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KPMG

# Driven by Voltage: Navigating the EV landscape

—  
2024



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# Acknowledgement

Vietnam is emerging as a promising market for electric vehicles (EVs), with growing demand attracting substantial interest from both local and international EV manufacturers.

The Vietnamese EV market offers significant opportunities for future expansion, driven by increasing consumer awareness, younger customers' preferences, and favorable government policies supporting the transition to a green economy.

This comprehensive report aims to delve into consumer behavior related to purchasing EVs and offer automakers and stakeholders insights to help them navigate the market effectively.

The report was a collaborative effort between KPMG in Vietnam and [Chợ Tốt Xe](#). The KPMG

Customer & Operations Consulting team, including Vu Anh Kha, Nguyen Thu Thuy, designed the survey, analyzed the data, and derived key findings. Chợ Tốt Xe, with Huynh Thi Phuong Uyen, Ho Vu Thanh Thao, launched the consumer survey and facilitated connections to gather insights from EV sellers.

The KPMG Markets Group, including Tran Trung Nguyen and Nguyen Hoang Khang, contributed to the design and formatting. Nguyen Tuan Hong Phuc, Luke Treloar, Tran Thanh Tam, Nguyen Thi Thu Tam, Ha Thi My Linh from KPMG in Vietnam and Nguyen Trong Tan, Trieu Khac Thiep from Chợ Tốt Xe conducted peer review of the report.

# Foreword

For more than a century, the automotive industry has been dominated by one constant force: the internal combustion engine (ICE). In recent years, significant investments have come from automotive startups, established automakers, suppliers, and even tech companies, all betting on a new powertrain king: the battery electric vehicle (BEV). Recognizing this trend, KPMG has issued the Annual Global Automotive Executive Survey <sup>(1)</sup> to gain insights into how executive sentiment is changing, along with the concerns and challenges that make global automotive leaders more cautious, providing implications for auto executives.

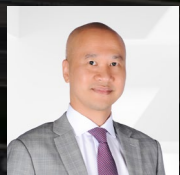
Vietnam is no exception. The market is also set to witness significant growth in the coming years, driven by active investments from domestic and global manufacturers. In 2024, total EV sales are projected to expand by 35% year-over-year, reaching annual sales of over 23,000 units - a 7.1% share of total vehicle sales. This upward trajectory is set to continue, with EV sales anticipated to reach 65,000 units by 2032, representing a compound annual growth rate of 26% (according to BMI Research). The market's dynamism is further enhanced by the presence of domestic players like VinFast and global giants such as Hyundai, Toyota, Kia, and BYD – a leading EV automotive companies in the market, offering consumers a myriad of choices.

In tandem with this burgeoning market, governmental initiatives are strategically steering the nation towards an electrified future, with focused incentives directed at EVs. Tax incentives for manufacturers and consumer cost reductions, complemented by the National Action Plan striving for 100% EV adoption by 2050, underscore Vietnam's commitment to fostering a sustainable automotive ecosystem.

However, amidst the promising trajectory, challenges persist, impeding the full realization of the EV's potential. To navigate these complexities and unlock the opportunities inherent in this dynamic landscape, comprehensive insights are imperative.

In this context, KPMG and Chợ Tốt Xe have undertaken a collaborative research initiative involving a comprehensive consumer survey of 1,106 participants across diverse demographic groups and in-depth interviews with six dealerships experienced in selling both ICE vehicles and full EVs. This effort aims to uncover deep insights into Vietnamese preferences and purchase triggers in the realm of EVs. Along with our Annual Global Automotive Executive report, this initiative seeks to provide automotive stakeholders with actionable intelligence, empowering them to make informed decisions and catalyze the next phase of Vietnam's automotive evolution.

(1) KPMG International, "[24<sup>th</sup> Annual Global Automotive Executive Survey - Getting real about the EV transition](#)" (2024)



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Head of Customer & Operations Consulting  
KPMG in Vietnam



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CEO  
Chợ Tốt



# Key takeaways



## The interest in EVs is undeniable

Despite being relatively new in Vietnam, electric vehicles have generated significant local interest, with about 70% of survey participants expressing a tendency to buy an EV (including full EVs and hybrid vehicles).



## Younger customers are more likely to own an EV

Participants from early Gen Z and Millennials (aged 25-44), with greater financial independence, are more receptive to new and emerging technologies such as full EVs or hybrid vehicles. In contrast, older generations and the youngest group tend to prefer traditional ICE vehicles.



## Charging station infrastructure is the main concern

The widespread availability of charging stations is crucial for potential EV buyers. Enhancing this infrastructure will significantly influence and potentially change the minds of those currently hesitant to buy EVs.



## Core product features reign supreme

Durability, performance, comfort/interior, and vehicle space are paramount considerations when purchasing a vehicle. Subsequently, financial factors and delivery time also come into play.



## Younger age group favors advanced features

Regarding desired EV features, power, range, and charging stations stand out as appealing factors; younger buyers show more interest in sustainability, technology, and insurance benefits.



## Transparent Return and Warranty policies, Pricing, and Cost of Ownership consultation

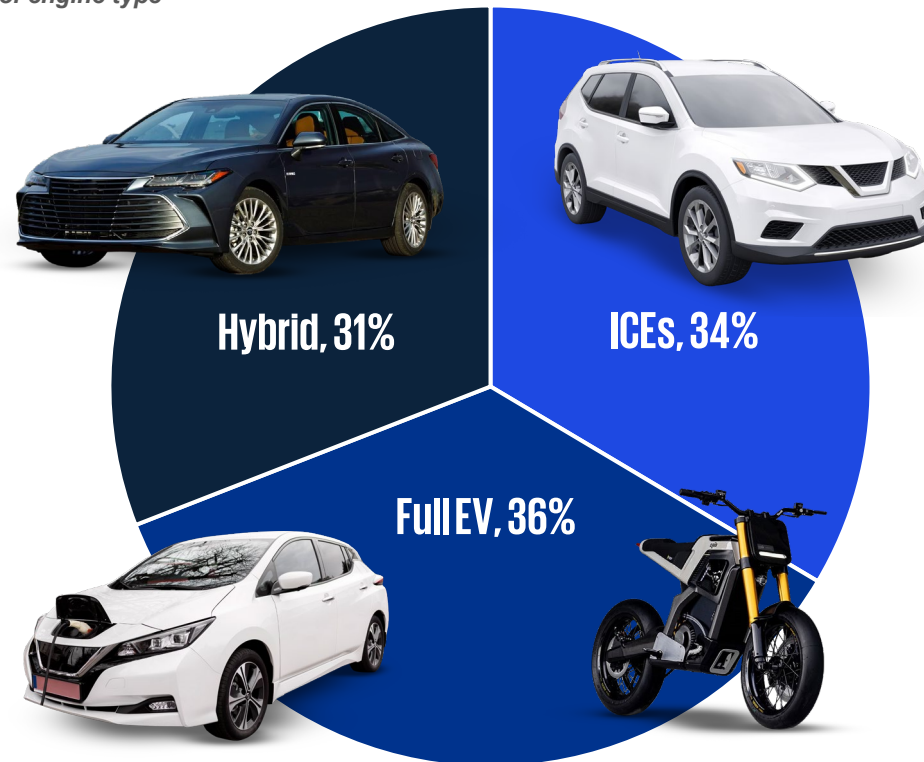
Key factors influencing customer purchasing decisions at dealerships, along with financial support factors specifically for 4-wheel buyers.

# Despite being relatively new in Vietnam, EVs have generated significant local interest

Approximately 36% of participants expressed interest in purchasing a full EV, and 31% preferred a hybrid vehicle. These figures are comparable to the 34% who favored traditional ICE vehicles, indicating a strong inclination towards EVs over conventional ones.

## Which type of vehicle will you choose to buy in the future?

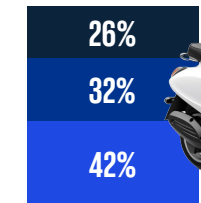
Share of engine type



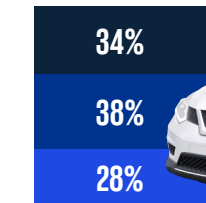
There are distinct preferences between 2-wheel and 4-wheel intenders. While both groups show interest in EVs, 2-wheel buyers lean more towards ICE engines, whereas 4-wheel buyers have a strong preference for electric and hybrid vehicles.

Share of engines by vehicle type

2-Wheel vehicle



4-Wheel vehicle



● ICEs ● Full EV ● Hybrid

- When it comes to 2-wheel vehicles, participants show more interest in ICEs with 42% of surveyed participants selecting them, compared to just 26% for hybrid vehicles. In contrast, 4-wheel buyers show greater interest in full EVs (38%) and hybrid vehicles (34%).
- This preference is also reflected globally in the swift response from automakers ramping up investments in hybrid vehicles alongside battery-powered EVs, as highlighted in the 24th Annual Global Automotive Executive Survey by KPMG. Most automakers developed hybrid EVs (HEVs) such as Toyota Corolla Cross, Yaris Cross, Innova Cross, Camry, Altis, Haval H6, and Nissan Kicks. While the international market offers a wide variety of PHEVs (Plug-in hybrid electric vehicles), the selection in Vietnam remains relatively limited. Notable models available include the Kia Sorento PHEV, Volvo XC90 Recharge, and Volvo XC60 Recharge.
- For 2-wheelers, there are currently very few commercially available hybrid motorbikes or scooters on the global market. In Vietnam, the selection includes some hybrid models, primarily HEVs, such as the Yamaha Grande, Yamaha Fazzio Hybrid, and Honda PCX Hybrid 160 E. This limited availability of hybrid 2-wheelers may explain the lower preference for hybrid technology in this segment, as hybrid technology has primarily been adopted in the 4-wheel passenger vehicle segment so far.

