

Converging Megatrends— shaking up automotive finance:

How disruptions to the status quo are challenging today's lenders and dealers

November 2015



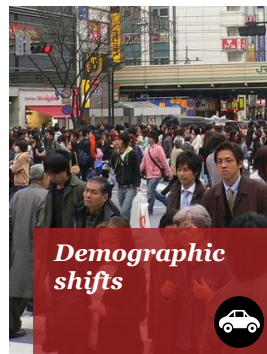
The heart of the matter

What's happening in the industry today and what to do about it

We're not in Kansas anymore

Self-driving automobiles, smart megacities, and predictive technologies that understand our behavior better than we do are no longer abstract concepts. Rather, they are realities that exist today that will continue to evolve and grow. Indeed, we expect to continue to see many aspects of our lives and businesses fundamentally influenced by these large macroeconomic and social forces, also known as Megatrends.

Over the past several years, PwC has observed key Megatrends driving innovation and playing a large role in adjusting consumer behaviors and demands. Of the five that we've been following, we have singled out three that in our opinion will likely have the most profound effect on the automotive finance industry: **Accelerating urbanization**, **demographic shifts**, and **technological breakthroughs**.



Megatrends defined

As the name implies, Megatrends are big, as is their impact on businesses across industries.

- Megatrends drive some of society's biggest challenges and opportunities.
- They are factual and often backed by verifiable data.
- The concept of Megatrends is not new. Companies may call Megatrends by different names, but most businesses have organized their strategy in some way, shape, or form around them.

Taken individually, each of these Megatrends can significantly impact any business—but when they converge they have the potential to deliver a one-two punch that can create a “perfect storm” that requires careful navigation. As a result, we are now seeing leading auto lenders and dealer groups revisiting their business strategies and seeking ways to prepare for the challenges and embrace the opportunities that these Megatrends are creating. For instance:

- Considering partnership opportunities with non-traditional industry participants such as car sharing platforms and marketplace lenders;
- Identifying different sources of alternative data for fraud mitigation, credit underwriting and loan pricing decisions; and
- Thinking about customer experience and servicing strategies to address diverging consumer expectations.

Lenders and dealers who have yet to recognize or respond to the disruptive impact of these Megatrends, could find themselves in a costly situation given that industry disruptors to the status quo are already flying in from all directions, bringing with them new opportunities for eager innovators to redefine the rules of the game and, with that, the industry’s competitive landscape.

In this paper, we provide a deeper dive into the above three Megatrends and their effect, both individually and collectively, on the automotive finance industry—along with some recommended action steps to help lenders and dealers reap the potential benefits that may be gained by effectively anticipating and staying ahead of ongoing change.

An in-depth look at the challenges, solutions and benefits

What lenders are doing now versus what they should be doing

The Big Picture: three Megatrends—each with its own impact

Clearly, each of the three most impactful trends—*accelerating urbanization*, *demographic shifts*, and *technological breakthroughs*—can have a significant impact on business in and of themselves, but when they converge, their combined impact increases exponentially. First let's look at these as individual forces:

1. Accelerating urbanization

Both in terms of raw volume and percentage of total population, America's urban population continues to grow rapidly, as illustrated in Figure 1. This profound urbanization is giving rise to continually changing transportation preferences of Americans living in metropolitan areas, particularly as innovative companies continue to introduce progressive transportation alternatives to car ownership that are more broadly accepted by mainstream consumers.

