Deloitte.

2023 Global Automotive Consumer Study

Southeast Asia perspectives

March 2023

MAKING AN IMPACT THAT MATTERS since 1845

Contents

2023 Deloitte Global Automotive Consumer Study

For over a decade, Deloitte has been exploring automotive consumer behaviours and trends impacting a rapidly evolving global mobility ecosystem. The goal of this annual study is to answer important questions that can help companies prioritise and better position their business strategies and investments.

Between September and October 2022, Deloitte surveyed more than 26,000 consumers in 24 geographies to explore opinions regarding a variety of critical issues impacting the automotive sector, including consumer interest in electric vehicle (EV) adoption, brand perception, and the adoption of connected technologies.

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

Southeast Asia perspectives

Within the Southeast Asia region, 6,048 survey respondents across six geographies – Indonesia (n=1,003), Malaysia (n=1,006), Philippines (n=1,008), Singapore (n=1,003), Thailand (n=1,009), and Vietnam (n=1,019) – were covered in the study. Overall, our findings have revealed four themes around consumers' changing automotive and mobility preferences:

1

Vehicle electrification

Interest in EVs is growing across Southeast Asia as consumers, pressured by hyper-inflationary conditions, look to lower their operating costs. However, a focus on building public charging capacity – and making it easy for EV owners to pay for public charging – will be critical for overall adoption.

2

Future vehicle intentions

Expectations regarding the acceptable length of time to wait for delivery is starting to stretch out in some Southeast Asia markets on the back of the semiconductor crisis – potentially opening the door for a more "built-to-order" retail paradigm. In terms of their purchase experience, consumers place significant emphasis on getting a good deal with transparent pricing.

3

Vehicle brand and service experience

When asked who they trust most, Southeast Asia consumers point to the relationship they have with either their selling or servicing dealer, signalling the important role that dealers play in the regional automotive value chain – particularly in the conversation around direct-to-consumer sales.

4

Connectivity

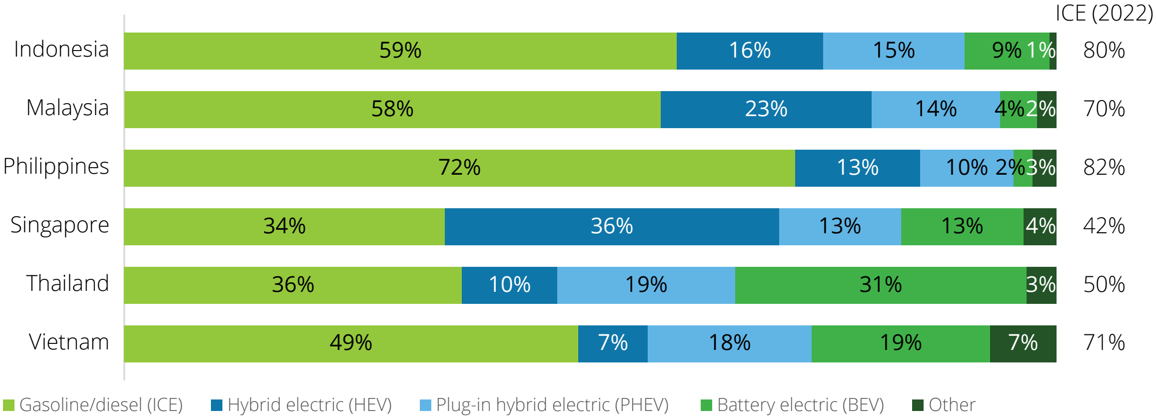
Consumers in Southeast Asia are willing to share their data for connected vehicle features, but most would rather pay for them as part of the upfront cost of the vehicle or on a per use basis, instead of a subscription.

1 Vehicle electrification

Interest in hybrid technology

The shift to EVs is happening at different speeds across Southeast Asia. Interest in hybrid technology also continues to outstrip full battery electric vehicles (BEVs) in most geographies except Thailand.

Preference for type of engine in next vehicle



Note: Other includes vehicles with engine types such as compressed natural gas, ethanol, and hydrogen fuel cells; don't know responses weren't considered.
Q40. What type of engine would you prefer in your next vehicle?
Sample size: n=803 [Indonesia]; 910 [Malaysia]; 828 [Philippines]; 706 [Singapore]; 943 [Thailand]; 899 [Vietnam]

Motivations for choosing EVs

Despite government messaging around the need to address climate change, the shift to EVs is primarily based on a strong consumer perception that it will significantly reduce vehicle operating costs.

Top reasons to choose an EV as next vehicle

Factors	Indonesia	Malaysia	Philippines	Singapore	Thailand	Vietnam
Concerns about climate change	8	8	6	7	5	5
Concerns about personal health	7	7	4	8	6	2
Lower fuel costs	1	1	1	1	1	1
Less maintenance	4	2	3	3	3	7
Ability to use the vehicle as a backup battery/power source	3	5	5	6	4	4
Peer pressure	9	9	9	9	9	9
Better driving experience	2	3	2	4	2	3
Government incentives/subsidies/ stimulus programs	5	4	8	2	8	6
Potential for extra taxes/levies applied to internal combustion vehicles	6	6	7	5	7	8

