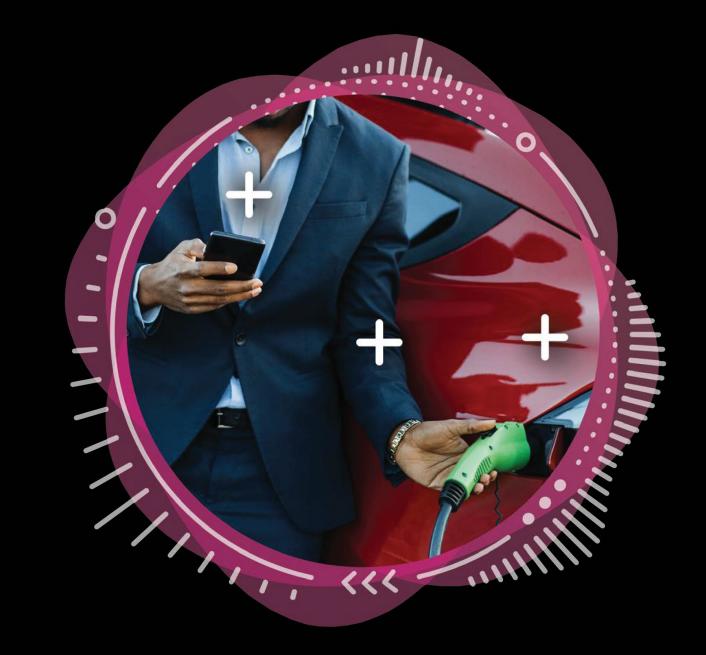
Deloitte.



2022 Global Automotive Consumer Study

Key findings: Global focus countries including Australia

April 2022



For over a decade, Deloitte has been exploring automotive consumer trends impacting a rapidly evolving global mobility ecosystem.

Key insights from our Global Automotive Consumer Study over the years:

Overall value ranked as the primary factor when evaluating brands

"Cockpit technology" and the shopping experience-led differentiators

Interest in hybrids driven by cost and convenience, while interest in connectivity centers on safety

Shared mobility emerges as an alternative to owning a vehicle

Interest in full autonomy grows, but consumers want a track record of safety

Consumers in many global markets continue to move away from internal combustion engines (ICE)

Consumers "pump the brakes" on interest in autonomous vehicles

Questions remain regarding consumers' willingness to pay for advanced technologies

Online sales gaining traction, but majority of consumers still want in-person purchase experience The Global Automotive Consumer Study informs Deloitte's point of view on the evolution of mobility, smart cities, connectivity, transportation, and other issues surrounding the movement of people and goods.

2022 Deloitte Global Automotive Consumer Study

From September through October 2021, Deloitte surveyed more than 26,000 consumers in 25 countries to explore opinions regarding a variety of critical issues impacting the automotive sector, including the development of advanced technologies. The overall goal of this annual study is to answer important questions that can help companies prioritize and better position their business strategies and investments.

Willingness to pay for advanced tech remains limited

A majority of consumers are unwilling to pay more for advanced technologies in most global markets as they have been trained to expect new vehicle features as a cost of doing business for brands looking to differentiate themselves from their competitors.

Interest in EVs driven by lower running costs and better experience

Consumer interest in electrified vehicles (EVs) centers on the perception of lower fuel costs, environmental consciousness, and a better driving experience. However, driving range and lack of available charging infrastructure remain barriers to adoption.

In-person purchase experience still preferred by many

Most consumers would still prefer to purchase a vehicle at an authorized dealership. However, a perception of increased convenience and ease of use will likely support continued growth of virtual purchase processes.

Personal vehicles continue as the preferred mode of transportation

Shared mobility services like ride-hailing and car sharing have been slow to return to their prepandemic pace of growth as people prefer using personal vehicles to satisfy their transportation requirements.









Advanced technologies and vehicle connectivity

Consumer willingness to pay for advanced technologies, including alternative powertrains and vehicle connectivity, is limited in most global markets.

