

# The art of customer-centric artificial intelligence



How organizations can unleash  
the full potential of AI  
in the customer experience

# Introduction

As the COVID-19 crisis grips the world, the impact of AI on the customer experience is accelerating. As customers seek contactless or non-touch interfaces, numerous sectors have stepped up their digital and AI game:

- Consumer products and retail has seen the use of AI-powered delivery robots to get groceries and medicines to people subject to shelter-in-place orders.<sup>1</sup>
- In automotive, dealerships and OEMs have moved to digitize showrooms – offering a fully digital customer experience powered by augmented reality and AI.<sup>2</sup>
- In the public sector, AI is a driving force in health and safety, from using augmented reality glasses to check the temperature of hundreds of people in a matter of minutes,<sup>3</sup> or recognizing whether commuters on public transport are wearing face masks or not.<sup>4</sup>

These innovations reflect how much progress has been made in AI as a technology over recent years. In late 2018, for example, Nvidia demonstrated that a class of AI algorithms – “Generative Adversarial Networks” – had not only become better at generating realistic human faces, but that similar algorithms had also improved at discerning real images from any fake, AI-generated ones.<sup>6</sup> In November 2019, Google made its contact center AI technology open and freely available.<sup>7</sup> In natural language understanding, Google Translate now translates more than 100 languages into English, with accuracy of translation improving remarkably across all languages in the last four years.<sup>8</sup>

AI capabilities have been evolving, but COVID-19 has accelerated adoption of these tools and made intelligent machines part of our new normal lives, both now and in the future. As our research shows:

- More than half of customers (54%) use AI daily compared to just 21% in 2018.
- Over three-quarters (77%) expect to increase the use of touchless interfaces – such as voice assistants and facial recognition – to avoid direct interactions with humans or touchscreens during COVID-19, and 62% will continue to do so post-COVID.

This latest research builds on an earlier study we conducted in 2018. Back then, while we found significant customer appetite for AI interactions, we also unearthed two significant challenges. First, customers want and expect “humanized” experiences from their AI interactions with organizations. Second, many organizations were not focusing on enhancing customer experience with their AI efforts – instead, they were focused on cost optimization. To understand what progress has been made in tackling these challenges, and the progress that organizations have made with the AI-powered customer experience, we launched a wide-ranging research:

- A survey of more than 5,000 customers across twelve countries: Australia, Brazil, China, France, Germany, India, Italy, Netherlands, Spain, Sweden, the UK, and the US. We also undertook focus group discussions with customers in the US and Germany.
- A survey of more than 1,000 industry executives across eight major industries – banking, insurance, consumer products, retail, automotive, utilities, government/public services, and public sector enterprises. We also conducted in-depth interviews with industry executives. More details on the research methodology are in the appendix.

Drawing on that research, this report examines several themes:

- How have customers' wants and needs evolved and have AI interactions lived up to their expectations?
- To what extent have the potential gains from the use of AI materialized?
- How have organizations adapted AI applications given changing customer needs and increasing concerns about the need to avoid issues such as bias and discrimination in AI systems?
- How have customers been using AI in a COVID-19 world and how can organizations meet their needs?

## What is artificial intelligence?

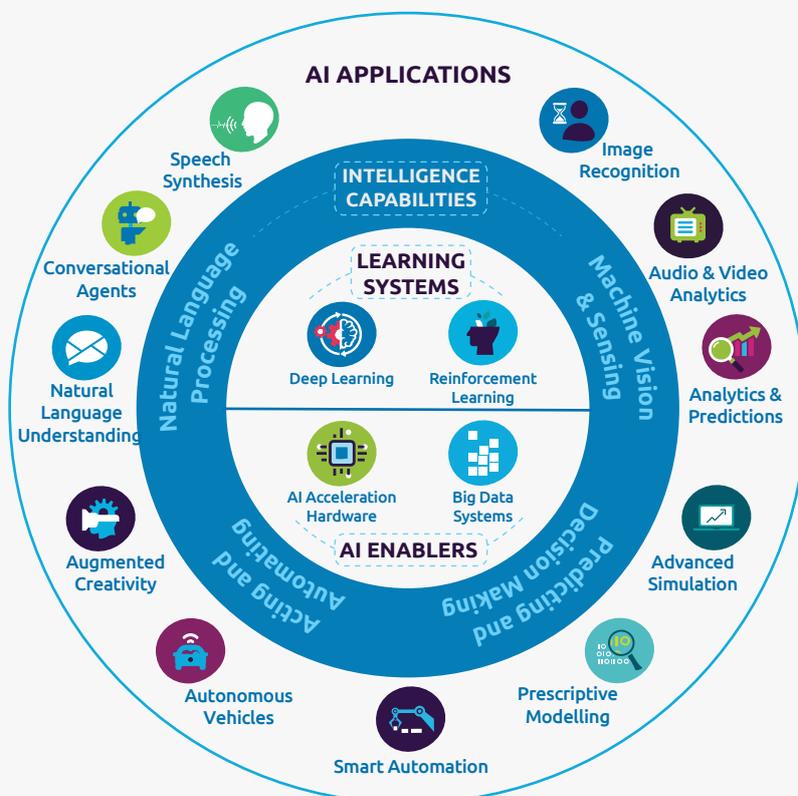
Artificial intelligence (AI) is a collective term for the capabilities shown by learning systems that are perceived by humans as representing intelligence.

These intelligent capabilities typically can be categorized into machine vision and sensing, natural language processing, predicting and decision making, and acting and automating.

Various applications of AI include speech, image, audio and video recognition, autonomous vehicles, natural language understanding and generation, conversational agents, prescriptive modelling, augmented creativity, smart automation, advanced simulation, as well as complex analytics and predictions.

Technologies that enable these applications include automation, big data systems, deep learning, reinforcement learning and AI acceleration hardware.

