

**Deloitte.**



Beyond vehicle ownership  
Changing the way consumers  
think about mobility

September 2023

# Introduction

The automotive industry has witnessed a great deal of change over the past decade with the rise of electrification, [software-defined vehicles](#), digital purchasing experiences, and nontraditional ownership models. Along with these shifts, an increasing number of new mobility services, including e-scooters, city bikes, ride-hailing, and car sharing are providing consumers with a wide array of options that go well beyond traditional vehicle ownership. There is an equally long list of reasons people are gravitating to these “mobility-as-a-service” models. Some consumers want to reduce their carbon footprint, while others would do anything to avoid urban traffic. However, one of the most important reasons stems from the concern consumers have regarding their financial capacity in a period of prolonged global economic uncertainty. Recent study results indicate that half of US consumers are concerned about the amount of money they have saved. Further, more than one in five people are concerned about making upcoming payments and nearly a third are worried about their credit card debt.<sup>1</sup>

To meet these changing consumer needs, some emerging mobility providers are disrupting the industry with innovative ownership models that offer quick, hassle-free, app-enabled transportation. One such model is the vehicle subscription that bundles all costs into one payment, allows for shorter terms than either a lease or loan, and offers customers an efficient, engaging digital shopping experience. Recent study results show that one-third of consumers under 55 years of age are interested in giving up vehicle ownership in favor of subscribing to the use of a vehicle going forward.<sup>2</sup>

Vehicle subscriptions are not entirely new as some traditional vehicle manufacturers have experimented with them over the years with varying degrees of success.<sup>3</sup> One of the reasons these early attempts at subscriptions did not live up to expectations hinged on the fact that customers were given full flexibility to change their vehicle at will, which caused enormous logistical issues for the provider. Ultimately, many of these early prototype services proved cost-prohibitive (even with an elevated price structure) and were abandoned. However, revisiting the concept through a new strategic lens that puts consumer affordability at the center, could be beneficial for traditional automakers as it may unlock a new segment of the market and potential profit pool. In fact, vehicle subscriptions have been identified as one of the “rising stars” of profitability for mobility providers over the coming decade.<sup>4</sup>

Emerging electric vehicle (EV) manufacturers are also partnering with third-party vehicle subscription services as a valuable market growth strategy without the need to build in-house financing capabilities. In fact, EVs are particularly well suited for subscription models due to their lower maintenance requirements, inherent software-defined architecture, and enhanced vehicle telematics capabilities that enable a hassle-free ownership experience while facilitating digital interactions that customers have come to expect from modern mobility solutions. Expected increasing EV adoption over the coming decade could make this an opportune time for original equipment manufacturers (OEMs) and other mobility providers to explore next-gen subscription models.

