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TIME TO LEVEL UP

How to win the race for customers with superior experiences



EXECUTIVE SUMMARY - YOUR KNOWLEDGE SHOT ON CX IN AUTO

The race for customers is won by addressing individual needs and creating personalized experiences with customer-relevant products and services at the right time and place.

CX as a critical success factor in the automotive industry

Customer experience (CX) is one of the most critical success factors for long-term success in the future. However, within the automotive industry even major OEMs are still struggling to provide their customers with a holistic and superior experience, which goes beyond the actual vehicle-related experience.

Our research indicates improvement potential for automotive OEMs to meet customer expectations, which are anticipated to even rise in the future.

- Customer experiences exceed product experiences and clearly shape customer loyalty
- Experience scores indicate improvement potential for customer interactions along the customer lifecycle (CLC)
- Insufficient connectivity harms in-car experiences
- Satisfaction and loyalty KPIs are declining for younger generations

Even though OEMs have started to shift their focus, there is still a long road ahead. With the introduction of various Direct-to-consumer (D2C) activities, like sales model transformations, responsibilities are shifted to importers and/or OEMs, offering great CX potential.

Autonomous driving (AD) as an additional CX driver

Time is of utmost essence – especially with autonomous driving being the central topic in the upcoming years. New superior experiences, enabled with every additional AD level, increase technical complexity but also create opportunities for OEMs to unlock potential and tap into a new profit pool.

Based on our research, customers preferably look forward to relax, sleep or work on their future journeys. Considering this, only those who master the demanding technical software-driven challenges while fostering related trust into the system will be rewarded with satisfied customers.

Overcoming challenges & shifting focus on CX

Automotive OEMs are struggling to overcome several challenges and so far, have not yet been able to successfully shift their focus on CX:

- Conflicting goals as OEMs focus on large-scale initiatives, whereas NSCs/importers and dealers focus on improvements with a direct impact on profit
- Still very low prioritization of CX within the organization in terms of dedicated roles with veto power and missing standardized currency to measure CX
- Running several CX-related initiatives without clear overarching management, missing structure, and focus on value-add
- Insufficient organizational maturity to manage CX activities considering different stakeholders and parties involved
- Decision-making based on individual perceptions rather than actual customer insights
- Limited trust in new technology harms CX, especially considering the autonomous driving mode

It is time to master the CX challenge on which future success will depend. Those who will transform into a successful holistic CX organization, adapt their development processes, and build a solid technical software-driven foundation to enable new experiences, are the ones making the decisive difference on the racetrack.

Our recipe to success – how Capgemini Invent can help

We have gathered recommendations that provide clear guidance on the way forward to successfully master CX:

- #1** Define a cross-functional & integrative strategy
- #2** Prioritize new experiences based on customer relevance through early validation and testing even within the R&D phase
- #3** Transform organizational structures to cross-functional teams ensuring a customer-centric focus along the entire value chain, not only within sales
- #4** Foster CX based decision-making in all committees with CX veto right
- #5** Design seamless E2E customer journeys, integrating online and offline channels
- #6** Leverage customer insights to precisely understand pain points, anticipate future needs and use them for decision-making
- #7** Introduce standardized CX currency to measure performance at every touchpoint, overall steering, and continuous improvement
- #8** Build a rock-solid technological foundation and redesign the development process to be flexible and agile enough to respond to customer feedback

Better be ready to step up the CX game to win the race for customers!

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CX IN AUTOMOTIVE – CURRENT STATE OF PLAY

Non-automotive players are setting CX benchmarks in the automotive industry pushing for radical change and putting increased pressure on traditional OEMs.

The customer experience (CX) outcry has reached all players in the mobility market – worldwide. None of the players in the market neglects that a superior CX is one of the most critical success factors for long-term success in the future. However, we still see major automotive OEMs struggling to provide their customers with a holistic and superior CX, which goes beyond the actual car-related experience. Customer journeys throughout a customer's lifetime lack consistency, convenience, personalization, and emotional excitement. Furthermore, our research shows that OEMs are still failing to address basic customer needs.

To be more specific, let's have a look at electric vehicles (EV) and their charging management. For EV sales charging plays an integral part. The change from refueling an internal combustion engine (ICE) to charging an EV is still a major challenge. From the customer perspective, charging station availability and charging time are of greatest importance, especially to be taken into consideration for further EV adoption in the future. Even though availability of charging stations has increased due to expansion of the general charging infrastructure, a potential undersupply is projected when comparing the uptake of EVs. To add to this, push notifications to mobile devices once charging is completed still does not always work, causing frustration. To provide a seamless experience to customers, (re)charging needs to be efficient, convenient, always reliable, and easily accessible, no matter the location.

In addition, when it comes to calculating the residual value and the possibility to trade in an old vehicle, we see a customer need that is still not fully covered. It seems beneficial for both, a seamless end-to-end experience for customers and additional business for respective dealers, but it is not a reality yet. According to our analysis, only 22% of the OEMs in the German market offer a preliminary online evaluation for used cars. 52% do not even display a simple check to enable customers to express interest for a trade-in at a dealership. These are only a few examples underpinning lost business potential and a yawning experience gap.

CX is the sum of all interactions a customer has with a brand over time. Each individual moment is an opportunity to create competitive advantage, contributing to a superior experience throughout the customer journey.

Global consumer survey – quantifying automotive CX performance

To better understand the current state of CX in the automotive industry, we conducted a global consumer survey with 2,000 participants across five different markets and customer segments to understand the current perceptions of consumers along three major clusters:

- 1. Customer loyalty** – Assess current loyalty scores as an indicator of the overall perception of a company’s customer experience
- 2. Product satisfaction** – Better understand product satisfaction and the underlying drivers
- 3. Pre-sales, sales, and aftersales experience** – Make current CX performance of OEMs transparent, before and after the actual point of sale

In order to do so we used NPS and experience scores as key metrics to assess customer loyalty as well as satisfaction with the product itself and throughout a customer lifecycle.

Thereby, we focused on volume and premium OEMs to spot potential differences among them. Overall, the insights from the consumer survey indicate multiple experience gaps for different customer journeys and touchpoints along the lifecycle. However, our data also reveals a large potential for OEMs trying to differentiate in a market with an increasing number of players.