Percentage of consumers that are unwilling to pay more than ~US\$5001 for a vehicle with advanced technologies (including people that would not pay any more)

Advanced Technology Category	US	Germany	Japan	Rep. of Korea	China	India	Australia
Safety	56%	70%	66%	58%	31%	48%	59%
Connectivity	65%	77%	83%	72%	39%	48%	49%
Infotainment	69%	82%	86%	78%	39%	57%	72%
Autonomy	61%	69%	56%	42%	31%	37%	56%
Alternative engine solutions	53%	56%	57%	41%	31%	35%	67%
Unwilling to pay more than	US\$500	€400	¥50,000	₩500,000	¥2,500	₹25,000	A\$750

Note: Did not consider "don't know" responses.

¹ Calculated for each country in local market currency (roughly equivalent to \$US500).Q3.

How much more would you be willing to pay for a vehicle that had each of the technologies listed below?

Sample size: Australia=943; China=1,016; Germany=1,401; India=989; Japan=880; Republic of Korea=961; US=960

Depending on the market, consumers will share personal data in exchange for less congested and safer routes, and vehicle health reporting/lower maintenance costs.

Interest (somewhat/very interested) in a connected vehicle if it provides benefits related to...

	US	Germany	Japan	Rep. of Korea	China	India	Australia
Updates regarding traffic congestion and suggested alternate routes	58%	55%	70%	79%	81%	83%	59%
Suggestions regarding safer routes (i.e., avoid unpaved roads)	58%	41%	69%	69%	80%	82%	55%
Updates to improve road safety and prevent potential collisions	56%	51%	72%	76%	81%	83%	60%
Customized/optimized vehicle insurance plan	48%	38%	51%	59%	75%	82%	50%
Maintenance updates and vehicle health reporting	59%	54%	63%	69%	79%	84%	62%
Maintenance cost forecasts based on your driving habits	51%	44%	54%	61%	79%	81%	59%
Customized suggestions regarding ways to minimize service expenses	51%	45%	63%	76%	81%	82%	58%
Over-the-air vehicle software updates	50%	53%	51%	66%	73%	77%	48%
Access to nearby parking (i.e., availability, booking, and payment)	47%	46%	56%	64%	79%	80%	50%
Special offers regarding non- automotive products and services related to your journey or destination	40%	29%	43%	55%	77%	75%	42%
Receiving a discount for access to a Wi-Fi connection in your vehicle	46%	35%	55%	62%	75%	77%	48%

Top three interests

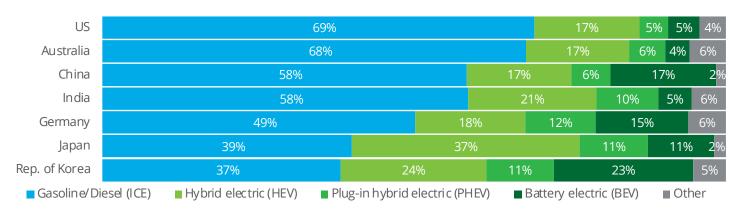
Q34. How interested are you in the following benefits of a connected vehicle if it meant sharing your own personal data and vehicle/operational data with the manufacturer or a third party?

Sample size: Australia=957; China=888; Germany=1,303; India=910; Japan=695; Republic of Korea=899; US=974

Vehicle electrification

ICE still dominates future intentions in Australia and the US. Consumer interest in BEVs is highest in South Korea, China, and Germany while Japanese consumers prefer HEVs.

Consumer powertrain preferences for their next vehicle



Note: "Other" includes engine types such as compressed natural gas, ethanol, and hydrogen fuel cells; did not consider "don't know" responses. Q25. What type of engine would you prefer in your next vehicle?