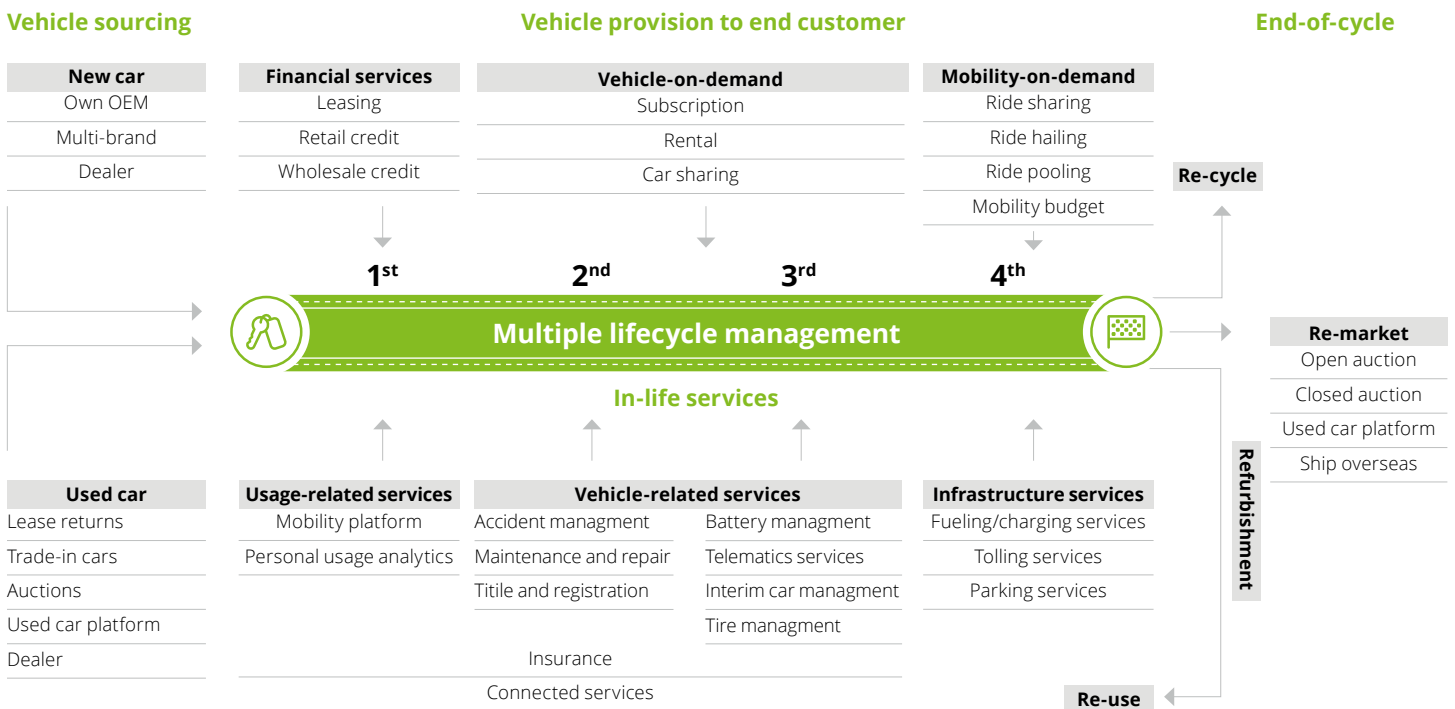


# What are vehicle subscription models?

Unlike a traditional lease or loan, a vehicle “subscriber” is not bound to long-term contractual commitments and can benefit from bundled services, including maintenance, insurance, and roadside assistance, depending on the type of provider. Some programs offer customers the flexibility to change vehicles throughout the subscription period (often for an additional cost) in order to adapt to changing needs. Other providers focus on customer value while maintaining more flexibility than traditional ownership models. A variety of shared mobility providers (e.g., vehicle rental companies, car dealerships,

hospitality fleet operators) have identified this alternative market model as an important growth opportunity.<sup>5</sup> While the markets for vehicle subscriptions and car sharing are different, consumers can benefit from increased access to transportation options. Some subscription models also allow for convenient bundling of insurance, usage-related services, and vehicle-related services, which will likely be key profit pools going forward.

**Figure 1. Future automotive mobility value chain**



Source: Deloitte *Future of automotive mobility to 2035*.

# What's in it for consumers?

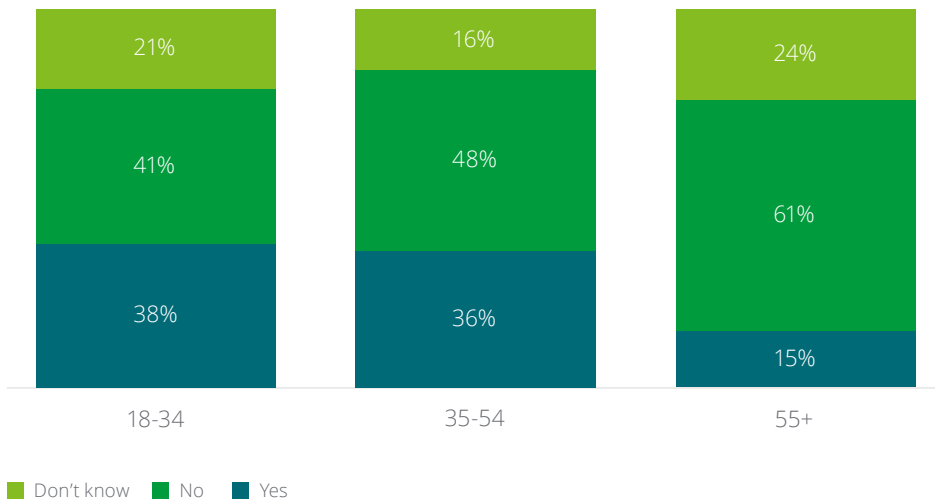
## Aligning to younger consumers' expectations

New vehicle subscriptions are distinctly different from traditional short-term leases, providing consumers with access to temporary vehicle ownership at an affordable rate. Younger consumers surveyed are particularly interested in exploring the vehicle-as-a-service (VaaS) concept as it combines flexibility with the potential savings of a pay-per-use option.<sup>6</sup> As the global trend toward urbanization progresses,<sup>7</sup> young people living in cities are questioning traditional vehicle ownership<sup>8</sup> and may be looking for alternative modes of transportation such as ride-sharing and micromobility (figure 2).