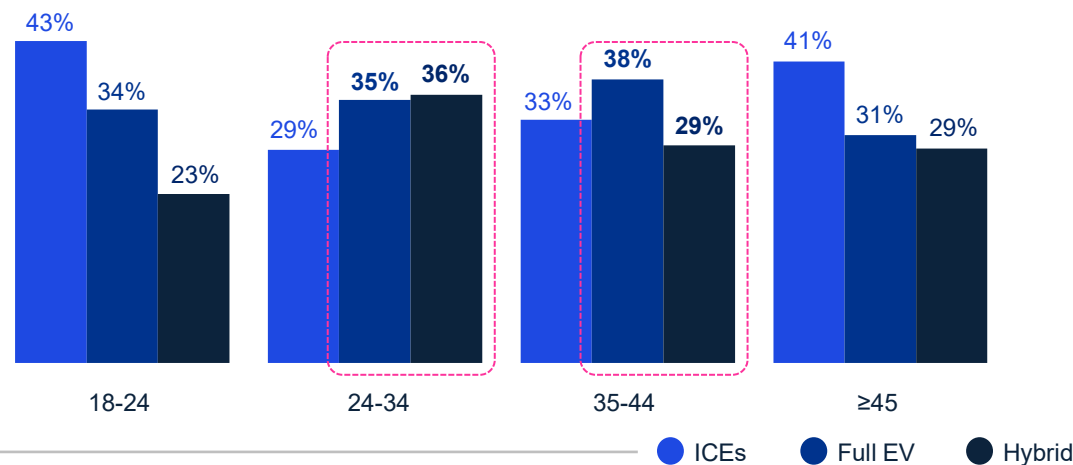
Source: 24<sup>th</sup> Annual Global Automotive Executive Survey by KPMG, VietnamPlus, Dantri.com

# Participants from early Gen Z and Millennials aged 25-44 express a marked preference for EV [1/2]

Younger participants from early Gen Z and Millennials (aged 25-44) with greater financial independence appear to be more receptive to new and emerging technologies, such as full EVs or hybrid vehicles. In contrast, older generations and the youngest group tend to prefer traditional ICE vehicles.

## Which type of vehicle will you choose to buy in the future?

Share of vehicle engine preference by age groups



- Survey respondents aged 25-44, representing over 70% of all participants, showed a high level of interest in purchasing EVs. Of these participants, around 37% expressed interest in purchasing a full EV vehicle, followed closely by hybrid vehicles with 33%.
- Notably, the 25-34 age group displayed the highest level of interest in hybrid vehicles across all age groups, with 36% indicating a preference for this powertrain.
- In contrast, participants in Generation X (aged 45-54) and older generations showed a stronger preference for ICE vehicles over EVs. Specifically, 42% expressed interest in ICE vehicles, compared to less than 30% who expressed interest in full EVs.



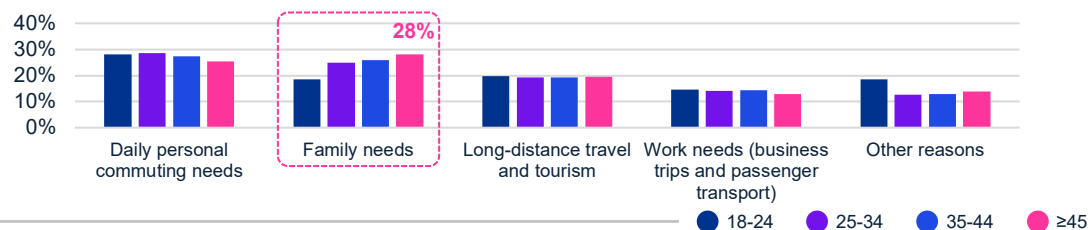


# Participants from early Gen Z and Millennials aged 25-44 express a marked preference for EV [2/2]

As age and income levels increase, there is a corresponding increase in the likelihood of intending to purchase a 4-wheel vehicle.

## When considering buying a vehicle, what are your top 3 intended uses?

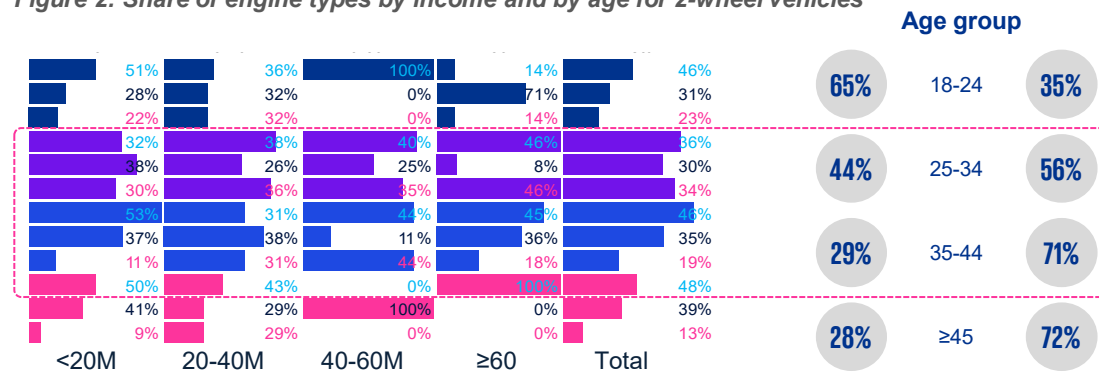
Figure 1: Main intended uses of vehicle by age group



Those in the 25-34 age group with more financial independence and openness to new technology, have the strongest preference for EVs.

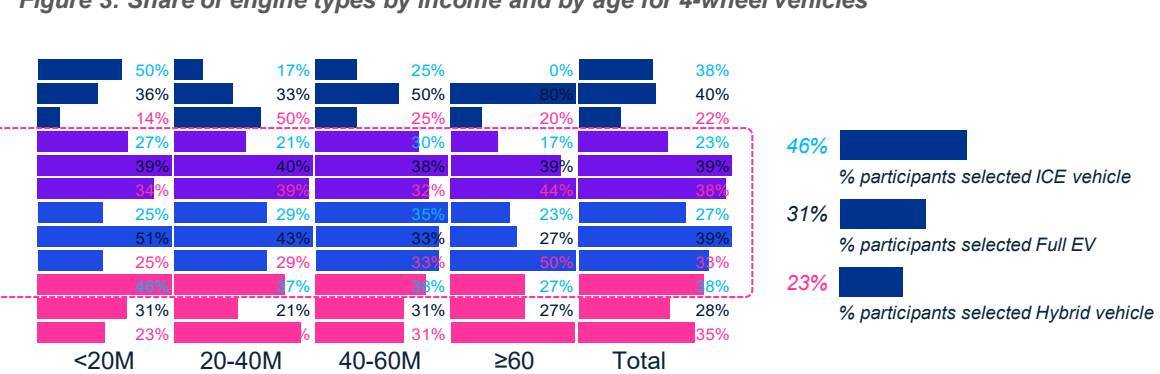
## Which type of vehicle will you choose to buy in the future?

Figure 2: Share of engine types by income and by age for 2-wheel vehicles



- As people reach later stages of life, particularly those aged 35 and above, they tend to prioritize family needs over other purposes (Figure 1). This might explain why older age groups show a greater likelihood of buying 4-wheel vehicles, with over 70% of survey participants aged 35 and above indicating this preference (Figure 3).
- In contrast, the youngest age group (18-24), likely with lower income and fewer savings, tends to buy 2-wheel ICE fuel vehicles. However, as their income rises, they become more willing to consider EVs. This trend is particularly evident among students earning under 20 million VND, who have fewer financial burdens due to family support and are more likely to buy full EVs (55%) compared to their working peers (49%) in the same income bracket. Additionally, our dealer interview insights indicate that young graduates may view electric motorcycles similarly to electric bicycles, which are primarily used by students and homemakers. This perception, along with a lack of time to research electric motorcycles, can contribute to resistance among young consumers to purchasing them.
- Early Gen Z and late Millennials (25-34) appear to be more open to new technology, showing a higher preference for EVs than any other group. Among them, 64% of 2-wheel (Figure 2) and 77% of 4-wheel intenders (Figure 3) choose EVs. They also show significant interest in hybrid engines, with 34% of 2-wheel (Figure 2) and 38% of 4-wheel intenders (Figure 3) favoring this technology.
- Meanwhile, survey participants aged 35-44, though interested in new technology, are more conservative than younger age groups, with 54% (Figure 2) and 72% (Figure 3) expressing interest in buying 2-wheel and 4-wheel EVs, respectively.
- Gen X participants and older age groups exhibit the highest reluctance to adopt new technology, showing the lowest preference for full 4-wheel EVs. However, they demonstrate significant interest in hybrid technology, with 35% willing to buy hybrid 4-wheel vehicles, nearly matching the 38% who prefer ICEs (Figure 3).

Figure 3: Share of engine types by income and by age for 4-wheel vehicles



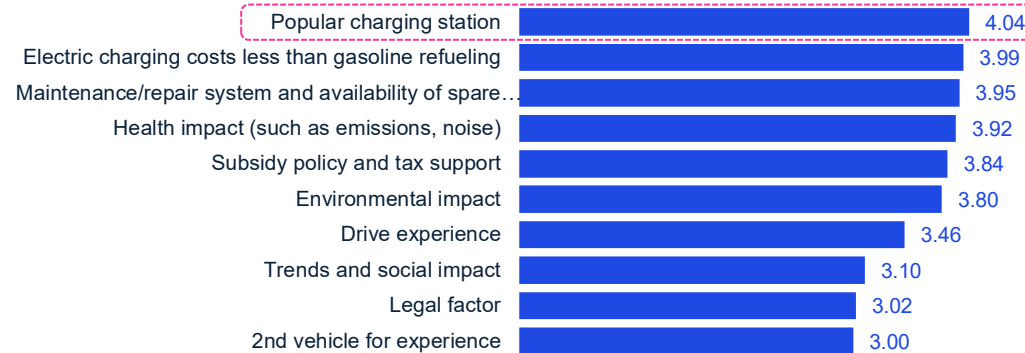


# Charging station availability is crucial for all potential EV buyers

Charging station availability is considered the most important factor impacting the decision to purchase an EV, for both potential buyers and those who are not intending to buy.