Sample size: Australia=767; China=881; Germany=1,150; India=895; Japan=608; Republic of Korea=843; US=918

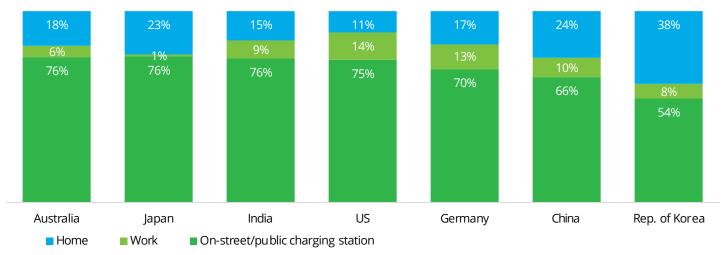
For the most part, people are drawn to an EV because of an expectation of lower fuel costs, or they are concerned about climate change and want to reduce emissions.

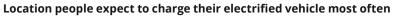
Factors that impact the decision to acquire an electrified vehicle

Factors	US	Germany	Japan	Rep. of Korea	China	India	Australia
Concern about climate change/ reduced emissions	2	1	2	2	1	1	2
Concern about personal health	6	4	5	7	3	4	5
Lower fuel costs	1	2	1	1	4	2	1
Less maintenance	4	7	7	3	6	5	4
Better driving experience	3	5	3	4	2	3	3
Government incentives/stimulus programs	5	3	4	5	7	6	6
Potential for extra taxes/levies applied to internal combustion vehicles	7	6	6	6	5	7	7

Q26. Please rank the following factors in terms of their impact on your decision to acquire an electrified vehicle (highest to lowest). Sample size: Australia=232; China=360; India=331; Germany=513; Japan=361; Republic of Korea=482; US=250

Most people in Australia, Japan, India, and the US plan to charge their PHEV/BEVs at home, while demand for public charging is high in South Korea.

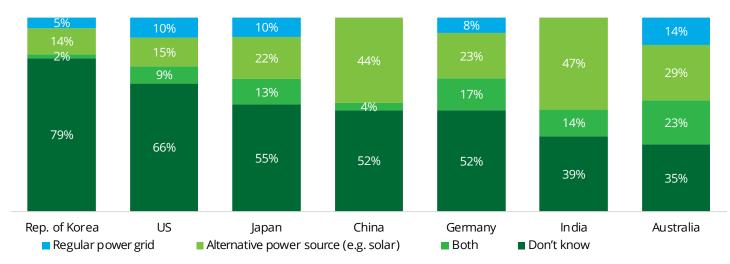




Q27. Where do you expect to charge your electrified vehicle most often?

Sample size: Australia=87; China=209; Germany=307; India=143; Japan=133; Republic of Korea=284; US=91

Among those who plan to charge their PHEV/BEV at home, Australian consumers are the least likely to connect solely to the power grid and most likely to use alternative sources (e.g. solar).

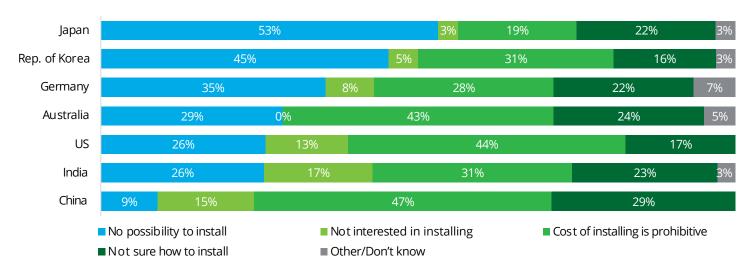


Source of power consumers intend to use to charge electric vehicles

Q28. How do you intend to charge your electrified vehicle at home?

Sample size: Australia=66; China=137; Germany=216; India=108; Japan=101; Republic of Korea=154; US=68

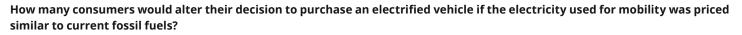
Consumers not planning to charge a PHEV/BEV at home say they either can't install a charger or the cost of installing a charger is prohibitive.