FIGURE 1 | GLOBAL CONSUMER SURVEY

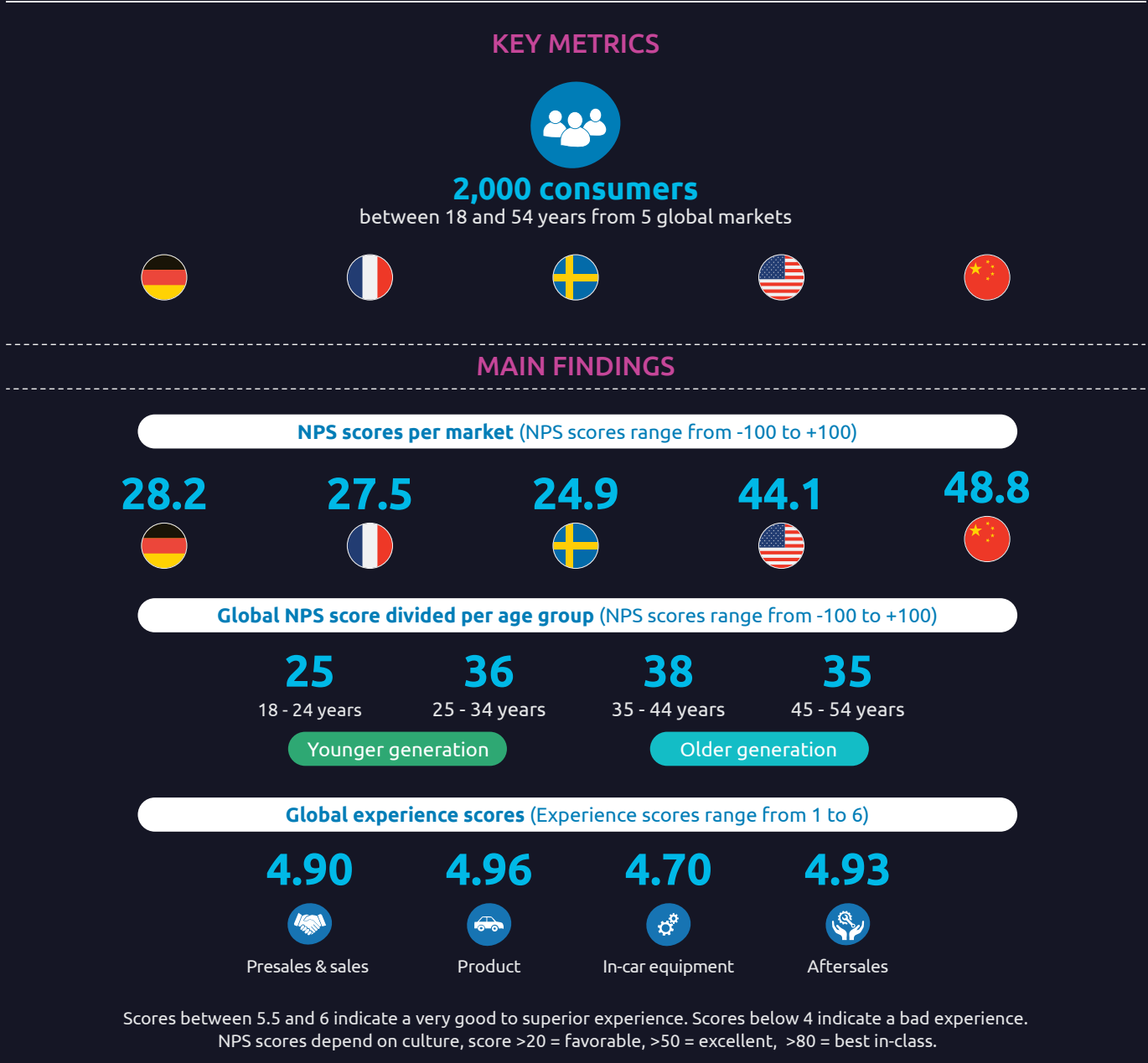
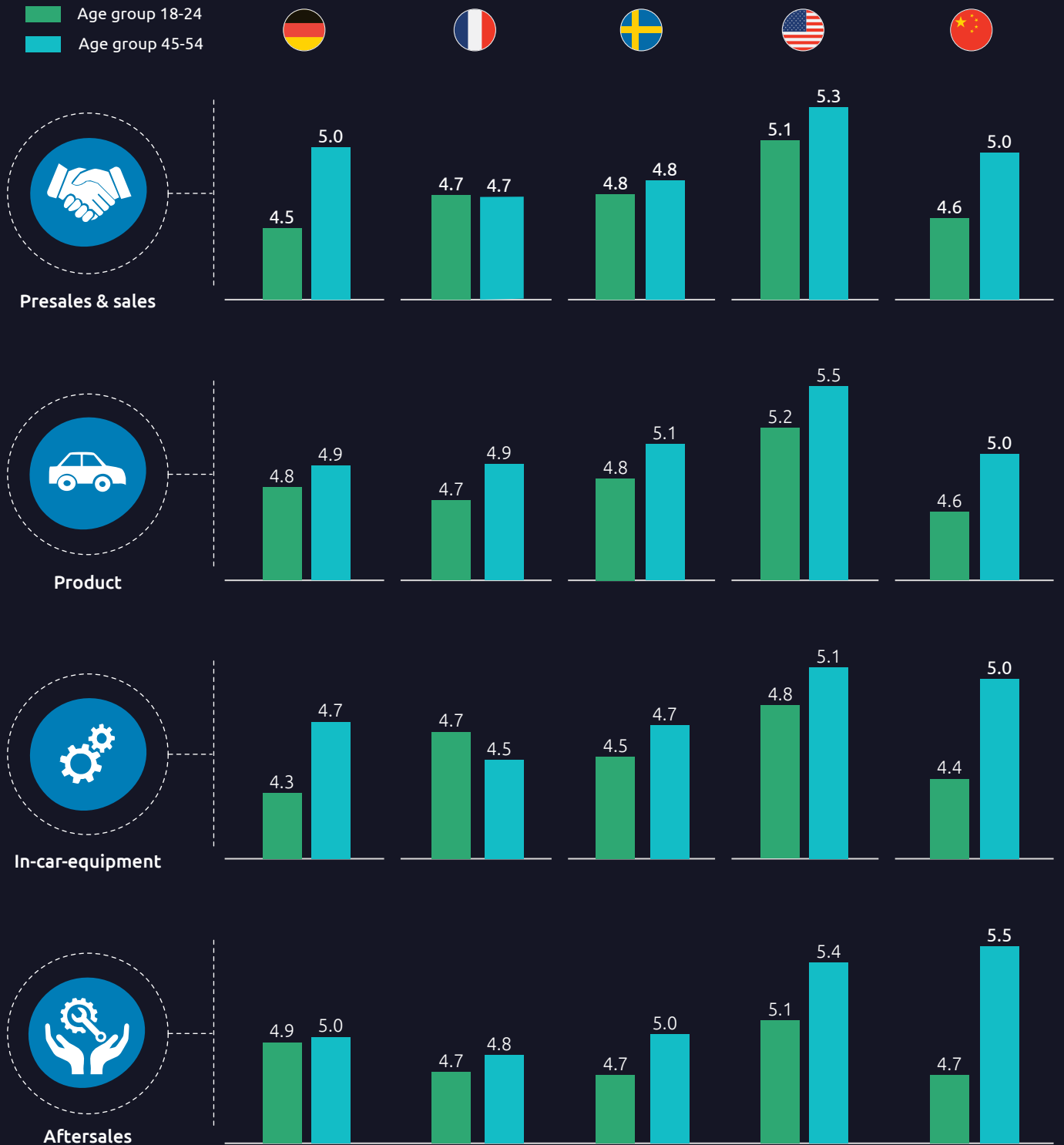


FIGURE 2 | GLOBAL EXPERIENCE SCORES PER MARKET (Experience scores range from 1 to 6)



Scores between 5.5 and 6 indicate a very good to superior experience. Scores below 4 indicate a bad experience.