Figure 1: The increasing urbanization of America

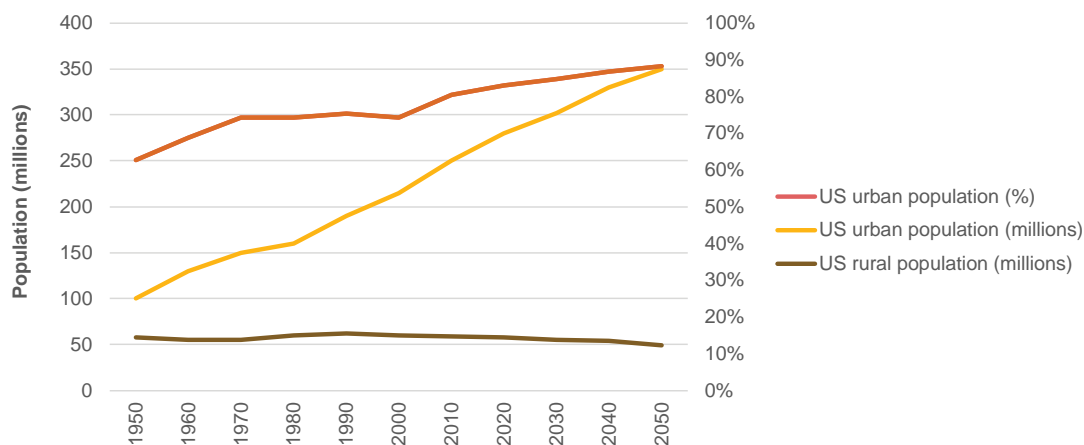
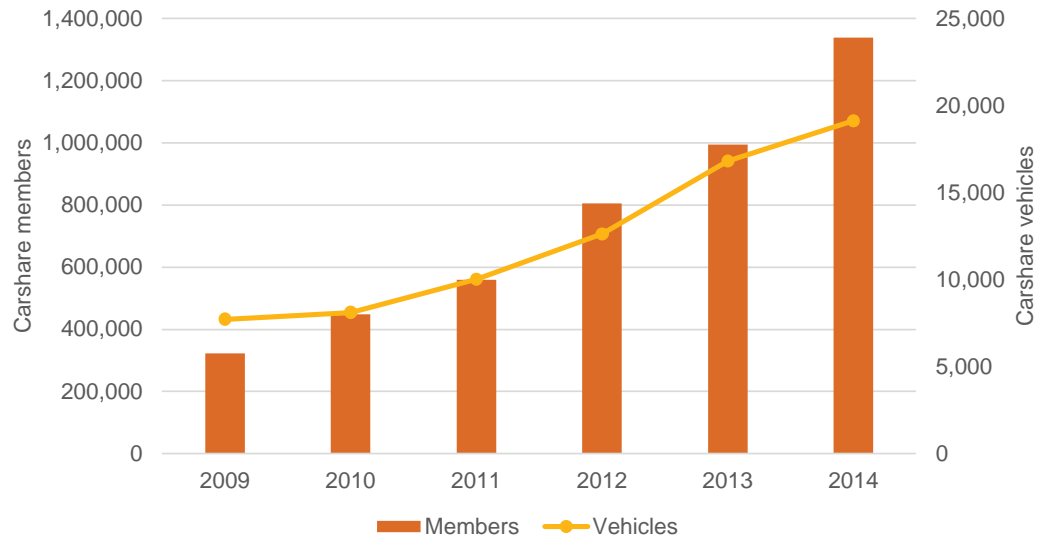


Figure 2: The pace of urbanization is clearly on a roll—the numbers tell the story

	2000	2015	2030
# of US cities with population greater than 1 million	37	45	53
% of US population living in cities with population greater than 1 million	41.0	44.6	48.0

Source: <http://esa.un.org/unpd/wup/FinalReport/WUP2014-Report.pdf>.

Figure 3: Carsharing market trends in the US

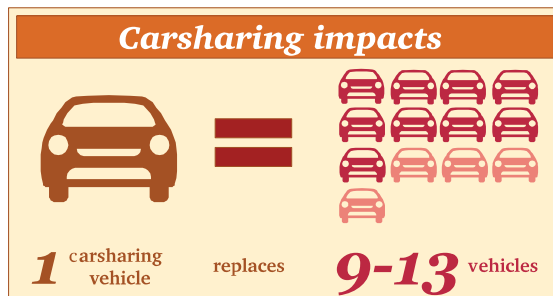


Source: Innovative Mobility Carsharing Outlook, Transportation Sustainability Research Center, University of California, Berkeley, Summer 2015.

For example, we are seeing a dramatic rise in ride-sharing alternatives, such as mobile app-initiated ride-hailing services and peer-to-peer car rentals, along with a greater reliance on public transportation. The emergence of such alternatives is not only catering to the needs of a growing number of individuals who may want to delay or avoid a formal car purchase, but is also contributing to an increased frequency of heartburn among auto lenders and dealers.

