Reimagining Consumer Experience in the Automotive and Heavy-Duty Industry

pivotree™   **Spryker**

About the Authors

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Sam has 18 years of automotive industry experience. She is a trailblazer for data management in the industry and actively contributes to the Auto Care Association's Technology Standards Committee. With an IT and fine arts background, Sam has held roles in product management, data management, and software engineering, providing her with holistic knowledge and a unique perspective. She is also part of the ACPN Leadership Committee and the MEMA Business Technology Council. Sam is a proud mom and shares her automotive passion with her husband, who also owns an automotive shop.

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Niko is an experienced digital commerce and technology leader with over two decades of experience in e-commerce and digital innovation. Over the past six years at Spryker, Niko has been instrumental in advancing the automotive motion, focusing on integrating innovative digital solutions. With a deep understanding of both business and technology requirements, Niko translates complex systems into actionable strategies that drive significant results. Passionate about AI and its potential, Niko is committed to revolutionizing business processes and enhancing efficiency, shaping the future of digital transformation in the automotive sector.

What's Inside

The Status Quo in the Automotive Industry

The automotive industry is experiencing rapid change, and we promise it will be even faster tomorrow. With more changes in the past three years than in the past three decades — due largely to the disruption to production caused in 2020 by the pandemic — advancements in technology and shifting consumer preferences are shaping the future of mobility and swiftly ushering in the need to provide consumers with a seamless, omnichannel experience.

The vehicles of tomorrow, including electric vehicles (EVs) and advanced driver-assistance systems (ADAS), are shaping the future of mobility. While significant advancements are being made, the widespread adoption of fully self-driving cars remains a longer-term goal due to regulatory and technological hurdles.

The automotive business models of today will not exist in 10+ years. The customers you have today are not the customers of your future. Therefore, every player in the aftermarket and original equipment manufacturers (OEMs) space, whether a manufacturer, distributor, retailer, dealer, or service shop, must rethink its strategy to survive and evolve.

In today's convenience-driven economy, customers expect the ability to purchase and receive goods and services on their own terms. This expectation extends to the automotive industry, where customers demand efficient and timely service. Service shops and professionals are tasked with meeting these evolving customer needs, which means having the right part at the right time and in the right place. Delays in servicing can lead to annoyed customers, lost revenue, and diminished trust, as every moment a car remains on the lift costs both customer patience and service provider money.

The connection between a vehicle and its owner often feels frustrating, with friction occurring at every stage, from purchase to maintenance. That's why it's time for a complete transformation: to create an integrated ecosystem that streamlines and removes friction from every aspect of the vehicle ownership process and journey

The journey of acquiring, owning, and utilizing a car should flow seamlessly, facilitated by a comprehensive range of products and services. Achieving this seamless experience requires fully embracing digital solutions. To thrive in the digital landscape, automotive companies must invest in new capabilities and adapt their operating models to this new era. By embracing increased digitization, your business can forge stronger connections with customers, operate with greater speed and efficiency, and deliver an unparalleled customer experience.

30-35%

The automotive sector is expected to see a 30-35% annual growth rate in 5G adoption over the next few years.[1]

60%

60% of consumers expect to make their purchase online.[2]
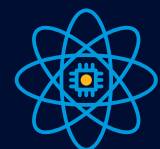
Generative AI is transforming the automotive sector, impacting vehicle design, navigation, predictive maintenance, voice assistants, manufacturing, supply chain, and quality control.

Challenges Ahead

To successfully design a game plan, it's very important to fully understand the challenges you face.

Customer Service is the New Battleground

Customers today don't just want to buy a product or service – they want an experience. As McKinsey[3] explains, this shift means the new automotive battleground is customer experience. More specifically, automotive companies must gather data at every customer touchpoint and then actively leverage it to improve the customer journey.

In today's automotive market, complexity reigns supreme, hindering transparency and cohesion among its players. The landscape is littered with intermediaries, fostering minimal communication and data exchange between product and service providers. This lack of transparency and overarching complexity poses one of the industry's most daunting challenges.

The traditional journey of purchasing a vehicle has undergone a significant transformation. No longer confined to the showroom floor, the modern buyer, particularly those under 45, gravitates towards online platforms with 60% projected to make their next purchase through digital channels.[4] These digital portals serve not only as transactional hubs but also as research havens and social proof platforms.

