Will AI Become the Best Car Sales Advisor?

September 2025
By Andrej Levin (BCG), Robin Wagner (BCG), Ferdinand Harries (BCG),
Michal Bednarczyk (OpenAI), Shikhar Kwatra (OpenAI),
and Philipp Eulenberg (OpenAI)

AI-Generated Image

BCG X | OpenAI

Will AI Become the Best Car Sales Advisor?

This report is a joint initiative of Boston Consulting Group (BCG) and OpenAI.

Generative AI (GenAI) has the potential to transform the car-buying experience. As recent trends in the travel industry show, GenAI will fundamentally empower how consumers discover, evaluate, and commit to life's biggest purchases—not with clicks, forms, or phone calls, but with natural conversations that truly understand all the nuances of a customer's needs.

For automakers, speed is of the essence. The original equipment manufacturers (OEMs) that act now to build the infrastructure, partnerships, and organizational capabilities will be the leaders in an AI-first future. The stakes are high: by 2030, fast movers could boost their top line by as much as 20%, while laggards risk revenue declines of up to 15%. And the impact reaches beyond OEMs—dealers, car marketplaces, financial institutions, and other players must also adapt to this new reality.

Successful transformation will turn a once-fragmented, complex experience into a seamless journey—one that feels as effortless and personal as talking to a friend. It's a reimagining of trust, simplicity, and personalization in the car-buying experience, powered by GenAI.

This report offers a comprehensive guide for OEMs and other automotive players on how to benefit from the opportunities GenAI will introduce across the car-buying journey.

Traveling the GenAI Route

Consider the travel industry. Booking travel is a complex process that must take account of a wide range of personal preferences, needs, and constraints that can only be partially captured by the simple filters and features offered by current booking platforms. Even human travel agents with decades of experience struggle to compare the myriad options, consider every alternative, and keep up with the latest trends in their efforts to offer a truly personalized, door-to-door experience.

With the advent of GenAI, many consumers have decided to go down a very different path—and have done so without prodding from the industry. The results of a **recent BCG survey** show that one in five travelers in Western countries and two out of three in Asia researched, planned, and booked their 2025 summer vacations using ChatGPT or another large language model (LLM).

This should come as no surprise: GenAI offers consumers a super-patient, always-available guide, ready to understand their full story and help navigate endless choices in seconds. Leading players have integrated OpenAI APIs or similar solutions into their platforms to enhance their trip-planning features. Travelers can chat with the AI assistant to receive personalized recommendations and itineraries.

Transforming the Car-Buying Experience

The lessons for the auto industry are clear. Today, buying a car can mean navigating a maze of websites, dealerships, financing options, and endless trade-offs. There is no neutral, multidimensional advisor that consumers can consult on their purchase. No online platform filter allows consumers to enter anything about their driving patterns, design preferences, luggage needs, or charging infrastructure at home and work.

In fact, many customers find both the offline and online car-buying experience fragmented, opaque, and frustrating. According to a **recent BCG consumer survey**, almost half of respondents who have recently purchased a car were dissatisfied with the experience. One reason why they feel overwhelmed is the sheer number of brands, models, features, ownership models, and new drivetrains offered by OEMs. China alone has over 150 active car brands, and more than 20 of them have entered the market in the past five years. This explosion in choice makes it virtually impossible for consumers to obtain a clear and complete comparison across brands and models.

Another problem is that individual purchasers cannot be reduced to stereotypes that can be forced into a customer segment. Consumers' lives are a complicated and colorful mix of needs, preferences, and priorities that no simple online tool can capture. To truly process each buyer's reality and weigh every detail with perfect recall requires a unique kind of advisor—one with the patience needed to listen to the consumer's entire story and with extensive knowledge about all the options on offer.

This makes the car-buying experience **well-positioned for transformation** by GenAI in terms of both customer experience and commercial impact. For consumers, buying their next car will become as easy as telling their story. GenAI-powered assistants could instantly narrow down models, explain the trade-offs in plain language, and even schedule test drives and generate pre-filled financing options. The result is a car-buying journey that feels as simple as a conversation.

Buyers can receive unbiased recommendations across brands informed by real-time inventory, prices, discounts, resale values, usage costs, and other relevant data. If offered by a truly independent and trusted third-party platform, this brand-agnostic capability could flip the traditional brand-focused sales model, shifting power to the consumer and challenging OEMs to compete on relevance and value.

Imagine a first-time buyer living in a dense urban environment. With consent, a GenAI agent could analyze her commuting patterns, budget, access to public transportation, and sustainability goals to recommend a compact electric vehicle (EV) on a monthly subscription plan. The same system, when interacting with a family in a suburban setting, might recommend a hybrid SUV with three child seats and lots of interior space, paid for with a long-term financing plan that includes a maintenance package.

Reasoning models extend these capabilities further by handling complex trade-offs transparently, explaining the logic behind their results in clear language, and returning a concise, sourced summary that the buyer can refine. OpenAI's deep research capability, for instance, can autonomously review sources and return a report complete with citations— a capability well suited to tasks such as comparing trims across multiple OEMs and incentive programs.

Multimodal AI capabilities combining text, voice, and vision will be another step forward. A GenAI-powered assistant could not only discuss trade-offs but also visually configure the car in augmented reality, generate synthetic test-drive videos, and even explain technical specs in consumer-friendly language. This approach ensures that complex features and novel technologies are communicated with unprecedented clarity and personalization.

The Need for Speed

AI is becoming the default interface between consumers and brands. Today, ChatGPT serves hundreds of millions of users globally each week, underscoring how quickly GenAI has started to affect consumer decision making.

That makes the GenAI-first customer experience a particularly novel challenge for OEMs. While traditional brand positioning and other marketing strategies will continue to play a role, how consumers discover and learn about the options on offer could shift their focus toward more tangible, objective comparison dimensions such as EV range and price, and potentially dilute the importance of more intangible aspects such as brand perception and product design.