In fact, a recent survey of 9,500 individuals who participated in car-sharing programs, conducted by the University of California at Berkeley, found that many of those surveyed either delayed a car purchase or sold their existing vehicle altogether. The study concluded that each car-sharing vehicle could potentially replace between nine and 13 vehicles on the roads today.¹

Another study, estimates that by 2025, 20% of the vehicles in urban centers will be dedicated to shared use. Imagine all of a sudden that 20% of the vehicles sold and financed to individuals who will be the only user of that vehicle go away.² Furthermore, consider the potential credit underwriting and insurance tracking implications of such a trend.



¹ Mobility and the Sharing Economy: Impacts Synopsis, Shared-Use Mobility Definitions and Impacts by Susan Shaheen, Ph.D. and Nelson Chan, Transportation Sustainability Research Center, University of California, Berkeley, Spring 2015.

² Factiva. Ride-sharing forces automakers to rethink how they sell cars. June 27, 2015.

Even among themselves, the alternative transportation providers are experiencing competitive challenges, further signaling a call to action for auto lenders and dealers. Recently, one US-based mobile app-initiated ride-hailing service partnered with its counterpart in China to link their networks and technology so that each company's customers could access rides in both countries. The effort was designed to quickly provide a "burdenless" solution to its customers while causing a few road blocks for the competitors of the two companies.

2. Demographic shifts

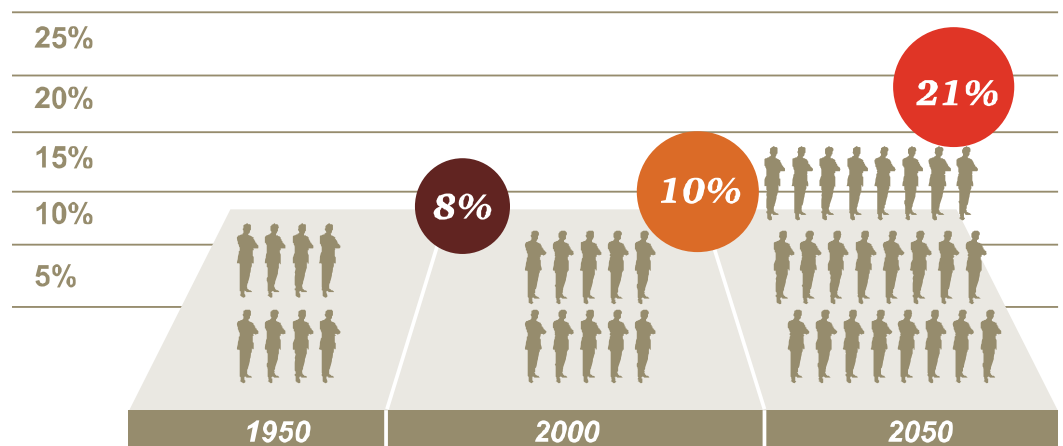
In 2014, Millennials (aka Generation Y) accounted for **27%** of new car sales in the United States—a market share that puts them ahead of Generation X as the largest group of potential new car buyers, second only to Baby Boomers. Clearly, both groups are important targets for lenders and dealers alike.

Two key factors are driving demographics-related change:

- More borrowers who grew up post-Internet are now old enough to purchase vehicles.
- Life expectancies are extending, increasing the population of older borrowers.

Taken together, these two factors are driving shifts in overall consumer preferences that will require a change in terms of how auto finance participants attract and retain key demographic groups. Today's lenders and dealers need to address demographic challenges using a two-pronged approach—finding new ways to “virtually” satisfy the on-demand needs of one generation while providing the personal attention, typically synonymous with high-end department stores, to another.

Figure 4: Proportion of the world population aged 60 years or more



Source: UN report World Population Ageing 1950-2050.

3. Technological breakthroughs

We are already seeing technology advances have an impact on lenders and dealers. Going forward, the Internet, mobile devices, social media and data analytics combined will continue to transform the automotive sales and finance industries. Whether consumers are researching a vehicle purchase or reviewing financing alternatives, today's tech-savvy customers expect immediate access to information throughout the auto sales and finance value chain. Clearly, though, the first half of this process is better developed than the second.

Today, a car purchase may begin through what has become a well-established digital channel in which consumers can research cars online with their mobile devices and scour alternatives for the exact make and model, availability and pricing. But, the convenience of the digital experience abruptly ends when the consumer has to go to the dealership to complete the sales and financing part of the transaction. This chasm in the car buying experience is an improvement opportunity for both lenders and dealers—one that, if left unaddressed, will most certainly be exploited by another “disruptive” service provider.