In addition, a staggering 95% of vehicle buyers turn to digital sources to inform their purchase decisions. Behind the scenes, consumers engage in extensive groundwork, underscoring the pivotal role of media-rich customer experiences in clinching a sale.

Once ownership is secured, navigating the vehicle landscape entails traversing a maze of digital and in-person resources in search of the perfect fit. From financing to insurance procurement to ongoing maintenance, every step underscores the fragmented nature of the customer experience. This fragmentation not only compromises customer satisfaction but also poses challenges for automotive companies striving to cultivate loyalty and post-sales revenue streams.

Original Equipment Manufacturers (OEMs) lack crucial data beyond initial vehicle data streams. Enhanced visibility into the vehicle's lifecycle could empower smarter decision-making and foster personalized interactions between manufacturers and owners.

As technological advancements drive the demand for increasingly sophisticated features, the proliferation of applications and systems within vehicles skyrockets. It's not uncommon for a single vehicle to host up to 600 applications or systems, exacerbating complexity for both the aftermarket and OEM sectors.

This complexity manifests in myriad challenges, from identifying and rectifying vehicle issues to navigating compatibility hurdles among systems and applications. Consequently, the development, manufacturing, and replacement parts processes incur heightened time and cost burdens, alongside escalated maintenance expenses for end-users. Hence, OEMs and aftermarket entities must navigate this evolving complexity adeptly, seeking avenues to mitigate costs, enhance efficiency, and elevate the owner experience.

Data is the New Oil

In the ever-evolving landscape of the automotive industry, data has emerged as its most valuable asset, powering growth, innovation, and competitive advantage. However, much like oil, data's true value lies not just in its abundance but in how effectively it is refined and utilized. Here, we delve into the pivotal role data plays in driving success within the automotive sector.

Fragmented Digital Maturities: A Roadblock to Progress

One of the predominant challenges faced by companies in the automotive parts industry is the existence of fragmented digital maturities across the board. While some businesses have embraced advanced analytics and AI-driven insights, others are still navigating the basics of digitalization. This variance in digital readiness results in stark differences in data capabilities among industry players.

Siloed Data is the Inefficiency Bandit

A common consequence of this fragmented landscape is the proliferation of siloed data. With multiple partners, suppliers, and sources contributing to the data pool, information becomes dispersed across various platforms and systems. Siloed data inhibits holistic analysis, leading to inefficiencies in decision-making processes and missed opportunities to optimize friction in this industry.

Foundational Data Paves the Way for Future Success

Amidst this complexity, having a robust foundational data infrastructure emerges as a crucial cornerstone for future success. Foundational data serves as the bedrock upon which advanced analytics, machine learning algorithms, and AI applications thrive. By consolidating fragmented data sources and breaking down silos, organizations can unlock actionable insights, streamline operations, and drive innovation.

By investing in cultivating a unified data ecosystem, companies can navigate the digital landscape with agility, resilience, and a competitive edge. As the industry continues to evolve, those who harness the power of data effectively will emerge as leaders in the race toward automotive excellence.

Supply Chain Instability

The past few years have proven tumultuous for supply chains, to say the least. In 2022 alone, an estimated 3.5 million vehicles couldn't roll off the assembly line due to production shutdowns, as reported by Auto Forecast Solutions.[5] Furthermore, the global semiconductor shortage dealt a staggering blow to the automotive industry, resulting in a loss of $110 billion in revenue in 2021 alone.

As the automotive industry shifts away from relying solely on traditional internal combustion engines (ICE) and embraces alternatives like hybrid and battery electric vehicles (BEV), the pace of product development and part diversification among manufacturers remains relentless. This only adds to the complexity of inventory management and the importance of having visibility into supply chain logistics.

In response to these challenges, both the automotive and heavy-duty industries have been striving to fortify their supply chains against disruptions since the lessons learned in 2020. However, the journey towards digital transformation in supply chain management remains varied and fragmented within the industry. While some still rely on in-house warehouse management systems (WMS) solutions, others recognize the value of implementing cutting-edge WMS and Order Management System (OMS) technologies to enhance their supply chain resilience and efficiency.

Structural Changes to the Sector

Technological advancements, evolving consumer preferences, and regulatory imperatives, especially regarding sustainability, have profoundly reshaped the automotive industry landscape.