### AI Taxonomy



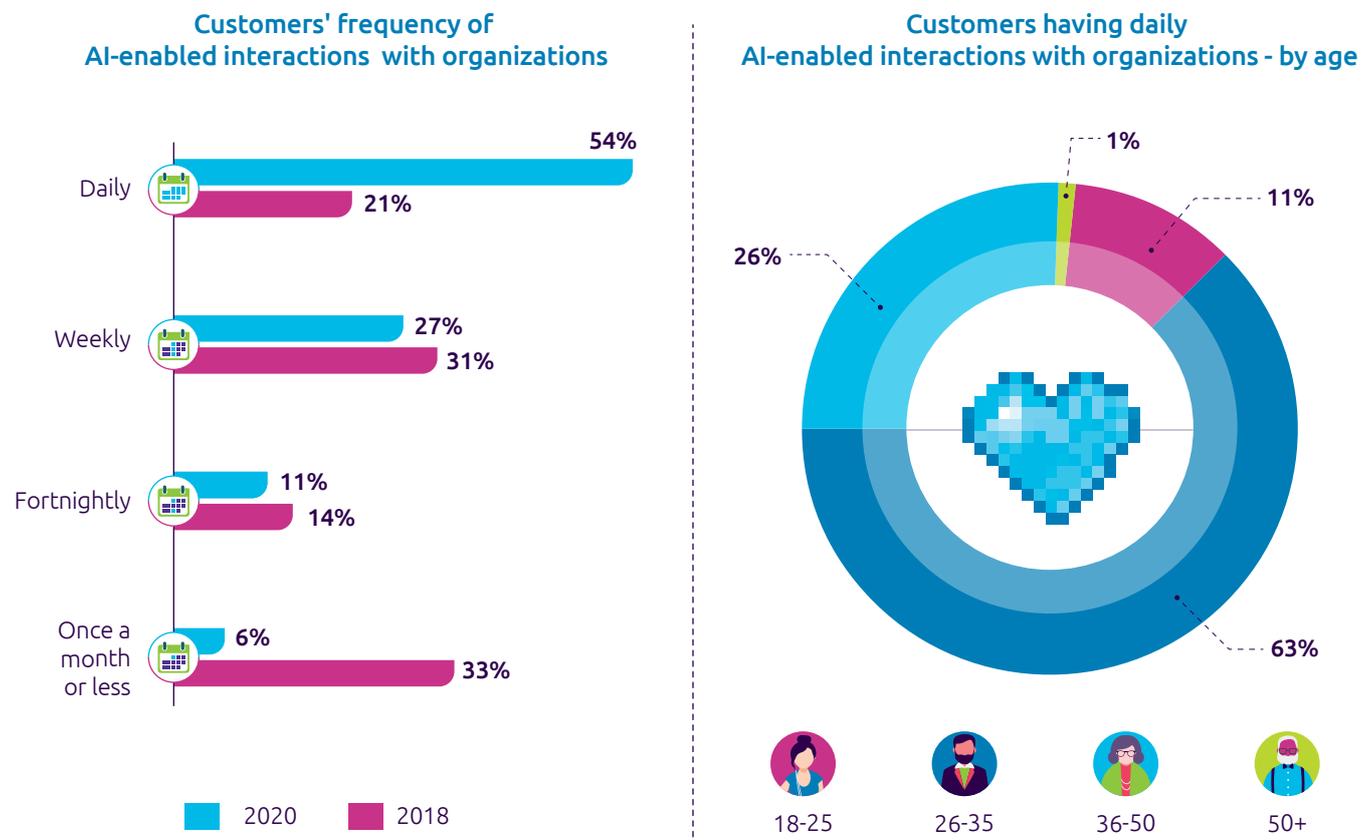
Source: Capgemini Technology, Innovation & Ventures.

# AI interactions go mainstream with organizations' push for human-like and trustworthy AI

## AI-based interactions with organizations are on the rise

Customers are increasingly using AI-based systems to interact with organizations. Today, more than half of customers (54%) have daily AI-enabled interactions with organizations, including chatbots, digital assistants, facial recognition or biometric scanners. This is a significant increase on 2018's 21% (see Figure 1). Of the 54% having daily interactions, three-fourths comes from customers between the age of 18 and 35.

**Figure 1:** A majority of customers have daily interactions enabled by AI as compared to just one in five in 2018



**Source:** Capgemini Research Institute, AI in Customer Experience Customer Survey, April–May 2020, N=5,300. The survey was conducted during COVID-related lockdowns across major countries which will have influenced customer perceptions. The question asked to the respondents: "How often do you have interactions enabled by artificial intelligence (e.g. chatbots for customer service, digital assistants, facial recognition for customer identification, biometric scanners for payments, etc.) in a month?"

The increase in frequency highlights that customers' AI-enabled engagements with organizations has gone mainstream. A US-based focus group participant told us, "I use my voice and chatbots regularly: its ubiquitous on my phone, computer and speaker, and it makes my life easier." Another focus group participant adds about apps and voice-based ordering, "These interfaces are so much easier to use, you don't have to worry about them messing it up." A German-based focus group participant says, "Facial recognition has gotten much better and more friendly. I find it very simple and efficient."

From a sector perspective, automotive (64%) and public sector (62%) are strong performers, followed by banking and insurance (51%):

- The widespread use of in-car voice interfaces explains the dominant position of automotive in part. For instance, BMW – which has been deploying their own in-car, AI-based voice assistant for many years – plans to make them more natural, with gesture recognition or gaze recognition capabilities for its 2021 series. AI also drives many of the brand's in-car autonomous systems plans. Dr.-Ing Matthias Schindler, head of AI Innovation at the BMW Production System, told us, "We have a large center with thousands of engineers who are only working on the AI aspect of the customer experience and the future of autonomous driving. We will see a premium level of customer experience where AI will play an important role."
- In the public sector, citizens are increasingly using AI to interact with government. For example, US Citizenship and Immigration Services' chat interface receives about 14 million customer queries each year.<sup>10</sup> Especially during the COVID-19 pandemic, many French cities used chat interfaces for query resolutions related to government policies and to assess health symptoms.<sup>11</sup>

From the view of countries, daily interactions grew slowly in countries where native languages are used more by customers than English, such as Spain, Italy, and France. BMW's Matthias Schindler explains why,