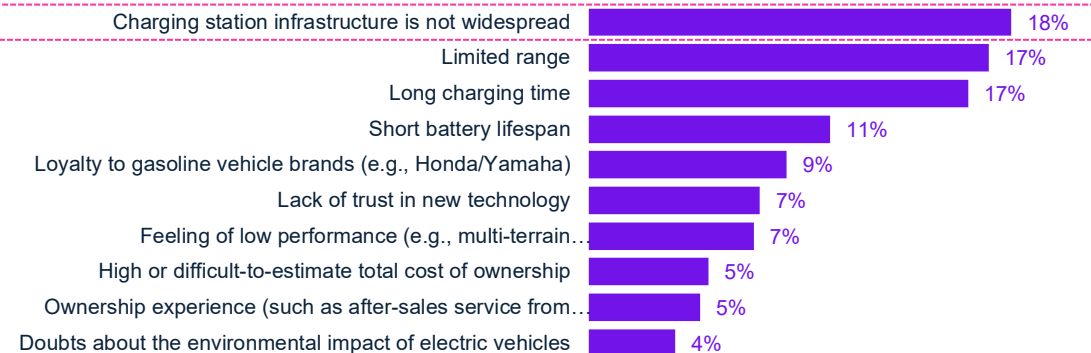
## How do the following factors influence your decision to purchase an electric vehicle?

### Key factors impacting electric vehicle purchase



## Which factors influence your decision not to purchase an electric vehicle? (Choose 3 factors)

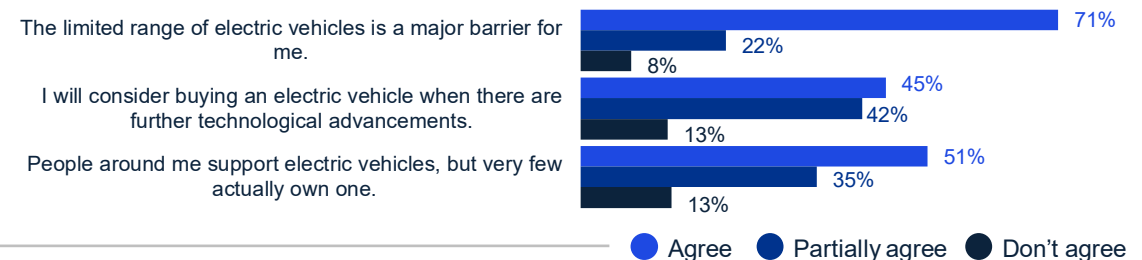
### Key factors influencing the decision not to purchase



**EVs have gained significant interest, but to appeal to those not intending to buy, improvements in range and technology are necessary.**

## Do you agree with the following statements?

### Perceptions of statements among those who do not buy EVs.



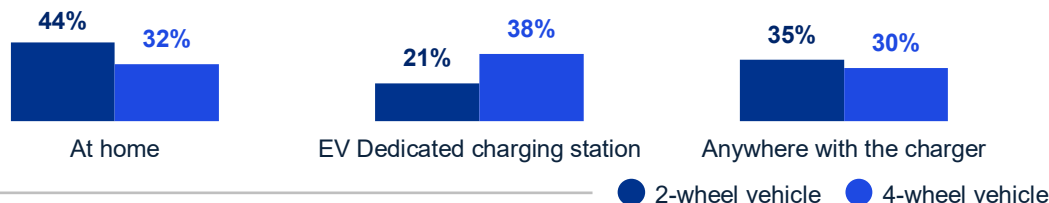
- While EVs are promoted as a new technology to help protect the environment, the most important factors impacting the decision of people who intend to choose an EV as their next vehicle are:
  - ✓ Availability of charging stations
  - ✓ Lower charging costs compared to gasoline refueling
  - ✓ Better maintenance and repair systems, and the availability of replacement parts and accessories
  - ✓ Health impact
- For those reluctant to buy EVs, the top concerns are the availability of charging stations, limited range, and long charging times.

# Along with a widespread charging station network, EV customers also demand fast charging times in secure and convenient locations

2-wheel buyers prefer home charging, while 4-wheel buyers opt for dedicated EV charging stations.

## Where do you mainly charge your electric vehicle?

Figure 1: Main charging locations

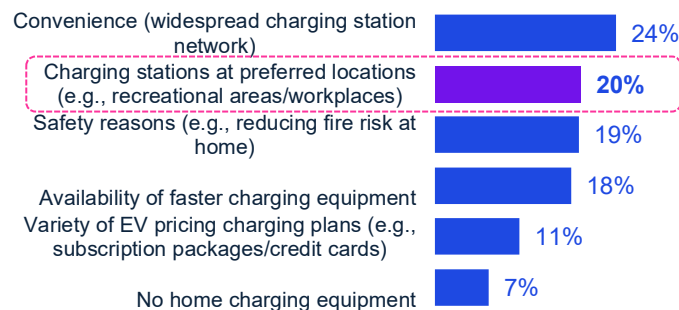


- Among respondents who intend to purchase **2-wheel vehicles** (44%), **home charging is their preferred option**, followed by the option of “Anywhere with a charger” at 35%. Meanwhile, **dedicated EV charging stations are the top choice of 4-wheel intenders**, as identified by 38% of buyers. This preference can be attributed to the accessibility and flexibility of charging 2-wheel vehicles compared to 4-wheel options (Figure 1).
- As to where charging stations will be located, this will largely depend on where 4-wheel vehicle owners live. **If they have a house and a garage, they will likely charge their EVs at home.** However, in densely populated areas - where owners don't have access to personal chargers, home charging may not be an option.
- There will be pressure for automakers to **develop an effective and widespread charging network, located at customers preferred and secure locations** (Figure 3), along with fast charging capability.

High customer demand for an effective and extensive charging network.

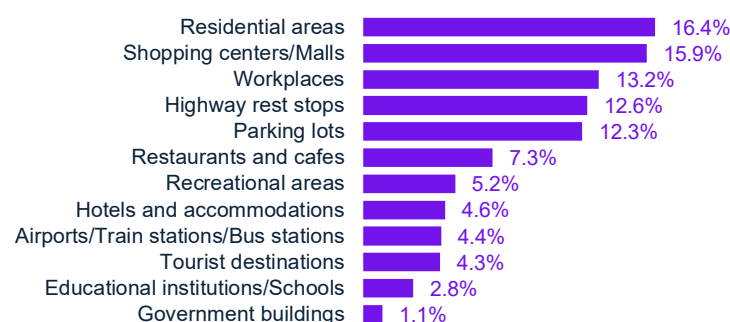
## What would be the reason for you to choose to charge your electric vehicle outside if you need to?

Figure 2: Reasons for charging outside



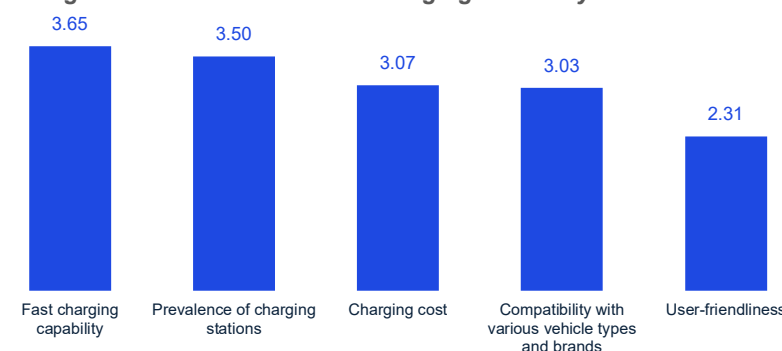
## What are the top three locations where you wish there were more electric vehicle charging stations?

Figure 3: Preferred charging locations



## Please rank the following factors in order of importance for the success of an electric vehicle charging station system.

Figure 4: Success factors of charging station system



# In order to improve driving range, automakers have invested heavily in expanding charging station networks and advancing technology

## Charging stations:

- **Building charging capacity should be a top priority for promoting EVs**, as the availability of charging stations is the most critical factor influencing the purchasing decisions of future EV buyers.
- The Vietnam Automobile Manufacturers' Association (VAMA) predicts that Vietnam will have about 1 million EVs operating in 2030 and 3.5 million EV in 2040. **The booming of EVs will require the development of charging stations, opening great opportunities for investors.**
  - ✓ Currently, in Vietnam, there are two businesses that supply charging station services for EVs: VinFast and EVIDA, which use the EBOOST smart electric vehicle charging product.
  - ✓ Foxconn announced that it will build an EV charging and component production plant in Vietnam through a \$250 million investment, which will help facilitate a more rapid expansion of the local and Southeast Asia regional EV charging networks.

## Driving range:

- In addition to expanding the charging network, **range anxiety remains one of the most significant barriers hindering wider EV adoption among consumers.** Our dealer interview insights for 2-wheel vehicles also indicate similar observations of customer behaviors. Notably, before 2022, only a small number of customers were willing to purchase electric models. However, this dynamic shifted dramatically in 2022 when VinFast introduced new motorcycle models with LFP (Lithium Iron Phosphate) battery technology, replacing lead-acid batteries and increasing the driving range of electric motorcycles from 50km to 120km<sup>(1)</sup>. EV sales have increased dramatically since then.
- To attract more potential users, **automakers worldwide are continuously enhancing electric vehicle technology to increase driving ranges.** As a prominent example, the **global leading automaker BYD is soon launching its next-generation Blade EV battery**, which is expected to offer greater driving range (1,000 kilometers) and lower costs. Furthermore, **BYD unveiled a new hybrid powertrain capable of traveling more than 2,000 kilometers without recharging or refueling.** This extended-range hybrid technology provides an alternative option for consumers seeking increased flexibility and convenience.

Source: CarNewsChina, BMI Report, The Business Times

<sup>(1)</sup> Actual driving ranges for electric vehicles may differ from manufacturers' claimed specifications due to factors such as driving conditions, battery degradation, ambient temperature, and vehicle loading.