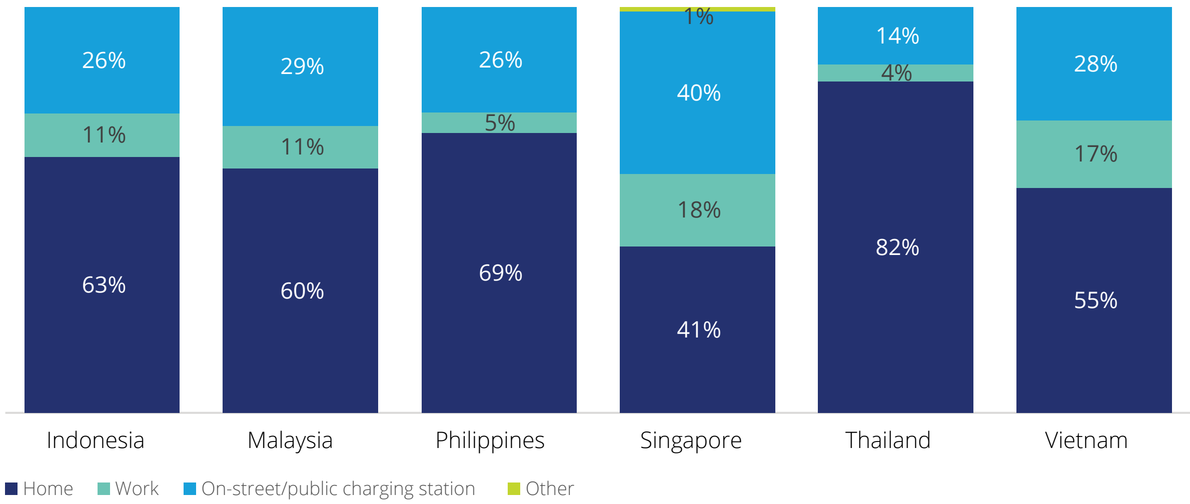
Top reason

Note: Sum of the percentages exceed 100% as respondents can select multiple options.
Q41. Please rank the following factors in terms of their impact on your decision to acquire an electrified vehicle (highest to lowest).
Sample size: n=321 [Indonesia]; 367 [Malaysia]; 211 [Philippines]; 438 [Singapore]; 571 [Thailand]; 397 [Vietnam]

Expectations for EV charging facilities

A focus on building public charging capacity is needed to address concerns over range anxiety, but the reality of day-to-day usage means most consumers will charge their EVs at home. However, this raises questions around the availability of home chargers in Southeast Asia's populated, urban environments.

Locations where consumers expect to charge their EVs most often

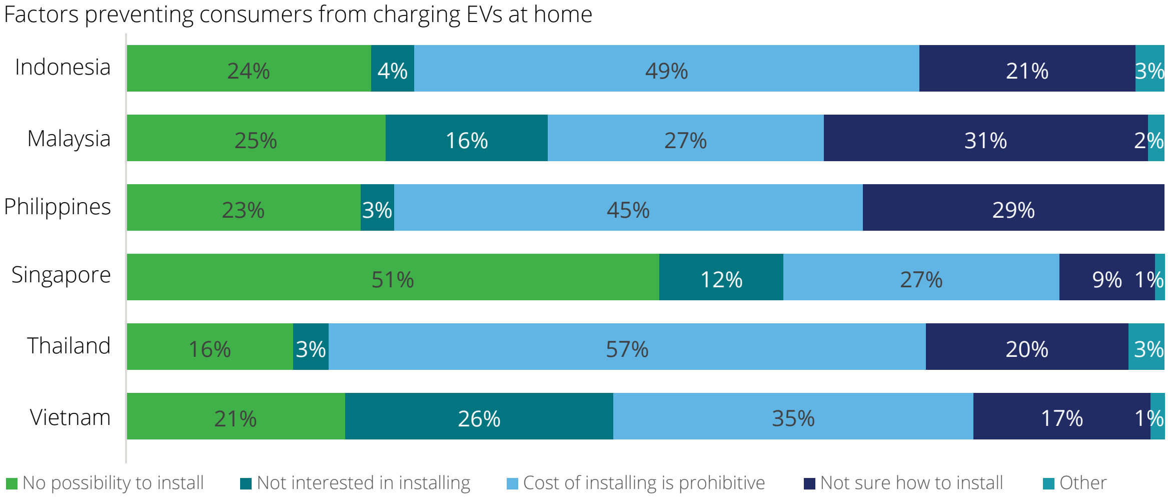


Q43: Where do you expect to charge your electrified vehicle most often?
Sample size: n=195 [Indonesia]; 161 [Malaysia]; 100 [Philippines]; 185 [Singapore]; 475 [Thailand]; 330 [Vietnam]

Barriers to home charging

Retrofitting home chargers may be a significant challenge, but there may be an opportunity to engage consumers in markets where the primary barrier to home charging is cost to install the equipment.

Factors preventing consumers from charging EVs at home

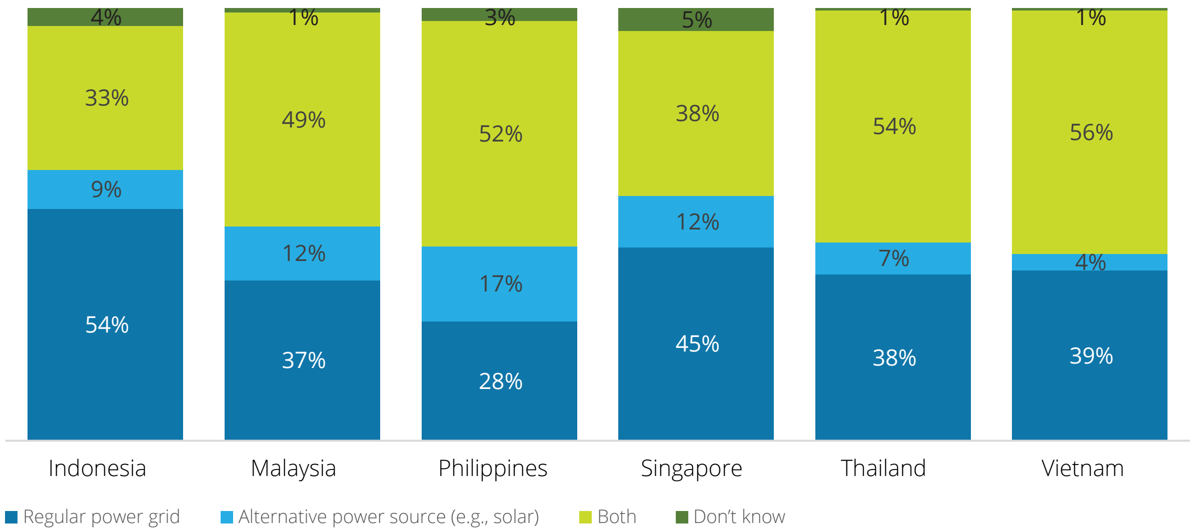


Q45: What is the main reason you do not intend to charge your electrified vehicle at home?
Sample size: n=72 [Indonesia]; 64 [Malaysia]; 31 [Philippines]; 109 [Singapore]; 87 [Thailand]; 147 [Vietnam]

Preferred power sources for home charging

Availability of renewable power is important for EV intenders in several Southeast Asia markets as questions remain around grid capacity to support the shift away from fossil fuels for mobility.