For instance, we are already seeing cases in which marketplace lenders are leveraging their existing technology platforms to address the consumer desire for fast, transparent funding, albeit of primarily used vehicle transactions, without the need to visit the F&I Office.

To head off the disruptive influence of marketplace lenders and keep pace with the demands of increasingly sophisticated consumers, lenders and dealers should continuously revisit their customer experience strategies—looking for ways to reinvent the traditional role that dealers and indirect lenders play—by focusing additional

resources on digital enablers to shorten and enhance the overall purchasing and financing experience.

Today, there are 18 billion-dollar private companies within fintech, valued in aggregate, at \$56.5B globally. 83% or 15 out of the 18 most valuable fintech startups are either in payments or lending. Only two non-lending startups are among the top 10 most valuable fintech firms.

Source: CB Insights, “15 of the 18 Fin Tech Unicorns Are in Payments or Lending,” Nov. 17, 2015, available at <https://www.cbinsights.com/blog/fin-tech-payments-lending-unicorns/> accessed Nov. 18, 2015.

A word about the auto finance technology money tree

While it is imperative that auto finance lenders ensure effective strategies are in place to protect their existing customer base, it's also time to set foot “outside the box” and start thinking more like today's technology start-up companies that are not encumbered by traditional business models, legacy systems, and operational silos that traditional companies may experience.

The lenders that will be best equipped to face ongoing marketplace disruptors are those that invest now to weave new solutions into their existing strategies—solutions designed to make their company stronger and, in turn, more agile, more efficient, and more customer centric—thereby putting themselves on equal footing with emerging fintech companies with disruptive business models.

Consumers spend more time researching their next new car online:

16.7

hours, and increasingly they are doing so on their mobile devices.

Source: Factiva. “Auto dealerships are not endangered, according to report” April 4, 2015

The power of megatrend convergence

As we said at the outset, just one of these three trends can significantly impact your business, either positively or negatively—but should they combine to hit simultaneously, their potential impact grows exponentially.

Increasingly, the growing demands of Millennials matters to automotive lenders and dealers

Let's look at the convergence of demographic shifts with advancements in technology. In our recent Consumer Lending Experience Radar in which we surveyed over 1,700 consumers, Millennials' overwhelming expectation is that the loan-origination transaction should be handled "digitally" from beginning to end.³ A total of **83%** of consumers in the car-buying process say they are interested in learning about finance and insurance products before entering a dealership.⁴

Also, when asked about the "level of effort" involved with their last loan transaction at each stage of the transaction, Millennials perceived the level of effort involved to be higher than all other generations surveyed. The conclusion: In spite of the technological advances in consumer lending to date, there is both an enormous expectation and an opportunity to improve. The younger borrowers of today will become the majority segment of the market tomorrow. Thus, the imperative is on lenders to provide the kind of experience that these consumers have come to expect from other industries.

If the shoe doesn't fit...

Still another effect of the convergence between demographics and technology can be observed when considering the use of alternative data for credit decisioning.

Higher student debt loads and an economy still recovering from the Great Recession have been blamed for a significant number of Millennials delaying home purchases and returning home to live with their parents. This "boomerang" phenomenon has in part resulted in a credit footprint for many Millennials that is atypical of previous generations. As a result, traditional credit reports may not provide the information necessary to accurately categorize the credit risk of all applicants. Enter alternative data providers. Aggregators of social media data, utility payment histories and public records data, to name a few, are being sought out by lenders as they look for ways to supplement traditional data used in origination scorecards and models. However, before turning to alternative data providers, lenders may also want to carefully evaluate their internal data marts using predictive analytics to unearth potential business development opportunities. In other words, predictive analytics could help to locate data points and relationships between data points within your data that, when incorporated into underwriting scorecards, may shed light on potential rejected applications that can be reconsidered without increasing the organization's risk appetite.⁵

But the story does not begin and end with Millennials. They are not the only people to consider when researching alternative scorecard data. Expanding the lens through which the population of alternative data is viewed as a whole may uncover other potential consumers with atypical credit profiles that can be approved when considered from a different perspective.

³ PwC Experience Radar 2015, Consumer lending: Understanding today's empowered borrower.

