaces." To support this evolution, development of both the software and hardware underpinning smart cockpits will accelerate. Practical real-world applications are emerging through voice-command scenarios such as: "Hey car, slow down please," or "Hey car, stop at the coffee shop after the next two traffic lights." These scenario-driven intelligent interactions are expected to become a key competitive differentiator for OEMs in China in the near future.

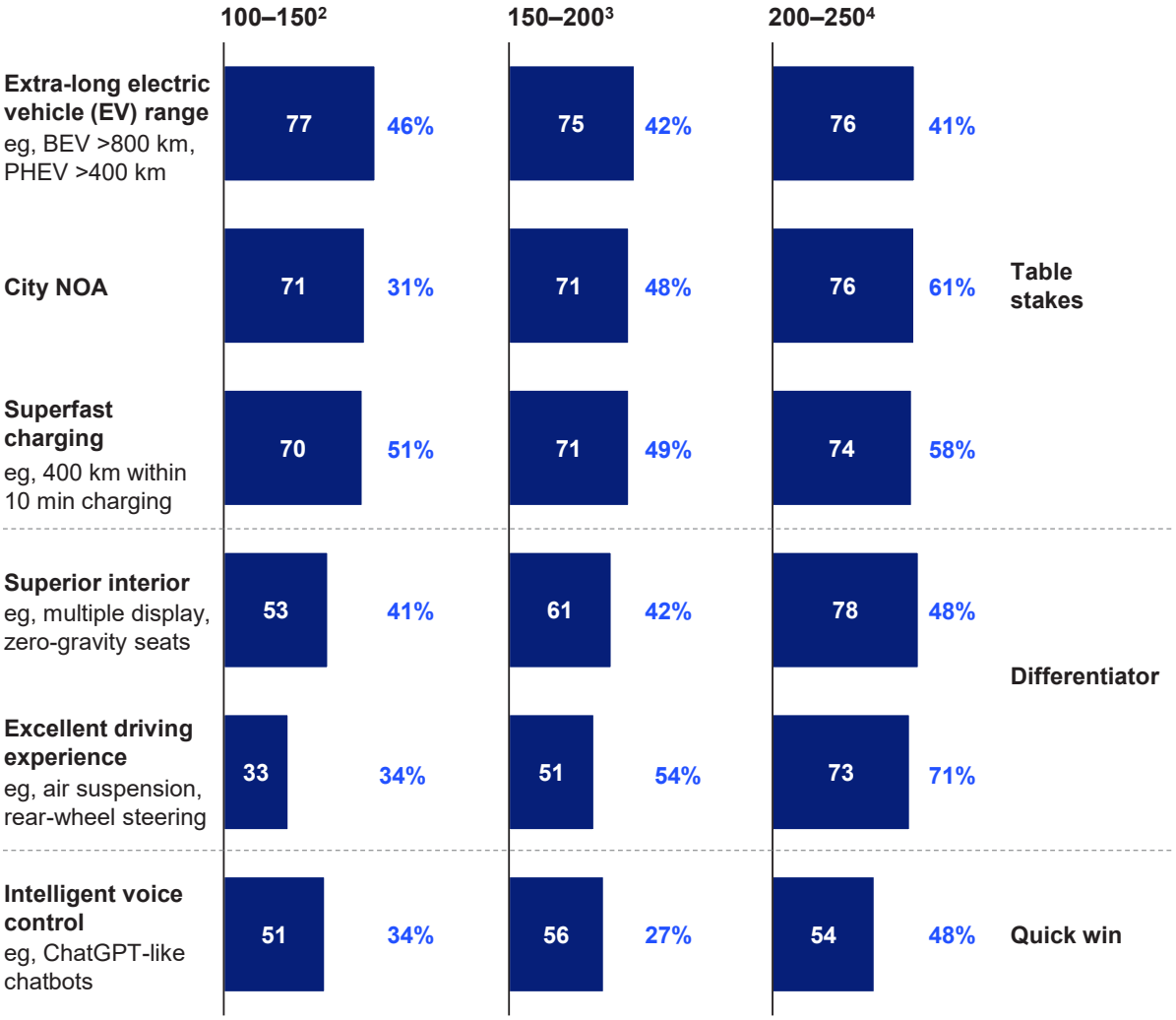
Exhibit 35

Consumers see long e-range, fast charging, and autonomous driving as indispensable features across price ranges.

Question: For an EV in a given price range, which feature is indispensable to you?

xx% Willingness to pay additional price for "must-haves" EV features

'Must-have' features by price range,
% of respondents[1]; vehicle price ranges in RMB thousand



1. Incl recent EV buyers and respondents who are considering buying an EV.
2. Incl recent EV buyers and respondents who are considering buying an EV with monthly household income <24,000 RMB.
3. Incl recent buyers of EV and respondents who are considering buying an EV with monthly household income of 24,000–36,000 RMB.
4. Incl recent buyers of EV and respondents who are considering buying an EV with monthly household income >36,000 RMB.