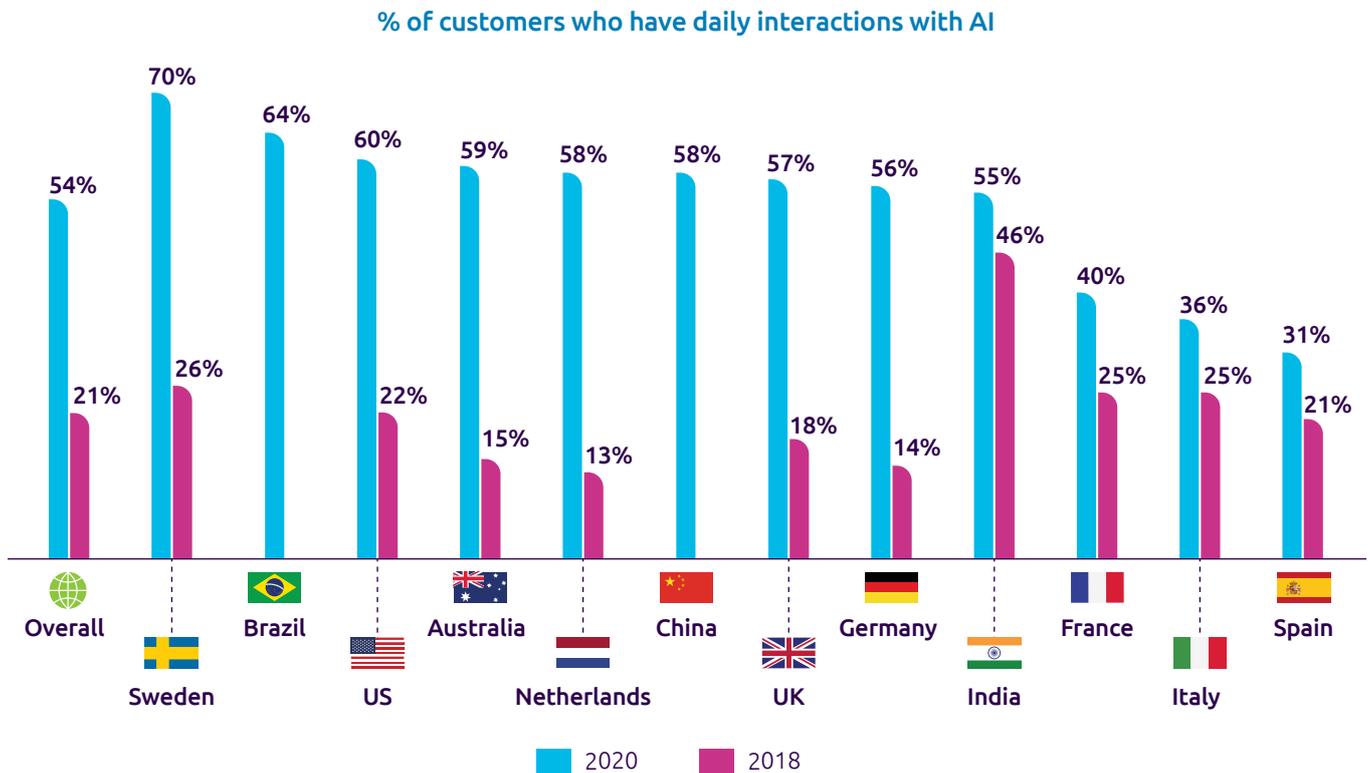
*When it comes to language interaction, there is a limitation because typically all the algorithms are pretty good in English, but at least when it comes to German, there are significant losses in performance or quality. So, there is still a way to go and if you discuss other languages, it might be even more challenging."*



**Dr.-Ing. Matthias Schindler,**  
Head of AI Innovation at the  
BMW Production System  
(BMW Group Munich)



**Figure 2:** Customers' daily interactions with AI are the highest in Sweden, Brazil, and the US



**Source:** Capgemini Research Institute, AI in Customer Experience Customer Survey, April–May 2020, N=5,300. \*Note: Brazil and China were not surveyed in the 2018 study.

- Close to half (45%) of customers prefer voice interfaces when engaging with organizations followed by 30% who prefer chat interfaces and 15% who prefer AI systems built in websites/apps.
- 53% of organizations are deploying AI in physical places like stores, branches or customer service centers followed by 45% who are deploying AI at contact centers to enhance customer service.

## Customers are increasing AI-only interactions, with no human involvement, in early stages of the customer journey

As Figure 3 shows, there are some key areas in the customer journey where customers have significantly increased their preference for AI-only interactions: researching and browsing and when making a purchase:

- Today, about half of customers aged between 31 to 40 prefer AI-only interactions for researching and browsing.
- Overall, 41% of customers prefer AI-only interactions for researching and browsing, up from 2018's 25%. Today, organizations are more in line with what customers want in this area: 31% say that customers prefer AI-only interactions in researching and browsing, whereas in 2018 this only stood at 12%.

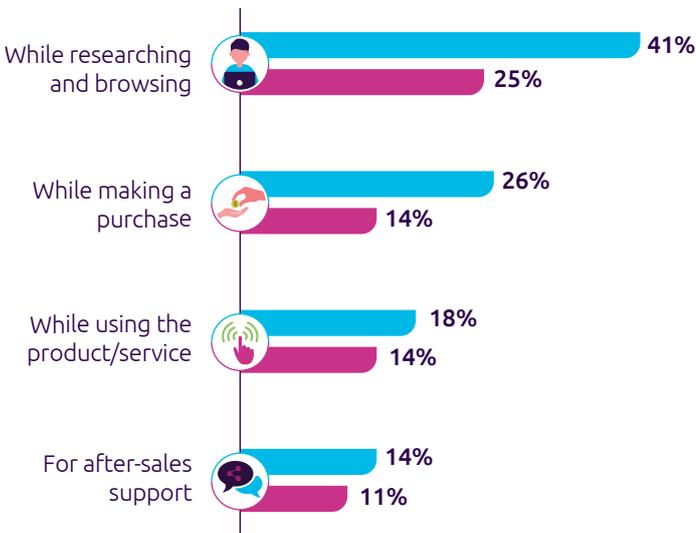
Kelly Anderson, director, Data Science and Artificial Intelligence at Procter & Gamble says, “I believe that customer expectations have evolved to the point where they almost expect for interactions to be AI. So, when you actually put a human in the loop, they are very pleasantly surprised and sometimes shocked. This clearly shows that chatbots/ Natural Language Processing/AI is making progress and has evolved.” However, the further that you go into the customer journey, the more customers want human interaction. For instance, today, only 14% of customers prefer AI-only engagements for after sales support, which in itself is only

a very small uptick from 2018’s 11%, while the preference for human-only interactions for after sales report remains at about 40% both in 2020 and in 2018

**Role of trust:** Trust also plays a key part here. For example, in the retail sector, more customers find AI interactions in the early stage of customer journey trustworthy than in the later stages – 49% of customers say AI interactions during browsing/searching of information about products resulted in trustworthy interactions; this drops to 39% for post-purchase interactions such as returns.