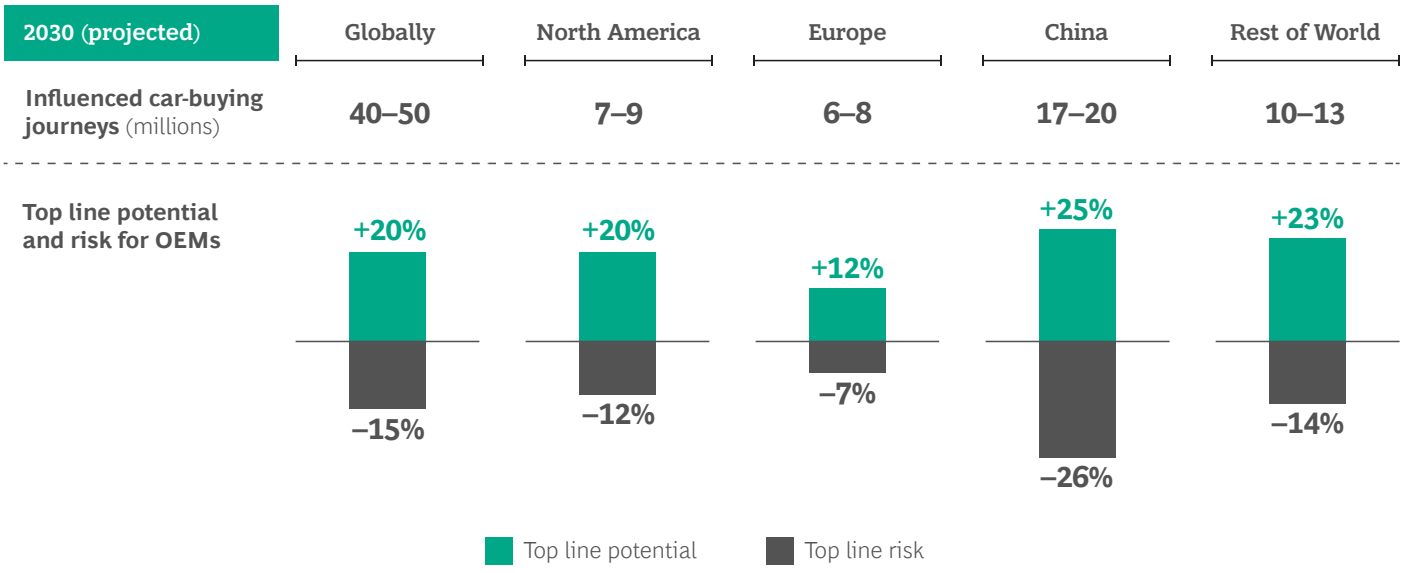
The effects of this transformation will become economically relevant very soon. Based on our detailed model, we estimate that by 2030, more than 40 million car-buying journeys of private customers worldwide will be meaningfully influenced by GenAI every year. For those OEMs that invest decisively in GenAI-powered sales capabilities, this shift presents a substantial upside: a potential topline increase of up to 20%, driven primarily by gains in sales volume from attracting new customers away from OEMs that fail to adapt, and supported by improved price realization from upselling their existing customer base. **(See Exhibit 1.)**

But OEMs that don't differentiate their offerings in a GenAI-first purchase journey risk losing up to 15% of their top line, primarily due to customer attrition and a downward price spiral. The asymmetry between the potential gains and losses is explained by two factors: First, a smaller group of leading OEMs will likely capture the volume gains from a larger set of lagging OEMs. Second, faster-moving OEMs could benefit not only from volume gains but also from higher average price realization by recommending the perfect match of car configurations, accessories, and services to each customer.

Moreover, the commercial impact will not be evenly distributed across regions. The gap between leading and lagging OEMs will likely be wider in China in particular, where GenAI adoption is generally faster and brand loyalty is lower. In contrast, the impact in Europe will likely be more moderate on both the upside and the downside, since GenAI adoption there is progressing at a slower pace and consumers tend to show higher brand loyalty.

EXHIBIT 1

In Coming Years, GenAI Will Offer OEMs Substantial Upside Potential—and Downside Risk



Sources: Comprehensive BCG model incorporating new and young used-car (<3 years) private customer registrations; GenAI adoption trends from other industries; and BCG industry expertise.

How to Buy Cars in the Future

GenAI will transform two critical stages in the car-buying process: finding the perfect car and deciding how to buy it. (**See Exhibit 2**). As a result, OEMs will need to find new ways to articulate their products' appeal and defend their price points in a GenAI-first customer experience environment.

The Product Advisor

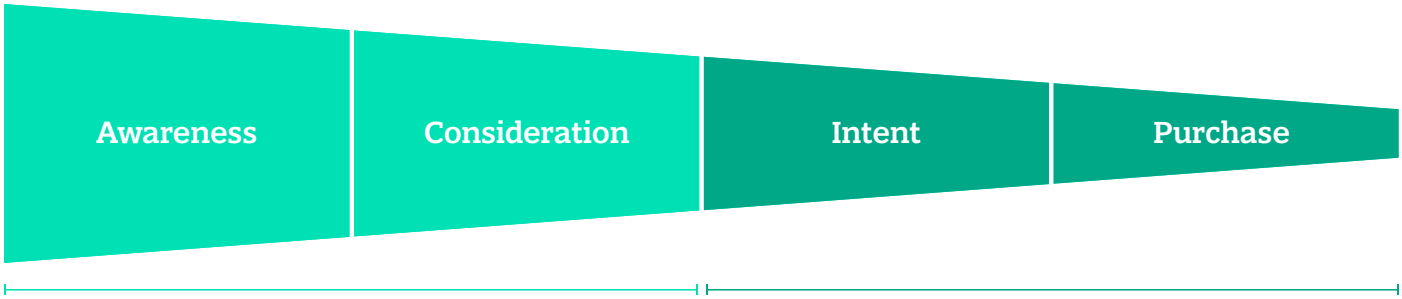
The first stage in the car-buying journey involves deciding what kind of car and which brand to buy. GenAI allows buyers to narrow the choices based on any number of factors, including previous experience, brand awareness, family preferences, or the opinions of friends.

Once a consumer decides on a specific brand and model, the next stage involves configuring it, a deeply complex and challenging process. Some premium OEMs offer more than a billion unique configurations for a single car model. The broad variety of novel technologies, drivetrains, trims, and finishes—amid frequently updated product content—makes it nearly impossible for most consumers to fully understand their option space or configure their car optimally within their budget.