How potential EV buyers intend to charge their vehicles at home



Q44: How do you intend to charge your electrified vehicle at home?
Sample size: n=123 [Indonesia]; 97 [Malaysia]; 69 [Philippines]; 76 [Singapore]; 388 [Thailand]; 183 [Vietnam]

Preferred payment methods for public charging

Making it easy for EV owners to pay for public charging is critically important for overall adoption and may be a key differentiator for network operators trying to solidify their position in a hyper-competitive space.

Most preferred way to pay for public EV charging

Payment methods	Indonesia	Malaysia	Philippines	Singapore	Thailand	Vietnam
Smartphone app	59%	44%	40%	30%	67%	60%
Credit/debit card	23%	40%	38%	52%	18%	23%
Pre-paid subscription plan	11%	7%	14%	9%	8%	9%
Loyalty points	5%	8%	8%	8%	6%	7%
Other	2%	1%	0%	0%	1%	0%

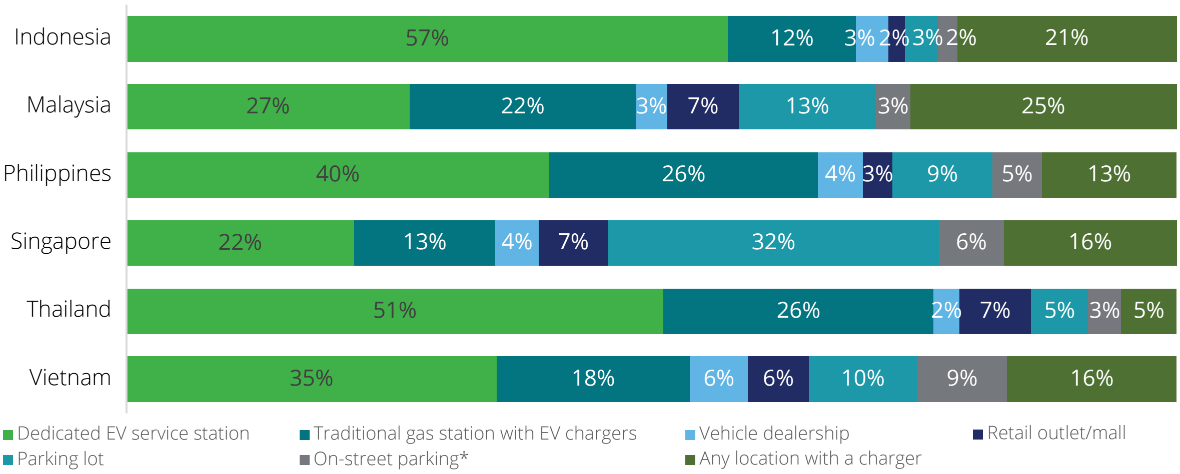
Most preferred mode of payment

Note: Sum of the percentages exceed 100% as respondents can select multiple options.
Q49: How would you most prefer to pay for public EV charging?
Sample size: n=321 [Indonesia]; 367 [Malaysia]; 211 [Philippines]; 438 [Singapore]; 571 [Thailand]; 397 [Vietnam]

Preferred locations for public charging

When forced to charge on the go, consumers would most prefer either a dedicated EV service station or a traditional gas station equipped with chargers. However, a significant number of consumers in Malaysia and Indonesia simply want access to charging when they need it regardless of location.

Locations where consumers expect to charge their EVs most often when on the go

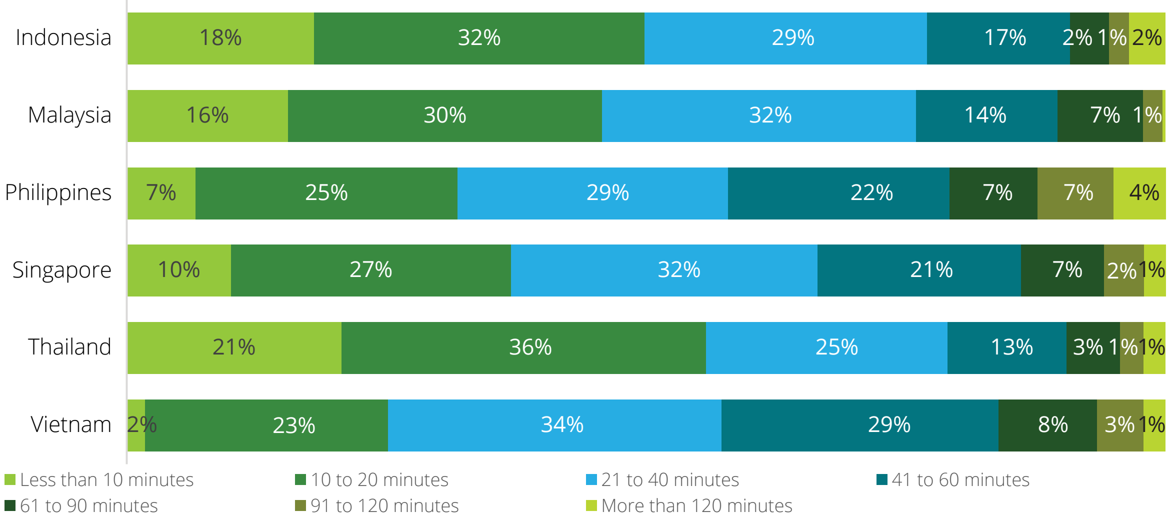


*On-street parking includes community/public buildings, hotels, etc.
Q46: Which of the following public locations makes the most sense to charge your EV when you are away from home?
Sample size: n=321 [Indonesia]; 367 [Malaysia]; 211 [Philippines]; 438 [Singapore]; 571 [Thailand]; 397 [Vietnam]

Expected charge times

The assumption that EV charge times need to be on par with fossil fuel fill-ups may be somewhat overstated as consumers in most Southeast Asia markets are willing to wait substantially longer than 10 minutes to refuel.