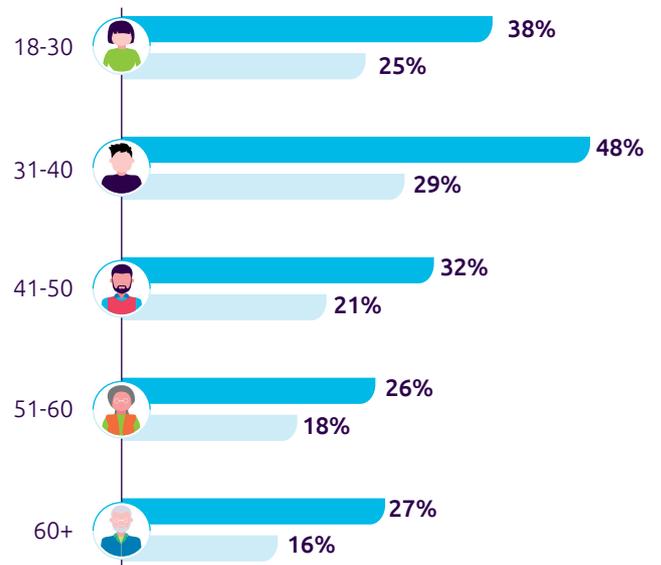
**Figure 3: More customers prefer AI-only engagements in the early stages of their customer journey – researching, browsing, and purchasing**

**Percentage of customers preferring AI-only interactions with organizations (2020 compared to 2018)**



■ % of customers preferring AI-only interactions in 2020  
 ■ % of customers preferring AI-only interactions in 2018

**Percentage of customers preferring AI-only interactions in 2020 - by age**



■ % of customers preferring AI-only interactions for researching and browsing (2020)  
 ■ % of customers preferring AI-only interactions for making a purchase (2020)

Source: Capgemini Research Institute, AI in Customer Experience Customer Survey, April–May 2020, N=5,300.

## Key factors that drive customer AI adoption:

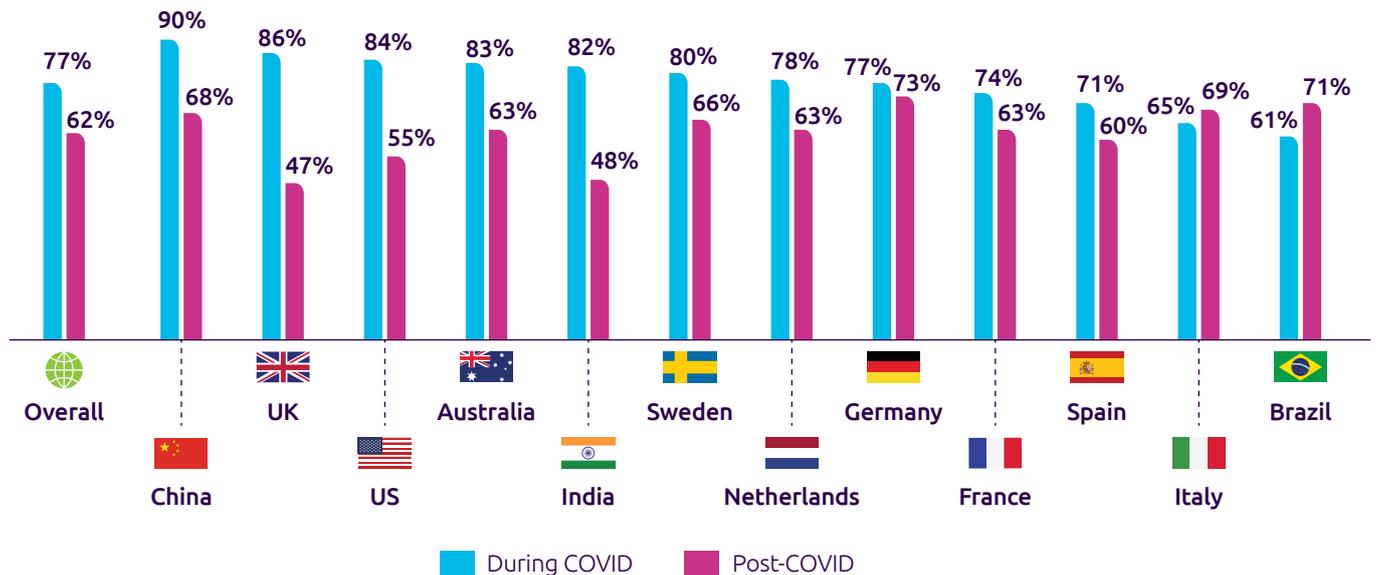
### 1. COVID-19 is increasing customer adoption, driven by the appetite for non-touch-based interactions

As a result of COVID-19, customers are increasingly looking for digital, no-touch connections with organizations, given the constraints and concerns about physical interactions in a new-normal, socially distanced world. Our research shows that even when lockdowns are lifted, customers across

the world say they will still be looking to make increased use of touchless interfaces, such as voice interfaces, facial recognition, or apps (see Figure 4). The fact that touchless interfaces are becoming integral to the customer experience in a health-and-safety conscious world is also recognized by organizations too. Three-quarters of organizations believe that increasing customer appetite for non-touch practices will persist even in the post-pandemic world. For instance, India-based Bajaj Allianz points out to increase in their chat interface usage by customers during the pandemic, for registering claims, renewing policies or checking policy status and for locating hospitals.<sup>12</sup>

**Figure 4:** Increase in touchless interactions during the pandemic and beyond

**"I expect to increase my use of touchless interactions, through voice assistants, facial recognition, or apps, to avoid human interactions and touchscreens"**



