Expert Insights

The future of automotive commerce

Digital experience will make the difference

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Key takeaways

Digital commerce is a must for automotive companies, and it goes beyond the vehicle purchase

For most automotive companies, the vehicle-buying experience is still mainly an in-person, complex process with an ecosystem of disparate participants. Creating an exceptional online vehicle buying experience is an important step that can lead to larger digital commerce opportunities, including financing, insurance, warranties, connected vehicle services, and more.

Follow the experience, and be prepared to up your digital game

OEMs need to take a digital experience-led approach. Envisioning the future sales experience from a user's point of view creates opportunities to inspire loyalty. But be forewarned: consumer expectations are high.

Think big, but start small and scalable

An open, headless platform can allow OEMs to start small and then grow across the vehicle lifecycle. This approach can scale to include multiple processes, products and services, geographic markets, and consumer segments.

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Digital commerce: The new automotive adventure

When consumers consider digital commerce and the automotive industry, buying vehicles online is what comes to mind. Many automotive companies have begun exploring digital retail, but technical complexities and potential conflicts with franchise regulations have hampered progress so far. As a result, only about 9 percent of all vehicles were bought online in 2018.[1]

The obvious news: COVID-19 has changed the market. The pandemic has compelled auto marketers to grow bolder and embrace digital commerce experiences for the automotive buying process. And they needed to. When the crisis hit, digital leaders such as Tesla were still able to sell vehicles online, while other OEMs had to shut down their dealership-dependent offline sales channels.[2] And COVID-19 is not the only factor. Rising customer expectations and changes in buying behavior are pushing the industry to create competitive online commerce experiences. This is reflected in a survey, conducted in April 2020, that found 61 percent of consumers in the market for vehicles were open to buying online. That compares with 32 percent in 2019.[3]

Now more than ever, digital retail is a must have—not an optional or "vanity" project. In fact, even in a 2019 IBM IBV report, 50 percent of automotive executives said that to succeed—or even survive—their organizations needed to digitally reinvent themselves. And 42 percent cited a high sense of urgency.[4] This is especially relevant to the fastest-growing markets in Asia, which tend to have much higher expectations related to purchasing products and services digitally.

The future of automotive depends on creating seamless digital commerce experiences, built around the vehicle, that cater to direct customer interactions and transactions, including ownership, subscriptions, sharing, and additional e-commerce opportunities. To thrive, automotive brands must create a new perception of customer value that transcends the vehicle they're selling. They must transact with drivers online and directly—in many cases creating a digital commerce experience for the first time.

Defining an OEM's digital commerce experience is becoming as important—if not more so—than the design specifications of the vehicle itself.

Experience: The new battlefield

Consumer acceptance of buying vehicles online has risen sharply in recent years. Even before the pandemic, online vehicle sales as a market were expected to grow at a rate of 38 percent through 2025.[5] This presents both an opportunity and a challenge. With online sales, OEMs can establish a direct relationship with their customers. It's a new chance for a first impression, revitalizing automotive brands and engaging with consumers through the power of data-driven personalization platforms.