**While Vietnam's EV charging network is rapidly expanding, most stations primarily serve electric two-wheel vehicles, with VinFast dominating the local EV charging industry.**

EV Charging Network	2021	2022
Number of EV charging stations	2,000	3,000
Total charging points (for Passenger Vehicles and Motorcycles)	40,000	150,000

**BYD is launching its next-gen Blade EV battery later this year with a greater range (1,000km) and even lower cost.**

**BYD unveiled a new hybrid powertrain capable of traveling more than 2,000 kilometers without recharging or refueling.**

## BYD's 2nd generation blade battery to launch this year

Reading Time: 2 minutes · Mark Andrews · April 8, 2024 · 13

BYD Chairman Wang Chuanfu revealed development of the new battery during a recent financial report communication meeting. Wang Chuanfu said that the second-generation blade battery will have a smaller size and lighter weight for the same endurance, and that power consumption will be reduced per 100 kilometers.

Fast Technology speculate that the second generation blade battery will help all-electric models exceed 1,000 kilometers CLTC range. Such a range would make cars fitted with them competitive with the solid state battery being touted by IM Motors and the semi-solid state battery now in production for Nio.

## New BYD hybrid can drive non-stop from Singapore to Bangkok

BT Published Wed, May 29, 2024 - 01:08 PM - Updated Fri, May 31, 2024 - 02:47 PM



The milestone marks BYD's latest achievement in slashing fuel consumption since debuting hybrids in 2008. PHOTOCREDO/GETTY IMAGES

BYD unveiled a new hybrid powertrain capable of travelling more than 2,000 kilometres without recharging or refuelling, intensifying the electric vehicle (EV) transition war against Toyota Motor and Volkswagen.

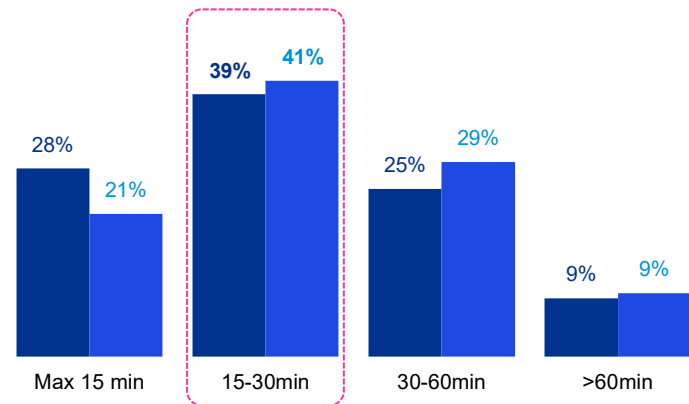
The upgraded tech, which aims to put more distance between BYD and its legacy rivals, will be launched in two sedans immediately that cost under 100,000 yuan (\$19,013), the automaker said at an event live-streamed from China on Tuesday (May 28) evening.

# Fast charging is expected, but customers are likely to wait up to 15-30 minutes if the charging stations are located in their preferred areas

Customers are most likely willing to wait 15-30 minutes to charge a vehicle, with 2-wheel buyers being more tolerant of charging times compared to 4-wheel buyers.

## How long are you willing to wait to charge your electric vehicle at charging stations?

Figure 1: Charging time



● 2-wheel vehicle ● 4-wheel vehicle

Figure 2: Charging time for 2-wheel vehicles

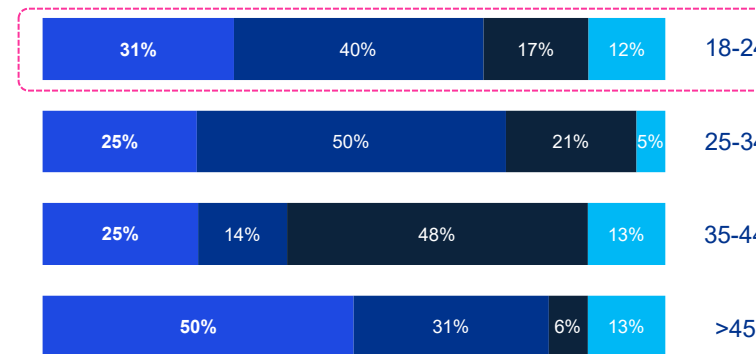
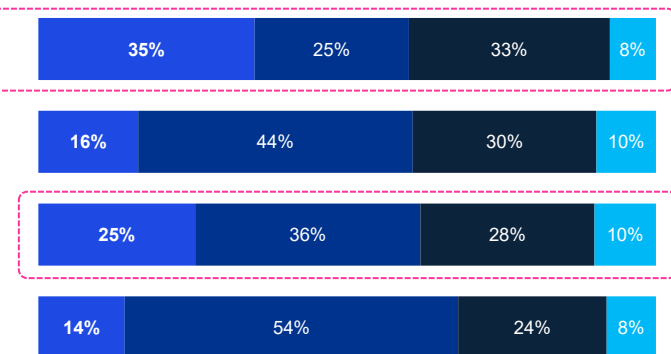


Figure 3: Charging time for 4-wheel vehicles



● Max 15min ● 15-30min ● 30-60min ● >60min

- Customers in the youngest age group (18-24) have the highest expectations for charging time, with over 30% expecting the charging time to be a maximum of 15 minutes for both 2-wheel and 4-wheel vehicles (Figure 2 and Figure 3).
- For 4-wheel vehicles, customers aged 35-44 are more demanding about charging time, with 25% preferring to wait up to 15 minutes and 36% willing to wait up to 30 minutes, compared to 16% and 44% of the 25-34 age group, respectively (Figure 3).



# Battery swapping has gained popularity as a creative way to improve the practicality and convenience of electric vehicles

Battery swapping has become a viable option for 2-wheel vehicles, though significant barriers remain to its application to 4-wheel vehicles.

- For 2-wheel vehicles, automakers have designed new EV models targeted at customers working in transportation and delivery, who require fast-charging capabilities. To cater to these needs, companies have set up battery swap stations in convenient locations to reduce waiting times. In Vietnam, the local startup **Selex Camel** has introduced 2-wheel vehicle models designed for transportation and delivery customers and has installed battery exchange stations that allow users to quickly **swap out a depleted battery for a fully charged one within 2 minutes**. This solution surpasses even the fastest conventional charging times, which typically require a minimum of 20 minutes.
- The battery swap model is also being explored for **4-wheel vehicles**, led by Chinese companies like **Nio and Geely**, both backed by the Chinese government. These companies plan to set up tens of thousands of battery swap stations across China by the end of 2025. While Chinese electric cars can currently **swap batteries in about 3 minutes**, **Ample, a US company**, is also aiming to reduce the battery swap time to **under 5 minutes**, applicable to both passenger cars and electric trucks. However, **expanding this swapping model for 4-wheelers faces significant challenges**, such as the need for advanced robotic technology at battery swapping stations, difficulties in battery inventory management, and the necessity for industry-wide standardization of battery design. **Overcoming these obstacles requires collaboration among multiple stakeholders**, including EV producers, infrastructure builders, policymakers, and technological inventors.

Xe

29/11/2022 16:16 GMT+7

## Start-up Việt Nam ra mắt xe máy điện, có trạm đổi pin tự động, nhắm đến khách hàng shipper

Bài và ảnh: NAM PHONG

Tuổi Trẻ trên Google News

Xe máy điện Selex Camel của một doanh nghiệp Việt Nam áp dụng hình thức thuê pin với chi phí từ khoảng 1,4 triệu đồng/tháng và có trạm đổi pin tự động.



Tập khách hàng chính của Selex Camel là những người làm việc trong lĩnh vực vận tải, giao hàng. Bên cạnh xe máy điện, doanh nghiệp Việt Nam cũng tung ra hệ sinh thái gồm xe, pin, trạm đổi pin tự động và ứng dụng quản lý xe.

Trong đó, mẫu xe máy điện Selex Camel có trọng lượng 84kg, trọng tải tối đa đạt 225kg. Thiết kế xe nhỏ gọn, màu sắc trẻ, nổi bật. Thân xe khá đơn giản với khung sườn để lộ. Yên xe phía sau có thể tháo rời phục vụ việc chuyên chở, sàn để chân phẳng, rộng.

Source: tuoitre.vn, The Business Times, CNBC

MARKETS BUSINESS INVESTING TECH POLITICS CNBC TV INVESTING CLUB PRO

CHINA MARKETS

## China's Nio to expand battery swap services to gain an edge on EV infrastructure

PUBLISHED FRI, APR 5 2024-12:10 AM EDT | UPDATED FRI, APR 5 2024-12:30 AM EDT

Evelyn Cheng  
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### KEY POINTS

- Since November, Nio has partnered with at least four Chinese automakers — Changan, Geely, Chery and JAC — for developing battery swap standards and expanding the network in China.
- Nio has installed more than 2,300 battery swap stations but said less than a fifth currently are breaking even.
- The company's investment in battery swap stations is about two years ahead of market demand. CEO William Li said at an event last month here Nio announced a partnership with battery giant CATL.



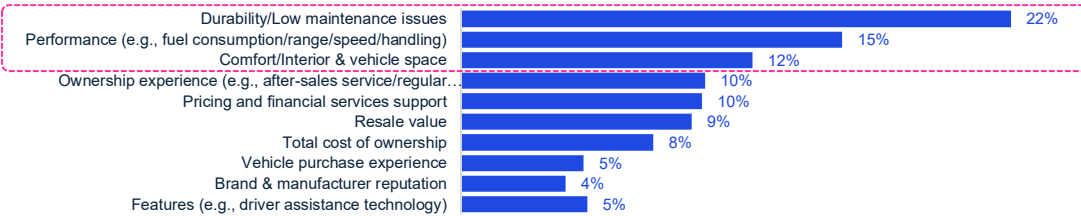
# Vehicle choices are driven by core features, followed by comfort and financial considerations

When it comes to deciding on a specific vehicle, customers prioritize core product features, including durability, performance, comfort/interior and vehicle space as key considerations.

Factors such as buying experience, product brand, or additional high-tech features such as driver assistance have the lowest priority among buyers.