Today's vehicles are increasingly software-driven, shifting from the traditional hardware-centric view of the automotive sector. However, this gradual transition varies across different market segments and regions. This shift positions the industry at the forefront of technological innovation and advancement.

Furthermore, the emergence of new vehicle ownership models like car sharing and subscription services has altered the consumer mindset away from traditional ownership paradigms. This transition underscores a broader shift from the automotive to the mobility industry, reflecting changing consumer behaviors and preferences.

Digital technologies such as artificial intelligence and machine learning are making structural waves in the automotive industry. With a shortage of skilled technicians and a shift towards software-driven vehicles, AI offers solutions to streamline processes and optimize efficiency. By automating tasks, providing AI-driven insights, and integrating solutions like automotive Large Language Models (LLMs), shops can enhance diagnosis, workflow management, and customer service. This revolutionizes the customer experience by offering seamless self-service options, personalized responses to reviews, and efficient scheduling through AI-powered platforms. Additionally, AI enables predictive maintenance, ensuring vehicles stay on the road and minimizing disruptions in supply chains. This shift towards AI-driven solutions not only improves operational efficiency but also redefines the relationship between vehicle owners and their vehicles, ushering in a new era of innovation and convenience in the automotive industry.

Diversify Your Revenue Streams

Much like how investors know not to put all their money into a single asset, automotive companies must also consider the importance of diversification in their business models and revenue streams. The recent market and supply chain turbulence has highlighted the risks of heavily relying on a single supplier or product. However, many businesses still need to learn their lesson about the importance of not putting all their eggs into one basket.

Digital vs Physical Sales

Consumer shopping behavior has undergone a profound transformation in recent years. Take, for instance, the process of buying a vehicle, whether new or used. In the traditional sales model, one visits a dealership, embarks on test drives, and engages in negotiations with a salesperson to secure their dream car. Similarly, the maintenance of a vehicle follows a similar pattern. When faced with maintenance issues or malfunctions, individuals turn to their computers or mobile devices to diagnose the problem. Once identified, the next step is to scour the internet for the necessary products, whether you're a hands-on DIYer or prefer the convenience of a professional. For the latter group, known as Do-It-For-Me (DTFM) consumers, the journey involves seeking out local service shops or dealership service centers. In today's dynamic landscape, DTFM individuals find themselves dialing through numerous establishments to secure prompt attention for their vehicles. The entire journey, from purchase to ownership and maintenance, can be riddled with friction.

Today's buyers are increasingly reliant on online research, necessitating a shift away from traditional sales tactics tailored to physical interactions. This evolution is evident in the automotive industry, where consumers visit an average of 4.2 websites during their purchasing journey[6] (Cox Automotive). Just as outdated sales methods struggle to resonate in the digital realm, antiquated marketing techniques also fall short. While the digital landscape offers vast opportunities for businesses, it's accompanied by formidable challenges. Automotive companies can now tap into a broader audience, but they must contend with heightened competition at the same time, highlighting the imperative for adaptability and innovation in this dynamic market.

For automotive manufacturers and B2B, sales have historically relied on the direct relationship between the manufacturers and the dealership, focusing on building long-term partnerships. Physical sales remain vital to the B2B automotive industry, but digital sales channels are becoming increasingly important, as digital solutions offer more efficient and streamlined purchase processes. These shouldn't be compared directly to physical sales, as digital sales channels work differently, helping both the manufacturers and the dealerships to reach a wider audience and reduce overall costs.

Similarly, the automotive aftermarket plays a crucial role in the sourcing and selling of parts for a vast range of years, makes, and models in today's car park. Parts stores serve as intermediaries, facilitating transactions between manufacturers, consumers, and service shops. Consumers rely on these stores to find the products they need, often utilizing both physical and digital channels to make purchases. Service shops, in turn, depend on parts stores to access a comprehensive inventory of parts required for vehicle maintenance and repair. This symbiotic relationship between manufacturers, parts stores, consumers, and service shops underscores the complexity of the automotive ecosystem and highlights the importance of efficient supply chains and distribution networks.

Finally, while physical car sales did not evolve dramatically over the decades, the digital sphere is constantly changing. If they hope to succeed, automotive businesses need to be agile and willing to experiment and adapt, especially with new sales and marketing tactics. Embracing innovation and leveraging digital channels effectively will be essential for staying competitive and meeting the evolving needs of consumers in the automotive industry.