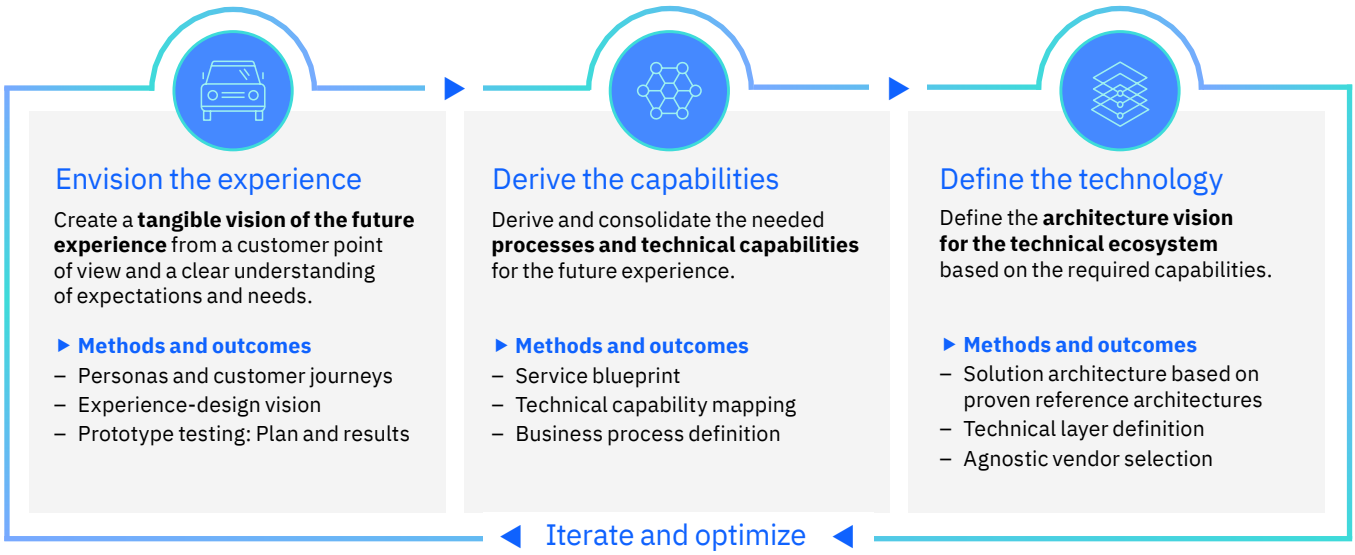
The challenge: the user experience needs improving. Sixty-one percent of consumers in one major survey did not feel that the car-buying journey has improved since they last bought a vehicle.[6] Customers have sky-high expectations, and research shows almost seven in ten are willing to pay for a sophisticated, streamlined encounter.[7] After all, they're used to state-of-the-art personalized digital commerce experiences with giants such as Apple, Amazon, and others. We see consumers increasingly shopping online for high-priced products such as e-scooters, watches, and home furnishings that, until recently, required face-to-face interactions to close deals. Now? "Old-school," in-person customer service can be perceived as bureaucratic, cumbersome—and even intrusive. In fact, one survey found that one in four British customers would buy a vehicle without a test drive.[8] And in the US alone, the automotive e-commerce market is a USD 14.6 billion business.[9]

For automakers, exactly how they exceed those high consumer expectations is rapidly becoming their main competitive differentiator (see Figure 1). The quality of every product, service, and brand is measured by the customer's perception of the experience. Count on that perception—both positive and negative—to amplify across social media.

Consider the implications. *Defining an OEM's digital consumer commerce experience is becoming as important—if not more so—than the design specifications of the vehicle itself.* Yet OEM budget allocations heavily prioritize vehicle design, often shortchanging the resources needed to craft an impressive digital experience around the vehicle. While automakers rightly pride themselves on product engineering, it needs to be one part of a more holistic approach.

Figure 1

The experience-led approach is iterative, customer-centric, and design-driven



Source: IBM Institute for Business Value.

Acquiring the vehicle itself, even through sophisticated front-end digital channels, is the immediate opportunity. But from there, OEMs can earn continuous loyalty, especially as they develop new ownership models such as vehicle subscriptions and sharing. Even with traditional vehicle ownership, OEMs need to expand their thinking beyond "one-and-done" sales to continuous digital customer interactions related to warranties, insurance, environmental charges, service plans, roadside assistance, and on-demand vehicle features and upgrades. Each interaction presents an opportunity to drive an exemplary customer experience and strengthen OEM brand loyalty.

Success with digital commerce requires an original perspective: a fresh take on procedures, organizational structures, and IT architecture combined with integrated, cross-disciplinary thinking.

Working both within and outside the automotive industry, we've learned valuable lessons—sometimes the hard way. The result? Our approach focuses on the customer experience *first*. Our concept starts with envisioning the future sales experience from a consumer's point of view, then using that vision to inform process and technology development. *We call this an "experience-led" approach.*

Developing a modular platform to enable new experiences

Customer expectations across industries are high. But for the automotive CTO, CMO, and CDO organizations, the bar is set even higher because they need to design and develop a customer experience that spans multiple use cases. Now more than ever, initiating vehicle ownership itself needs to be an engaging online experience, with assimilated digital dealerships as well as channels for post-sales transactions. The increase in vehicle connectivity is providing another basis for this type of continuous customer interaction. This presents business challenges over and above the IT infrastructure—yet that infrastructure still needs to address them.