Increasingly cost-conscious consumers may also be more sensitive to the quickly depreciating nature of a vehicle, and they may be looking for other ways to access mobility without the burden of a long-term

lease or loan. Affordability is often a key consideration for younger consumers surveyed as they balance the need for mobility against the backdrop of significant financial pressures in an uncertain economic environment.<sup>9</sup> In fact, there is a significant disconnect when it comes to the difference between consumer expectations and current market realities. For example, average monthly payments for a new vehicle reached a record \$733 in the second quarter of this year (up from \$678 in the same quarter a year prior),<sup>10</sup> but recent study results suggest that 80% of new-vehicle intenders expect to pay less than \$600 per month, inclusive of all bundled products (e.g., insurance, service contracts).<sup>11</sup>

**Figure 2. Percentage of U.S. consumers who question whether they need to own a vehicle (by age group)**



Source: Deloitte *Future of automotive mobility to 2035*.

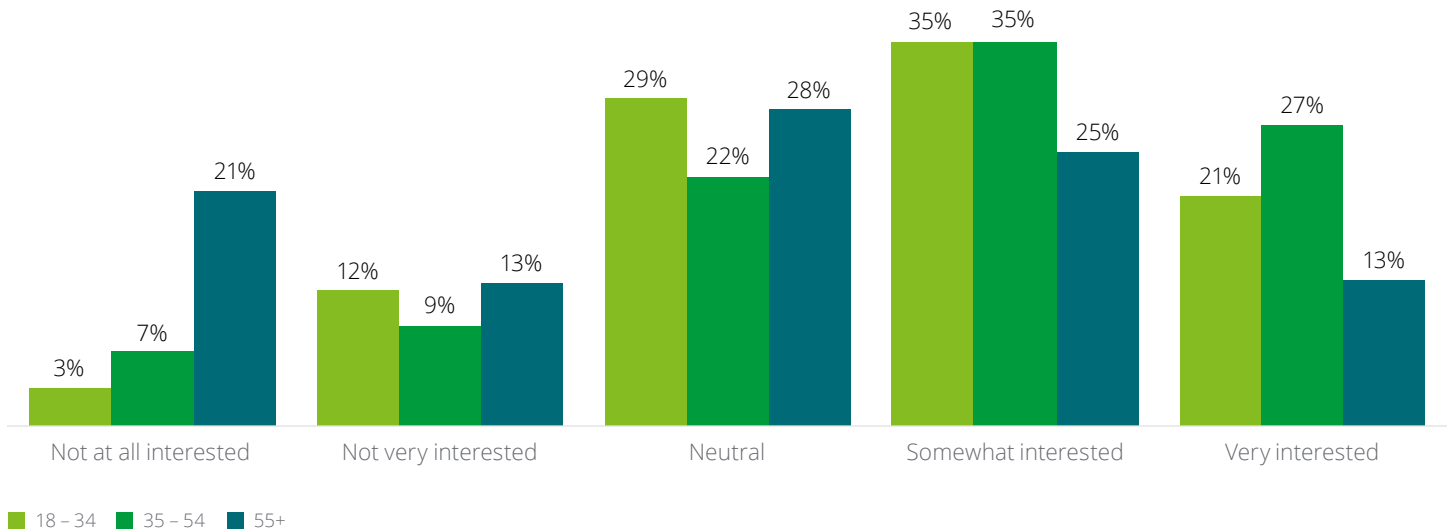


According to results from Deloitte’s [Future of Automotive Mobility to 2035 Study](#), price transparency is also very important,<sup>12</sup> and more than half of US consumers surveyed under 55 years of age are at least somewhat interested in having a single monthly payment that covers all vehicle-related costs (figure 3).<sup>13</sup>

Furthermore, the app-enabled nature of some subscription services allows consumers to have a more digital-first car ownership experience (e.g., get qualified, select a vehicle, make payments,

schedule service) while drastically reducing the time it takes to complete a transaction, which represents a key customer pain point regarding the traditional vehicle purchase process.<sup>14</sup> Study results suggest the most preferred method of interacting with a mobility provider among 18- to 34-year-olds is a mobile app.<sup>15</sup>

**Figure 3. US consumer interest in making one monthly payment covering all vehicle-related costs**



Source: Deloitte *Future of automotive mobility to 2035*.