**Source:** Capgemini Research Institute, AI in Customer Experience Customer Survey, April–May 2020, N=4,818.

## 2. Organizations step up AI deployments and look to transform the customer experience with AI.

As Figure 5 shows, two to three years ago, most organizations (93%) had less than 30% of interactions AI-enabled:

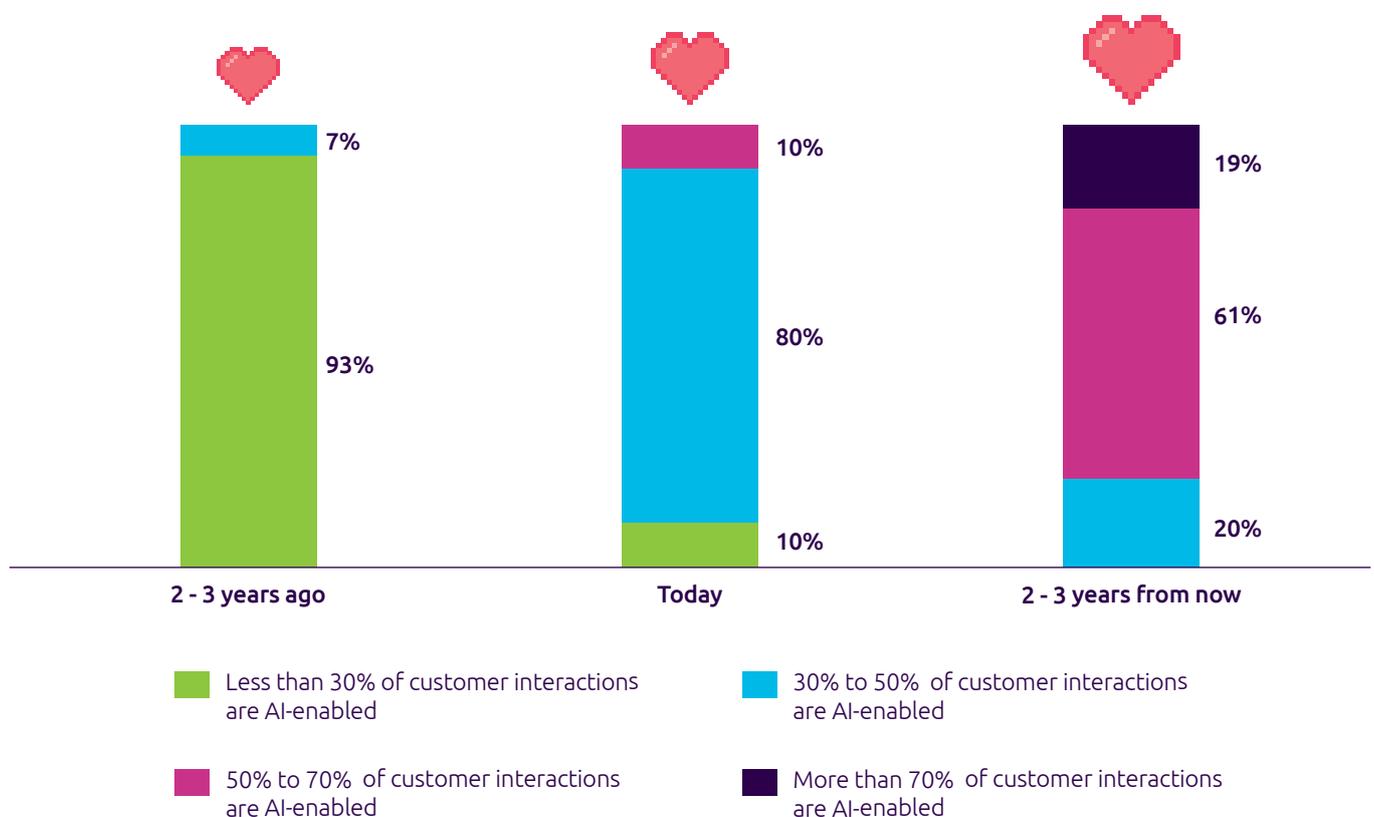
- Today, however, only 10% of organizations are at that low bar, with 80% saying that 30% to 50% of customer engagements are AI enabled.
- In two to three years' time, the vast majority (80%) will have more than half of their interactions enabled by AI. Eight in ten organizations will have more than half of their customer interactions enabled by AI in two to three years.

Procter & Gamble's Kelly Anderson points out how important AI has become to the customer experience.

"AI is the only way we can scale experiences and diagnostics to help many millions of consumers. Our investments have gone up and our understanding about the potential benefit we can create with AI has gone up tremendously."

**Figure 5:** In two to three years, 80% of organizations will have most of their customer interactions enabled by AI

### Share of organizations AI-enabled customer interactions



Source: Capgemini Research Institute, AI in Customer Experience Executive Survey, April–May 2020, N=1,060.



*Trust is something very difficult to gain and very easy to lose. But a classic way of gaining trust, with AI interactions in particular, can be summarized in three words: transparency, accountability, and empowerment. That means transparency so that people can see what you are doing; accountability because you take responsibility for what you are doing; and empowerment because you put people in charge to tell you if something you did was not right or not good.”*

**Luciano Floridi,**

Professor of Philosophy and Ethics of Information and director of Digital Ethics Lab, Oxford Internet Institute, University of Oxford.<sup>13</sup>

### 3. Customers' trust in AI is on the rise

#### Customer trust with AI engagements has increased since 2018

Our research found that:

- 67% of customers trust the personalized recommendations and suggestions provided by AI enabled interactions.
- Close to half of customers (46%) find AI-enabled interactions to be trustworthy – compared to 30% in 2018.
- The share of customers who say that they do not trust machines with the security and privacy of their personal data has dropped to 36% today, down from the 49% who said that trust was lacking in 2018.

Organizations also adopt customer trust as a key lever to increase AI adoption: 72% of the organizations we surveyed say that gaining customer trust is the most powerful lever for increasing customer adoption of AI systems.