The Future of Automotive

The future of the automotive industry is innovative, sophisticated, and bold. We are in one of the most transformative periods the automotive industry has ever experienced — and one of the most exciting. Successfully navigating the future of the automotive industry requires embracing a new mindset, new products and services, and new ways of working. It's about ecosystems and how to relate with your partners and customers. It's about personalization, efficient use of data, and optimizing and transforming operations. It's also about defining strategic direction and value propositions through profound and coordinated changes in your culture, workforce, and technology.

A Fresh Approach to Retail

The future of sales in the automotive industry will be characterized by a sophisticated blend of personalization, dynamic customer interactions, and immersive experiences, all seamlessly woven into a convenient and frictionless journey across all channels and touchpoints.

To thrive in this evolving landscape, the automotive sector must pioneer new standards and collaborative models. The traditional retail network approach is fast becoming obsolete, necessitating a fresh approach to physical parts stores and dealerships, which will persist but in altered forms and capacities.

To achieve the pinnacle of customer loyalty, OEMs and Aftermarket entities must orchestrate holistic experiences that span from internal realms, such as employee and brand interactions, to the ultimate external touchpoint — the final customer experience. However, executing this paradigm shift demands a strategic restructuring of backend systems and a nuanced differentiation of front-end interfaces — an undertaking fraught with complexities.

Moreover, OEMs and Aftermarket players must reimagine their roles within the automotive supply chain. Merely selling vehicles and associated products is no longer sufficient. Every entity within the industry must redefine its market positioning and adopt a customer-centric approach, while also exploring innovative collaborations with both vertical and horizontal partners to tap into new profit streams and diversify business models.

Ultimately, those with the foresight to discern the emerging trends in the automotive sector and proactively adapt their strategies will emerge as the resilient survivors in this transformative landscape.

WELCOME BACK JOHN...

What do you need help with today?
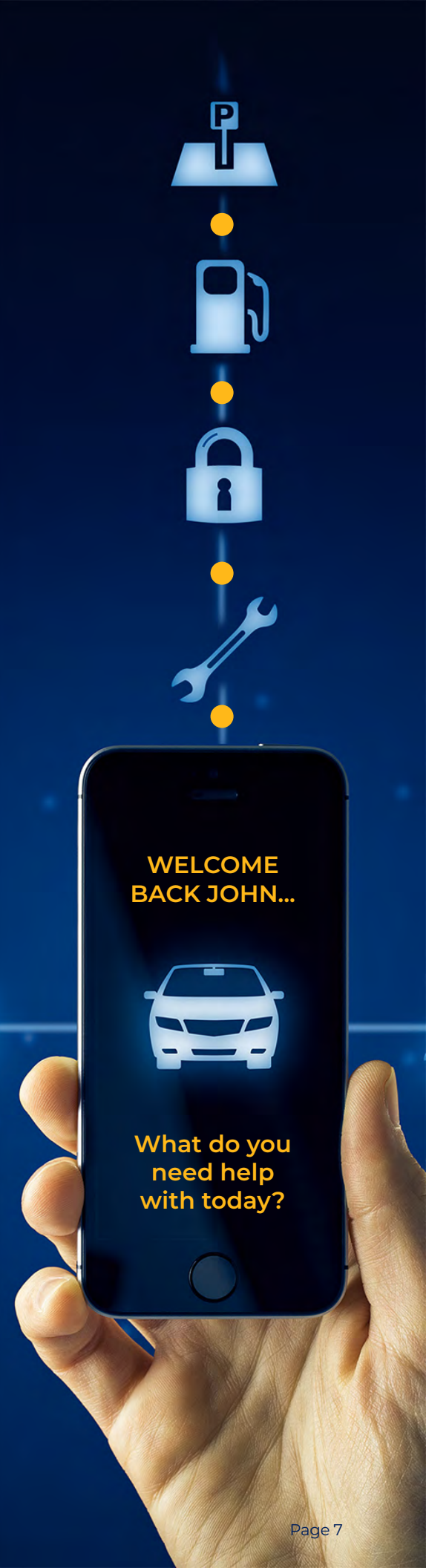
Digitization and Other Key Trends

Overall, the automotive industry of the future will be driven by technology, sustainability, and collaboration. Businesses that embrace these trends will be better positioned to succeed in a rapidly evolving market. Here's a breakdown of how these trends might impact the industry:
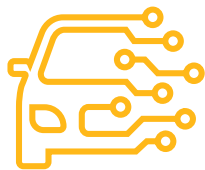
DIGITIZATION