However, it should be noted there can be risks associated with the subscription model. Some industry observers suggest customers may have become oversaturated with subscriptions<sup>16</sup> permeating every facet of their daily lives, and they may not be willing to apply the same model to their mobility needs. Furthermore, given the prevalence of micromobility options in many global urban markets, a resurgence of public transportation, and the eventual rise of shared autonomous fleets, there may be reduced demand for any type of personal car ownership. Having said that, industry players that take advantage of the emerging vehicle subscription model to build the capabilities required to own and operate connected vehicle fleets may be well positioned if autonomous mobility becomes mainstream.

Finally, whereas previously leases were an attractive option for keeping up with newer vehicle models and features, the rise of software-defined vehicles allows customers to experience updated features through over-the-air (OTA) updates. This may prompt people to own a vehicle and keep it for a longer period of time, especially if EVs prove to be more mechanically durable compared to traditional internal combustion engine (ICE) vehicles.

### **Making EVs accessible**

Making the switch from a traditional gas-powered vehicle to an EV can be a daunting transition for several reasons. Currently, EVs are being sold at a higher price point than comparable ICE vehicles while the long-term value of an EV is generally not well understood. Next-gen subscription models aim to address these concerns by lowering the overall barrier to entry and “ownership” commitment.<sup>17</sup> A vehicle subscription may give cautious customers a “risk-free” way to try an EV at a much lower level of financial commitment than traditional leasing or outright ownership. However, this core advantage may be short-lived as EVs approach price parity with ICE vehicles<sup>18</sup> and concerns over range and infrastructure recede as more direct current (DC) fast chargers are installed across the country.<sup>19</sup>

Some third-party vehicle subscription services are offering access to EVs from multiple OEMs as well. This allows consumers to compare different EV brands on one platform rather than separate OEM sites or dealership visits, making it easier for a first-time EV customer to make informed decisions that align with their mobility needs.



### **Solving the EV supply puzzle**

Subscription models may also solve for the current lack of supply of used EVs. As EV penetration, based on a traditional sales and ownership model, remains low compared to ICE vehicles, the potential supply of EVs entering the used market is constrained, limiting the market’s understanding of used EV prices. Next-gen subscription models may help increase the supply of used EVs on the road, helping customers that were priced out of the new EV market engage at a more comfortable entry point without having to fully purchase a used car.

Used EVs also lend themselves to creating more visibility than ever regarding wear and tear by allowing buyers to see a vehicle’s battery health status. By comparison, ICE vehicles have many more components that are subject to degradation and their “state of health” often cannot be directly measured. This synergy of benefits (i.e., increased availability, new approach to used vehicle ownership, and better information) could provide the needed push to create a more mature and stable used EV market. At the same time, it could also increase EV adoption at all price points by offering temporary ownership (i.e., subscription) to used vehicles, which was not previously possible. However, while used vehicle subscriptions could provide consumers with access to EVs at a lower cost of entry, subscription providers that choose to keep these vehicles in their fleet for long periods of time might constrain the supply of used EVs that are available for purchase.

# What vehicle subscriptions could mean for the auto industry

Vehicle subscription models offer a platform for consumers to experience some of the latest technologies (e.g., alternative powertrains, connectivity features) without the burden of a large, one-time expense or monthly payments with a heavy interest component. For legacy automakers, vehicle subscription models could represent an incremental recurring revenue opportunity as next-gen subscriptions may open up new, cost-conscious customer segments. For emerging EV manufacturers that focus on direct-to-consumer sales, developing an in-house vehicle subscription product may prove cost-prohibitive, but engaging with a third-party subscription provider could represent a way to reach more consumers. Further downstream, vehicle dealers also get an opportunity to interact with customers during vehicle service occasions.