In our survey we analyzed various factors influencing a customer experience such as product quality, sales experience, customer service, in-car connectivity, car delivery and dealer visit.

Brand loyalty in the automotive industry is strongly driven by customer experience

“Delivering a superior customer experience today is one of the key drivers of substantial financial success in a market categorized by major changes.”

To achieve this, OEMs must look far beyond the actual product experience. In fact, our data shows that by improving experiences during the pre-sales, sales, and aftersales phase, customer loyalty increases by up to 17%. This indicates a strong impact on top and bottom-line growth for automotive OEMs globally, with only slight variations per analyzed markets. Companies addressing the existing experience gaps will see financial rewards for such efforts.

Current experience scores indicate improvement potential for interactions along the customer lifecycle

“Like trust, one negative experience can ruin a lifetime of positive experiences.”

To better understand the untapped potential, we analyzed the current CX performance across our five selected markets. Hereby, it is important to understand that customers do not distinguish between in- and out-of-car experiences, they just expect a seamless experience. When taking a look at how many customers are completely satisfied with their experience our data from more than 2,000 participants surprisingly shows that this is barely the case for pre-sales, sales, and aftersales interactions. While CX scores in the US are slightly higher than the ones in other markets (4-5 percentage points), across all markets only less than 25% of participants are completely satisfied with their pre-sales, sales, and aftersales experiences.

Surprisingly, we see a similar pattern for the in-car experience score, which includes CX drivers like in-car connectivity. This results in a huge potential for automotive OEMs willing to stand out from the competition through early engagement and personalized interaction during the pre-sales and sales phases. In addition, excellent service and superior support during aftersales phase can make the difference to satisfy customer needs.

Satisfaction and loyalty KPIs are declining for younger generations

Additionally, our data supports an alarming hypothesis: younger generations, ranging from 18-24, are significantly less satisfied with their experiences along the customer lifecycle. By comparing the global NPS score for the youngest age group with one of the oldest (45-54 years old), we see a gap of more than 40%. In other words, this means that the future customer base has more evolved expectations, which are not fully met in the current industry landscape.

Digging deeper into the details underlying this finding, we see a similar pattern – the current level of customer experience is not sufficient for younger generations anymore.

Pre-sales and sales experience

By looking at the pre-sales and sales experience scores per market, we see the underlying reason for the NPS gap. In particular, the difference between young and old varies by up to 12%, for example in Germany. In addition, data from China (11%) and the US (4%) indicate that the current CX is not sufficient to attract younger generations as customers in the long run. As a result, improving CX up to the point of sale becomes critical for the long-term success of automotive OEMs.

Overall product experience

Satisfaction scores for the overall product experience are slightly higher than the ones for pre-sales, sales, aftersales and in-car interactions. Although this is not a big surprise given that producing high-quality cars is the ultimate mandate for automotive OEMs for decades, the magic always lies in the detail.

When looking at the perceived product quality, we also see a 6% gap between generations, indicating that younger generations tend to perceive the quality of cars differently compared to their older peers. This finding is in line with the low results for the in-car experience scores, which are related to the perception of the product. A change suggesting that traditional drivers of product quality might start to shift and need subsequently higher attention. Especially for upcoming generations of new cars, it is of utmost importance to understand related customer expectations in detail, especially from the younger generations.

Aftersales experience

Looking into data for usage and aftersales experience, differences between younger and older generations are identified, especially for the markets China (8%), Sweden (5%), and the USA (8%). When looking at Germany, we see some particularities in the details. Although there is an overall lower satisfaction gap between younger and older generations for aftersales experiences, satisfaction scores occur to differ between generations, especially for the three key drivers of the usage and aftersales experience:

- Support during waiting time until delivery
- Support in the case of vehicle problems
- Superior vehicle inspection/ maintenance

Considering the high impact of the aftersales phase on overall loyalty and profit, automotive OEMs must understand respective experience gaps and their key drivers to adjust accordingly. Small steps in the right direction can already have a positive impact. **Ultimately, the argument for improving CX is pretty simple: better CX makes for happier customers, which leads to improved business performance.**

In-car experience is harmed by insufficient connectivity

“Based on our research, customers are least satisfied with connectivity regarding in-car experiences.”

Taking a closer look at the scores related to the in-car experience, data shows connectivity is rated with the lowest scores among the selected drivers. Only 43% of participants are satisfied when asked about their perception of connectivity, whereas for other drivers, design, usability, and product quality, have all been ranked above 50%. An interesting finding, considering that connectivity is one of the key drivers of today's customer needs and presents a source of future revenues for OEMs.

Clearly, automotive OEMs are still trying to keep up with the pace driving CX

Our data shows that customer expectations increased over in recent years and will continue to rise in the future. Delivering personalized and immersive experiences, which are tailored to specific customer needs, is crucial for long-term business success.

In the past, especially non-traditional players have more successfully embedded a customer-centric approach to creating value for customers along pre-sales, sales, usage and after-sales phases. Additionally, other industries are ahead of the automotive pack and continue to prime customer expectations. Two major factors why CX benchmarks will continue to rise. In the meantime, we also see traditional car manufacturers shifting their focus, trying to keep up. OEMs are intensively working on the future car generation 2025+, where a new car operating system, software, and connectivity are increasingly necessary.

Taking this into consideration, it becomes clear that software plays a major role in shaping future in-car experience. Unfortunately, our data indicates, the automotive industry still has a way to go.

However, with the introduction of various direct-to-consumer (D2C) activities like sales model transformations to online direct or agency sales, responsibilities, and ownership of customer journeys and processes are shifted to importers and/or OEMs. This offers great potential for creating outstanding experiences while gaining even more relevance for customers when putting it in context with autonomous driving (AD). AD represents a key technology appearing on the horizon and is set to become part of our day-to-day life within the upcoming 10 years. Through this technology new opportunity spaces for superior customer experiences are created and expected to be one of the main success factors. Hereby, focus should always be on the CX initiatives that impact customers the most to yield higher returns.