Furthermore, with new data and privacy protection in place – such as the GDPR – people have greater reassurance that their data rights are protected and that companies are following agreed standards and rules when developing their systems. Eric Chaniot, chief digital officer at Michelin says, [“Michelin is fully compliant with the GDPR, which is very close to the French government regulations. And sometimes we go beyond even what they are asking for in the GDPR. So, I think our customers trust that we are going to do the right thing with their data.”](#)

Customers' increased trust appears to be driven by increasing fairness and transparency. Our research shows that 69% of customers trust the fairness of the decisions made by AI. Our research also indicates that organizations are increasingly making AI interactions more transparent for customers. For instance, while in 2018 only 13% of organizations informed customers about the presence of AI before the interaction begins, this increased to 66% in 2020. Along with consent, comes the importance of explainability, transparency, and driving a bias-free AI engagement. We look at it in detail later in the report.

### 4. Customers finding AI-enabled interactions to be more human-like.

In our 2018 research,<sup>14</sup> we found that customers want AI to display human-like capabilities – such as human-like voice or personality or understanding. And, if interactions were more human-like, they would be keener to use more of these AI applications and have greater trust in the company. And indeed, as AI exhibits more human-like features and capabilities, customers are adopting it more.

- Overall, 64% of customers believe that their AI interactions are more human-like (compared to 48% in 2018).
- China (74%), Australia (72%) and US (70%) lead in the percentage of customers who believe that their AI interactions are more human-like.

Organizations have been consciously trying to build in human-like features in AI applications: 72% of organizations agreed that they are actively trying to make their AI interactions more human-like (compared to less than half in 2018). “Mia” – a virtual assistant developed by the National Australia Bank’s digital arm, UBank – communicates with customers face-to-face and gives on-the-spot answers to more than 300 home loan application questions. Examples include “what’s a variable rate?” or “what classifies as an expense?” To support UBank’s branding, Mia has been positioned as a “cheeky” personality, fond of gifs, animations, and jokes, and provides query resolution in customer-friendly language.<sup>15</sup>

Customers' AI interactions have gone mainstream with organizations increasing deployments and using levers of trust and human likeness. But as adoption increases, customers expect more from their AI engagements. Are organizations meeting these expectations? We delve deeper in this in the next section.

# Customer satisfaction levels have reduced since 2018

## Customer satisfaction levels have fallen since 2018

Overall, 57% of customers are satisfied with AI interactions, compared to the more than two-thirds (69%) who were satisfied in 2018 (see Figure 6). As a US focus group participant says: "I have very high expectations of these AI systems once they put themselves out there. I don't expect

them to offer recommendations on products that I've already purchased." The participant adds, "I appreciate that it gives me recommendations and links. But at some point, I want to say, 'I'm fine with that I've moved on now, I'm looking at new things'."

Our research also found that 51% of customers say they will consider an AI experience to be 'positive' if it provides a unique experience beyond their expectations. However, organizations recognize the challenge of keeping up with evolving customer expectations as AI-enabled interactions increase. Sebastián Fuenzalida Garcés, program manager of artificial intelligence at Falabella Retail S.A. – a leading retailer in Latin America – says, "When we deployed our chatbot, we started with some options. Then we were adding more features like 'add to or cancel your sales', 'store opening hours', etc. Now the chatbot displays all the information, but consumers need more focused resolutions. Currently, we are focusing on how to help consumers find all the available options and get to the one that they really need."

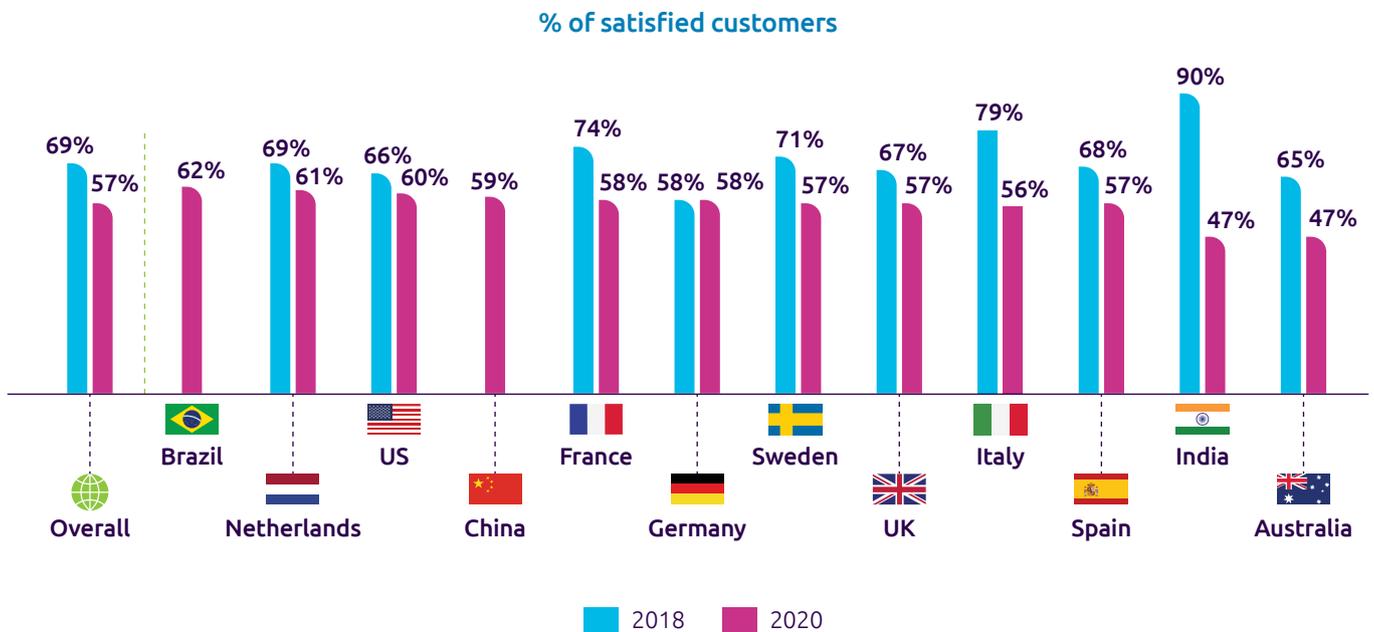
**Figure 6:** Customer satisfaction from AI interactions has fallen for all industries



**Source:** Capgemini Research Institute, AI in Customer Experience Customer Survey, April–May 2020, N=5,300.

From a country point of view, the share of satisfied customers has reduced across countries, more prominently in India, Italy, Australia, and France as compared to 2018 (see Figure 7).