The automotive industry will increasingly rely on digital technologies to enhance the customer experience. This includes digital showrooms, virtual reality experiences, and streamlined digital processes. Moreover, the speed at which the industry is changing means that competitive advantage lies in agile responses to these market changes. Manufacturers and dealerships will need to invest in technology to stay competitive and meet customer expectations — without knowing what the future holds. For this reason, it's important that this technology be future-ready, enabling companies to build adaptable ecosystems that can easily be expanded to accommodate future commerce capabilities.
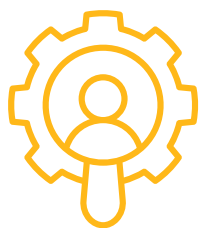
SUSTAINABILITY

Environmental concerns and regulations will push the automotive industry towards more sustainable practices. This includes the development of electric and hybrid vehicles, as well as green initiatives in manufacturing and operations. Companies that embrace sustainability will not only meet regulatory requirements but also appeal to environmentally conscious consumers.

PERSONALIZATION

With the help of data and analytics, automotive businesses will be able to offer personalized experiences to their customers. This could involve tailored marketing campaigns, financing options, and customer journey mapping. By better understanding their customers, businesses can create more meaningful and engaging interactions.

PARTNERSHIPS AND COLLABORATIONS

To offer a more integrated experience, automotive businesses will need to form partnerships and collaborations with other companies. This could involve technology firms for digital solutions, finance providers for innovative financing options, and mobility service providers for seamless transportation solutions. By working together, companies can create a more holistic experience for customers.

Three Pivotal Data Challenges for Automotive

We're confronted with three pivotal data challenges within the automotive industry, and crafting a customer-centric platform stands as a strategic response.

1 The intricate task of integrating data, harmonizing disparate sources to glean actionable insights, and delivering a seamless customer experience.

2 Navigating the legal landscape surrounding customer data and consent, where strict adherence to regulations like GDPR and CCPA is paramount for fostering trust and transparency.

3 Fostering seamless collaboration across the entire value chain, ensuring alignment among stakeholders to enhance the end-to-end customer journey.

The evolving digital footprint of consumers accentuates the urgency for robust data management and integrity. Consumers now seek assurance that their purchases align precisely with their needs and vehicle specifications. This trend is amplified by the surge in reliance on reviews and self-guided research, particularly among younger demographics post-pandemic, underscoring the need for seamless data integration.

This presents a formidable challenge for the automotive sector, necessitating horizontal and vertical integration across wholesale/retail, online/offline realms, manufacturing, sales, and diverse IT systems. Currently, the industry is fragmented in where they are in their digital maturity, complicating the integration of data from myriad sources and its effective utilization.

Furthermore, seamless collaboration across the value chain remains a pressing concern. Breaking down silos and establishing efficient communication channels among manufacturers, suppliers, dealerships, and partners is imperative to ensure alignment in delivering value to customers.

Additionally, addressing these challenges requires adept handling of data collection within vehicles and subsequent cloud processing, while respecting privacy concerns and regulatory requirements.

Legal considerations and consent management present additional complexities. Cumbersome marketing and sales processes require comprehensive consent management across emerging channels. Customer identification poses a unique challenge, particularly in shared mobility scenarios, complicating efforts to personalize services and offers.

A centralized function for customer identity and consent management offers a comprehensive solution. By enabling seamless stitching and unstitching of customer profiles across channels, it provides a holistic view of interactions and preferences, avoiding conflicting data and enabling more effective personalization. Moreover, robust consent management empowers customers to control their data, ensuring compliance with privacy regulations while facilitating a tailored customer experience.

The Evolution of Customer Data

In the future, the automotive industry will see a significant increase in customer data due to the growing number of channels used to engage with customers. This will require more customer identifiers and stitching techniques to create a comprehensive view of each customer.

New business models that focus on establishing a long-term relationship with customers will create a stream of new business opportunities, as opposed to the traditional approach of selling once and then servicing and re-selling.

The Importance of Customer Data Platforms

A Customer Data Platform (CDP) is indispensable for automotive businesses striving to deliver personalized services, enhance customer experiences, and stay attuned to evolving market dynamics. It empowers personalization for visitors, seamlessly transitioning to stitch together comprehensive customer profiles upon identification, thereby facilitating targeted advertising and channel orchestration. This not only optimizes media expenditure but also slashes the cost per acquisition.