AUTONOMOUS DRIVING SHAPING CX – THE GREAT LEAP FORWARD

Autonomous driving presents a major opportunity to shape new experiences and create CX impact

Alongside alternative engines, AD is the central topic for every automotive OEM. From a technological and legal point of view, OEMs will be faced with a significant amount of effort as driving becomes increasingly automated. The automatization of driving is divided into five different levels, which build upon each other. Ranging from already known assistance systems to the fundamental transformation of the driver and co-driver into complete passengers and the abandonment of any driving task and responsibility.

From a customer’s point of view, however, experiences in the vehicle will improve tremendously. Each additional level offers the customer further opportunities to use time more effectively due to the increasing autonomy of the vehicle. This will lead to a wide variety of new experiences, which fundamentally reshapes CX in automotive through innovative products and services. In addition, customer ecosystems are expanding at scale with AD through further services by unifying organizations and partners around a customer-centric approach. Hence, CX will play a decisive role for the utilization of customer ecosystems in the future.

The following infographic on page 10, provides an overview of the autonomous driving levels in combination with growing customer experience complexity. We provide an estimation of OEMs’ maturity via their current technical status and their further development plans up to 2027. Based on the increasing possibilities for the customer, we derive possible experiences that can be offered per level.

Evolution of autonomous driving and its impact on CX from level 1 to 5

Level 1 | Assisted driving “Hands-on”

Level 1 assisted driving is the basis of autonomous driving and has already become a habit for most customers. Distance control, traffic sign recognition and emergency brake assist are ubiquitous to customers. Even though driving assistance systems do not provide customers with more time, they do make driving easier and create a safer experience for the customer – a good and necessary prerequisite for taking further steps on the rocky road to fully autonomous driving.

Level 2 | Partial automation “Hands off”

Although the customer gets an initial feeling of an autonomous ride while driving in level 2, the vehicle only takes over partial tasks while permanent intervention by the driver is still mandatory. The functions from level 1 are further developed in a way that, for instance, comfortable following other cars is possible in traffic jams, or the driver can take his hands off the wheel for a short period. As indicated in the infographic, level 2 assistance systems are already installed in current vehicle models by every pictured OEM.

Partial automation is not only relevant for further technical development but more relevant for the drivers with regards to in-car CX through becoming more accustomed to automation and willingness to hand over responsibility to the vehicle. Trust in technology and the vehicle by consumers is intensified step-by-step when handing over driving tasks to the vehicle. Earning trust in technology and the vehicle is most vital for upcoming AD driving levels.

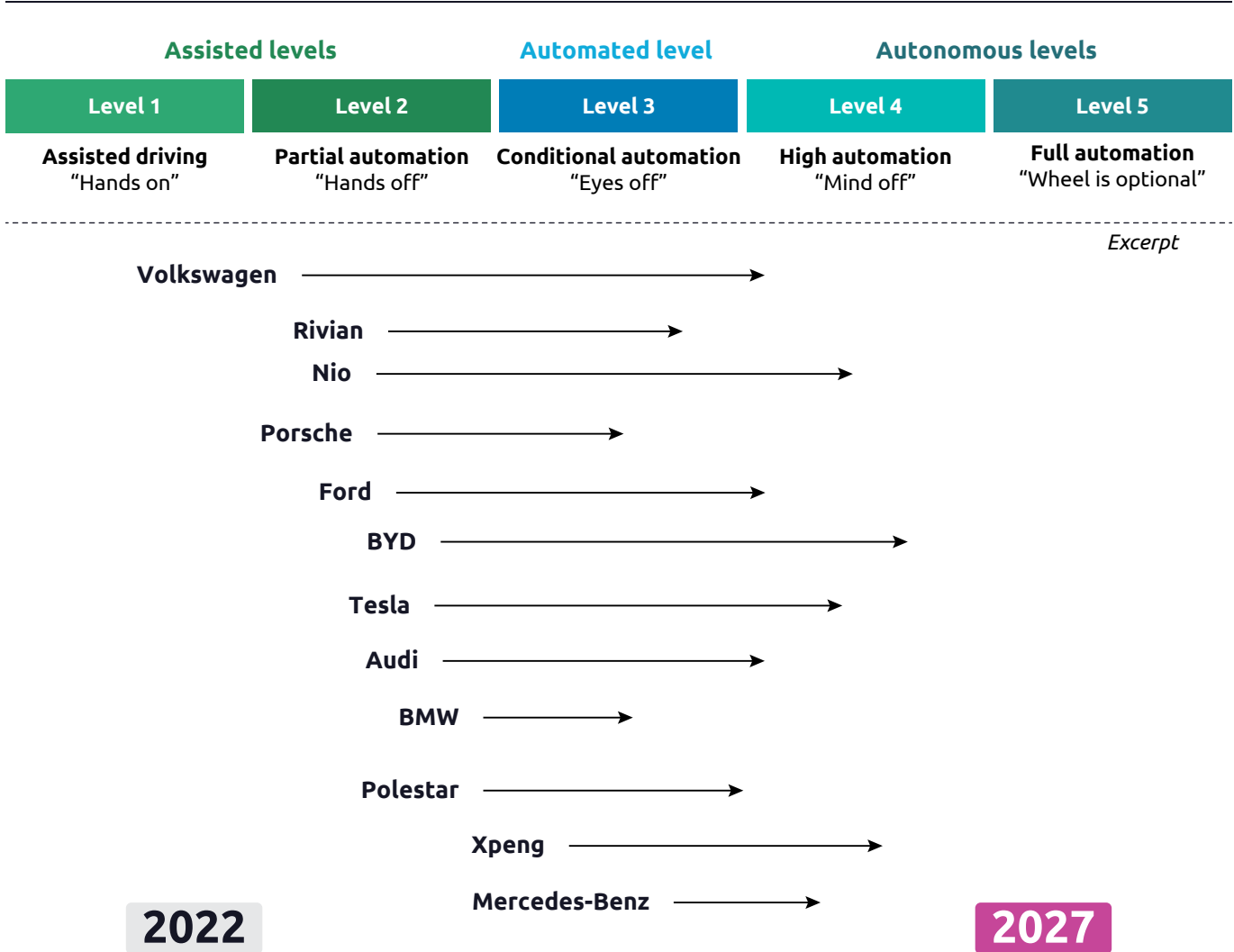
Level 3 | Conditional automation “Eyes off”

In level 3 driving mode, for the first time drivers are allowed to devote themselves to other things outside of driving and full concentration to an upcoming takeover. The system recognizes its limits and notifies the driver to take over the wheel again if needed. A special feature from level 3 is the shift of responsibility. From the activation of level 3 onwards, the system is responsible for accident-free driving, and it is no longer the driver who is responsible. Enabling this level is a huge technical step for OEMs as complexity increases, but also offers great potential for outstanding experiences. When transforming to being a passenger, the driver can use the time in the vehicle more effectively for experiences he or she prefers. In addition to a gamified experience or a leisure activity during the journey, level 3 herewith shapes new experiences by providing a clear time advantage for tasks which used to be done outside of the vehicle.