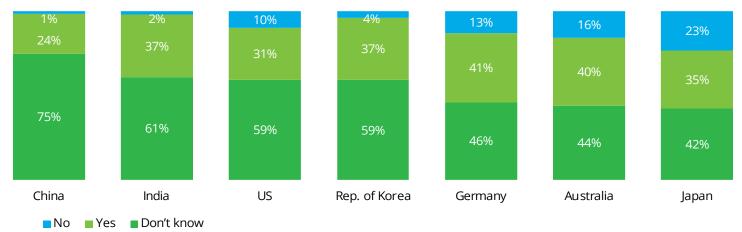


Reasons for not charging the electrified vehicle at home

Q29. What is the main reason you do not intend to charge your electrified vehicle at home? Sample size: Australia=21; China=72; Germany=91; India=35; Japan=32; Republic of Korea=130; US=23

Potential increases in the price of electricity may sway a significant number of consumers away from a PHEV/BEV purchase in most global markets.





Q30. Would your decision to purchase an electrified vehicle change if the electricity used for mobility was priced similar to current fossil fuels? Sample size: Australia=87; China=209; Germany=307; India=143; Japan=133; Republic of Korea=284; US=91

Consumers who said they are not considering an EV as their next vehicle cited range anxiety and a lack of public charging infrastructure as their biggest concerns.

Greatest concern regarding all battery-powered electric vehicles

Concern	US	Germany	Japan	Rep. of Korea	China	India	Australia
Driving range	20%	24%	15%	10%	22%	10%	22%
Cost/price premium	13%	12%	16%	9%	6%	12%	15%
Uncertain resale value	2%	2%	2%	1%	4%	4%	15%
Potential for extra taxes/levies associated with BEVs	4%	2%	1%	2%	6%	5%	7%
Time required to charge	10%	9%	8%	15%	11%	11%	7%
Lack of public electric vehicle charging infrastructure	14%	14%	19%	26%	12%	23%	7%
Lack of charger at home	8%	10%	19%	7%	5%	4%	7%
Lack of alternate power source (e.g., solar) at home	5%	4%	4%	3%	4%	6%	6%
Safety concerns with battery technology	9%	8%	6%	19%	16%	14%	3%
Lack of sustainability (i.e., battery manufacturing/recycling)	6%	10%	4%	4%	12%	8%	3%
Lack of choice	3%	3%	1%	1%	3%	3%	3%

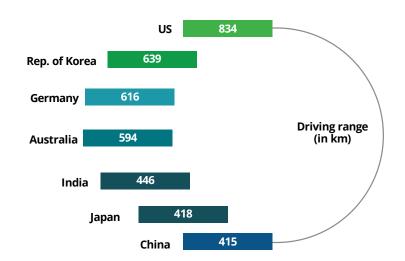
Greatest concern

Note: Sum of "concerns" for a market may not add up to 100% as "Other" and "Don't know" percentages are not shown.

Q31. What is your greatest concern regarding all battery-powered electric vehicles?

Sample size: Australia=928; China=888; Germany=1,303; India=910; Japan=695; Republic of Korea=899; US=974

US consumers expect fully charged BEV driving range to be north of 800 km, while Australians are more realistic, expecting a roughly 600 km driving range.

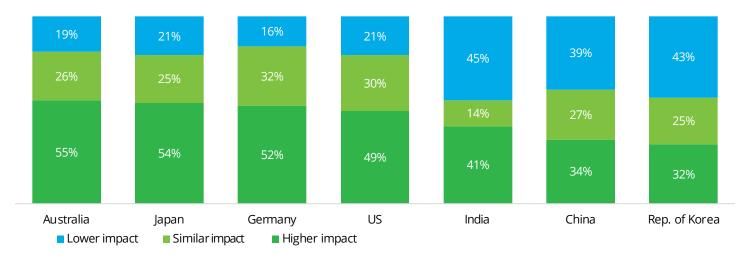


Consumer expectation of driving range from a fully charged all-battery electric vehicle

Q32. How much driving range would a fully charged all-battery electric vehicle need to have in order for you to consider acquiring one? Sample size: Australia=920; China=735; Germany=1,129; India=861; Japan=630; Republic of Korea=709; US=927

The general consensus in Australia is that BEVs have a lower (or similar) environmental impact than ICE vehicles, while the opposite is true in India, China and South Korea.