Because GenAI could search available offerings to find the right car to match a consumer's needs, it can help to demystify the process. It will be able to guide customers throughout the model selection and configuration process, aligning preferences with available options and discussing trade-offs clearly and knowledgeably. Behind the scenes, the advisor may narrow down choices through adaptive questions that reveal the most important decision factors, reducing users' effort without sacrificing their control. To recommend the perfect car configuration, GenAI may draw on consumers' stated preferences, available budget, life circumstances, prior vehicle history, and possibly even additional data sources, such as telemetry data from their current car. (**See the sidebar "Prompting the Product Advisor."**)

EXHIBIT 2

The "Product Advisor" and the "Deal Finder" Serve Different Purposes Along the Car-Buying Journey



Product Advisor

- **Find brands and models** that fit your needs
- **Explore car features** that matter to you
- **Configure cars** according to your budget

Deal Finder

- **Find the best prices** for a car configuration
- **Identify best financing deals** for your needs
- **Purchase a vehicle** right in the GenAI tool

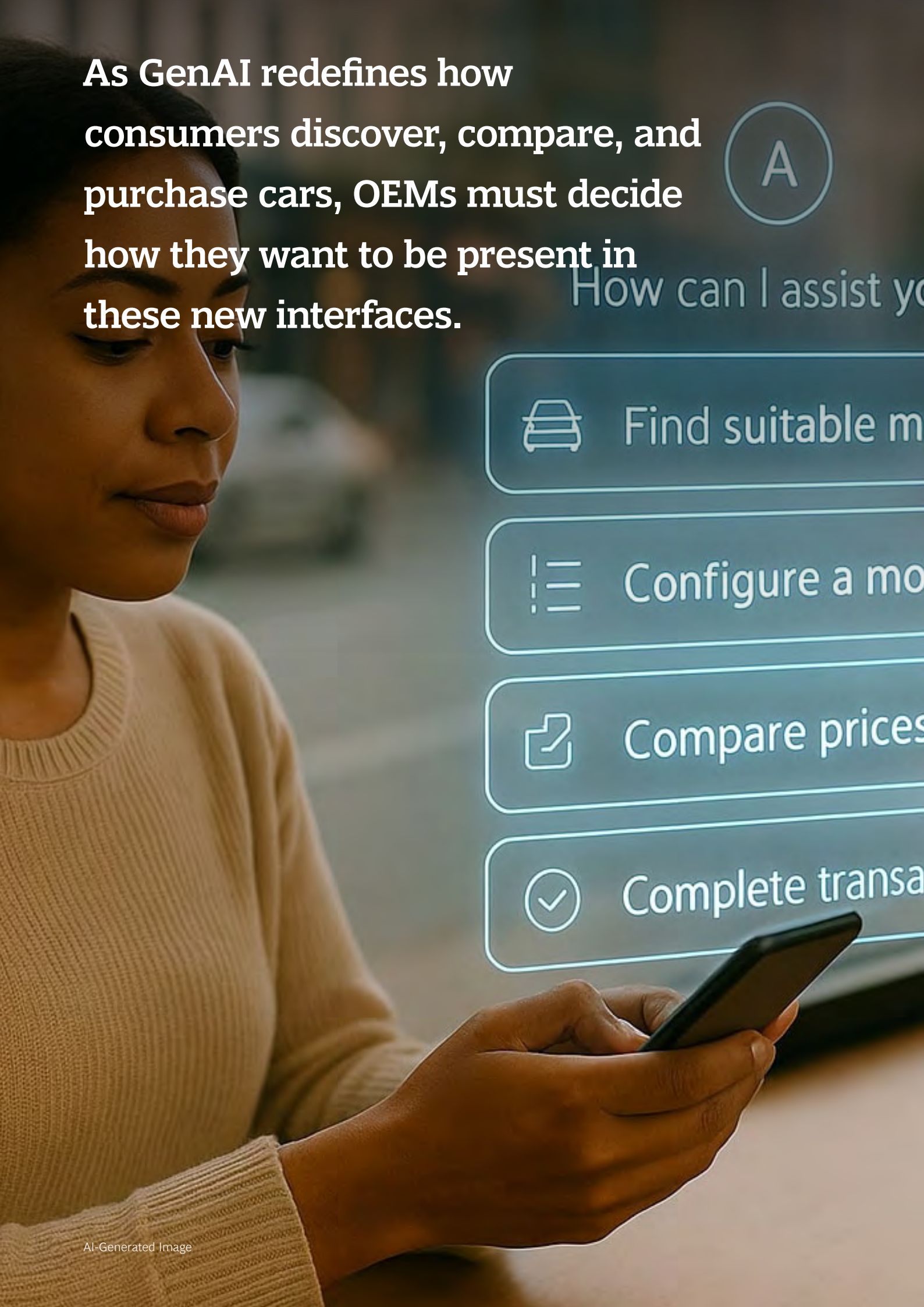
Source: BCG analysis.

Prompting the Product Advisor

You are a multi-brand car dealer advising me objectively on my next car purchase.

I am looking for an SUV that fits a family with two adults and two children aged 8 and 6. We drive mostly inner-city routes and about five long-distance trips a year. We transport bicycles. We love listening to music, and the kids want to control the music in the car seamlessly. We also have a home charging option and love to be outdoors. Easy-to-clean surfaces are a must. Oh, and we have a dog. Please recommend the best car for our purposes.

....


As GenAI redefines how consumers discover, compare, and purchase cars, OEMs must decide how they want to be present in these new interfaces.
How can I assist yo
Find suitable m
Configure a mo
Compare prices
Complete transa
AI-Generated Image

The Deal Finder

A significant factor driving dissatisfaction with the car-buying journey is the feeling many consumers describe—whether warranted or not—that they have not invested enough time and effort to find the best deal on offer for their car of choice. Simply comparing the price of the exact same vehicle if purchased outright, financed, or leased through either the automotive OEM's captive bank or an external provider can be overwhelming.

This has a direct impact on consumers' purchase decisions: **According to BCG research**, many car buyers say they would be willing to pay more in exchange for a simpler, more transparent purchasing experience without the need to compare prices for the same model or engage in negotiation. Every second customer finds comparing and negotiating prices to be the single most annoying step in the customer journey; when given the choice, most consumers **prefer not to bargain at all**.

With GenAI, this friction is poised to disappear. Unlike static comparison sites, GenAI can assess both quantitative elements (such as calculating total cost of ownership, tax implications, and residual value projections) and qualitative elements (such as factoring in a consumer's preference for flexibility in a lease versus building ownership equity) to recommend not just where to buy, but also when and how.

Beyond functioning as a more capable search engine, **agentic GenAI** assistants can go even further: they can act. With guidance and oversight by the user, a GenAI-powered agent can securely log into dealer portals to retrieve pricing and discount data, send out inquiry emails to dealerships, and generate a pre-filled quote deck for the customer's review. Instead of relying solely on model memory, these assistants can query authoritative sources such as OEMs' pricing interfaces, dealer stock feeds, and government incentive databases. The result: recommendations that are both accurate and explainable, reducing hallucination risk and increasing consumer trust in AI-powered buying journeys. **(See the sidebar "Prompting the Deal Finder.")**

Emerging Capabilities

The car-buying journey is also being reshaped by other megatrends such as electrification, subscription-based ownership models, and sustainability mandates. Integrating GenAI into this landscape allows OEMs not only to personalize car sales but also to guide consumers through adjacent decisions. Examples include an "EV charging advisor" that factors in local grid readiness and home charging infrastructure, a "sustainability lens" that compares vehicles by life-cycle emissions, and an insurance and financing integrator that bundles credit scoring, regional regulations, and usage data. And GenAI can generate explanations of the underlying trade-offs to demystify complex recommendations.