## Getting more customers in the door

OEMs are constantly rushing to develop new products and services that cater to the evolving needs of their customers. However, some automakers and their captive finance arms have been slow to adopt

next-gen vehicle subscriptions as a viable growth model. In fact, very few OEMs give their customers an option to have a single monthly payment that covers all associated costs like insurance, maintenance, and 24/7 roadside assistance.<sup>20</sup> An offering that bundles all costs into a single monthly payment aligns with Deloitte study data that suggests the top three most important characteristics of a subscription are: (1) convenience (e.g., all relevant services are included), (2) transparency (e.g., full cost control due to predictable, fixed monthly fees), and (3) flexibility (e.g., test new vehicles for a certain period without consequences) (figure 4).<sup>21</sup> As bundling also tends to lower overall costs, vehicle subscribers could potentially decrease the share of wallet that their transportation requirements currently represent.<sup>22</sup> OEMs can also use subscription models to encourage their existing customers to “test drive” their premium brands or their latest EV models.

**Figure 4. Most important aspects of a vehicle subscription (rank order by demographic segment)**

Aspects of a vehicle subscription	Overall	Age group			Gender	
		18-34	35-54	55+	Men	Women
Convenience	1	2	6	1	8	1
Transparent and predictable fixed monthly fees	2	1	9	3	1	6
Test new vehicles without consequences	3	13	1	2	7	2
Premium vehicles/brands offered	4	3	2	6	3	4
Selection of new and pre-owned vehicles	5	6	3	4	5	3
Possibility to exchange vehicles	6	12	4	5	2	10
Availability of vehicles	7	9	5	6	4	7
Possibility to subscribe to a vehicle segment	8	6	6	11	6	8
Increased flexibility	9	4	12	10	9	13
Concierge services	10	5	8	13	10	10
Home delivery services	11	6	13	6	13	5
Hassle-free online contract closing	12	11	9	12	11	10
Selection of only brand-new vehicles	13	10	9	14	12	9
Possibility to subscribe to a specific model	14	14	13	9	14	14

Source: Deloitte *Future of automotive mobility to 2035*.

### **EVs and subscriptions could be a perfect fit**

Marketing EV models through subscription services can be a good way for OEMs to nudge consumers who are on the fence about electric technology. In 2022, only 12.6% of new EVs were leased compared to a 22% leasing rate for all new vehicles.<sup>23</sup> Leasing rates are also low among used EVs, accounting for just 3.3% in 2022 while 61% came from loans.<sup>24</sup>

As EVs may prove to have a lower overall maintenance requirement when compared to ICE vehicles,<sup>25</sup> they can save time for both subscription providers and customers. Unlike ICE vehicles, EVs typically don't require complicated, powertrain-related service repairs given the fewer number of moving parts, which can help OEMs and dealers significantly reduce the complexity of their parts inventories. Combined with OTA updates deployed for the purpose of correcting vehicle performance issues, inherently more durable EVs may also help to limit the impact of a growing service technician shortage<sup>26</sup> as fewer resources may be necessary to maintain the vehicle fleet.

At the same time, embedded telematics in EVs makes it easy for subscription providers to constantly assess a vehicle's status and take proactive measures to prevent a major mechanical failure. In addition, operational data collected can be used to inform both new service offerings such as "pay as you drive" (PAYD) and "pay how you drive" (PHYD) insurance and charging infrastructure expansion. Data can also help mobility providers monitor the health of EV batteries over time, allowing for optimal performance while in the vehicle. These batteries can also be repurposed as stationary energy storage devices after their first use for mobility has come to an end. As such, OEMs and third-party subscription providers can develop ways to maximize the value from a battery via secondary remarketing or recycling efforts.

### **OEMs and dealers can benefit from emerging subscription startups**

Surveyed consumers cited getting the highest value for their money, transparent pricing, and physical interaction with the vehicle as the most important aspects of their vehicle purchase experience.<sup>27</sup> By putting these customer needs first, some emerging vehicle subscription startups can offer an efficient, hassle-free acquisition and ownership experience. It also helps sidestep common consumer pain points such as excessive paperwork and haggling over a vehicle transaction price. Some providers have also collaborated with lending agencies to automate the credit risk decisioning process, allowing more people to experience EVs.<sup>28</sup>

On the surface, vehicle subscription models may appear unfavorable for dealers in terms of lost revenue potential. However, embracing subscription providers can help dealers access a new channel to reach a wider audience. Some emerging players have agreements with large dealer groups to enable subscriptions and carry out in-life vehicle services (e.g. delivery, maintenance, returns and reconditioning), which may be very important in terms of shoring up their fixed operations business in the face of a trend toward declining personal vehicle ownership.<sup>29</sup>