Expected wait time to charge an EV at public charging stations from empty to 80%



Q47: How long would you expect it to take to charge your EV from empty to 80% at a public charging location?
Sample size: n=321 [Indonesia]; 367 [Malaysia]; 211 [Philippines]; 438 [Singapore]; 571 [Thailand]; 397 [Vietnam]

Preferred amenities at public charging locations

With Southeast Asia consumers ready to spend a significant amount of time at charging stations, service providers can focus on amenities like beverages, Wi-Fi connectivity, lounges, and restrooms.

Type of amenities that consumers want to have access to while their vehicle is charging at a public location

Amenities	Indonesia	Malaysia	Philippines	Singapore	Thailand	Vietnam
Coffee/beverages	80%	80%	77%	66%	78%	76%
Snacks/light meals	68%	68%	75%	54%	53%	56%
Full-service restaurant	57%	42%	44%	25%	69%	38%
WiFi connectivity	78%	68%	89%	65%	68%	74%
Private meeting room	22%	14%	15%	14%	33%	18%
Washrooms	79%	74%	70%	67%	72%	57%
Lounge/sitting area	84%	70%	73%	55%	53%	43%

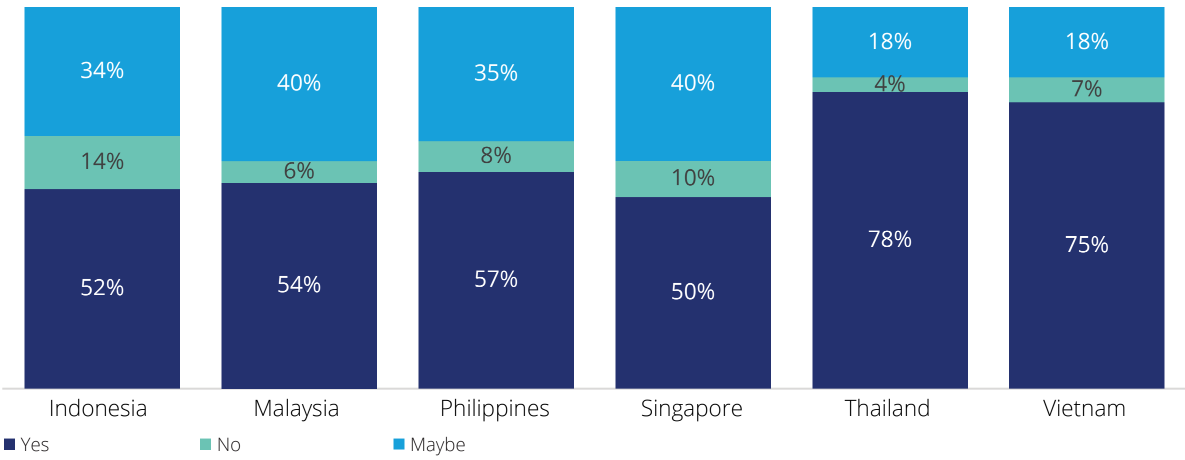
Top choice

Note: Sum of the percentages exceed 100% as respondents can select multiple options.
Q48: What type of amenities would you want to have access to while your vehicle is charging at a public location?
Sample size: n=321 [Indonesia]; 367 [Malaysia]; 211 [Philippines]; 438 [Singapore]; 571 [Thailand]; 397 [Vietnam]

Willingness to rethink EV purchase in favour of ICE engines capable of utilising sustainable fuel

In a scenario where an environmentally sustainable, synthetic fuel for use in traditional combustion engines was commercially available, a significant number of EV intenders would rethink their decision.

Percentage of consumers who would rethink purchase of an EV if an environmentally sustainable fuel alternative is available for ICE engines

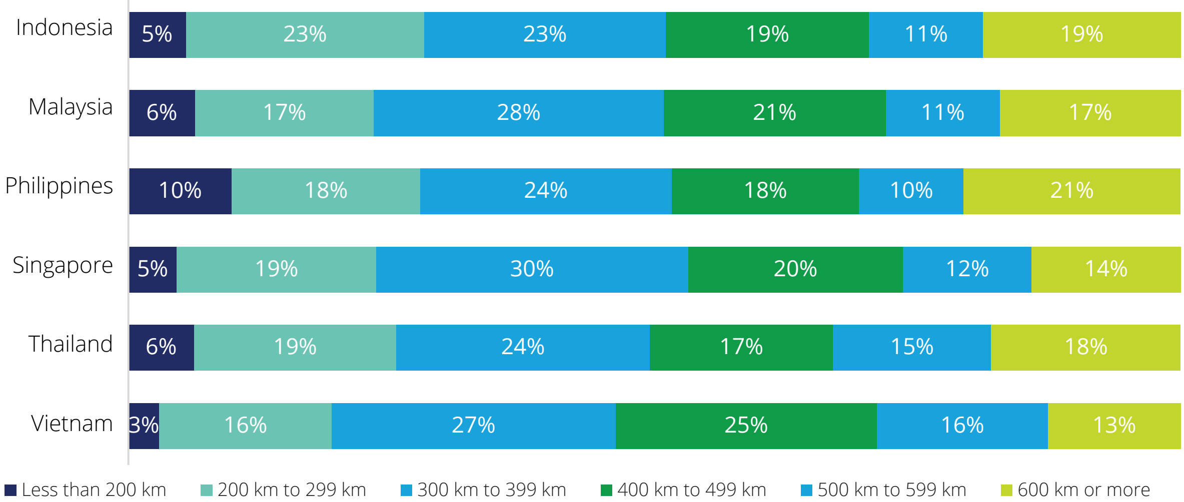


Q42. In a scenario where an environmentally sustainable, synthetic fuel alternative (i.e., carbon-neutral gas) that would work in traditional internal combustion engines was readily available, would you rethink your decision to purchase an EV?
Sample size: n=321 [Indonesia]; 367 [Malaysia]; 211 [Philippines]; 438 [Singapore]; 571 [Thailand]; 397 [Vietnam]