Source: McKinsey China Auto Consumer Survey 2025

McKinsey & Company

Conclusion

Through more than a decade of continuous observation and annual consumer surveys, we have seen several interesting dynamics in the Chinese automotive market:

Branding versus pragmatism
At one time, roaring automobile assembly lines created a series of golden brands in the industry—the successes of which are sometimes associated with German precision, Japanese craftsmanship, American boldness, and French elegance. These shimmering brands became the automotive gospel, transforming steel-and-rubber products into symbols of social status.

Yet technological progress has started to supersede brand recognition. Chinese automakers have deployed "blade batteries" to eliminate spontaneous combustion of batteries, implemented a "5C battery + 800V high-voltage platform" to alleviate range anxiety, created quad-motor systems to make cars amphibious, and developed "E2E AD + VLM"[3] to navigate complex urban roads. And Chinese EVs now compete with foreign supercars on professional racetracks at a fraction of the cost.

Price downgrade versus value upgrade
As the buzz over brands gradually fades, debates intensify over whether China's auto market is undergoing consumption "downgrading" or "upgrading." We believe that consumers are transitioning from price-based to value-based stratification. On the one hand, consumers demonstrate a growing appetite for breakthrough technologies; on the other, they remain acutely price sensitive. This apparent paradox reveals shifting evaluation criteria for cars: Traditional classification by brand, engine displacement, and vehicle size is being replaced by value metrics emphasizing electric systems (battery, motor, and electronic control), autonomous driving capabilities, and energy efficiency. The coexistence of "downgrading" on price and "upgrading" in technological adoption not only reflects consumers' relentless pursuit of premium mobility experiences but also showcases the comprehensive capabilities of China's automotive supply chain.

BEV versus PHEV and EREV
While global EV adoption faces short-term bottlenecks, China's EV penetration rate continues to rise, largely as a result of the strategic deployment of PHEVs and EREVs featuring large-capacity batteries. While BEVs encounter temporary constraints in the deployment of public charging infrastructure, PHEVs and EREVs successfully bridge the gap through their dual-energy architecture. This not only wins consumers' hearts but also sustains China's competitive edge in global EV competition. Notably, car owners' preference for pure-electric mode brings into play the carbon-reducing advantages of PHEVs and EREVs. To a certain extent, this addresses skepticism about whether fuel-assisted vehicles qualify as genuine EVs. It injects new vitality into China's EV industrialization while buying critical time for the gradual improvement and optimization of public charging networks.

Technological democratization versus personalization and differentiation
Technological democratization is an indisputable reality in China's auto market, inevitably sparking debates about product homogeneity as more and more new car models look very

[3] End-to-end AD technology plus vision language model.

similar at first glance. We believe that this perceived homogeneity should be reinterpreted as a necessary phase for incubating differentiated products. Yet democratization doesn't necessarily erase product differentiation. A vehicle purchase represents a household's second-largest expenditure after housing, creating inherent consumer demand for personalization. The only way to stand out in the game of product personalization is to closely align products with user scenarios and create the most suitable user experience based on those scenarios. The ability to offer differentiated excellence will separate competent automakers from exceptional ones in the coming years.

These four market dynamics outline China's automotive landscape while mirroring consumers' relentless pursuit of value optimization. The preference for better but affordable vehicles isn't exclusive to China but follows universal consumer logic: Just as smartphones globally replaced feature phones, intelligent EVs won't remain in China alone. The success of PHEVs and EREVs will be replicated elsewhere during charging infrastructure transitions.

As the industry accelerates toward 2030, consumer-centric products and strategies will determine which brands survive. China's market evolution can provide a model for the whole industry, with its automotive narrative unfolding globally at varying paces in different formats. For OEMs, the winning formula is to combine a globalized platform with localized scenarios, because there's no one-size-fits-all solution in the smart-EV era—except fitting all sizes through smart engineering.

Mingyu Guan is a senior partner in McKinsey's Beijing office; **Daniel Birke** is a partner in the Beijing office; **Thomas Fang** is a partner in the Shanghai office, where **Tony Zhou** is an associate partner.

The authors wish to thank Alexander Will, Allen Zhuang, Cherie Zhang, Judy Xu, Ruiming Li, Ting Wu, Vivi Chen, and Yipeng Zhou for their contributions to this article.

McKinsey China Auto Consumer Insights 2025
September 2025

Designed by GC-Media

McKinsey.com