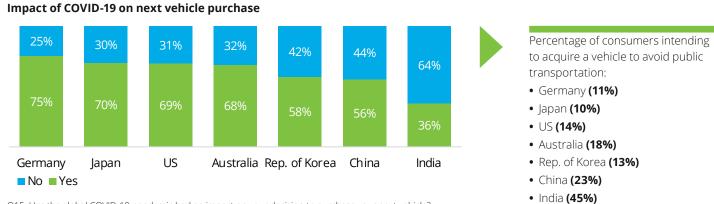


Note: Did not consider "Don't know" responses.

Q33. In your opinion, how do all-battery electric vehicles compare to internal combustion vehicles from an environmental impact point of view? Sample size: Australia=784; China=878; Germany=1,194; India=894; Japan=605; Republic of Korea=838; US=831

Future vehicle intentions

One-third of Australians say COVID-19 has influenced their vehicle purchase decision, with 18% intending to buy a vehicle to avoid public transport.



Q15. Has the global COVID-19 pandemic had an impact on your decision to purchase your next vehicle? Sample size: Australia=1,027; China=1,022; Germany=1,507; India=1,006; Japan=1,000; Republic of Korea=1,012; US=1,031

Consumers in Australia and Germany are the most likely to buy their next vehicle inperson. Having said that, there is significant potential for virtual sales processes to grow.

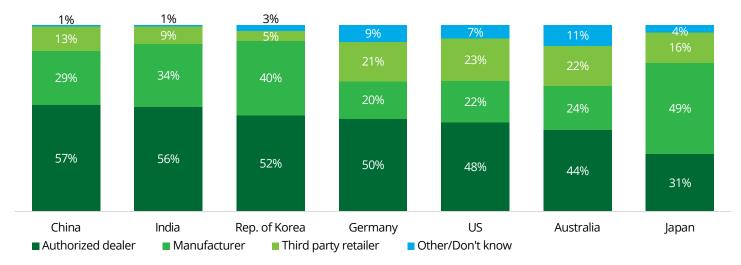
Australia 79% Germany US Japan 74% China Rep. of Korea 22% India 68% 10% In-person Partially virtual Fully virtual Don't know

Most preferred way to acquire next vehicle

Q35. How would you most prefer to acquire your next vehicle?

Sample size: Australia=957; China=888; Germany=1,303; India=910; Japan=695; Republic of Korea=899; US=974

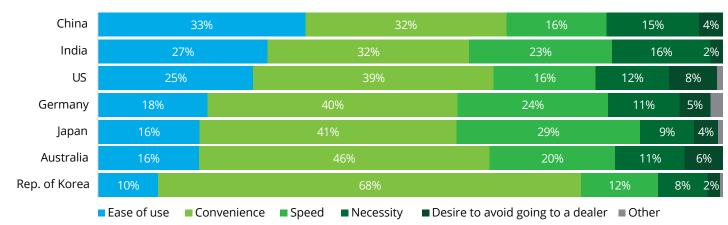
In most countries, consumers who plan to purchase virtually would prefer to buy from dealers (except Japan, where consumers would buy direct from the OEM).



Most preferred way to acquire next vehicle via a virtual process

Q36. From whom would you most prefer to acquire your next vehicle via a virtual process? Sample size: Australia=171; China=238; Germany=245; India=278; Japan=129; Republic of Korea=238; US=220

Convenience coupled with ease of use and speed are the main reasons for consumers to consider a virtual process for acquiring their next vehicle.