Legacy OEMs generally engage with their dealers given state franchising laws and dealers could potentially get a share of recurring subscription revenue. Modern digital subscription providers also partner with dealers to procure vehicles from multiple brands to broaden the level of choice consumers have through their vehicle fleet.<sup>30</sup> In either scenario, dealers can collect servicing and maintenance revenue from both OEMs and digital startups. During routine vehicle checkups, dealers can get opportunities to meet the customer. These interactions can then be leveraged to gain more insights into consumer needs, which can be monetized later by cross-selling other products and services.<sup>31</sup>

### **Demystifying EV residuals**

As vehicle subscriptions allow consumers access to a vehicle for short periods, there will likely be an increased supply of used EVs in the market. With more EVs on the road, OEMs and their captive finance companies could benefit from a larger set of variables and a substantial amount of data to feed their residual value pricing models. They can use multiple inputs such as EV model type, number of vehicles subscribed, duration of the subscription, battery condition, and cumulative maintenance costs to effectively set residual values at the end of the subscription period.

With a large pool of used EVs on the market, captive finance companies can benefit from an improved assessment of the residual value landscape for EVs.<sup>32</sup> A proper assessment of EV residual values will likely also be important to assess the strategic impact of EV residuals on their books. At the same time, digital startups stand to benefit by the increased precision in pricing their subscription models. In a way, increased penetration of vehicle subscriptions can help to solve the mystery of EV residuals that has been a long-standing issue for the automotive industry.



# What's next for vehicle subscriptions?

At the moment, the stage seems set for third-party startups to explore and develop next-gen subscription offerings as an alternative to vehicle ownership. Some OEMs are cautious to revisit the concept, preferring to conclude the opportunity for vehicle subscriptions has already come and gone. However, there are many examples of automotive inventions that were ahead of their time, including the electric car,<sup>33</sup> and these incumbents may risk getting outflanked by emerging players that see an unmet need in the market.

At the same time, many consumers continue to struggle with their financial capacity, causing old notions of the convenience and freedom that car ownership brings to collide with the stark reality that the costs associated with buying and owning a vehicle may be getting out of hand. A significant percentage of younger consumers are also questioning whether they need to own a vehicle at all given the relentless trend toward urbanization and the emergence of several VaaS options to satisfy their transportation needs. In particular, a new approach to vehicle subscriptions also takes advantage of an increasingly digital-first consumer base, doubling down on an efficient and satisfying customer experience delivered through a smartphone app.

Vehicle subscriptions offer a variety of clear benefits for both consumers and industry players, but there are some challenges to overcome. Legacy OEMs should consider the new skill sets and capabilities required to maintain high levels of customer service in a business model characterized by software development, data management, and frequent digital interactions. The agility to rapidly build an ecosystem to enrich the subscription service offering could be another important enabler of growth. For their part, third-party providers will likely be required to navigate the complexities of building multi-brand platforms at scale. All players should consider the implications of a fundamental transition away from traditional vehicle financing in favor of asset management across multiple ownership cycles.

The convergence of EV adoption and a proliferation of connected technologies could be a catalyst for transformation, unlocking significant opportunities for well-positioned stakeholders. Although several early attempts at vehicle subscriptions proved largely unsuccessful, a next-gen approach that recognizes the need for flexible, affordable alternatives to personal ownership may find room to grow at the intersection of prolonged economic uncertainty and the urgency to decarbonize global mobility.



## Contacts



**Rodolfo Dominguez**  
AutoTech Subsector Lead  
Deloitte Consulting LLP  
[roddominguez@deloitte.com](mailto:roddominguez@deloitte.com)



**Ryan Robinson**  
Automotive Research Leader  
Deloitte LLP  
[ryanrobinson@deloitte.ca](mailto:ryanrobinson@deloitte.ca)

## Acknowledgments

The authors would like to thank Ben Capano, Hamid Nazemi, Alexander Kantor, Chris Barber, Kelly Warner, Srinivasa Reddy Tummalapalli, Dinesh Tamilvanan, and Gregg Geller for their significant contributions to the research.