A comprehensive digital design system of guidelines and reusable UX/UI and code components can help, but it's just the starting point. CTOs need to consolidate a variety of commerce, sales, CRM, dealer management, content management, and experience platforms, among many other factors. All of these touchpoints must be harmonized to create a comprehensive, holistic, seamless, and increasingly personalized digital experience.

Overall, OEMs need a flexible, open architecture to start small and scale fast and big, avoiding situations that induce technical lock-in. A point-to-point integration of not only those internal systems but also relevant external ecosystems can quickly devolve into a nightmare of complexity and interdependency.

Insight: The open, headless digital experience for OEMs

Traditionally, e-commerce implementations have followed one of two patterns—they're either "content-led" or "commerce-led."

Commerce-led patterns allow transactional sites to ramp up quickly, often using templated storefronts bundled with the commerce platform. These patterns tend to be functional but unremarkable. Alternatively, customized content-led sites can be painstakingly assembled in content management systems (CMS) and look stunning. But they can be costly to develop, implement, and maintain, particularly when it comes to integrating with the commerce platform.

These approaches involve tightly coupling both a CMS and a commerce platform, which leads to vendor lock-in and adds complexity to system support requirements. OEMs that tried either approach frequently ended up in programs that take years to complete. Often, they produce sites that are unwieldy, monolithic, and resistant to the rapid updates OEMs demand. Worse still, either a commerce-led or a content-led approach tends to be tailored toward a specific use case, such as processing deposits on new vehicles or selling used vehicles. In this scenario, new use cases tend to be treated as separate projects—contrary to the integrative approach we recommend.

Significantly, we are seeing the emergence of true headless patterns for automotive commerce (see Figure 2). Headless commerce means creating a sophisticated set of adapters between the front- and back-end layers, so neither depends on the other.

A headless pattern breaks potential commerce use cases into atomic components. These can be accessed or grouped in combinations to provide for virtually any number of use cases, using the same back end. Adapters could call out to commerce, content, pricing, logistics, or third-party services—everything OEMs need to provide a commerce-focused experiences. A headless approach even permits swapping among commerce back ends, or using different packages in different markets, and this is without downtime or noticeable variations.

The most significant aspect of headless commerce is the innate support for multiple user journeys. Does an OEM want to offer a subscription service, sell used vehicles, bundle electronic vehicle (EV) charging with new vehicle sales, or even offer in-vehicle payment for road tolls? A single headless commerce implementation can support them all.

In short, the appeal of a headless approach is obvious: instead of wrestling with questions related to supportability, complexity, and cost, OEMs can focus on what innovative business idea to try next.

Because it's future-friendly and efficient, a headless approach fosters technical change in a world where that's the one constant.