Expected driving range of BEVs

About half of non-BEV intenders across all Southeast Asia markets would expect a fully charged BEV to have a driving range of at least 400 km in order to consider one as a viable option for their next vehicle.

Consumer expectations on BEV driving range



Q52: 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: n=750 [Indonesia]; 896 [Malaysia]; 844 [Philippines]; 671 [Singapore]; 672 [Thailand]; 745 [Vietnam]

Concerns regarding use of full BEVs

With the exception of Singapore where charge time is top of mind, consumers are generally most concerned about a lack of public charging infrastructure.

Greatest concern regarding all battery-powered EVs

Concerns	Indonesia	Malaysia	Philippines	Singapore	Thailand	Vietnam
Driving range	48%	44%	43%	34%	44%	41%
Cost/price premium	32%	59%	40%	46%	45%	36%
Cold weather performance	42%	23%	33%	18%	36%	36%
Increased need to plan my trips	18%	25%	24%	23%	30%	28%
Uncertain resale value	34%	28%	19%	23%	20%	23%
Potential for extra taxes/levies associated with full BEVs	27%	27%	24%	25%	20%	29%
Time required to charge	53%	54%	51%	**49%**	46%	43%
Ongoing charging and running costs	44%	41%	35%	38%	41%	41%
Lack of knowledge or understanding about EVs/EV technology	42%	36%	36%	26%	34%	29%
Lack of public EV charging infrastructure	**63%**	**61%**	**55%**	48%	**48%**	**48%**
Lack of charger at home	40%	42%	35%	37%	32%	32%
Lack of alternate power source at home	25%	36%	43%	29%	26%	42%
Safety concerns with battery technology	44%	42%	45%	37%	34%	38%
Lack of sustainability	27%	38%	41%	28%	29%	37%
Lack of choice	16%	23%	13%	15%	26%	21%

Most commonly cited

Note: Sum of the percentages exceed 100% as respondents can select multiple options.
Q51: What are your biggest concerns regarding full battery-powered electric vehicles? Please select all that apply.
Sample size: n=823 [Indonesia]; 932 [Malaysia]; 861 [Philippines]; 764 [Singapore]; 967 [Thailand]; 917 [Vietnam]

2 Future vehicle intentions

Purchase considerations for next vehicle

Across all Southeast Asia markets, consumers rely on a perception of product quality when making a purchase decision.

Most important factors driving brand choice for next vehicle

Drivers of brand choice	Indonesia	Malaysia	Philippines	Singapore	Thailand	Vietnam
Previous sales experience	24%	18%	18%	15%	34%	18%
Previous service experience	29%	21%	24%	17%	33%	33%
Product quality	78%	74%	78%	65%	64%	64%
Brand advertising	20%	16%	17%	12%	25%	32%
Brand image	43%	36%	41%	27%	37%	48%
Brand affiliations	15%	11%	11%	9%	19%	24%
Brand familiarity	31%	33%	38%	32%	33%	36%
Quality of overall ownership experience	42%	38%	39%	29%	29%	41%
Vehicle features	54%	55%	58%	43%	49%	52%
Availability of BEVs/hybrid options	23%	22%	26%	24%	29%	27%
Vehicle performance	49%	54%	61%	43%	26%	37%
Price	34%	41%	41%	36%	18%	23%

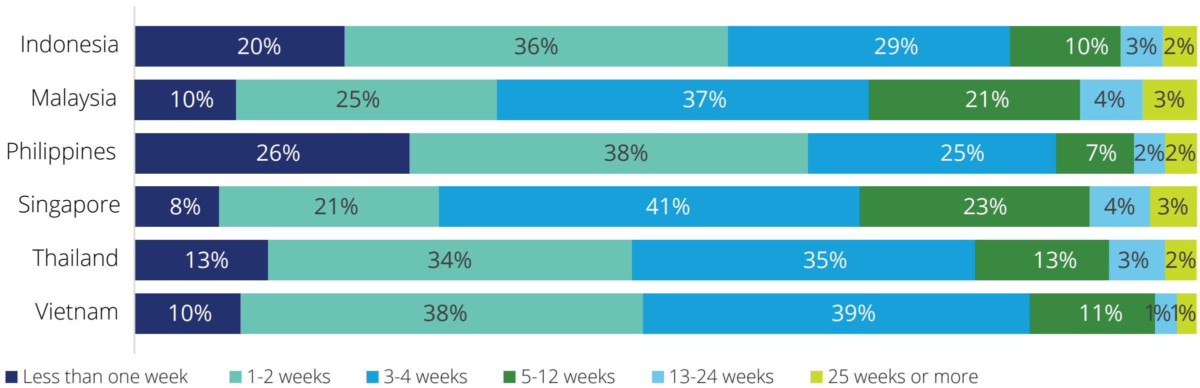
Most commonly cited

Note: Sum of the percentages exceed 100% as respondents can select multiple options.
Q35. What are the most important factors driving the choice of brand for your next vehicle? (Please select all that apply).
Sample size: n=823 [Indonesia]; 932 [Malaysia]; 861 [Philippines]; 764 [Singapore]; 967 [Thailand]; 917 [Vietnam]

Acceptable wait times for next vehicle

The current inventory crisis may be acclimatising consumers to longer wait times for the delivery of a new vehicle in some markets, potentially opening the door to a more "build-to-order" retail paradigm.