⁴ F&I and Showroom, "Putting F&I Online increases Profits." April 23, 2015, available at: www.fimanazine.com/channel/dps-office/news/story/2015/04/putting-f-i-online-increases-profits-makemydeal-finds.aspx. Accessed October 4, 2015.

⁵ As with any adjustment to underwriting/pricing scorecards or policy, a thorough fair lending analysis should be performed to mitigate potential fair lending risk.

Clicking the tires... consumers’ increasing demand for an end-to-end online experience

A majority of today’s consumers prefer to work and communicate electronically, and the desire to perform their financial transactions conveniently online rather than in person is no different. And while most auto lenders and dealers are leveraging the Internet and mobile apps, our Consumer Lending Experience Radar suggests that most mobile apps today do not meet the needs of all consumers.

For example, we asked 1,095 Millennials and 856 non-Millennials this question: “If a lender offered you a mobile application to help navigate the loan application process, what features would you want?” Not surprisingly, as the table below indicates, much of the desired functionality and information is not widely offered among today’s auto lenders and dealers. Presumably, consumers would have similar expectations of a mobile app when it comes to making their payments, requesting payoffs, checking their balance or changing their address.

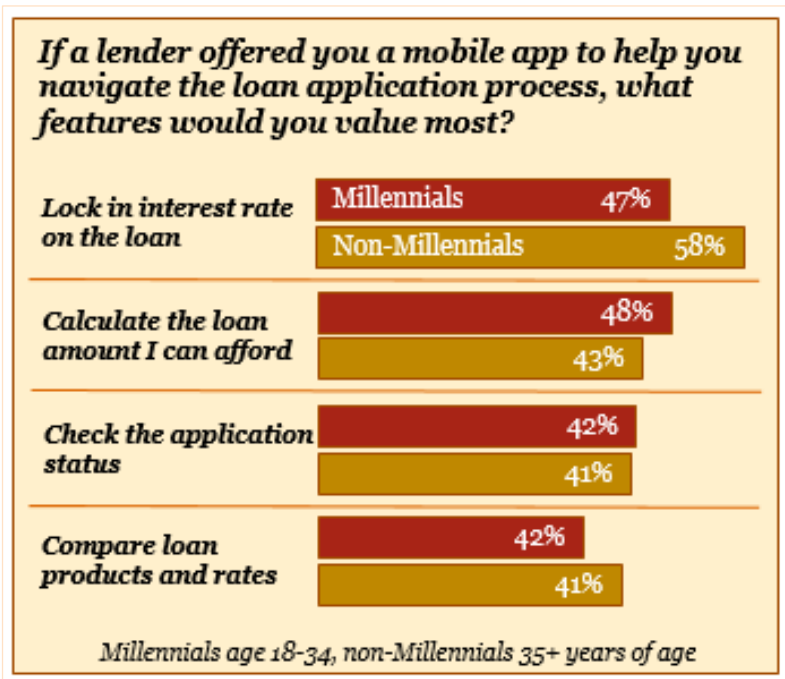
When revisiting your customer-experience strategies, we recommend focusing on technology considerations such as these— even if only to decrease the probability of a disruptive innovator jumping in and changing the rules of the game.

Uncovering competitive opportunities

While lenders and dealer groups cannot expect to transform their businesses to become capable of providing everything to everyone, each organization should have a strategy team that monitors the effects of Megatrends to mine opportunities that may best align with their organizational goals. Here are just two possibilities:

- A dealer looking to strengthen vehicle sales targeted to ride-sharing entrepreneurs might consider realigning their inventory and stocking mid-tier sedans or other vehicles commonly used by these businesses, or offering service contracts that align with high-mileage driving patterns.
- Some national automobile insurance companies are using vehicle computer data voluntarily provided by their customers to monitor driving habits and reward less risky drivers with discounts on their auto insurance premiums. The underlying collateral risk of auto loans and leases, presumably, would also be lower for less risky drivers. Although consumer privacy potholes will have to be avoided, an opportunity could exist to offer enhanced rates and/or residuals for such lower risk consumers.

How organizations react to the emergence of competitive opportunities may serve to enhance their marketplace position, increase their customer base, or improve their customer experience, but there’s no free lunch. Pursuing opportunities may involve a capital investment in the design of a product or technology, a partnership with a potential competitor or a calculated decision to compete against a disruptive innovator.



Finding common solutions in the auto finance market

What common solutions are out there in response to pressure from key Megatrends?