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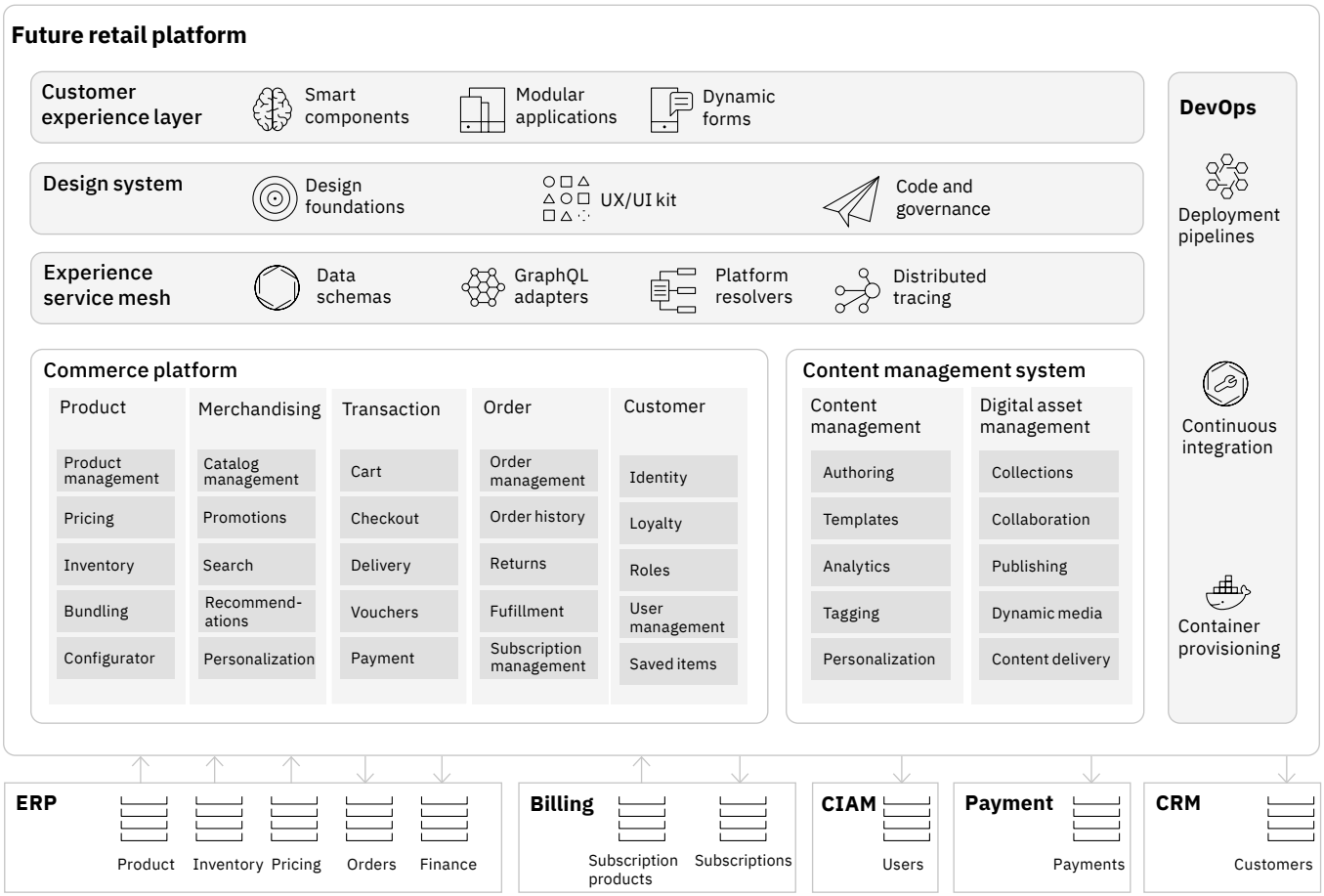
Figure 2

A headless architecture gives OEMs the ability to develop their own flexible, modularized customer experience layer



Source: IBM Institute for Business Value.

One approach that's rapidly growing in popularity involves the abstracting, or decoupling, of front-end experiences from back-end platforms—also known as a headless pattern (see Insight, "The open, headless digital experience for OEMs," on page 4). The diametric opposite of an inflexible, expensive off-the-shelf approach, a headless architecture allows OEMs to develop their own experience layer, with the flexibility to quickly adapt and modularize evolving customer expectations. Channels, experiences, and entire technical approaches can cycle in and—depending on their effectiveness—back out again.

Because it's future-friendly and delivers efficiently, a headless approach actually fosters technical change in a world where that's the one constant. This is especially relevant for OEMs that have a heterogenous IT landscape in different markets. The headless approach can roll out services faster and adapt to different back-end platforms without front-end changes.

OEMs need to measure and optimize the lifetime value generated by each customer, rather than defaulting to monthly vehicle sales figures.

A unified customer experience starts with a unified organization

Setting up a digital commerce system in the automotive industry is complex, to say the least. It takes an innovative spirit. This may be why, in one IBV study, 82 percent of automotive executives said they expect a culture of entrepreneurialism and new ideas to significantly contribute to their success and growth.[10] That raises a key issue: how to set up an innovative organization that both commits to and empowers digital commerce.

Digital commerce transformation for OEMs requires solid alignment across CMO, CXO, and COO functions. Additionally, the organization should designate a Director of Commerce Experience, guided by an Experience Board composed of dedicated cross-team counterparts. The appropriate organizational structure can go a long way toward propagating an experience-led DNA across the OEM. With input from the Experience Board, a business model and roadmap for digital commerce and integration can be effectively rolled out.