**Figure 7:** Customer satisfaction from AI interactions has dropped across countries



**Source:** Capgemini Research Institute, AI in Customer Experience Customer Survey, April–May 2020, N=5,300. Note: 2018 research surveys did not include China and Brazil.

There are several issues that organizations need to confront and resolve if they are to push up satisfaction levels today:

**Customers miss the “wow” factor in AI engagements:**

A significant number of people are unimpressed with the value they receive, with close to half (45%) feeling value is below what they had expected and 42% only marginally pleased (see Figure 8). Only 13% of customers said AI interactions offered much more value than what they expected. Clearly, AI is not yet exceeding customer expectations.

By sector, consumer products and retail perform lags, with 55% feeling short-changed. The experience of a US-based focus group participant captures a typical below-par performance. They told us: “When I was shopping on the website last week, I was trying to get pants, and I wanted multiple pairs of pants. So, after I picked up my first pair, the website just kept giving me a shirt to go with my pants. I got very frustrated because the recommendations were not relevant.”



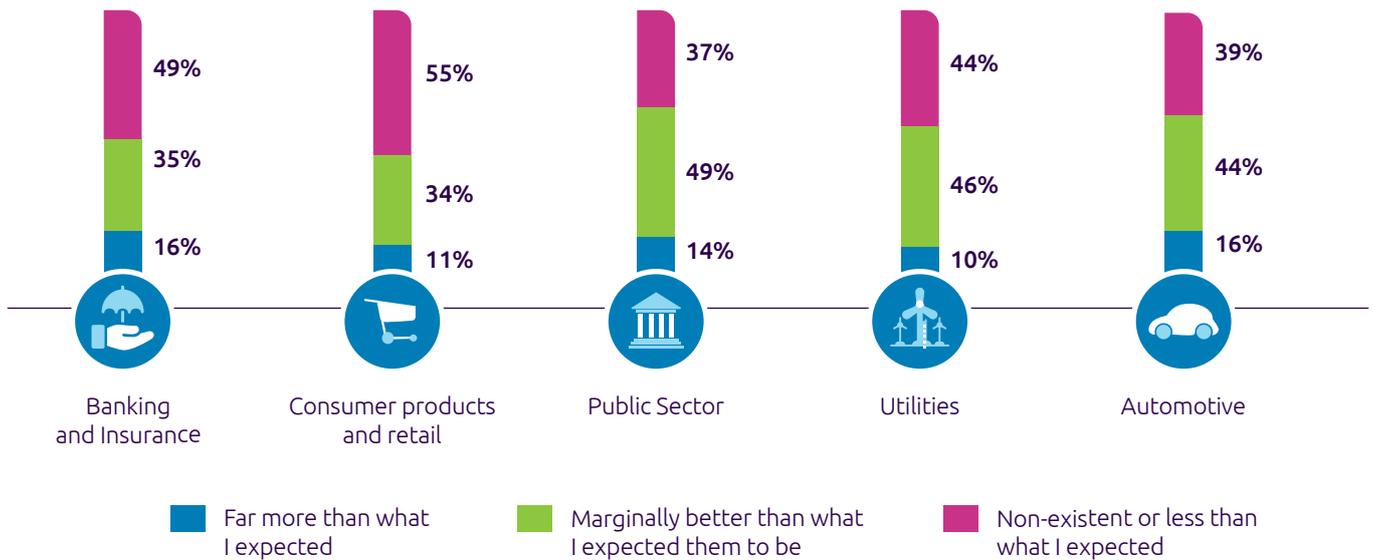
*When we deployed our chatbot, we started with some options. Then we were adding more features like ‘add to or cancel your sales’, ‘store opening hours’, etc. Now the chatbot displays all the information, but consumers need more focused resolutions. Currently, we are focusing on how to help consumers find all the available options and get to the one that they really need”*



**Sebastián Fuenzalida Garcés,**  
Program Manager of Artificial Intelligence at Falabella Retail

**Figure 8:** For a large majority of customers, AI offers less or only marginally better value than what they expect

“The value that I received out of my interaction with AI was...”



**Source:** Capgemini Research Institute, AI in Customer Experience Customer Survey, April–May 2018, N=5,300.

**Share of customers experiencing tangible benefits from AI interactions has reduced:**

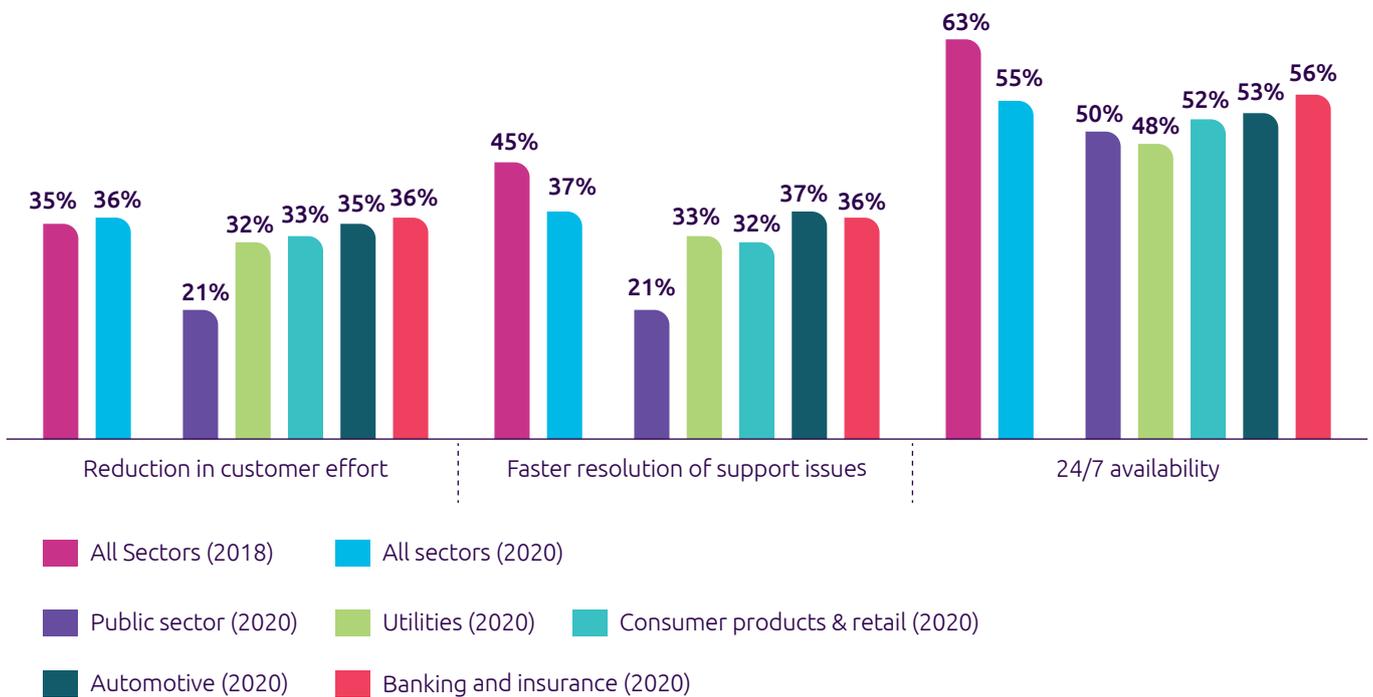
We asked customers whether they received a significant level of benefits in a range of areas, from a reduction to effort to faster resolution of support issues. If we take faster resolution of support issues as an example, in 2018, 45% of customers indicated that they saw significant tangible benefits in this area from AI interactions. However, today, just 37% are of this view (see Figure 9).