Megatrends do not discriminate. We look at them as being “equal-opportunity” disruptors. Regardless of industry or type of business, just about every company finds itself pummeled by disruption at some point in time. Auto finance is no exception. Whether you are a direct or indirect lender or a dealership, there are some common strategic considerations you can implement to defend against Megatrend-related disruption.

For starters, consider these **Mobile technology enhancement**

In addition to an increased online presence, mobile apps are trending, particularly with Millennials. Further, we see consumers in general becoming more reliant on smart phones and using mobile apps and search engines to research large ticket items. Peer-to-peer car-rental apps and car-sharing/ride-sharing apps have gained popularity over the last few years and continue to show increasing user-adoption rates. In short, consumers are looking for readily available information and available purchases at their fingertips—*literally*.

Strategic partnerships

New companies serving various market needs are forming quickly, such as peer-to-peer car rental platforms. In addition to the technology that lenders and dealers must implement to be competitive, proactive companies are keeping tabs on industry developments and forming strategic partnerships to drive market share and limit erosion. Lenders and dealers that form the right strategic relationships with these

emerging companies will likely gain an advantage over their competition. For example, recently a US automaker’s captive partnered with a peer-to-peer lender and invited its customers in six US cities and London to sign up and rent out their vehicles for short-term use.⁶

A focus on the total customer experience

While payment and interest rate are still the most important factors when purchasing and financing a vehicle, the overall experience—including the quality of the relationship with the consumer and the speed and transparency of the transaction—runs a very close second. According to our Consumer Lending Experience Radar, product-comparison tools, financial-literacy tools, and integrated service across devices show the highest satisfaction ratings.

What with the younger post-Internet purchasers and the increasing population of older borrowers, the name of the game is to appeal to the varied range of consumers with differing needs and preferences—from high touch to low touch to no touch. Lenders and dealers that go beyond focusing on the importance of the basics to include budding technology advancements in their strategic updates will position themselves to attract customers across the board, from young professionals buying their first car all the way through to seniors looking for the comfort of a sedan.

⁶ Factiva. Ride-sharing forces automakers to rethink how they sell cars. June 27, 2015.

Bridging the digital/In-person experience...

Pulling together the total buying experience for customers is critical for both lenders and dealers. Emerging Megatrends will highly influence how the auto market will get ahead of these disruptive trends today, how it will shift in the near future and how lenders and dealers can position themselves to take advantage of emerging market opportunities. In our experience, it's all about total customer satisfaction. Regardless of age-related needs and preferences, when a consumer identifies a lender or dealer that has established a seamless end-to-end process—one that includes user-friendly technology—including online shopping, product comparison, purchasing and financing, and post-purchase customer service—they will be more likely to establish an ongoing relationship with that company. Customers who experience a smooth transaction or a well-resolved issue will be more apt to come back to the well when it's time for a new car, a new loan or other assistance is needed.

Pushing for a larger online presence...

The shift in consumer shopping and purchasing behavior has forced the market to increase online presence. Consumers no longer visit multiple dealers and take the time to review multiple financing options in person. Now more than ever before, by the time customers walk onto a lot, they have a better idea about the vehicle they are interested in, the options they are willing to pay for, their payment amount, and the type of financing they expect to get. Based on PwC's Consumer Lending Experience Radar, the preference for online interactions among borrowers has increased 30% in the last two years. Lenders and dealers that are not mindful of their online offerings and capabilities will not only be out of sight, but also out of mind in the new and rapidly changing marketplace.