## How do the following factors affect your decision to buy a vehicle? (Select 3 factors)

Factors impacting the decision to buy a particular vehicle



### 2-wheel buyers:

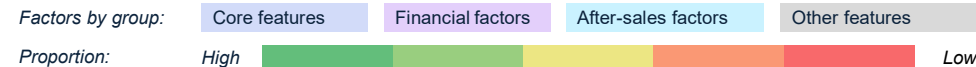
- Our dealer interviews reveal that full EVs excel in comfort compared to ICE vehicles, offering a **smooth, quiet driving experience free from engine noise**. Additionally, their ability to **navigate flooded roads** during the rainy season makes them even more appealing to customers.
- After considering primary product features, **after-sales service** becomes a priority, followed by **financial factors**. However, specific age groups exhibit significant differences in behavior:
  - Those aged **18-24**, just entering the workforce with lower savings compared to older age groups, tend to put more concern on **pricing and financial services support**. They also place a higher emphasis on the **total cost of ownership** compared to other age groups.
  - Meanwhile, those aged **35 and older** show more interest in the **resale value** of the vehicle (12%), which they consider even more important than after-sales services.



### 4-wheel buyers:

- Following durability, customers in the **35-44 age group** consider **performance** as significantly crucial (17%) compared to the younger age group (25-34) who consider performance and interior/vehicle space equally important.
- After primary product features, **financial factors** such as **pricing and financial service support** and **resale value** are prioritized. Among these financial factors, respondents aged **35-44** place a high emphasis on the **total cost of ownership** compared to other age groups, especially for **4-wheel EVs**, with 11% of participants expressing concern about this factor.

Legend:



93% of 2-wheel buyers

Factors	18-24	25-34	35-44	>=45	Total
Durability/Low maintenance issues	22%	23%	23%	27%	23%
Performance (e.g., fuel consumption/range/speed/handling)	16%	18%	15%	12%	16%
Comfort	13%	12%	10%	14%	12%
Ownership experience (e.g., after-sales service/regular maintenance/repair and availability of replacement parts)	10%	10%	9%	6%	10%
Pricing and financial services support	11%	9%	8%	10%	10%
Resale value	8%	6%	12%	12%	8%
Total cost of ownership	8%	8%	7%	6%	8%
Vehicle purchase experience	5%	4%	6%	2%	5%
Brand & manufacturer reputation	4%	4%	4%	5%	4%
Features (e.g., driver assistance technology)	3%	4%	5%	5%	4%

81% of 4-wheel buyers

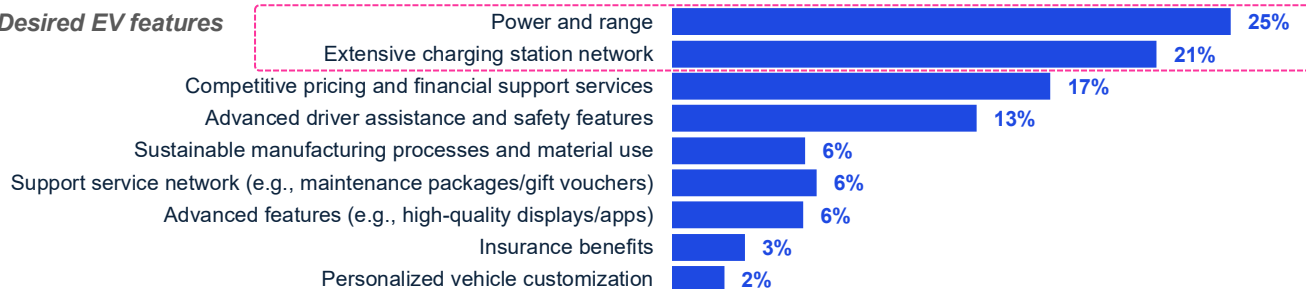
Factors	18-24	25-34	35-44	>=45	Total
Durability/Low maintenance issues	15%	22%	22%	23%	21%
Performance (e.g., fuel consumption/range/speed/handling)	12%	14%	17%	10%	15%
Interior & vehicle space	15%	13%	10%	10%	12%
Resale value	12%	9%	9%	13%	10%
Pricing and financial services support	7%	11%	10%	10%	10%
Ownership experience (e.g., after-sales service/regular maintenance/repair and availability of replacement parts)	10%	10%	9%	10%	10%
Total cost of ownership	8%	6%	10%	6%	8%
Features (e.g., driver assistance technology)	7%	6%	6%	5%	6%
Vehicle purchase experience	10%	6%	3%	5%	5%
Brand & manufacturer reputation	4%	3%	5%	7%	4%

# In terms of desired EV features, power, range, and charging stations top the list; younger buyers are more interested in sustainability, technology, and insurance benefits.

When it comes to desired features for EVs, high power, long range, and extensive charging stations are key factors that make EVs more appealing to all age groups.

Please select 3 aspects that electric vehicle manufacturers could incorporate into their products to make them more appealing to you.

Figure 1: Desired EV features



- **High power and long range**, along with **extensive charging stations**, are key factors that make EVs more appealing, and these factors become increasingly important as people age.
- Additionally, since EVs have not yet reached cost parity with conventional vehicles, **financial support and more competitive pricing** are expected to enhance their appeal.
- Among the top appealing features, it is worth noting that younger customers, especially those aged **18-24 show a higher level of interest in products with sustainable manufacturing processes and materials**. Being more tech-savvy, advanced features also catch their attention.
- Moreover, buyers in this group seem to have more interest in **insurance benefits** compared to other groups, with 5.6% for 2-wheel vehicles and 7.5% for 4-wheel vehicles (Figure 2 and Figure 3).

## Buyers in the 18-24 age group favor sustainability, technology, and insurance benefits more than other age groups

Figure 2: Desired EV features for 2-wheel vehicle by age group

Features	18-24	25-34	35-44	≥45
Power and range	21.5%	24.8%	25.0%	29.2%
Extensive charging station network	21.0%	21.2%	23.2%	20.8%
Competitive pricing and financial support services	16.9%	16.8%	16.7%	16.7%
Advanced driver assistance and safety features	12.3%	14.0%	10.1%	12.5%
Support service network (e.g., maintenance packages/gift vouchers)	4.6%	7.5%	7.7%	2.1%
Sustainable manufacturing processes and material use	8.2%	7.0%	8.3%	4.2%
Advanced features (e.g., high-quality displays/apps)	8.2%	3.9%	2.4%	2.1%
Insurance benefits	5.6%	3.6%	3.0%	6.3%
Personalized vehicle customization	1.5%	1.3%	3.6%	6.3%



Figure 3: Desired EV features for 4-wheel vehicle by age group

Features	18-24	25-34	35-44	≥45
Power and range	21.7%	24.4%	26.0%	26.0%
Extensive charging station network	18.3%	21.5%	22.3%	20.0%
Competitive pricing and financial support services	9.2%	18.0%	16.9%	16.7%
Advanced driver assistance and safety features	18.3%	12.1%	14.9%	14.0%
Support service network (e.g., maintenance packages/gift vouchers)	6.7%	6.7%	5.5%	7.3%
Sustainable manufacturing processes and material use	6.7%	4.7%	5.3%	4.0%
Advanced features (e.g., high-quality displays/apps)	9.2%	7.6%	5.0%	6.0%
Insurance benefits	7.5%	3.2%	1.1%	2.7%
Personalized vehicle customization	2.5%	1.7%	2.9%	3.3%

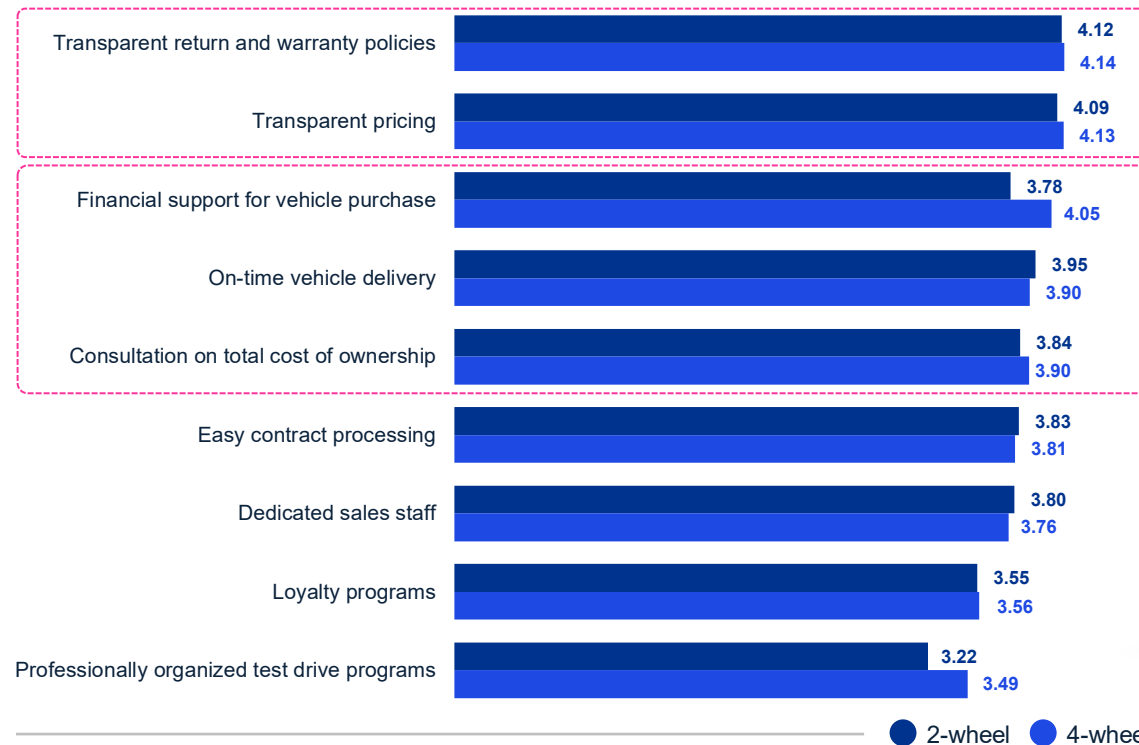


# Key selling factors for dealerships [1/2]

Before deciding to buy a vehicle from a particular manufacturer or dealer, buyers consider multiple factors. Transparent return and warranty policies, along with transparent pricing, are regarded as the most important, with an average score of over 4.0.