Three Strategic Priorities for OEMs

As GenAI redefines how consumers discover, compare, and purchase cars, OEMs must decide how they want to be present in these new interfaces. We see three strategic priorities emerging, each of which has different requirements, benefits, and risks: enhance visibility in AI assistants; partner with multi-brand car marketplaces; and build their own branded assistant for maximum control and conversion. **(See Exhibit 3.)** Each strategic priority represents a standalone disruption; in combination, they reflect and shape the coming shift in consumer behavior. How OEMs emphasize each one may vary, but they are not mutually exclusive; OEMs should actively pursue all three in parallel.

Prompting the Deal Finder

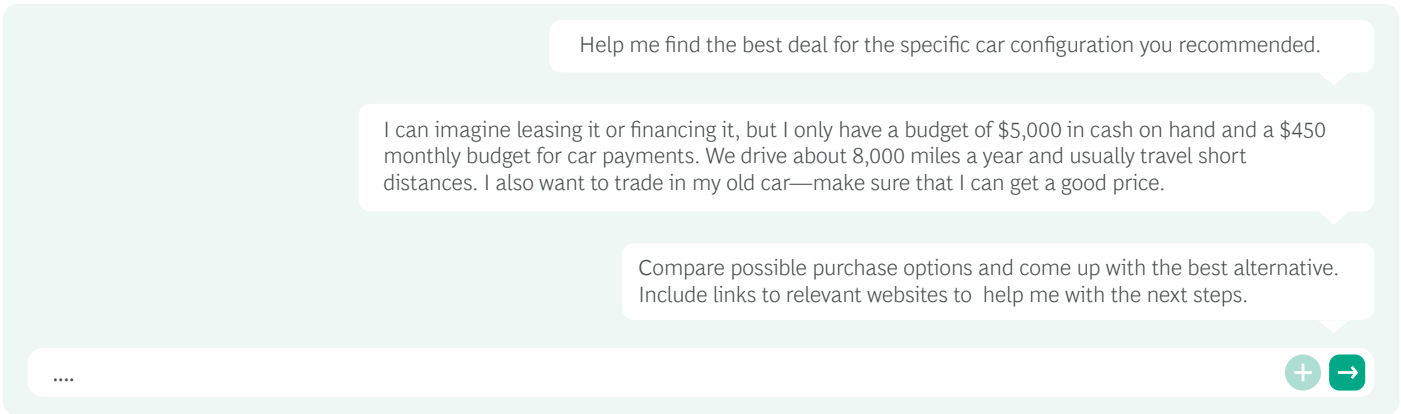


EXHIBIT 3

The Three Strategic Priorities Vary Considerably in Their Competitive Impact and Technical Complexity

	Enhance your presence in third-party AI assistants	**Partner** with multi-brand car marketplaces	**Build your own** branded assistant
Summary	**Use AEO** to provide accurate data and be prominently and attractively represented in AI assistants	**Collaborate with multi-brand car marketplaces** to leverage their consumer access and reputation as independent advisors	**Offer a hyper-personalized, own-brand sales advisor** to both existing and prospective customers of your brand
Impact			
Customer journey coverage	Awareness, consideration, intent	Awareness, consideration, intent, purchase (in direct sales model)	Awareness, consideration, intent, purchase (in direct sales model)
Own brand visibility and influence	**Low**, depending on success of AEO efforts	**Moderate**, depending on platform/OEM partnership model	**Full control** over entire user journey
Data ownership and lead capture	**None**	**Platform**	**OEM-owned**
AEO investment relevance[1]	**Very high**	**Moderate** (more direct product placement models possible)	**Moderate** (internal content needs to be LLM-optimized)
Technical complexity	**Low**, if curated via APIs	**Moderate**, depending on platform/OEM partnership model	**High**
Volume conquest upside potential	**Moderate**	**High**	**Moderate**
Price upselling potential	**Low**	**Moderate**	**High**
System Architecture			
GenAI implementation	Generic LLM, optional API enrichment	Third-party platform-integrated assistant with RAG and APIs	Fully integrated, OEM-operated agentic system
Data & Input Sources			
Knowledge source type	Public web/brand content; additionally curated OEM-controlled API content	Structured industry data, including OEM-controlled API content	OEM systems, CRM, and telematics data; external data depending on use case
Brand scope of data input	Multi-brand (open internet); additionally, OEM-controlled API content	Multi-brand, consolidated by platform; additionally, OEM-controlled API content	Single-brand (OEM-proprietary)
Open web access	Yes	Not required	Not required
Access to licensed content	No, unless curated via APIs	Yes, via licensed platform data	Yes, OEM-partnered access possible
Access to configurator APIs	Limited by agentic capabilities of the LLM, unless curated via APIs	Yes, enabled via APIs to OEMs	Yes, direct access
Access to customer data	No, except for limited use cases	No, except for limited use cases	Yes, OEM-owned data (CRM, purchase history, telemetry)
Output Capabilities			
Type of response	Depending on user prompts and limited by LLM capabilities	Guided user journey, enhanced by platform data access	Guided user journey, enhanced by OEM-owned data
Configuration completion	No/partial via external link	Yes, API-based	Yes, native flow
Price comparison	Multi-brand but limited transparency	Multi-brand but limited by platform's access to OEM/dealer data	OEM-controlled set of brands, including offers and personalized pricing
Transaction capability	Limited by agentic capabilities of the LLM, except if curated via APIs in direct sales	Yes, in direct sales model and depending on platform/OEM partnership; no, in traditional dealer model	Yes, in direct sales model; no, in traditional dealer model

Source: BCG analysis.
Note: AEO = answer engine optimization; API = application programming interface; LLM = large language model; OEM = original equipment manufacturer; RAG = retrieval-augmented generation; APIs are helpful but not required in all contexts.
[1]AEO includes both structured interfaces (e.g., APIs) and unstructured content optimization (e.g., machine-readable product pages, citations, Q&A, etc.).

Enhance Your Presence in Third-Party AI Assistants

Many consumers turning to AI will begin their car-buying journey with generic GenAI-powered chatbots, either standalone or embedded in search engines. From a consumer point of view, this has the potential to be a significant improvement over the status quo because GenAI-powered chatbots are so easy to use and readily available to a broad consumer base. These tools can provide helpful advice even without much context or complex prompting.

OEMs should ensure that their brands and models show up prominently, accurately, and attractively in these environments, whether the assistant draws information from open web content or dedicated interfaces. In their most basic form, GenAI-powered chatbots can answer prompts by pulling from public web sources. To ground answers in verified data, OEMs should design dedicated interfaces that provide accurate and up-to-date information to GenAI agents such as current inventory, configuration options, product marketing materials, and pricing in real time. (**See the sidebar "How to Get Found by GenAI."**)

This approach offers quick and broad consumer reach without integration effort but also provides minimal control over messaging and little or no access to customer data.