Currently, Mercedes-Benz is the only OEM offering this level 3 driving mode experience with its EQS, launched in 2022. On specific routes, for example, customers can now use the extra time gained to contact friends on their phones or watch videos on their central screen. OEMs are already planning to offer customers even more experiences, ranging from planning their next shopping and delivery of groceries, reading news, or using other learning programs to self-study.

Enabling level 3 is a huge technical step for automotive OEMs, but offers great CX potential for new experiences.

FIGURE 3 | DEVELOPMENT OF AUTONOMOUS DRIVING LEVELS PER OEM OVER THE NEXT 5 YEARS



Arrows indicate the planned development of autonomous driving levels over the next 5 years. Most OEMs aim to offer at least level 3 driving mode by 2027 (Capgemini internal research 2022).

The possible experiences in level 3 already show that the development of AD and thus, the increased opportunities for customer experiences offer huge earnings potential for OEMs. These revenue streams must be tapped into and simultaneously translated into excellent experiences.



Level 4 | High automation “Mind off”

While the development step from level 2 to 3 represents the greatest technical challenge, the step to level 4 is the even greater gain for the customers' experience.

The enablement for level 4 extends driving from certain routes in defined areas to the entire traffic area. As a result, the driver does not have to be attentive to take over again until leaving the traffic area. This extension of responsibility shift to the vehicle and system creates a further potential for additional experience options. While in level 3 relaxation during the drive was an option, in level 4 the driver can even enjoy a sleeping experience. This complete disconnection from the known driving task requires a high level of trust in the system from the driver.

The expansion of possibilities for the driver in level 4 is driven by new immersive experiences, including video streaming on the in-car display screen. The system takeover now permits further immersive customer experiences. In addition, technology like holoride can be implemented in level 4 to offer a completely new and revolutionary customer experience. Such an immersive plunge into this virtual world creates an experience for the driver.

Level 5 | Full Automation “Wheel is optional”

With an optional steering wheel, from now on we no longer talk about the driver, but solely the passenger. The logical extension to level 5 now enables autonomous driving in any traffic area. The responsibility lies with the system.

With the leap to level 5, not only is the interior of the vehicle changing - but the entire automotive world is also on the verge of a revolution. Why still drive when you can better use that time gained while being driven from A to B? Considering this, will it matter in the future what engine a vehicle has or will features and functions such as connectivity come to the fore, influencing the ultimate purchase decision? From our point of view, we see tremendous CX opportunities emerging if automotive OEMs master such technical complexity for level 5 driving mode. Level 5 experiences are reaching the maximum of immersion, at least what is known until today.

Changing to being a passenger within level 5 does not only enable the expansion of in-car-related activities but revolutionizes the vehicle itself. A vehicle-on-demand becomes possible and is available to the customer on demand at any time. As a result, the vehicle can not only turn into an immersive bedroom, but the customer can also be offered a hotel room on the move. This clearly shows how extreme experiences can develop with increasing automation.

By completing and equating all occupants in the vehicle to passengers, the possible experience during the ride is now identical for everyone. Since passengers currently are not devoting themselves to driving tasks, the use of secondary activities and the associated CX expansion is already increasing. Chinese OEMs such as NIO and Xpeng are already far along in the implementation of such secondary activities.

holoride

Holoride combines extended reality (XR) with real time vehicle motion data providing revolutionary in-car experience during their journey*.

*From fall 2022 on, a large number of Audi models will already be holoride-capable for passengers. Even though Holoride works for level 1-3, it is an excellent case for level 4 AD driving mode.

Global consumer survey – discovering relevant experiences per driving level

As part of our consumer survey, we also analyzed the relevancy of use cases in levels 3, 4, and 5 of autonomous driving within our selected markets.

In level 3 participants from German, French, and Swedish markets rate reading news and self-education as most relevant. While participants from China prefer to sit comfortably and to relax. The same pattern is also reflected along the different age structures. The younger participants (18-34) prefer to educate themselves, while the older generation (35-54) prefers to devote themselves to the news while driving and make it the focus of their autonomous driving experience.

The pattern of active time use across the markets in level 3 differs significantly from those in level 4. As soon as the driving task is almost completely delegated, respondents from all age groups are much more interested in using the additional time gained for sleeping and resting, followed by using the time to work or play games.

Since the passengers in level 5 have now completely relinquished their driving duties, the queried tendency from level 4 is reinforced and almost all countries still prefer to use the time

for sleeping and resting. Likewise, in most age groups, it is the preferred experience while riding as a passenger, along with immersive work. It becomes obvious that as autonomous driving increases, so does immersion. With immersive work, for example, we are talking about a VR-staged work environment in which the person can collaborate with his or her colleagues using VR technology - out of the car. Other possibilities present themselves when immersed in the metaverse. Again, there are sheer endless possibilities for the customer and their experience. Our POV "[Gearing up for the metaverse](#)" offers a deep dive into the customer experience in the metaverse.

Our consumer survey shows that most participants expect additional comfort and safety in their customer experience with autonomous driving. At the same time though, the diminishing control in higher levels is seen as a concern by consumers as well as the maturity level of technology, and safety. These findings are in line with our study [the autonomous car – a consumer perspective, 2019](#), where the biggest concerns were also based on technical uncertainties (steering the future of the autonomous car).