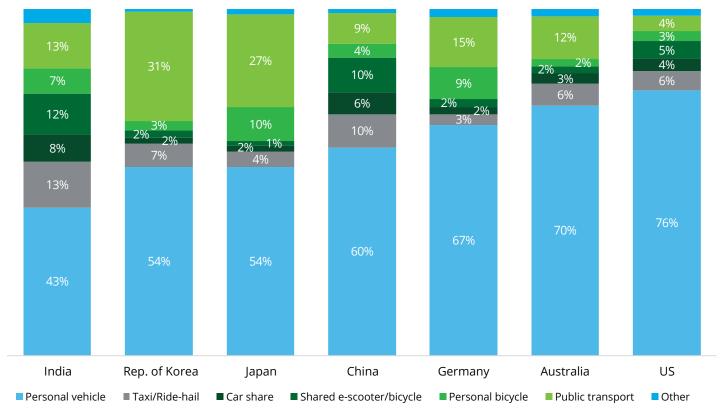


Q37. What is the main reason you would prefer to acquire your next vehicle via a virtual process? Sample size: Australia=171; China=238; Germany=245; India=278; Japan=129; Republic of Korea=238; US=220

Mobility services

Personal vehicles are the preferred mobility choice across markets, particularly in Australia and the US. Public transport is the second most preferred mode in South Korea and Japan.

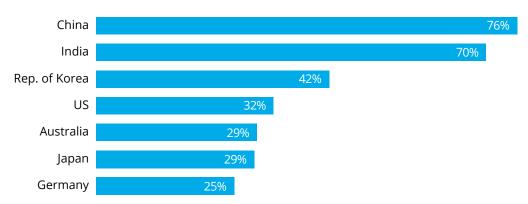
Mobility modes to meet transportation needs



Q44. Going forward, what percentage of your mobility needs will be addressed by each of the following types of transportation? Sample size: Australia=1,027; China=1,022; Germany=1,507; India=1,006; Japan=1,000; Republic of Korea=1,012; US=1,031

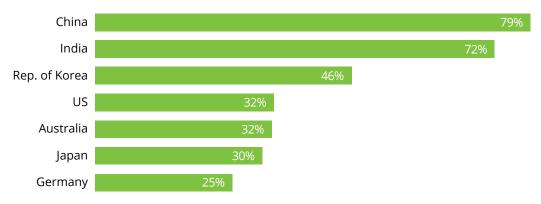
The idea of a vehicle subscription service is significantly more interesting to consumers in China and India as compared to other major global auto markets.

Percentage of consumers who are somewhat/very interested in a subscription that allows access to...

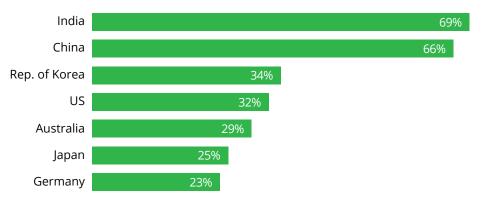


Different models from same brand

Different brand of vehicles



Different pre-owned vehicles



Q45. How interested are you in each of the following scenarios?

Sample size: Australia=1,027; China=1,022; Germany=1,507; India=1,006; Japan=1,000; Republic of Korea=1,012; US=1,031

Consumers would most prefer a subscription service that focuses on convenience, flexibility, and availability of vehicles.