Consumer Journey Example

I am 33 years old, and I live in Secaucus, New Jersey. I commute about 40 minutes to work at a travel agency. I have a newborn child and am looking for an affordable family car for city driving. At home, I can only park on the street, and it's usually very crowded, but I could charge my car during the day at the agency. Oh, and I love to listen to music. Which models should I consider under $30,000?

....

Strategic Implications for OEMs

- **Answer engine optimization (AEO) becomes critical.** To stay relevant and show up in these conversations, OEMs must structure their content and data interfaces to remain visible to generic assistants.
- **Brand and product differentiation will gain new importance.** OEMs must invest in clear brand and product positioning to ensure that GenAI-powered tools pitch their cars in an accurate and compelling way to the right consumers.
- **Brand safety is a crucial concern.** GenAI models draw their information from all kinds of sources, including reviews on social media platforms and other outlets that can be misleading, inaccurate, or even intentionally disparaging. OEMs will need to work with providers of LLMs to monitor and improve the accuracy of their models' answers.

Partner with Multi-Brand Car Marketplaces

Today, online comparison marketplaces drive a significant share of lead traffic. In the future, these marketplaces will also start to use GenAI to leverage their existing consumer access and automotive expertise to offer tailored, streamlined, and multi-brand car purchasing advice. We expect these car marketplaces to build custom GenAI-enabled user journeys for each buyer's case. They might go as far as developing their own automotive-specific LLMs that are fine-tuned on the most relevant OEM-specific information, created in close collaboration with OEMs.

These GenAI-powered car-buying advisors will be a game-changer because consumers can combine a multi-brand offering scope with highly interactive, personalized advice—leading to even less effort and more trustworthiness than querying generic GenAI chatbots. And these marketplaces can position themselves as independent, multi-brand advisors, even if their business models will be increasingly dominated by varying degrees of collaboration with OEMs.

For OEMs, securing well-structured and carefully thought-through partnerships with online marketplaces should be a key priority. The degree of collaboration can range from facilitated access to OEMs' data interfaces all the way to paid-for, exclusive promotion of that OEM in a particular market or customer segment. As a result, we expect a significant share of marketing spend to shift to these kinds of partnerships.

Consumer Journey Example

I live in a suburban area in Guangzhou, China. Right now, I drive a 2022 electric sedan, but I want to upgrade to a newer model. My dealer is offering me an upgraded model for 174,300 yuan. Help me to get a better deal. Also, find me the best lease deal available with fast delivery near where I live. Compare alternative financing deals to bring down the price. Check for local or national government incentives and special OEM discount programs. Recommend the best timing to close the deal with the agent based on historical transaction prices.

....

Strategic Implications for OEMs

- OEMs should invest in strategic partnerships with multi-brand car marketplaces to ensure visibility of their products and leverage these channels as lead- or even sales-generation engines.
- This will require data interfaces to share product, price, and other relevant information, much like those provided to generic GenAI-powered research tools.

How to Get Found by GenAI

As customers increasingly turn to GenAI-powered chatbots to guide their car-buying journey, the traditional rules of digital visibility are being rewritten. Classic search engine optimization (SEO) tactics alone are no longer sufficient. Instead, brands must now optimize for a **new paradigm of AI-driven discovery**, requiring answer engine optimization (AEO) instead. This approach focuses on ensuring that vehicle data, configuration options, and brand narratives are not only accessible to AI but actively cited in chatbots' responses.

Unlike SEO, where ranking is a race against an algorithm, AEO is about preparing data and narratives to be consumed directly by AI systems, transforming them from passive repositories of facts into active participants in a consumer's decision journey. LLMs increasingly rely on structured, trusted, and frequently updated data sources when generating responses, which means OEMs must design content that is AI-ready from the very beginning.

To enhance their digital presence in a GenAI-powered consumer environment, OEMs should focus on five tactical levers:

- **Build content for AI retrieval.** Publish detailed, high-quality vehicle descriptions that go beyond marketing copy. This includes sharing objective specifications that may not typically feature in brand-forward marketing—such as rear seat dimensions or cargo space in different seat configurations—but could be critical to AI-driven comparisons for the needs of specific users, such as a family of five. Focus on intent-driven formats such as FAQs, Q&A blocks, and configuration explainers. Prioritize factual, well-structured language and consider using formats that AI assistants can easily summarize. Here, consistency is key. GenAI models thrive on clarity and structured repetition.

- **Structure for machine readability.** Use schema markup (for vehicles, trims, options, prices, and inventory as well as FAQ and how-to's, for example), semantic HTML, and consistent metadata. Adopt structured product descriptions such as W3C Vehicle Data specifications to dramatically increase the likelihood of data being ingested and cited correctly by LLM-powered assistants. Structure pages in a way that aligns with how models parse and score content. This should include placing key facts high on the page, minimizing JavaScript obfuscation, and enabling access to AI crawlers.

- **Feed the knowledge ecosystem.** Keep your brand's data up to date on third-party reference platforms like Wikipedia. AI models often pull from these sources when generating answers. Also, consider contributing to expert forums and enabling citations on partner pages. In addition, explore AI-integrated social platforms like YouTube Shorts, Instagram, and TikTok, where emotional brand elements—such as design, sound, and experience—can complement structured content and influence downstream AI-generated answers.

- **Enable agent access via interfaces and plugins.** Exposing OEM interfaces for vehicle configurations, product texts, pricing, and stock availability allows AI systems—and, increasingly, autonomous AI agents—to act on your data. Plugins, APIs, and Model Context Protocols (MCPs) can allow GenAI agents not only to answer questions but also to perform actions: generating a lease comparison, revealing inventory from local dealers, and even booking test drives on behalf of the user with secure authorization.

- **Track AI visibility, not just clicks.** Traditional KPIs such as click-through rates and keyword rank are losing relevance. Brands should begin monitoring emerging metrics that reveal "AI share of voice," such as AI citation frequency, inclusion in "Top 3" AI answers, and answer snippet sharing. Users tend to trust GenAI the more they use it and find its results to be consistent: the more often a brand appears as part of an answer set, the more it is seen as credible.

While today's GenAI discovery is driven mainly by structured content and earned visibility, paid integration into LLM interfaces is beginning to emerge. As these monetization models evolve, they may create a new high-performance marketing channel. OEMs should closely monitor these developments and begin preparing their data, content, and plugin infrastructure for future opportunities in AI-native paid media.