Acceptable length of time to wait for delivery of next vehicle



Q37: In your opinion, what is an acceptable length of time to wait for delivery of your next vehicle if it meant you got exactly what you wanted (i.e., features, colour, etc.)?
Sample size: n=823 [Indonesia]; 932 [Malaysia]; 861 [Philippines]; 764 [Singapore]; 967 [Thailand]; 917 [Vietnam]

Priorities for the vehicle purchase experience

When it comes to vehicle purchase experience expectations, consumers in most Southeast Asia markets place the greatest emphasis on getting a good deal with transparent pricing, but a significant number of consumers in Thailand also want resources for their post-purchase needs.

Most important aspects of the purchase experience

Aspects of vehicle purchase experience	Indonesia	Malaysia	Philippines	Singapore	Thailand	Vietnam
Getting all my questions answered	29%	26%	41%	24%	27%	27%
Making good use of my time	13%	16%	15%	14%	21%	17%
Physical interaction with the vehicle	45%	46%	51%	41%	28%	35%
Building trust in the salesperson	18%	15%	15%	14%	25%	23%
Ability to complete all or some of the process online	16%	16%	16%	17%	17%	26%
Convenient location	20%	18%	17%	20%	21%	22%
Getting a good deal	57%	55%	52%	57%	40%	36%
Transparent pricing	40%	49%	45%	57%	35%	50%
Low pressure experience	10%	13%	10%	16%	19%	13%
Having a resource for post-purchase needs	30%	21%	19%	18%	40%	27%
To be offered different financing and usage-based models	22%	26%	19%	23%	28%	25%

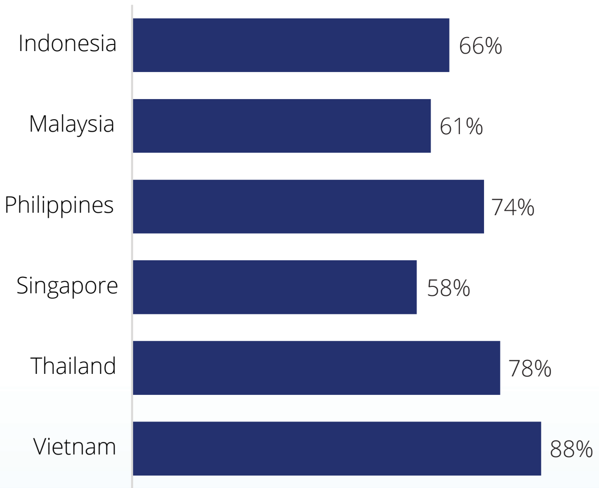
Most commonly cited

Note: Sum of the percentages exceed 100% as respondents can select multiple options.
Q59: When looking to acquire your next vehicle, what are the top three most important aspects of the purchase experience?
Sample size: n=823 [Indonesia]; 932 [Malaysia]; 861 [Philippines]; 764 [Singapore]; 967 [Thailand]; 917 [Vietnam]

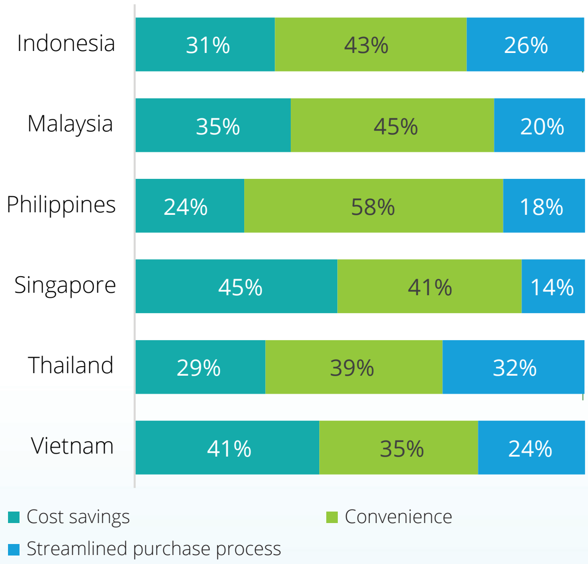
Interest and expectations of insurance purchase

As original equipment manufacturers (OEMs) look at every potential profit pool going forward, including offering their own insurance products, consumers in several Southeast Asia markets are signalling a significant level of interest based on the perception that it will be convenient and cost-effective.

Percentage of consumers who would be interested in purchasing insurance directly from the manufacturer



Primary benefits consumers look for when purchasing insurance directly from the manufacturer



Q60: The next time you acquire a vehicle, how interested would you be in purchasing insurance directly from the vehicle manufacturer?
Sample size: n=823 [Indonesia]; 932 [Malaysia]; 861 [Philippines]; 764 [Singapore]; 967 [Thailand]; 917 [Vietnam]