Again, looking at age distribution, younger and older participants are concerned about having less control over the vehicle while in autonomous driving mode. In comparison, middle-aged participants are not as concerned. In addition, the youngest generation,

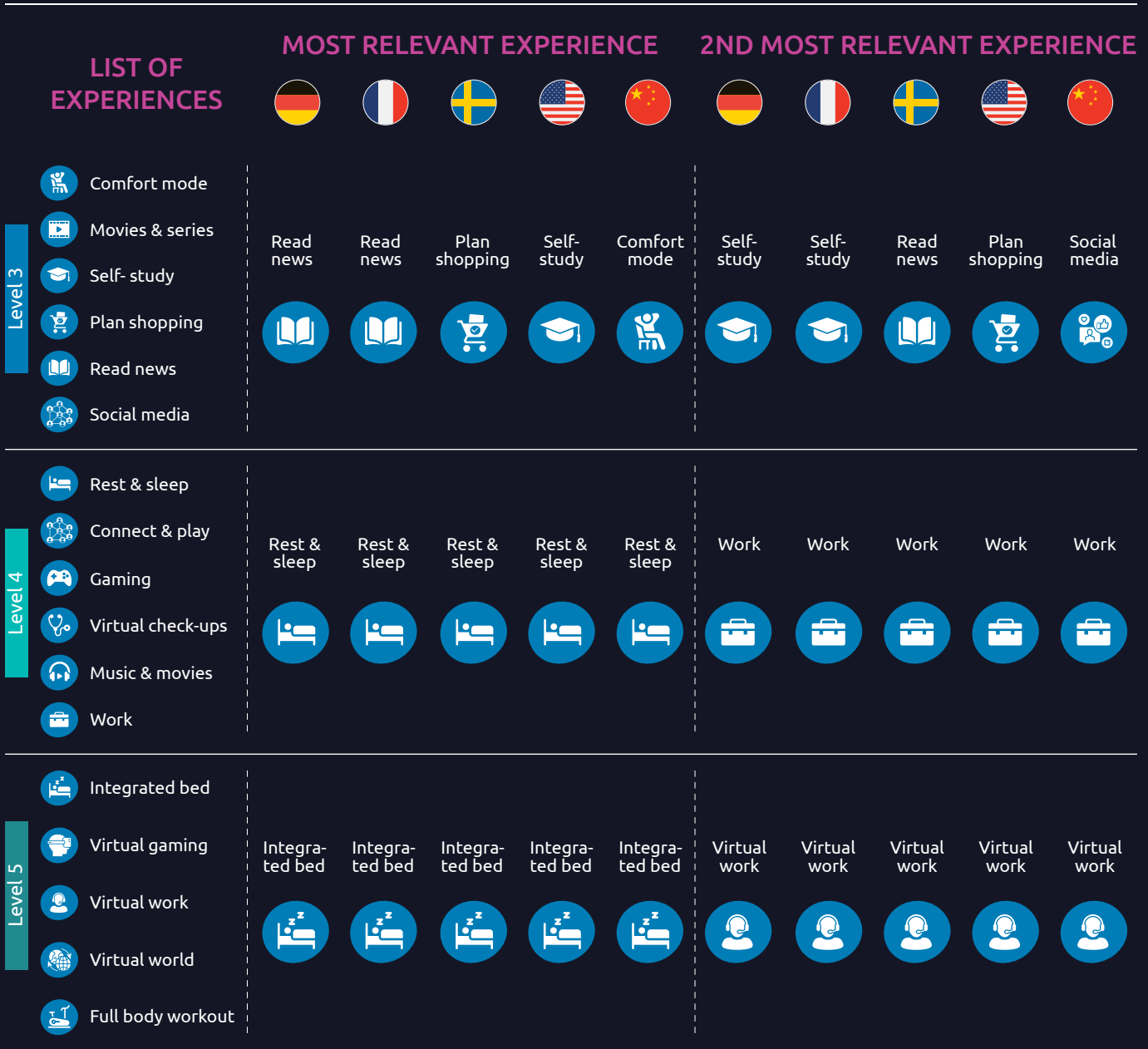
aged 18-24 years, has significantly fewer concerns (29%) that the technology used for AD is not yet mature enough compared to all other age groups (41-42%).

Consequently, automotive OEMs do not only face the challenge of increasing technical complexity to enable autonomous driving modes but also to communicate a sense of trust into the system and the related vehicle to customers. New experiences enabled through AD are only satisfactory if the additional time gained can be used by the customers. Based on our survey, customers preferably look forward to being able to relax, educate themselves, or work. Considering this, it will be interesting to see what relevance and role gamified experiences will play. Nevertheless, it is important for automotive OEMs to make such experiences usable for customers by building up trust. If customers are not convinced of the technology, experience scores for in-car experiences will drop sharply.

Moreover, European participants trust traditional OEMs much more than comparatively new ones, whereas in the US it is quite balanced. Looking towards China, trust in new OEMs surpasses the traditional OEMs, which is not as surprising as most of the new automotive players are from China. However, it is key for traditional OEMs to expand business in China and other markets in Asia.



FIGURE 4 | TOP RELEVANT CUSTOMER EXPERIENCES PER MARKET



Key facts:

- | | | |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>Level 3</p> <ul style="list-style-type: none"> While German & French participants prefer to read the news, Swedes plan their shopping, Americans educate themselves & Chinese sit comfortably 72% of all participants want to read the news while driving | <p>Level 4</p> <ul style="list-style-type: none"> 77% of all participants prefer to rest & sleep Working while driving is a relevant experience for 72% of the participants | <p>Level 5</p> <ul style="list-style-type: none"> An integrated bed is relevant for 71% of participants in all countries, 67% prefer the ability to work immersively The possibility to use virtual reality is more important for Chinese participants than for European or American participants |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

Level 4 driving mode experience “Rest & sleep” – technical software-driven enablers to create value-add for customers

As indicated in our global consumer study, potential customers have various preferences and ideas of experiences throughout the different levels of autonomous driving.

Compared to level 1 to 3, within level 4 driving mode, the vehicle navigates independently for most of the journey, meaning it is fully capable of monitoring the driving environment and handling the driving function within the designed operation. If necessary, for example, due to environmental conditions, the vehicle notifies the driver and requests human-controlled take-over.

Within level 4 driving mode, new possibilities and opportunities emerge to offer new experiences to customers while driving. From our consumer study, one experience which has (actually) been identified as the most relevant experience within level 4 driving mode is “Rest & sleep” – the driver can take a rest or sleep in a comfortable seat while driving to the desired destination.

Level 4 significantly differs from the previous driving mode levels, not only with regards to new opportunities for drivers with the time gained during the journey but also for automotive OEMs to develop vehicles able to operate in level 4 driving mode. In general, to enable superior experiences for customers within AD driving mode, it is of utmost importance to prevent potential experience gaps. Imagine you would like to take some rest during your journey home after a long day at work but are not able to do so due to continuous interruptions of the vehicle. This results not only in an unpleasant experience but also in decreasing trust in the vehicle as you do not feel as comfortable falling asleep. Hence, automotive OEMs must focus on the key technical software-driven enablers that are building the foundation for AD.

Considering customer experience has increased in relevance and will solely continue to do so in the future, automotive car manufacturers need to embed customer experience within the entire organization and along the value chain. To be more specific, customer insights and feedback is to be leveraged and integrated as early as possible within the product lifecycle. It is not enough to align the direct points of contact such as sales and aftersales.

This requires an internal organizational transformation to be agile and flexible, in terms of flexible development and operations cycles. It means adapting and changing all underlying processes, ranging from strategy, and planning to engineering and product development, production, and logistics towards customer-centric processes, mindsets, and organizations.