Moreover, a CDP furnishes a holistic customer view, alongside centralized identity and consent management, streamlining the integration of diverse channels, platforms, and technologies throughout the customer journey. Real-time insights into consumer behavior and vehicle status enable the delivery of pertinent offers, fostering superior customer satisfaction. By consolidating customer data in a readily actionable manner, businesses gain the agility to make informed decisions and swiftly adapt to evolving customer preferences.

A VIN-centric Approach

Redefining data management in the automotive sector from a customer-centric to a vehicle-centric approach offers profound advantages, particularly concerning privacy and data accessibility. By anchoring ownership and maintenance history to the Vehicle Identification Number (VIN) rather than individual customers, potential privacy pitfalls associated with customer registration are circumvented. Analogous to safeguarding medical records with Social Security numbers, prioritizing the VIN as the primary identifier ensures a comprehensive vehicle history, encompassing ownership changes and maintenance records.

While current practices by platforms like Carfax and dealerships aim to capture such data, their efficacy remains hampered by the siloed nature of their databases. Without seamless industry-wide communication, invaluable insights remain fragmented and beyond stakeholders' reach.

By disassociating personal customer information from the vehicle and directly linking the vehicle's history with its VIN, privacy concerns are effectively assuaged. This approach seamlessly integrates vehicle data into internal systems, with the VIN serving as a unified key bridging the vehicle's history with securely stored customer data within the CDP.

Internally, leveraging the VIN grants businesses access to comprehensive vehicle histories while upholding customer anonymity. This integration ensures the segregation of

sensitive customer information from vehicle data, bolstering privacy safeguards. Securely anchoring the VIN to the customer within the CDP facilitates invaluable insights into customer behavior and preferences without compromising privacy.

This unified strategy empowers businesses to optimize customer experiences by tailoring offers and services based on vehicle history, all the while upholding stringent privacy standards. By delineating private customer data from vehicle data yet linking them through a secure VIN-based system, businesses can uphold privacy standards while maximizing the utility of their data assets.

Conclusion

For over a decade, the automotive industry has clamored for an integrated ecosystem that streamlines and removes friction from every aspect of the vehicle ownership process and journey. This ecosystem can serve as the gateway to seamless interaction among all stakeholders. As its owner, you will be strategically positioned at the helm of each transaction, participating in diverse business models while gaining invaluable insights from partners' data.

The strong partnership between Pivotree and Spryker enables us to offer composable commerce solutions with strengths in data management, integration, and utilization to enable a seamless omnichannel experience, allowing automotive companies to integrate digital and physical touchpoints effortlessly, enhancing customer satisfaction and loyalty. This framework equips automotive businesses with the agility to adapt to market changes, explore new revenue streams, and implement sustainable practices, ensuring long-term success in a rapidly evolving industry.

Spryker is the leading global composable commerce platform for enterprises with sophisticated business models to enable growth, innovation, and differentiation. Designed specifically for sophisticated transactional businesses, Spryker's easy-to-use, headless, API-first model offers a best-of-breed approach that provides businesses the flexibility to adapt, scale, and quickly go to market while facilitating faster time-to-value throughout their digital transformation journey. As a global platform leader for B2B and B2C Enterprise Marketplaces, IoT Commerce, and Unified Commerce, Spryker has empowered 150+ global enterprise customers worldwide and is trusted by brands such as ALDI, Siemens, ZF Friedrichshafen, and Ricoh. Spryker is a privately held technology company headquartered in Berlin and New York backed by world class investors such as TCV, One Peak, Project A, Cherry Ventures, and Maverick Capital. Learn more at spryker.com and follow Spryker on LinkedIn and X.

Pivotree, a leader in frictionless commerce, strategizes, designs, builds, and manages digital Commerce, Data Management, and Supply Chain solutions for over 200 major retailers and branded manufacturers globally. With a portfolio of digital products as well as managed and professional services, Pivotree provides businesses of all sizes with true end-to-end solutions. Headquartered in Toronto, Canada, with offices and customers in the Americas, EMEA, and APAC, Pivotree is widely recognized as a high-growth company and industry leader. For more information, visit www.pivotree.com or follow us on LinkedIn.