## When considering the purchase of a vehicle, which key factors in the sales process drive your purchasing decision?

Factors impacting the decision to buy a particular vehicle



- When buying a 4-wheel vehicle, buyers consider more factors and assign them greater importance than for 2-wheel vehicles. The average score for 4-wheel vehicles is higher (3.86 vs. 3.8), with 5 out of 9 factors scoring 3.9 or above, compared to only 3 factors for 2-wheel vehicles.
- While selling products, it is crucial for automakers to provide customers with **transparent return and warranty policies and transparent pricing**, as these factors stand out as the most important with an average score of over 4.0.
- For **4-wheel owners**, **financial factors** are ranked as the second group of key selling points with the focus on financial support (4.05). Considering the higher price of electric 4-wheel vehicles compared to conventional ones, it is important for manufacturers and dealers to optimize manufacturing costs and provide potential customers with appealing buying programs.
- For both **2-wheel and 4-wheel owners**, **consultation on total cost of ownership** are also considered important, especially for 4-wheel vehicles (3.90). Given that electric vehicles represent a new market technology where product information might not be widespread and clear, it is essential for dealers and manufacturers to equip sellers with comprehensive information and provide useful details through their communication channels to attract customers' attention.





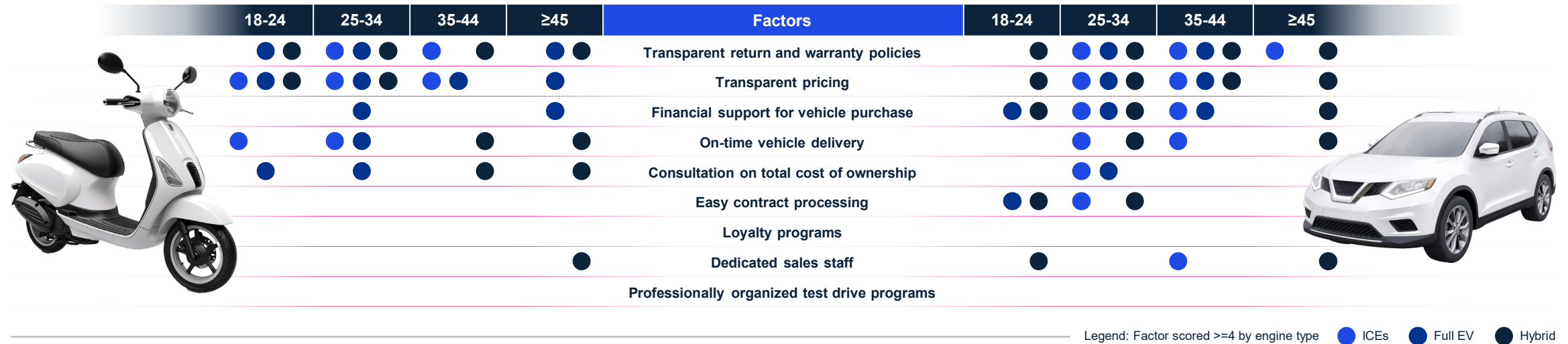
## Key selling factors for dealerships [2/2]

Customers aged 25-34 consider various factors critical when making purchasing decisions, especially for full EV 2-wheelers and hybrid 4-wheelers. Meanwhile, older customers, aged 45 and above, highly value dedicated sales staff when purchasing hybrid vehicles. To attract the target customer group, dealers need to strengthen their propositions by establishing specific customer personas and focusing on key driving factors to meet their needs effectively.

### When considering the purchase of a vehicle, which key factors in the sales process drive your purchasing decision?

Factors scored 4 and above by age group and engine type

Factors scored 4 and above by age group and engine type



• **2-wheel vehicles:** Within the main group of 2-wheeler buyers:

- ✓ **The 25-34 age group seems to be more demanding when purchasing a full EV 2-wheeler.** They consider more factors as important, with 5 out of 9 factors scoring 4 or above, and an average factor score of approximately 4.0, compared to an average of around 3.8 for other age groups.
- ✓ Meanwhile, **participants aged 35-44 show greater concern about hybrid vehicles**, with 3 out of 9 factors scoring 4 or above. For full EV 2-wheelers, they only rated transparent pricing as highly important (scored 4.06), with other factors being relatively equal but not as significant.

• **4-wheel vehicles:** Participants generally ranked the importance of factors for hybrid vehicles higher, with an average score of 3.90 compared to 3.84 for full EV and ICE vehicles, indicating greater concern for hybrid vehicles.

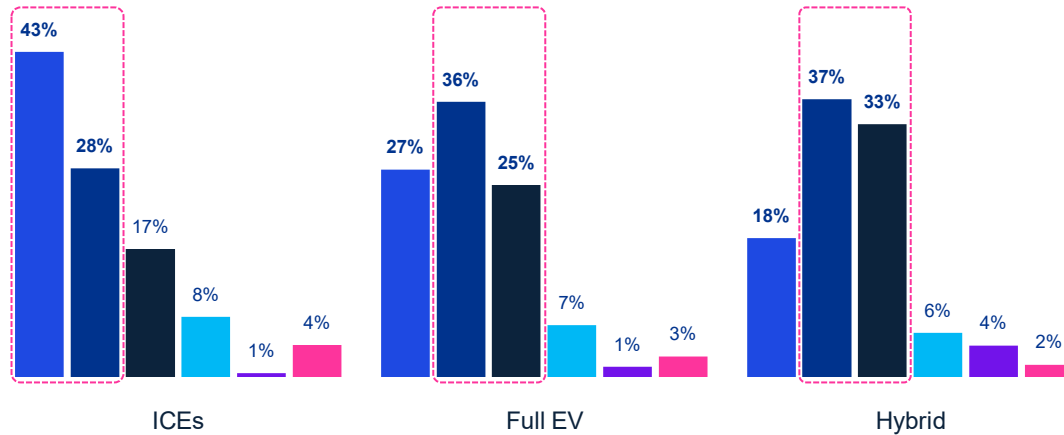
- ✓ Buyers in the **age group 25-34** consider various factors as important when purchasing a new vehicle, regardless of the type of engine. This group, with 38% of participants showing interest in hybrid vehicles, **considers more factors as critical when buying a hybrid vehicle, with 5 out of 9 factors rated as highly important**, each scoring 4.0 or higher.
- ✓ In contrast, **the age group 35-44 considered fewer factors** as critical to driving the decision-making process **when it comes to EVs**.
- For the **45 and above age group**, **dedicated sales staff** is considered an important factor in driving their decision while buying a hybrid vehicle.

# Customers have higher tolerance for delivery waiting times for EVs compared to ICE vehicles [1/2]

- 4-wheel buyers are willing to wait for an extended period ranging from 3-14 days to 14 days-1 month. In contrast, 2-wheel buyers expect a shorter wait of up to 3-14 days. Customers are less inclined to wait for over 3 months for a new vehicle (Figure 1).
- Customers under 24 are less willing to wait, with 26% expecting a maximum of 3 days (Figure 3).
- Delivery waiting times are generally more tolerable for full EV or hybrid vehicles compared to ICE vehicles. Participants are willing to wait 3-14 days or 14 days-1 month for a full EV or hybrid vehicle, compared to a maximum of 3-14 days for ICE vehicles (Figure 2).

Customers are more tolerant of waiting times for EVs compared to conventional ones.

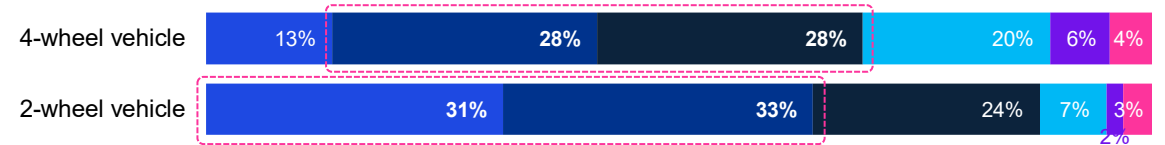
Figure 2: Waiting duration by engine type



Customers are willing to wait longer for purchasing 4-wheel vehicles.

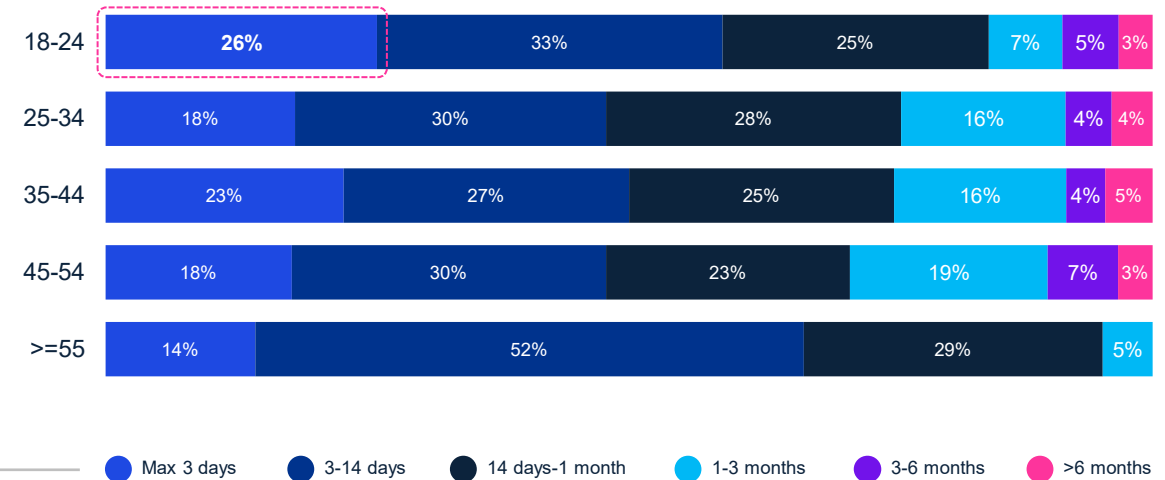
What is the longest period of time you are willing to wait from placing a deposit to receiving your desired vehicle?