Customer expectations must be turned into calls to action for organizations, concentrating on key internal enablers to deliver the expected value and experience.

To this avail, car manufacturers must develop and manage new capabilities, such as software-hardware integration, regular over-the-air (OTA) updates, regulations from the United Nations Economic Commissions for Europe (UNECE), and cybersecurity, as well as new redefined ideation and development process, responding to customer needs and expectations.

The demanding technical challenge needs to be overcome by OEMs to deliver actual customer value-add through superior experiences, especially with many new opportunities offered through AD.

To be more specific, these technical software-driven enablers are the game changer for customer experiences in the future.

FIGURE 5 | SOFTWARE-DRIVEN PREREQUISITES TO CREATE VALUE-ADD

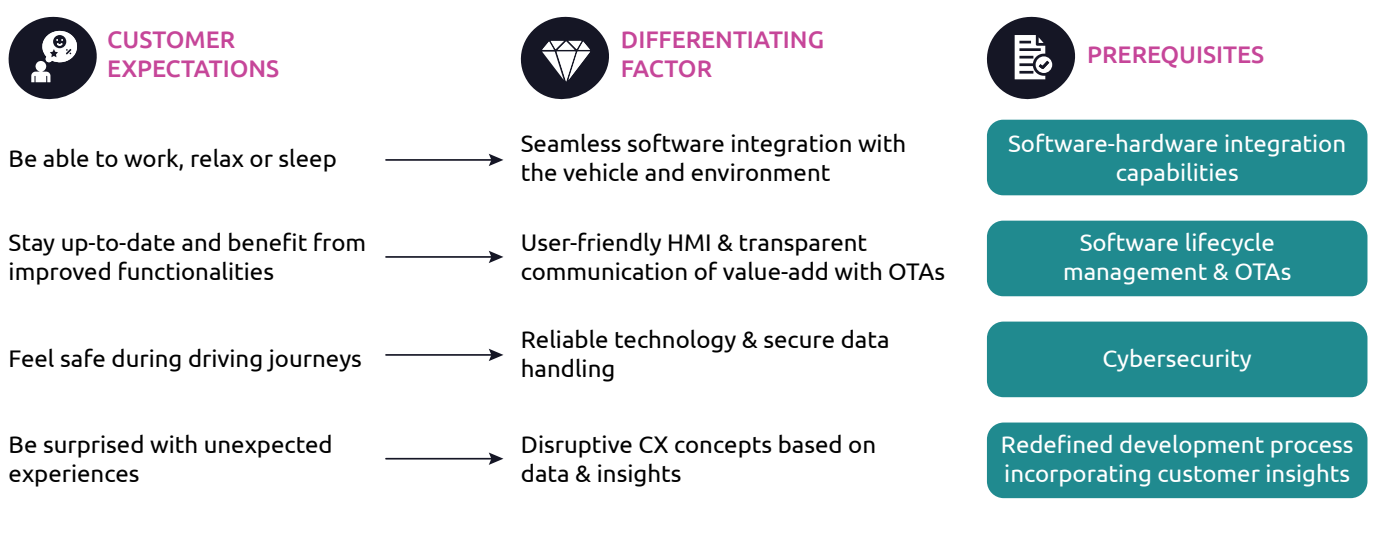


FIGURE 6 | DEMANDING TECHNICAL CHALLENGE

	Software-hardware integration	Over-the-air (OTA) updates	Cybersecurity	Redefined development process
What customers expect	As a customer, I want to use the time gained to work or comfortably relax/sleep without any hassle or major distraction while driving in AD level 4.	As a customer, I want to keep my vehicle up-to-date to benefit from the incremental improvement of new functionalities, as well as for additional on demand features (e.g., in car purchasing, streaming).	As a customer, I want to feel safe during my driving journeys, and while being offboard, all my data is well protected and I do not have to worry about hacking attacks with the increasing number of digital interactions.	As a customer, I am eager to explore new things, experience the unknown and be surprised with the unexpected which proves to exactly respond to my personal needs.
How to make the difference	Seamless software integration with the vehicle and the environment to ensure high-level quality and continuity of different autonomous driving modes. Even though it is not directly perceptible from a customer perspective, it is a key enabler that must be put in place.	OEMs can delight their customers by creating an easy to use HMI, embedding OTAs in all relevant touchpoints while transparently communicating the additional value-add and impact on enhanced experiences to customers based on personal preferences. A full immersion update can happen without any customer interaction.	Experiences can only be enjoyed, if trust is built. OEMs need to create a feeling of trust in the technology and system for the customer. Customers want to get the option to flexibly choose what data they want to share with the OEM and which personalized offers they want to receive.	New CX concepts demand rethinking and constantly challenging the status quo. When redesigning vehicle interior, OEMs need to actively listen to the voice of the customer and involve them as soon as possible to validate concepts and prototypes. Design and interior decisions need to be made based on insights.
What is needed for implementation	OEMs need to establish software-hardware integration capabilities combined with a modular system approach to ensure compatibility and upgradeability during the E2E product lifecycle.	OEMs need to properly manage the lifecycle of their software and leverage OTAs as customer touch point instead of a pure technical interface. CX is to be established on eye level together with software management and its compatibility at any given moment.	Setting up a cybersecurity organization and managing cybersecurity requirements in the vehicle is an essential factor for OEMs to offer reliable and bullet proof secure software.	OEMs need to redefine the product development process to ensure early alignment with customer expectations and continuous improvement. Insights and data need to be captured and applied in a standardized way.

CX CHALLENGES – SHIFT FOCUS NOW, IT ISN'T GETTING ANY EASIER

New challenges are approaching, while automotive players are still struggling with addressing the known ones.

Conflicting goals along distribution levels

We observe increasingly conflicting goals of the parties involved. While especially large OEMs are continuously trying to (successfully) complete large-scale initiatives required for the future, NSCs and dealers are rather focused on those improvements directly contributing to increased sales. A conflict of interest that causes severe challenges when it comes to the prioritization of scarce resources and the willingness to jointly contribute to a focused set of small, medium, and large initiatives.

Low CX priority

In the last decades, business was going well for most automotive OEMs on this planet. Companies could sufficiently differentiate themselves by doing what was expected from them – designing and building quality products that sufficiently meet the expectations of the respective target group. This strategy led to a comparably low prioritization of customer experience, a key factor of substantial financial success in many other industries.

For example, looking at the top of the organizations, we still miss the C-Suite support required to break up organizational silos, suppress internal politics, and make CX a top-level item on the agenda of each employee in the automotive industry. Other industries are ahead of the game as many different companies have already established roles like a Chief Customer Officer or a Chief Experience Officer with clear veto power.