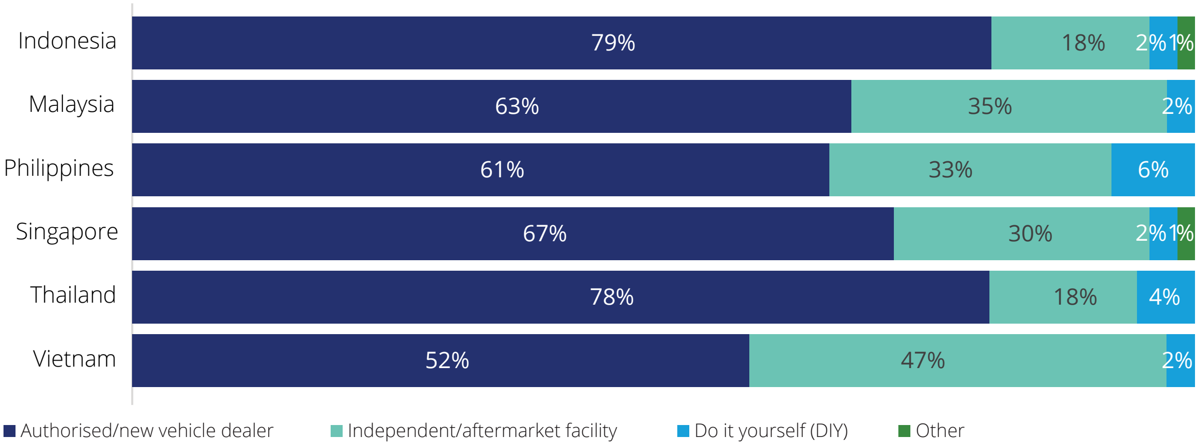
Q61: What do you expect the primary benefit of buying insurance directly from the manufacturer to be?
Sample size n=540 [Indonesia]; 569 [Malaysia]; 638 [Philippines]; 440 [Singapore]; 755 [Thailand]; 808 [Vietnam]

3 Vehicle brand and service experience

Preferred vehicle service provider

A preference for new vehicle dealers as primary service providers is pronounced in most Southeast Asia markets, except Vietnam where aftermarket players claim an almost equal share of the vehicle service market as new vehicle dealers.

Preferred vehicle service provider



Q24. Where do you normally service your vehicle?
Sample size: n= 629 [Indonesia]; 943 [Malaysia]; 581 [Philippines]; 609 [Singapore]; 844 [Thailand]; 795 [Vietnam]

Reasons for preferring a vehicle service provider

Consumers service their vehicle at a dealership mainly due to a perception of work quality and trust, while the primary drivers of servicing at an aftermarket provider are work quality, cost, and convenience.

Reasons for choosing vehicle service provider (by preferred provider)

	Dealer					Aftermarket				
	Cost	Trust	Convenience	Quality of work	Customer experience	Cost	Trust	Convenience	Quality of work	Customer experience
Indonesia	4%	28%	13%	**44%**	10%	24%	24%	8%	**33%**	12%
Malaysia	11%	19%	11%	**46%**	10%	28%	15%	16%	**32%**	9%
Philippines	8%	22%	15%	**46%**	8%	24%	14%	19%	**33%**	10%
Singapore	16%	27%	9%	**36%**	11%	**38%**	13%	12%	28%	9%
Thailand	4%	**56%**	17%	7%	16%	26%	24%	**29%**	9%	12%
Vietnam	5%	**42%**	9%	34%	10%	10%	28%	15%	**43%**	4%

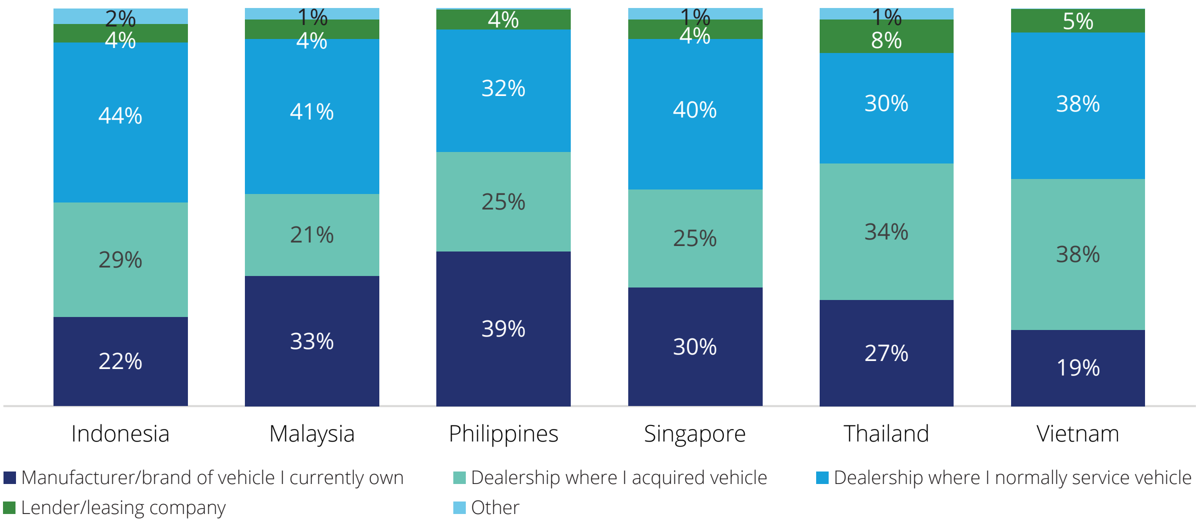
Primary reason for choice

Note: Sum of the percentages exceed 100% as respondents can select multiple options.
Q25. What is the most important reason for your preferred choice of vehicle service provider?
Sample size: n for dealer= 494 [Indonesia]; 594 [Malaysia]; 352 [Philippines]; 411 [Singapore]; 661 [Thailand]; 411 [Vietnam];
n for aftermarket= 118 [Indonesia]; 328 [Malaysia]; 193 [Philippines]; 185 [Singapore]; 151 [Thailand]; 370 [Vietnam]

Most trusted vehicle service providers

Consumers across Southeast Asia most trust the dealer where they originally acquired or normally service their vehicle, signalling the important role dealers play in maintaining customer relationships.

Vehicle service providers with whom consumers have the most trusted relationships



Q27: With whom do you have the most trusted relationship?
Sample size: n=629 [Indonesia]; 943 [Malaysia]; 581 [Philippines]; 609 [Singapore]; 844 [Thailand]; 795 [Vietnam]

Preferred features for a vehicle brand app

Across Southeast Asia, consumers expect a brand app to help them with vehicle features and the scheduling or tracking of service appointments. However, interest in using brand apps for charging and public parking is significantly lower.