Top three most important characteristics of a vehicle subscription

Characteristics	US	Germany	Japan	Rep. of Korea	China	India	Australia
Convenience (e.g., all relevant services included, except for fuel)	1	1	1	1	1	1	1
Increased flexibility (e.g., shorter contract durations)	4	2	2	3	2	2	4
Possibility to exchange vehicles	2	5	5	4	3	3	2
Possibility to subscribe to a vehicle segment (e.g., SUVs) instead of a specific model	7	9	10	10	5	5	8
Possibility to subscribe to a specific model instead of a vehicle segment	9	10	11	13	8	9	10
Availability of vehicles (e.g., short delivery times)	3	3	3	9	4	4	3
Home delivery services (e.g., vehicle is dropped off and picked up at desired location)	8	6	8	11	6	10	7
Hassle-free online contract closing/ full digital customer journey	12	8	6	6	10	12	12
Full cost control due to transparent and predictable fixed monthly fees (e.g., no surprises via all-in offers)	5	4	4	2	9	8	5
Availability of complementary premium services (e.g., concierge services, valet parking)	14	14	14	12	11	14	14
Premium vehicles/brands offered	10	12	12	8	7	11	9
Selection of only brand-new vehicles (for a comparable higher monthly rate)	13	13	13	14	12	13	13
Selection of brand new as well as certified pre-owned vehicles (for a comparable lower monthly rate)	11	11	9	7	14	7	11
Possibility to test new vehicles for a certain period without consequences	6	7	7	5	13	6	6

Q47. What are the top three most important characteristics of a vehicle subscription?

Sample size: Australia=1,027; China=1,022; Germany=1,507; India=1,006; Japan=1,000; Republic of Korea=1,012; US=1,031

About the study

The 2022 study includes more than 26,000 consumer responses from 25 countries around the world.

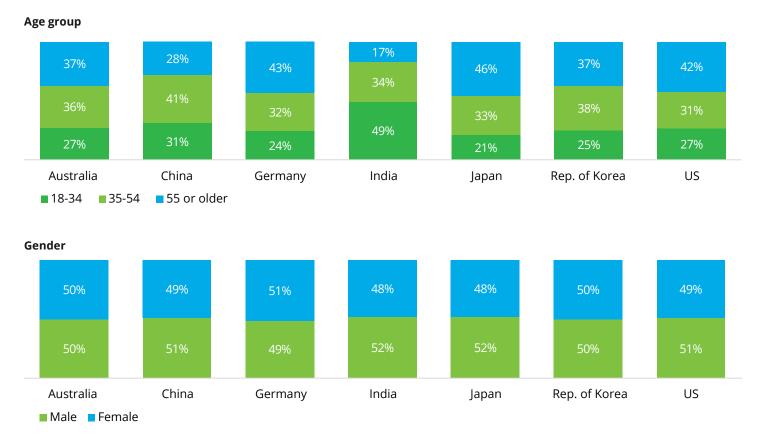
North America	Sample	EMEA	Sample	Asia-Pacific	Sample
Canada (CA)	1,005	Austria (AT)	1,042	Australia (AU)	1,027
Mexico (MX)	1,003	Belgium (BE)	1,046	China (CN)	1,022
United States (US)	1,031	Czech Republic (CZ)	1,006	India (IN)	1,006
		France (FR)	1,005	Indonesia (ID)	1,001
		Germany (DE)	1,507	Japan (JP)	1,000
		Italy (IT)	1,003	Malaysia (MY)	1,005
		Poland (PL)	1,007	Philippines (PH)	1,007
		Romania (RO)	846	Republic of Korea (KR)	1,012
		South Africa (ZA)	1,011	Singapore (SG)	1,015
		Spain (ES)	1,013	Thailand (TH)	1,004
		United Kingdom (GB)	1,506	Vietnam (VN)	1,017

Study methodology

The study is fielded using an online panel methodology where consumers of driving age are invited to complete the questionnaire (translated into local languages) via email.

Note: "Sample" represents the number of survey respondents in each country.

Study demographics



Sample size: Australia=1,027; China=1,022; Germany=1,507; India= Japan=1,000; Rep. of Korea=US=1,031;

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Acknowledgments

We would also like to thank **Srinivasa Reddy Tummalapalli, Srinivasarao Oguri**, and **Dinesh Tamilvanan** for their important contributions to the research.



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