Within the automotive industry, OEMs seem to be aware of its importance but only a few have started to build such roles. Sadly, it appears that these CX roles remain on an operational level without the power of coordinating the high efforts required to make a real difference.

CX hyperactivity

We see a clear will across the automotive industry to catch up and improve the experiences for their customers, causing an interesting phenomenon – CX hyperactivity. We define CX hyperactivity as the outcome of running many CX-related projects without the required, focus, structure, and overarching coordination.

OEMs are struggling to understand where the best investment should be made towards clear improvement.

Product development is not placing the customer in the center

The results are devastating, as organizations become unable to manage their project portfolios to the maximum, nor measure success of the CX initiatives. For example, we often see projects contributing limited to no value to be continued, causing a lack of resources for the vital ones. Additionally, dependency management between different teams becomes even more complex due to a lack of overall coordination.

Organizational inability to execute on CX topics

Many car manufacturers still struggle with insufficient organizational maturity. The prevalent product-centric culture, a fragmented responsibility for key journeys, and a lack of capabilities and skills to continuously identify and analyze (unmet) customer needs are key challenges that must be overcome. The complex three-tiered distribution model makes things even worse. Responsible team members on all three levels still find it difficult to organize and manage CX-related activities considering the many different groups of stakeholders and political sand traps. Even some of the most reasonable initiatives starve due to the high need for synergies, e.g., between large markets, and the complexity to sufficiently including and managing relevant stakeholders.

Decision making based on individual perceptions rather than actual customer insights

In our manufacturers project work with clients across the automotive industry, we see that the use of dedicated customer insights in the daily work of project teams is still limited. Too often, decisions are based on the gut feeling of individuals. As a result, solutions that aim to improve the customer experience, fail to adequately meet the real customer needs. This could also explain the serious experience gap between younger and older generations in our research.

Limited trust in new technology harms CX

Trust in the technical system and thus the vehicle is the foundation of a functioning customer experience. The levels of autonomous driving are automatically structured in such a way that they demand more trust from the driver while taking away more driving responsibility. This step-by-step process must be well thought out and resonate with the customer. OEMs must create an atmosphere in

the car in which the driver can switch off and gently introduce him or her to handing over and re-taking over the driving task. Once this is guaranteed, the customer can get involved in the experience, enjoy it, and get the most out of the ride and thus the vehicle.

Slow tech stack improvements harm overall progress

A rock-solid technology foundation is a basis for delivering a superior CX. All the worse that progress on

this part is seemingly slowing down. Initiatives to rebuild and extend the technology foundation are partially unsuccessful, leading to frustrated stakeholders in the ecosystem. The inflexible and unpredictable delivery of the technological backbone therefore dramatically harms the overall success.



KEY RECOMMENDATIONS TO SUCCESSFULLY MASTER CX

Excelling at CX is not a leap of faith, but requires a holistic transformation with a strategic mindset to stay ahead of the curve

There is no way back and automotive OEMs need to take action to win the long-term race for customers to remain relevant on the dynamic field in the industry.

Currently, many of the traditional automotive OEMs are either planning or undergoing a sales model transformation, moving from the traditional retail sales model to agency or online direct sales. As OEMs are taking on overall responsibility for the E2E journey, such D2C activities offer great CX improvement potential. Considering this, we advise automotive OEMs to further push for D2C activities to leverage superior CX and grow customer loyalty.

In addition, looking at insights from our global consumer study and mentioned challenges, it is very clear that the moment of truth has come. Hence, it is of utmost time for automotive OEMs to act and embed CX as an integral part of the organization. To do so and to make a difference, OEMs need to be willing to take upfront CX investments.

Knowing how to drive a high return on CX is the key to unlocking potential. With our recommendations, we provide clear guidance on the way forward to successfully master CX.

#1 Define a cross-functional & integrative strategy

- **Define** an overarching and integrative CX strategy, with a clear vision and opportunity spaces with a strong customer value-adds e.g., improvement of in-car experiences, connectivity, and digital retail enablement at dealerships
- **Harmonize** strategic directions across all distribution levels, OEM, NSC/importers, and dealers to ensure joint focus on customers while considering changing roles and responsibilities, especially through new sales model transformations

#2 Focus on relevant experiences for customers

- **Prioritize** based on customer relevance and actual needs through early customer validation and testing with customers as early as possible, e.g., setting up quality gates to receive immediate feedback and adapt accordingly throughout the development process
- **Unleash** CX opportunities and untapped potential through a smart partner play extending the future automotive ecosystem with new products and service offerings for customers, especially with autonomous driving

Shifting organizational focus from a "CX is no one's job" - attitude to a "CX is everyone's job" - attitude is essential.

#3 Transform organizational structures

- **Build** cross-functional and agile teams with the mandate to realize customer-centric end-to-end use cases. Cross functionality enables a customer-centric focus throughout the entire value chain. Especially in the future, the business model of automotive OEMs becomes increasingly diversified and therefore complex
- **Establish** experience gates within the processes to ensure CX standards are met and are in line with customer needs

#4 Establish CX based decision-making

- **Foster** CX based decision-making in all committees from top management to operational level with a CX veto right, starting within the vehicle development process
- **Create** awareness and understanding of added value within the entire organization to integrate CX into the decision-making process. This can be achieved through active change management and education as well as by quantifying the impact of CX on business KPIs

Every decision of every employee in the organization needs to be tested with the question: How will this help our customers?

#5 Design seamless E2E customer journeys across online and offline channels

- **Aim** for seamless integration of all sub-processes, especially across different distribution levels, from OEM to NSC/importers to dealers
- **Offer** a customer-centric portal and mobile solution to keep data in sync at all times at every touchpoint and to effective and increased interaction with customers

#6 Leverage customer insights

- **Gather** customer data at every touchpoint possible throughout the customer journey to precisely understand existing pain points and anticipate future needs – focus on your customers, not the competition
- **Use** insights for aligned and personalized communication throughout the CLC and for decision-making processes - listen to the voice of the customer

#7 Measure CX with KPIs for continuous improvement

- **Establish** standardized CX KPIs to measure performance at every touchpoint along the E2E customer journey as well as for overall steering along the entire value chain
- **Measure** customer satisfaction at every touchpoint to identify specific areas of improvement and understand frictions in journeys

#8 Build a rock-solid technological foundation & flexible development

- **Redesign** the development process to be flexible and agile enough to quickly respond to customer feedback while creating a digital backbone to connect all data
- **Redefine** legacy vehicle architecture in terms of flexibility, simplicity, and updatability, integrating hardware and software most efficiently, enabling regular OTA updates
- **Master** software excellence and cybersecurity as it will be essential for autonomous driving and the game changer for CX

It is time for every automotive OEM to make CX a strategic priority to win on the race of experiences. Are you ready?

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