- OEMs and marketplaces must jointly navigate the tension between promoting a specific brand and its car models without losing consumers' trust in the marketplace as a truly multi-brand, customer-focused advisor.

Build Your Own Branded Assistant

OEMs have a unique opportunity to build one-of-a-kind, hyper-personalized car-buying experiences for their customers. While this approach should integrate all the data and capabilities required for the other two priorities, it could go much further, leveraging all the data they have about their customers and systems. In this setting, OEMS would have full control over their ecosystem by integrating GenAI into their apps, websites, and other customer-facing systems. The key is to remember that a branded assistant is not a website chatbot; it becomes the primary customer interface.

On the one hand, seamless integration into the OEM's databases and systems is required to ensure its assistant provides accurate and compelling information that maintains brand safety. On the other hand, OEMs should leverage any data point they can to offer their customers the most personalized, thoughtful, and attractive purchase journey on the market; such data would include users' prior car configurations, financial services contracts, and car and app usage patterns as well as the wealth of car telemetry data they could potentially collect.

This will allow the assistant to accurately predict the next best car and purchasing mode for their customers. For consumers, this will be the most personalized, accurate, and advanced car-buying journey available, making it an easy decision to stick to the brand they know and love.

For OEMs, this is a game-changer. It allows them to keep customers in their own ecosystem and upsell them to more profitable car configurations and add-on products and services. In a wholesale model, OEMs can enable their retail partners nearby to follow up on these high-quality, prequalified leads. In a direct-sales model, OEMs can even convert leads directly into a sale. Moreover, GenAI-enabled chatbots are available 24/7 in any language, so interested customers can get their questions answered right away or schedule a test drive for the next day. Such responsiveness not only boosts customer satisfaction but also increases lead conversion and lowers the cost of sales.

Building these experiences responsibly will matter as much as building them fast. AI-powered advisors should be transparent, respect user privacy, maintain brand safety, and always leave the final decision in the customer's hands. OEMs that **embrace responsible AI principles** will not only capture early-mover advantage, they will earn lasting trust. Strong safety and brand guardrails are required to keep feature descriptions, emissions claims, and regulatory statements precise and properly sourced. Where information is missing, the system should apply sensible defaults—such as local climate or typical road conditions—so the first answer is useful and easy to refine.

Consumers will expect to understand why they received a given financing option or vehicle recommendation. A reasoning layer can be employed to weigh trade-offs such as budget, range, delivery time, and total cost of ownership. The advisor can explain its logic in plain language, grounding answers and the rationale behind them, and then acting, where appropriate, with explicit privacy and consent throughout.

Responsible AI is not just an ethical imperative. It will become a license to operate in the new marketplace. Regulatory frameworks such as the EU's AI Act, FTC oversight in the US, and China's data sovereignty rules will shape the deployment of these AI assistants. (**See the sidebar "What It Will Take to Build Your Own Branded Assistant."**)

Consumer Journey Example

When my current leasing contract ends, I want to upgrade to a new car and trade in my husband's old car. I'm not sure whether changing to a hybrid or a fully electric vehicle makes sense given my driving profile. Could you please look at my previous trips and the charging infrastructure along the way to recommend the best option? Also, please analyze which car features I have made good use of and which ones I can skip in the next configuration. Keep in mind that we have taken on skiing as a new hobby, so we now need a car that's ready for winter and lots of luggage—I'm not quite sure what kinds of features are available for winter. And last but not least, we definitely need the car before the new skiing season begins.

....

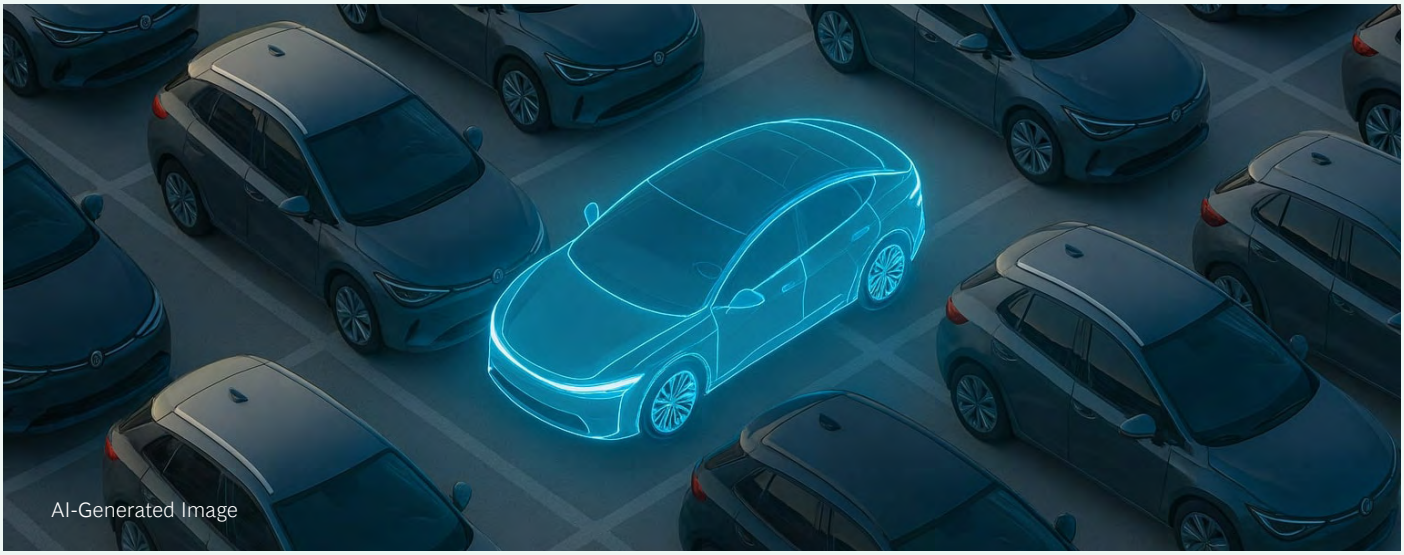
Strategic Implications for OEMs

- An OEM-branded GenAI assistant isn't a nice add-on feature on the website—it's a new customer interface. OEMs that build it right will own the relationship, shape perception, and convert interest into action.
- OEMs must orchestrate GenAI solutions together with their dealerships, integrating them into one seamless and unified GenAI platform rather than letting each dealership build its own solution. OEMs that miss out on this opportunity may find themselves outpaced by multi-brand marketplaces and their own dealership networks.
- OEMs should evaluate which elements of their GenAI stack to build in-house versus co-developing it with trusted AI partners. The key is to ensure optimal trade-offs between capabilities, flexibility, scalability, and reasonable economics.