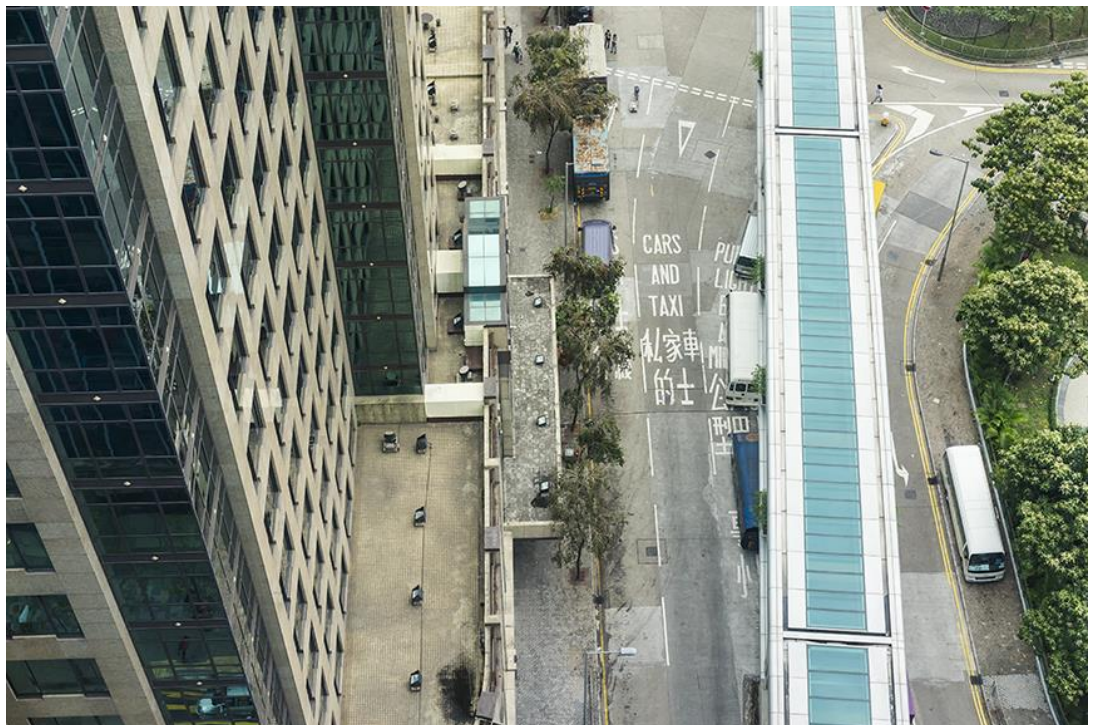


What this means for your business—today, and tomorrow

Revisiting corporate strategies now to position the company for a successful march to the future

Clearly, it is vital that today's auto finance leaders not only revisit their own strategies to attract and grow market share, but also to keep their fingers on the pulse of what other firms are doing to address these challenges. Complicated? Yes. But taking a “wait-and-see” stance is no longer an option. To make it to the winner's circle of the future, it's time to get moving—whether that means competing against a traditional company or deploying shared strategies and partnering with industry newcomers.

To assist you in assessing the effectiveness of your company's current competitive strategies, we have listed four of the key disruptors and opportunities identified throughout the paper that Megatrends can present and started a list of potential solutions at a birds-eye level for consideration.



	Dealerships	Indirect lenders	Direct lenders
Disruptors	<p>Alternative transportation (car/ride share)</p> <ul style="list-style-type: none"> • Compete with providers; increase dealership foot traffic to offset disruption/sales decline (e.g., promos/ advertising, target lease end customers) • Increase web presence and online communication—search engine optimization • Targeted online ad strategy for ride-share drivers • Reassess vehicle inventory mix; stock shared-ride vehicle models 	<ul style="list-style-type: none"> • Collaborate and offer driver loan or lease program • Captive preferred provider program to support OEM; enhanced shared incentive program with manufacturer on ride-share friendly vehicle models • Expand online communication channels and strategy • Adjust underwriting model; income/ability qualifications for qualified ride-share income sources • Customize aftermarket products for drivers (e.g., high mileage warranties, bundle service contracts and extended warranties) 	<ul style="list-style-type: none"> • Similar approach to indirect lender recommendations, except for OEM support
	<p>Marketplace lenders (MPL)</p> <ul style="list-style-type: none"> • Partner with MPL as a source of funding for customers • Partner with existing lenders to improve customer origination experience. For example: • Enhance data integration with lenders • Facilitate lender pre-approval functionality • Transition to virtual F&I Office to increase transaction speed and transparency • Provide fully transparent cost of loan disclosures (i.e., no hidden costs, electronic disclosures) 	<ul style="list-style-type: none"> • Partner with dealer body to improve customer origination experience. For example: • Enhance data integration with dealers; partner with dealer to capture all customer data to avoid information follow-up • Build-out pre-approval functionality • Sample online document reviews and document tutorials for consumers to review before getting to the dealer 	<ul style="list-style-type: none"> • Compete to more efficiently and effectively manage customer origination experience. For example, reduce speed to decision and transaction close • Increase web presence and online communication; search engine optimization • Targeted consumer online ad strategy • Targeted cross-sell to other channels
Opportunities	<p>Alternative data</p> <ul style="list-style-type: none"> • Collaborate with lending partners to identify possible alternative data elements (e.g., payment histories from accounts reported to non-traditional credit bureaus) • Establish transparent process for would-be car buyers to provide requested data 	<ul style="list-style-type: none"> • Partner with alternative data providers; incorporate alternative data in risk models (e.g., utility data, social-media data) • Identify additional buyers within existing risk appetite using non-traditional data/models 	<ul style="list-style-type: none"> • Similar approach to indirect lender recommendations
	<p>Millennials</p> <ul style="list-style-type: none"> • Improve “on lot” experience and shorten F&I Office time by enhancing data connectivity with your indirect lenders to optimize decision turnaround time • Digital showroom options—digital, interactive, educational information walls • Partner with existing lenders to improve customer origination experience • Enhance “on-lot” experience (e.g., improve mobile app design/ functionality) • Facilitate lender pre-approval functionality • Transition to virtual F&I Office to increase transaction speed and design online F&I education resources 	<ul style="list-style-type: none"> • Collaborate with dealers to provide an integrated online financing experience and help attract customers with borrower friendly financing solutions (e.g., integrate loan/lease approval process with dealer websites) 	<ul style="list-style-type: none"> • Cater to customers who shop and finance cars virtually who never step foot in dealerships • Offer mobile pre-approved financing • Provide fully transparent cost of loan disclosures (i.e., no hidden costs, electronic disclosures) • Similar approach to MPL recommendations with regard to online experience