# Endnotes

1. Deloitte, [Global State of the Consumer Tracker Study](#), accessed September 13, 2023.
2. Deloitte, [The future of automotive mobility to 2035](#), February 16, 2023.
3. Jack R. Nerad, "[Vehicle subscription services doomed to fail](#)," *Forbes*, November 26, 2018.
4. Deloitte, [The future of automotive mobility to 2035](#).
5. Alexander Pershikov, "[How the subscription business model could change the automotive industry](#)," *Forbes*, November 10, 2022.
6. [The future of automotive mobility to 2035](#).
7. The World Bank, [Urban development overview](#), last updated April 3, 2023.
8. [The future of automotive mobility to 2035](#).
9. Deloitte, [Global State of the Consumer Tracker Study](#).
10. Edmunds, "[Car shoppers feel the heat from scorching financing costs in Q2, according to Edmunds](#)," press release, July 3, 2023.
11. [The future of automotive mobility to 2035](#).
12. Harald Proff et al., [2023 Global Automotive Consumer Study](#), Deloitte, January 2023.
13. [The future of automotive mobility to 2035](#).
14. Cox Automotive, [2019 Car Buyer Journey Study](#), June 4, 2019.
15. [The future of automotive mobility to 2035](#).
16. Oded Koenigsberg, "[New threats to the subscription model](#)," *MIT Sloan Management Review*, February 9, 2023.
17. Roberto Baldwin, Sasha Richie, and Dave Vanderwerp, "[EV vs. gas: Which cars are cheaper to own?](#)" *Car and Driver*, October 28, 2022.
18. Urvaksh Karkaria, "[Volvo CEO's bold prediction: EV-ICE price parity by 2025](#)," *Automotive News*, November 11, 2022.
19. Tom Krisher, "[GM, BMW, Honda, Hyundai, Kia, Mercedes, and Stellantis to build EV charging network](#)," *Detroit Free Press*, July 26, 2023.
20. Urvaksh Karkaria, "[Volvo reboots, revives subscription service in Calif.](#)," *Automotive News*, January 30, 2023; Urvaksh Karkaria, "[Porsche sees path for its subscription service](#)," *Automotive News*, August 31, 2020.
21. [The future of automotive mobility to 2035](#).
22. Ibid.
23. Melinda Zabritski, [Auto finance year-in-review electric vehicles & affordability](#), Experian, January 2023.
24. Ibid.
25. Office of Energy Efficiency & Renewable Energy, "[Battery-electric vehicles have lower scheduled maintenance costs than other light-duty vehicles](#)," June 14, 2021.
26. Nora Eckert, "[Why it's impossible to get your car repaired this summer](#)," *Wall Street Journal*, July 1, 2023.
27. Proff et al., [2023 Global Automotive Consumer Study](#), Deloitte, January 2023.
28. Peter Johnson, "[Autonomy's new partnership makes EV driving more obtainable for drivers with little to no credit history](#)," *Electrek*, October 19, 2022.
29. Zachary Shahan, "[AutoNation gives EV subscriptions from Autonomy a boost](#)," *CleanTechnica*, August 1, 2022.
30. *CBT News*, "[AutoNation and Autonomy partner up to boost EV subscription business](#)," August 12, 2022.
31. Paige Hodder, "[AutoNation launches micro leasing through AutoNation Mobility](#)," *Automotive News*, July 27, 2023.
32. Alysha Webb, "[EV leasing striving to spark consumer interest in U.S.](#)," *WardsAuto*, December 9, 2022.
33. Angus MacKenzie, "[Ahead of its time: How GM's EV1 lives on in today's EVs](#)," *Motor Trend*, February 7, 2023.



This publication contains general information and predictions only and Deloitte is not, by means of this publication, rendering accounting, business, financial, investment, legal, tax, or other professional advice or services. This publication is not a substitute for such professional advice or services, nor should it be used as a basis for any decision or action that may affect your business. Before making any decision or taking any action that may affect your business, you should consult a qualified professional adviser. Deloitte shall not be responsible for any loss sustained by any person who relies on this publication.

**About Deloitte**

Deloitte refers to one or more of Deloitte Touche Tohmatsu Limited, a UK private company limited by guarantee ("DTTL"), its network of member firms, and their related entities. DTTL and each of its member firms are legally separate and independent entities. DTTL (also referred to as "Deloitte Global") does not provide services to clients. In the United States, Deloitte refers to one or more of the US member firms of DTTL, their related entities that operate using the "Deloitte" name in the United States, and their respective affiliates. Certain services may not be available to attest clients under the rules and regulations of public accounting. Please see [www.deloitte.com/about](http://www.deloitte.com/about) to learn more about our global network of member firms.