What It Will Take to Build Your Own Branded Assistant

OEMs that want to own the end-to-end GenAI-powered customer journey must commit to a bold shift in priorities and the necessary investments in people, technology, and operating models. Success requires orchestrating multiple capabilities simultaneously. Seven priorities stand out:

- **Define a clear vision.** Start with a well-articulated view of the experience you want to create. What types of customers will use the assistant—private versus business, loyal versus new conquest? What touchpoints will be involved? What should the assistant do—and not do? These choices shape everything from interface design to back-end integration.
- **Enable end-to-end journeys.** The assistant should do more than answer questions—it must drive transactions. In direct-to-consumer models, this means enabling checkout. In wholesale models, it means passing prequalified leads to dealers seamlessly, with the right context and continuity.
- **Invest in tech talent.** A high-performing assistant won't be built or maintained by legacy teams and leaders alone. OEMs must attract and develop tech talent across data science, machine learning, product management, and engineering. Cross-functional collaboration will be essential.
- **Make the data AI-ready.** Most OEM data environments are not structured for real-time AI use. Relevant data must be accessible at low latency, standardized for LLM interpretation, and scalable across thousands of simultaneous conversations. Responsible AI practices and data privacy safeguards must be embedded from day one.
- **Orchestrate the tech stack.** Successful deployment depends on connecting customer and vehicle data, dealer management, inventory, pricing, financial services, and payment systems through scalable APIs and external connectors. MCPs are a nascent protocol but are critical to enable actionable AI agents that can interface with external systems. Ensure that the cloud infrastructure can handle high user traffic with minimal latency, while maintaining availability and fault tolerance. Platform decisions should allow for modularity and vendor flexibility to prevent lock-in.
- **Build feedback loops.** The assistant should continuously learn and improve. Use both implicit signals such as drop-offs as well as explicit feedback, including ratings and surveys, to improve relevance, accuracy, explainability, and conversion. Monitor and retrain the AI assistant frequently to prevent drift and maintain accuracy.
- **Establish strong governance.** Create clear content, tone, and safety guidelines for GenAI outputs. Define auditing processes for legal compliance, particularly around pricing, promotions, and customer data as well as answer accuracy, citation coverage, fairness, explanation fidelity, and customer satisfaction. Compliance should be designed in, not bolted on, with audit processes that keep pace with product changes. Assign accountability across IT, legal, marketing, and product functions to enforce these guidelines.



Rethinking the Role of Other Industry Players

OEMs won't be the only players affected by the GenAI transformation in car sales. Online car marketplaces, dealerships, and financial institutions must also prepare for how the technology will change their business models.

- **Online car marketplaces** must become GenAI-powered advisors, offering seamless, end-to-end, GenAI-native consumer journeys combining vehicles, insurance, home charging, and mobility subscriptions to position themselves as true one-stop ecosystems. The key is not just to compile accurate data but also to infuse it with meaning and context that enables a superior car-buying journey. In doing so, they must figure out how to balance maintaining their perceived independence as a trusted, objective advisor with the need to find new monetization models, such as partnering with OEMs and third parties, including leasing companies and banks. In e-commerce, platforms that tilted too far toward vendor-sponsored placements lost consumer credibility. The same risk applies here: if consumers lose trust in an advisor's objectivity, they will turn to others for advice.

- **Dealerships** will need to evolve from acting as gatekeepers of product information or relying on the best pricing deals to drive sales. Now they must become physical, on-the-ground experience centers. Providing the final stage of validation and face-to-face interaction, test drives become curated events, aftersales becomes a loyalty engine, and the human advisor plays the role of "trusted closer." Innovative dealerships could leverage GenAI-powered agents to build their own branded, digital concierges, allowing sales teams to anticipate customer intent earlier in the funnel and reach out with personalized offers. They can also deploy in-store voice copilots that tailor demonstrations by model, configuration, and customer profile; complete instant pre-checks; and package follow-ups after a test drive. Moreover, they could adopt AI-powered test-drive companions, where a voice agent explains features in real time during the demo. Research also suggests that virtual assistants can cut back-office support workload significantly, enabling cost savings through operational efficiencies.

- **Financial institutions and insurers** must prepare for tighter integration with OEMs' AI interfaces, providing consumers with personalized financing and coverage offers as part of a seamless, GenAI-powered user experience. For example, finance companies could provide real-time risk and pricing data with explanations that customers can understand, and dynamic credit scoring embedded within assistants for instant preapprovals. Insurers could offer usage-based bundles based on opt-in telematics, with privacy controls that make participation clear and reversible. All this will require structured data exchanges, dynamic financial product offerings, and secure data sharing, especially for sensitive customer information. Meanwhile, OEMs' captive financial services divisions must prepare for a new level of competition when consumers can easily compare their offerings and conditions with those of other players in the market.

Eventually, information about consumers will be the critical differentiating factor between all players in providing the best advice. Valuable data could also come from non-automotive players such as consumer marketplaces, electronics companies, and social media platforms in the form of data on purchases, movement, and personal preferences, as well as user-generated content such as car reviews.

These non-automotive players might further disrupt the market by offering their own GenAI-powered buying assistants, winning not because of their distinct automotive knowledge but because they already know their customers best. OEMs must get ahead by investing in all three strategic priorities to avoid being sidelined or sucked into a downward price spiral.

Embracing the AI-First Future for Car Sales

Across industries, innovators have shown that conversational AI can turn complex, multi-step journeys into seamless, human-centered experiences. The automotive industry will soon take the same leap, reframing the definition of a sales journey from a static funnel driven by advertisements and dealer touchpoints to a fluid dialogue where GenAI continuously adapts to consumer intent, lifestyle needs, and financial boundaries.

Forward-looking OEMs can take a leading role in creating AI-native buying journeys in which assistants provide grounded advice and are capable of acting on consumers' behalf. Marketplaces will compete on trust and transparency. Dealers will operate as human experience centers augmented by sales copilots. And financial institutions and insurance companies will be able to provide personalized and explainable offers. The common thread is trust through evidence: clear sources, clear actions, and clear outcomes.

The winners will be those who **act now**—building the infrastructure, partnerships, and organizational capabilities to lead in an AI-first future. Just as the travel industry's early adopters are redefining customer centricity, automotive players have a historic opportunity to leapfrog traditional barriers and deliver a radically better, trust-driven customer experience.

The best car sales advisor will soon be powered by GenAI.

About the Authors

Andrej Levin is a managing director and partner at BCG and head of BCG X in Central Europe. As an AI and auto enthusiast, he is the founder and global leader of Auto AI, driving AI, GenAI, and analytics in automotive globally.

Michal Bednarczyk is a partnerships director at OpenAI. With more than 15 years of experience across OpenAI, AWS, Splunk, and management consulting, he has built and scaled high-impact partnerships with Global System Integrators (GSIs) and leading strategic consultancies, enabling hundreds of large-scale digital transformations globally.