Linking the digital commerce initiative to strategic KPI and management objectives is critical. A digital commerce structure can provide valuable data that extends far beyond sales figures. Examples include metrics such as total visits, customer churn, and exit points. Data related to customer demographics and behavior can drive incremental improvements in the customer experience. Importantly, metrics illustrating these improvements need to be escalated to management.

Of course, the Net Promoter Score (NPS) is a critical measure of customer satisfaction with automotive commerce experiences. This score tracks customers who would recommend, or promote, the experience they received compared to customers who would not (detractors). Measuring the NPS across the customer journey provides insights into the perceived customer experience, as well as allowing comparisons to other digital purchasing journeys. Several studies have cited the correlation between a strong NPS and positive business impact.[11] The NPS figure should be the guiding KPI and "North Star" as an OEM creates and iterates its digital automotive commerce experiences.

Another often overlooked perspective: OEMs need to measure and optimize the lifetime value generated by each customer, rather than defaulting to monthly vehicle sales figures. We expect revenue streams to diversify once they're increasingly supported by the new digital experience ecosystem. Look beyond the question, "Has this customer bought a vehicle?" The right question is, "How much value has this customer generated—and how can we increase this number?"

Also, consider which ancillary functions to handle in house versus through partnerships and other ecosystems—decisions that will require advance strategizing. OEMs will need support related to payment, credit eligibility checks, and subscription management—just to skim the surface. Experiences that are well established in other industries need to be seamless for the automotive customer. Experience design, business modeling, and technical implementation partners with automotive and cross-industry expertise can help OEMs develop and execute comprehensive strategies.

Let's not overlook automotive dealers. They cannot achieve a decentralized customer journey by themselves. They'll need integration into the digital commerce process, with an eventual realignment of regulations and legal frameworks that better serve both the online sales vision and dealer survival. One evolving scenario is the role of the dealer as a consulting sales agent rather than contract owner, with remuneration restructured accordingly.

Last but far from least: data. Digital OEM-consumer interactions create valuable data about those relationships and experiences. Demolishing data siloes (such as banks, OEMs, and dealers) facilitates sharing of customer data and insights across both the enterprise and ecosystem. In one survey, 71 percent of industry executives said that data could help them market and develop adjacent industry products and services. That same percentage also anticipated new revenue streams from selling data.[12] These new business models and revenue streams can help OEMs buffer the shock of unexpected events—like pandemics.

But there's one important caveat for both an organization's integrity and customer trust: organizations will need to develop data monetization strategies that are secure, solid, and ethical.

Action guide

The future of automotive digital commerce

Buying a vehicle online is just the first step of the automotive digital experience. Now is the time to define, ideate, and create that broader experience, from both a consumer and business perspective. It's an opportunity to shape the digital experience not just for your automotive organization, but for the entire industry.

Given that change is the only constant within the digital retail ecosystem, we recommend an agile approach. Start with a Minimum Viable Product (MVP) that can be continuously iterated and improved upon. In our view, the goal of an MVP is to create valuable information across two dimensions. The first is how to design future digital commerce solutions by receiving fast user feedback, given a minimum technical solution. The second dimension highlights new ways to approach the future digital commerce organization. We've outlined some steps to get you started:

– **Establish your digital commerce team and integrate a data mindset into your organization's DNA.**

  Bring together an interdisciplinary team with experts from all the stakeholder functions in the business to create the digital commerce MVP. Develop dynamic digital personas to capture individual mobility information for extreme personalization. Leverage digital assistants and other digital technologies to link known data with unknown future events.

– **Embrace the business potential of experience first. Make it a priority by combining experience design with business and technology design.**

  Work backward from the customer experience. Make sure the experience is intuitive and seamless by integrating usage journeys from virtually all participants' standpoints. Once the experience is defined, aggressively reinvent your business and workflows to enable a new focus, experience, and ways to work based on data.

– **Create an open, flexible, headless architecture that can accommodate inevitable future changes.**

  Start with the retail sales process as the nucleus. But keep it flexible and open in order to easily add other valuable services such as finance, mobility, insurance, connected services, and so forth. Create a consistent experience across touchpoints and brands along the lifetime of the vehicle ownership.

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