Saving and growing your market share

Do you have a plan?

Not only are Megatrends rapidly changing the way auto lenders and dealers are doing business, they are also driving innovation by disruptors that are focused on taking market share from incumbents—and there is no end in sight. Monitoring against the disruption threat while identifying Megatrend-related opportunities on the horizon is paramount to remaining competitive for the next several years. To that end, the need for constant vigilance is a given. Revisiting your existing competitive strategy to keep pace with the changes underway is essential to future success.

Successful lenders and dealer groups not only seek to understand how their own company is planning to cope with the constant onslaught of Megatrends, but they also keep tabs on what their competitors are doing as well as what is happening across the industry as a whole. Given the challenges stemming from continually evolving consumer demographics, today's management teams should follow suit—taking time up front to ask critical questions such as these, and drawing on the answers to inform their new strategic approach:

- What is our existing customer base asking of us that another competitor or innovator may already be providing?
- What can we learn from other industries that have been “disrupted” and/or already impacted by Megatrends?

- To what potentially disruptive businesses or products is venture capital or private equity money trending?
- Have there been recent patent filings by technology entrepreneurs that may present a potential partnership opportunity?
- What emerging technology advances can we incorporate to round out our customer experience toolkit?

Investing appropriate time and effort right from the get-go to inform your new strategy will pay off in the long run with a well-targeted competitive approach fueled to carry your organization into the future. But that doesn't mean you can rest on your laurels. Periodic “inspections” are needed to ensure that your strategy remains on track and revved up to keep pace with new developments.

Long story short

In today's Megatrend-driven industry, the sands continue to shift. But waiting to see how things play out is not an option. Whether you choose to look to in-house or to external auto-finance specialists for help, the time is now to design and implement informed solutions that meet not only the challenges you are facing today but also those on the horizon and even further down the road.



PwC's Consumer Finance Group contacts

Our Consumer Finance Group has extensive experience in working with auto finance lenders, dealer groups and other financial services organizations to develop strategic solutions tailored to their specific needs and circumstances. To learn more about how we can help your company vie competitively as the industry continues to shift, please contact any of the following consumer finance specialists:

Roberto Hernandez

Principal

940 367 2386

roberto.g.hernandez@pwc.com



Daniel Berman

Manager

469 569 4846

daniel.w.berman@pwc.com



Martin Touhey

Principal

206 790 8751

martin.e.touhey@pwc.com



William Laforet

Manager

646 471 8471

william.laforet@pwc.com



Doug Ekizian

Senior Manager

949 517 8220

doug.ekizian@pwc.com



Craig Schleicher

Manager

415 531 8728

craig.w.schleicher@pwc.com



Follow us on Twitter @PwC_US_FinSrvc