Robin Wagner is a principal at BCG, core member of the Automotive practice, and part of the global leadership team of Auto AI by BCG X. As an experienced AI and automotive expert, he leads (Gen) AI and sales transformations for leading OEMs and suppliers in Europe.

Shikhar Kwatra is an AI/ML partner solutions architect at OpenAI, where he helps global system integrators build scalable GenAI solutions. Recognized as one of the world's youngest Master Inventors with more than 400 patents, he is also a published author and educator on GenAI, bringing deep expertise in MLOps, cloud, and AI product development.

Ferdinand Harries is a partner at BCG and core member of the Automotive and Marketing, Sales, and Pricing practices. He advises leading OEMs across Europe and Asia on AI-driven pricing, next-generation sales, and go-to-market strategy.

Philipp Eulenberg is part of the founding OpenAI team in Germany. As a member of the Go-To-Market unit, he partners with OpenAI's strategic customers to drive value realization from OpenAI technology. Prior to joining OpenAI, Philipp was a Principal at BCG X, focusing on building and scaling AI-driven solutions for global enterprises.

For Further Contact

If you would like to discuss this report, please contact the authors.

Acknowledgments

This publication was made possible through the valuable contributions and insights of several colleagues. We would like to extend our special thanks to Julien Bert (BCG), Robert Derow (BCG), Christoph Heuser (BCG), Eric Jesse (BCG), Dan Sack (BCG), Jonas Hiltrop (BCG), Amir Kolton (BCG), Manuel Diehn (BCG), Julian Feldhäuser (BCG), Emily Kos (BCG), and Marc Montanari (OpenAI) for their support, expertise, and thoughtful input throughout the development of this paper.

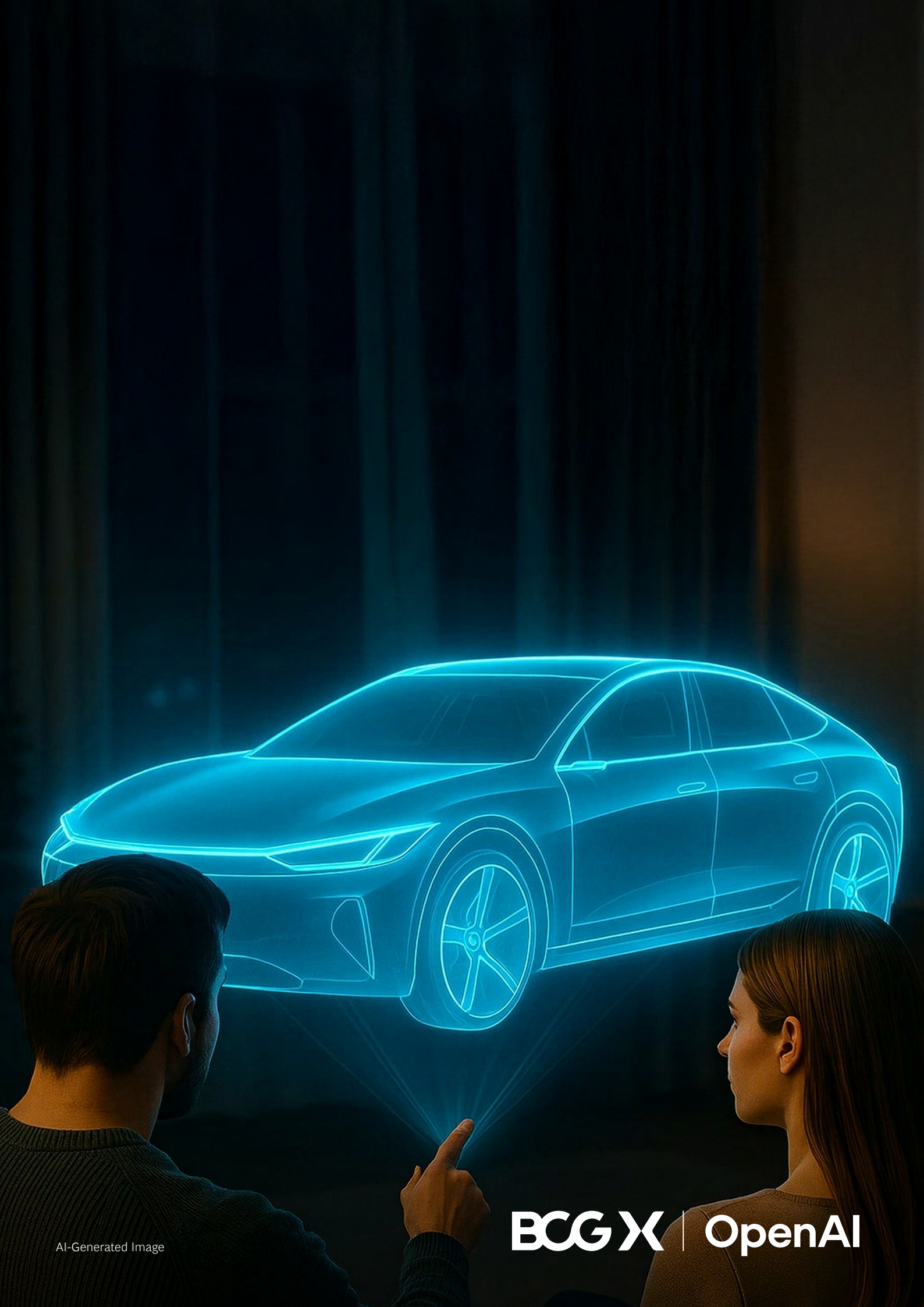
BCGX
BCG X is the tech build & design unit of BCG.

Turbocharging BCG's deep industry and functional expertise, BCG X brings together advanced tech knowledge and ambitious entrepreneurship to help organizations enable innovation at scale.

With nearly 3,000 technologists, scientists, programmers, engineers, and human-centered designers located across 80+ cities, BCG X builds and designs platforms and software to address the world's most important challenges and opportunities.

Teaming across our practices, and in close collaboration with our clients, our end-to-end global team unlocks new possibilities. Together we're creating the bold and disruptive products, services, and businesses of tomorrow.

OpenAI
OpenAI is an AI research and deployment company. Our mission is to ensure that artificial general intelligence benefits all of humanity. Founded in 2015, OpenAI develops cutting-edge AI technologies, including the GPT series of language models, and partners with organizations to integrate AI capabilities into real-world applications responsibly. OpenAI is committed to building safe, ethical AI systems and fostering transparency, safety, and alignment across the global AI ecosystem. Learn more at **www.openai.com**.


BCG X | OpenAI
AI-Generated Image