Figure 1: Waiting duration by vehicle type



The youngest age group is more demanding when it comes to waiting duration.

Figure 3: Waiting duration by age group



# Customers have higher tolerance for delivery waiting times for EVs compared to ICE vehicles [2/2]

## Waiting duration for 2-wheel vehicles

Waitingtime	ICEs	FullEV	Hybrid
Max 3 days	40%	22%	11%
3-14 days	33%	38%	46%
14 days - 1month	16%	27%	36%
1-3 months	7%	3%	0%
3-6 months	0%	3%	7%
> 6 months	4%	8%	0%
Max 3 days	39%	21%	19%
3-14 days	25%	36%	32%
14 days - 1month	25%	31%	35%
1-3 months	7%	8%	9%
3-6 months	0%	2%	3%
> 6 months	4%	2%	1%
Max 3 days	49%	50%	30%
3-14 days	28%	31%	30%
14 days - 1month	11%	8%	30%
1-3 months	6%	11%	5%
3-6 months	2%	0%	5%
> 6 months	4%	0%	0%
Max 3 days	53%	8%	0%
3-14 days	20%	50%	75%
14 days - 1month	0%	42%	0%
1-3 months	20%	0%	0%
3-6 months	0%	0%	0%
> 6 months	7%	0%	25%



26%

18-24

10%

44%

25-34

39%

23%

35-44

38%

7%

≥45

Age group

13%

## Waiting duration for 4-wheel vehicles

Waitingtime	ICEs	FullEV	Hybrid
Max 3 days	16%	31%	21%
3-14 days	28%	19%	29%
14 days - 1month	32%	27%	21%
1-3 months	12%	15%	7%
3-6 months	8%	8%	21%
> 6 months	4%	0%	0%
Max 3 days	24%	5%	10%
3-14 days	25%	30%	30%
14 days - 1month	29%	26%	26%
1-3 months	10%	26%	25%
3-6 months	8%	8%	4%
> 6 months	3%	6%	5%
Max 3 days	18%	7%	17%
3-14 days	31%	22%	28%
14 days - 1month	28%	28%	35%
1-3 months	16%	29%	13%
3-6 months	3%	6%	4%
> 6 months	4%	8%	4%
Max 3 days	10%	18%	11%
3-14 days	47%	14%	32%
14 days - 1month	27%	27%	29%
1-3 months	10%	23%	25%
3-6 months	7%	14%	4%
> 6 months	0%	5%	0%



- ICE buyers mainly expect delivery within 3 days, whereas electric vehicle buyers are willing to wait up to 1 month for full EV or hybrid vehicles.
- Those aged 35-44 are more demanding in waiting time for 2-wheel vehicles, with 50% expecting to receive the vehicle within 3 days. Despite some tolerance for hybrid vehicles, with 30% requiring delivery within 3 days, it is still higher compared to younger age groups.

- 4-wheel buyers show the highest level of tolerance for full EVs, particularly in the 35-44 age group with 43% of participants willing to wait for more than 1 month for a new vehicle, compared to about 40% of people in the 25-34 and ≥45 age groups.
- However, when it comes to hybrid vehicles, only 18% of the 35-44 age group are willing to wait for more than 1 month. In contrast, the 25-34 age group, showing a greater interest in hybrid vehicles, has 31% of participants willing to wait for the same duration.

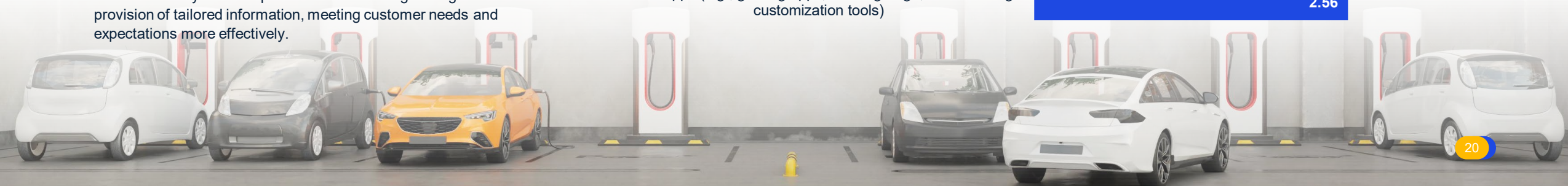
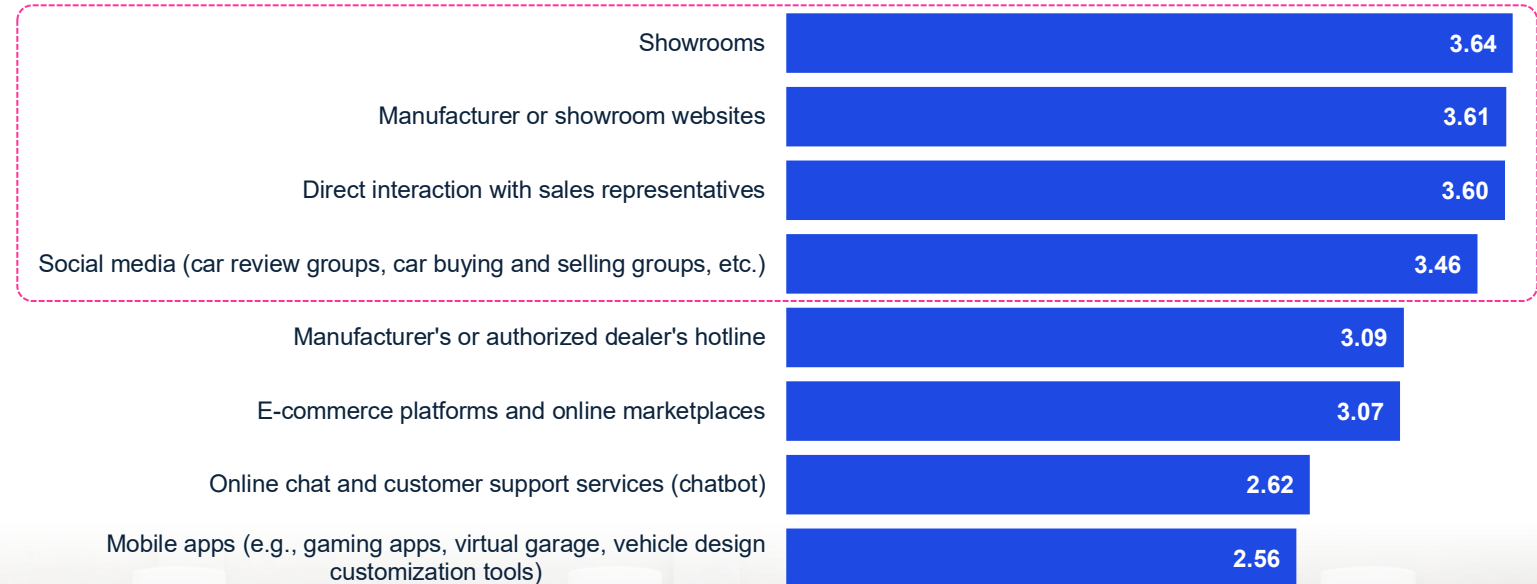
# Customers use multiple channels to seek product information, with traditional channels being the most preferred

- When searching for information, customers tend to use multiple channels. The most preferred channels include:
  - ✓ Showrooms
  - ✓ Manufacturer or showroom websites
  - ✓ Direct interaction with sales representatives
  - ✓ Social media
- Our dealer interview insights reveal that the customer research and purchase journey for vehicles can be quite lengthy, often taking anywhere from 6 months to a year. When customers are still undecided about a specific product, they tend to turn to e-commerce platforms, online marketplaces, and social media to compare different options. However, once they lean towards a particular vehicle, they are more likely to visit dealerships for test drives and check the manufacturer's website for more information.
- Enhancing the customer experience at the showroom, offering comprehensive and consistent information about vehicles on the website, and equipping salespeople with vital skills and knowledge are critical for impressing customers during their information search, thereby increasing the likelihood of product sales.
- Additionally, actively monitoring product discussions on social networks can provide insight into customers' perceptions and what information they deem important. This knowledge can guide the provision of tailored information, meeting customer needs and expectations more effectively.

Customers have used multiple information channels to seek product information.

## When considering purchasing a vehicle, which channels do you prefer to seek information from?

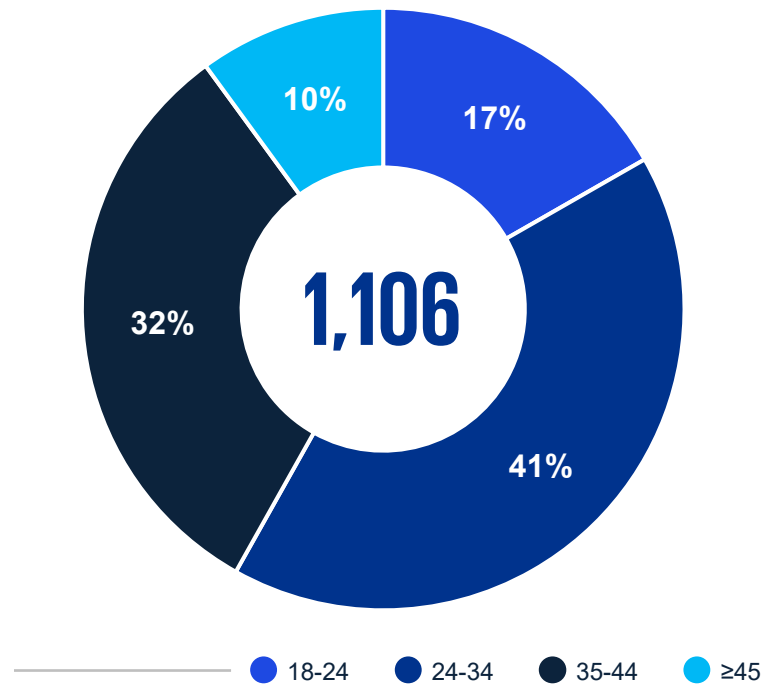
### Preferred information channels



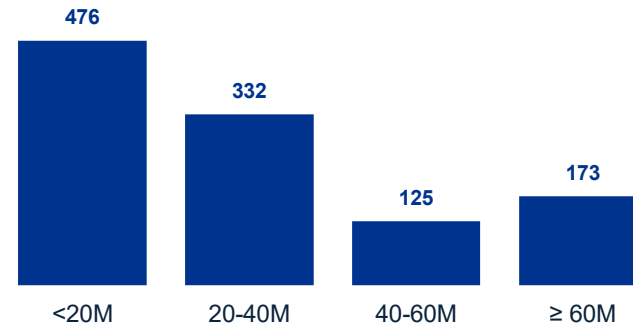
# Respondent profiles

We conducted a survey of 1,106 participants across multiple provinces, with the majority being 25-44 years old (73%) and having an income under 20 million VND (43%). The survey revealed that most participants were engaged in intellectual labor (57%), and the gender distribution was predominantly male (70%). Participants were mainly located in Ho Chi Minh City (50%), Hanoi (18%), and Da Nang (4%).