Most important features of a vehicle brand app

Features of vehicle brand app	Indonesia	Malaysia	Philippines	Singapore	Thailand	Vietnam
Chat with a live agent	36%	29%	35%	20%	30%	28%
Make payments	34%	41%	48%	32%	44%	52%
Learn about vehicle features	66%	52%	64%	39%	40%	53%
Track service appointments	37%	56%	45%	43%	49%	41%
Track vehicle location	36%	36%	39%	30%	28%	41%
Build and price your next vehicle	26%	19%	23%	15%	22%	29%
Schedule service appointments	45%	61%	55%	47%	31%	31%
Locate a dealer	31%	27%	26%	16%	23%	30%
Purchase accessories	32%	29%	38%	22%	39%	43%
Remote start	28%	20%	22%	15%	22%	29%
Lock/unlock vehicle	36%	33%	39%	22%	22%	34%
View/redeem loyalty points	14%	25%	21%	21%	14%	28%
View and add features to enhance vehicle	34%	29%	40%	23%	29%	42%
View and add battery life	22%	33%	32%	28%	29%	29%
Search and pay for public vehicle charging access	25%	15%	19%	17%	19%	23%
Search and pay for public parking	14%	15%	16%	14%	8%	17%

Most commonly cited

Note: Sum of the percentages exceed 100% as respondents can select multiple options.
Q28. What are the most important features of a vehicle brand app? (Please select all that apply).
Sample size: n=629 [Indonesia]; 943 [Malaysia]; 581 [Philippines]; 609 [Singapore]; 844 [Thailand]; 795 [Vietnam]

4 Connectivity

Interest in connected vehicle features

Southeast Asia consumers are ready to share personally identifiable information (PII) if it means gaining access to valuable tools, such as updates to improve road safety, suggestions to avoid traffic congestion, and vehicle maintenance updates.

Level of consumer interest in connected vehicle features

Connected vehicle features	Indonesia	Malaysia	Philippines	Singapore	Thailand	Vietnam
Updates regarding traffic congestion and suggested alternate routes	83%	77%	80%	71%	83%	89%
Suggestions regarding safer routes (i.e., avoid unpaved roads)	77%	73%	81%	66%	84%	86%
Updates to improve road safety and prevent potential collisions	87%	77%	82%	67%	83%	89%
Customised/optimised vehicle insurance plan (e.g., "pay how you drive" plans)	74%	61%	70%	58%	80%	85%
Maintenance updates and vehicle health reporting/alerts	83%	77%	81%	70%	85%	88%
Maintenance cost forecasts based on your driving habits	79%	74%	76%	69%	84%	86%
Customised suggestions regarding ways to minimise service expenses	79%	71%	76%	65%	86%	84%
Over-the-air vehicle software updates that correct or improve your driving experience	76%	67%	74%	61%	80%	87%
Access to nearby parking (i.e., availability, booking, and payment)	74%	73%	75%	71%	79%	84%
Special offers regarding non-automotive products and services related to your journey or destination	66%	58%	67%	56%	81%	85%
Receiving a discount for access to a Wi-Fi connection in your vehicle	75%	61%	73%	58%	79%	79%

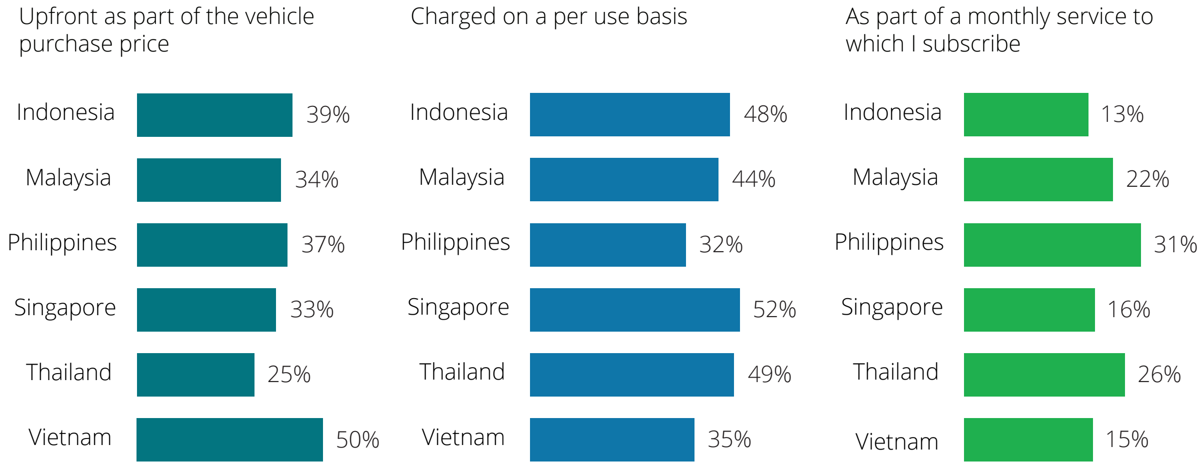
Most commonly cited (very/somewhat interested)

Note: Sum of the percentages exceed 100% as respondents can select multiple options.
Q55: How interested are you in the following benefits of a connected vehicle if it meant sharing your own personally identifying data and/or vehicle/operational data with the manufacturer or a third party?
Sample size: n=823 [Indonesia]; 932 [Malaysia]; 861 [Philippines]; 764 [Singapore]; 967 [Thailand]; 917 [Vietnam]

Preferred payment arrangements for connected vehicle services

Mobility providers looking to offer subscription services for connected vehicle technologies may find it challenging as most Southeast Asia consumers would rather pay for these features either upfront as part of the vehicle purchase price or on a per use basis.

Preferred ways to pay for additional connectivity technologies



Q58: How would you prefer to pay for additional connectivity technologies in your vehicle?
Sample size: n=823 [Indonesia]; 932 [Malaysia]; 861 [Philippines]; 764 [Singapore]; 967 [Thailand]; 917 [Vietnam]

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Designed by CoRe Creative Services RITM1282009