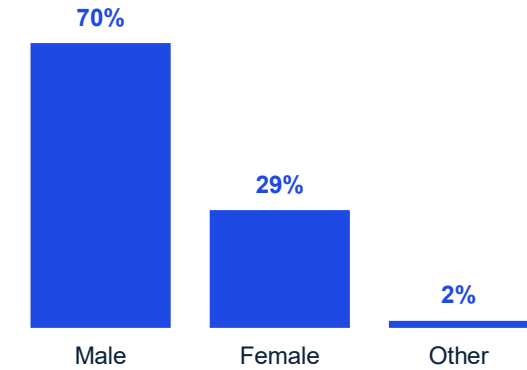
## Which age group do you belong to?



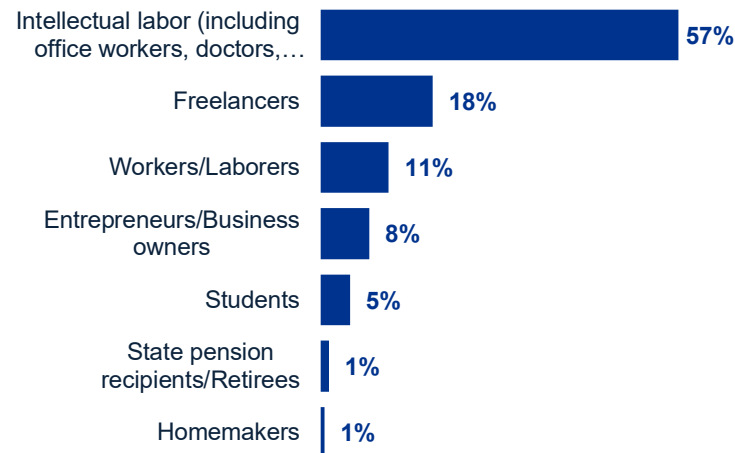
## Which option best describes your household's monthly income? (Unit: VND)



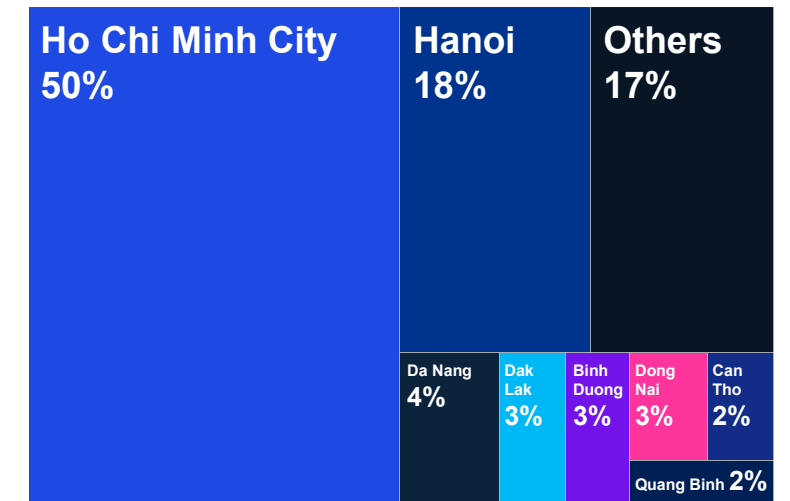
## Which option best describes your gender?



## Which option best describes your occupations?



## Where do you live?



# How we can help | Keeping you ahead of the global automotive industry trends with a comprehensive range of services designed to enhance your company's competitiveness and resilience...



[Click Here](#) to discover more about our 24<sup>th</sup> Annual Global Automotive Executive Survey

## 01 Vehicle electrification

*As acceptance among consumers on the merits of shifting to electric vehicles (EVs) rise, more incentives, more discounts and greater variety of EV models will be crucial towards supporting ambitious EV sales targets from both OEMs and governments.*

## 02 Growing sustainability focus in auto retail and distribution

*Automotive retailers are placing a growing importance on sustainability as a crucial component of achieving business success. Hence, many auto retailers are adopting new business models and reorganizing their operations to prioritize sustainability in their delivery processes.*

## 03 Shared mobility

*As governments seek to promote sustainable travel, shared transportation can enable use of varied mobility services in a more equitable, sustainable and beneficial way, with the ability to plug in gaps where public means of transport is less able.*

## 04 Autonomous vehicles (AVs)

*As technological progress continues to support the deployment of sophisticated self-driving algorithms and driver assistance systems, autonomous tech is likely to be implemented in personal vehicles only with significant safeguards requiring some measure of driver engagement and through fleet-operated geofenced robo-taxis.*

## 05 Boom in automotive aftermarket

*Increasing vehicle complexity, high vehicle prices and financing costs and high number of total miles travelled are contributing to a robust demand for products and services across multiple automotive aftermarket subsectors.*

## 06 ESG — Environment, social and governance

*With increasing demand for certain commodities used in environmentally friendly EVs, the spotlight on OEMs with regards to their sourcing methods and strategies deployed throughout their supply chain will also rise as there is a concerted effort to ensure adherence to ESG goals.*

## 07 Localization of automotive supply chains

*The transition in the automotive supply chain is underway with an aim to diversify and strengthen the supply of critical components and materials, such as batteries used in EVs. Hence, significant private investment in supply chain reshoring and nearshoring is also being supported by extensive government initiatives.*

## 08 Future of automotive finance

*As sustainability is gaining prominence, lenders are offering financing options for eco-friendly vehicles. The shift to direct lending, driven by technology and fintech growth, accounts for over 56.0 percent of global revenue. However, inflation and rising interest rates pose challenges for consumers struggling with car payments.*

## 09 Connected vehicles

*As connected vehicles benefit from implementation of infrastructures and networks that facilitate two-way data exchange, automakers will be able to unlock new revenue streams.*

## 10 Digital transformation

*Automakers are facing competitive challenges such as retiring labor force, ensuring high manufacturing uptimes and building the agility necessary for new technologies such as autonomous vehicles and EVs. Hence, digitization within production plants and across operations will be a necessity for automakers.*

# ...including specialized solutions designed to accelerate the sales transformation journey.

## Intelligence

- **CUSTOMER EXPERIENCE (CX) INSIGHT**

CX insight as a service allows businesses to continually survey, monitor, and analyze their customer satisfaction through technology.
- **SALES GROWTH DIAGNOSTIC**

Sales Growth Diagnostic Services analyze sales processes, team effectiveness, and metrics to help businesses identify areas for improvement and achieve their revenue growth goals through actionable recommendations.
- **360 BUSINESS INTELLIGENCE**

Provide end-to-end business intelligence & reporting automation solutions that allow businesses to have real-time visibility on their business performance across functions and value chains.

Our offering covers operational performance as well as financial and ESG compliance reporting.
- **COMMERCIAL DUE DILIGENCE**

Helps our clients understand the company's market position and how the company will change in the future.

## Growth

- **STRATEGY & MARKET ENTRY**

Our strategy and market entry services help companies assess market opportunities, develop entry strategies, and execute them effectively.
- **eB2B**

Our eB2B Channel Development Consulting Service helps businesses develop and implement an optimized eB2B strategy using the leading e-commerce models and AI-powered technology solutions.
- **CUSTOMER ENGAGEMENT & LOYALTY**

Our Customer Engagement and Loyalty Consulting Service provides businesses with a personalized and engaging customer experience following leading practices and technology tools such as a Customer Data Platform (CDP), loyalty tech, Superapp engagement (e.g. Zalo, Momo), and gamification.

## Optimization

- **AI-POWERED SFE**

Our AI-Powered Sales Force Effectiveness (SFE) service leverages AI technology to revolutionize the traditional SFE/SFA processes, optimize the sales funnel, improve team performance, and drive sales uplift and productivity.
- **COMMERCIAL OPERATIONS**

Apply leading practices and technology to improve the efficiency and effectiveness of a company's sales, marketing, and customer service operations to maximize sales & marketing ROI.
- **GO-TO-MARKET OPTIMIZATION**

We offer an end-to-end approach to optimize businesses' strategies for launching, scaling, and marketing their products and services. We provide detailed product-market fit/gap analyses, distribution performance optimization, customer segmentation and omnichannel engagement to boost both gross and net revenue.

# chợTỐTXE | The T.O.M and the most accessed website/ app for online buying/ selling used cars\*

2017

Established online marketplace for used vehicles



2021

More than **2.7 million** monthly users and **130,000** monthly listings

2022

The top-of-mind and the most accessed website/ app for online buying/ selling used cars (according to Kantar Research 2021)

2023

**1.1 million listings and 530 million pageviews** annually

Physical store trial



2024

**97% of car buyers know about Chợ Tốt Xe, with 47% choosing Chợ Tốt Xe** when in need

Strategic rebranding to



Launched Official Mall model



	<b>10 MILLIONS</b> monthly users		<b>1,8 MILLIONS</b> monthly searches for buying cars
	<b>55 MILLIONS</b> monthly visits		<b>10 MINUTES</b> after posting, the car was contacted to buy

\*Kantar Vietnam Research (2021)  
Chợ Tốt Data (Mar 2023)



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