Several leading organizations are successfully focusing on a strong value proposition for customers from AI. Tire manufacturer Michelin has reduced the claim reimbursement time of customers from 90 days to 14 days using AI and computer vision. One of the drivers of this effort has been the company’s determination not to lag behind changing customer expectations, with customers used to the ultra-quick reimbursement processing offered in online shopping.<sup>16</sup>



**Figure 9:** Share of customers receiving high levels of tangible benefits has either declined or remained the same

Percentage of customers receiving tangible benefits

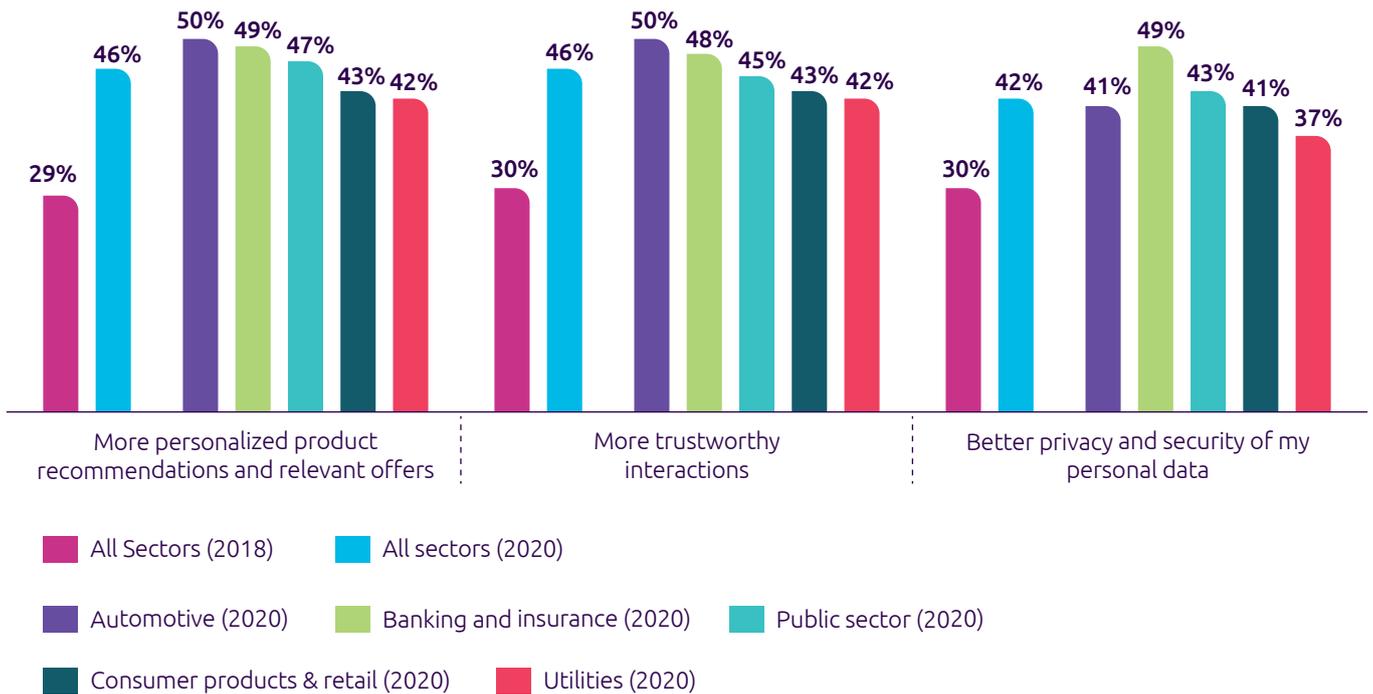


**Source:** Capgemini Research Institute, AI in Customer Experience Customer Survey, April–May 2020, N=5,300.

On the other hand, across industries, intangible benefits – such as personalization, privacy, and trust in AI interactions – have increased significantly since 2018. As Figure 10 shows, for example, 46% see a high level of benefits from AI interactions in terms of more trustworthy interactions, up from just 30% in 2018.

**Figure 10:** Nearly 60% more customers report greater intangible benefits than those in 2018

Percentage of customers receiving intangible benefits



Source: Capgemini Research Institute, AI in Customer Experience Customer Survey, April–May 2020, N=5,300.



*One thing that you need to sustain a relationship is to build trust, but also build consistency. So, if your claims process is second-to-none in the market, customers will always come back to you. The level of experience they get from you says a lot about how you treat them with respect and understand their concerns.”*



**Ashish Umre,**  
Head of AI at AXA XL  
a division of the insurance company AXA

## Customers are more satisfied if the AI engagement is “context-aware”

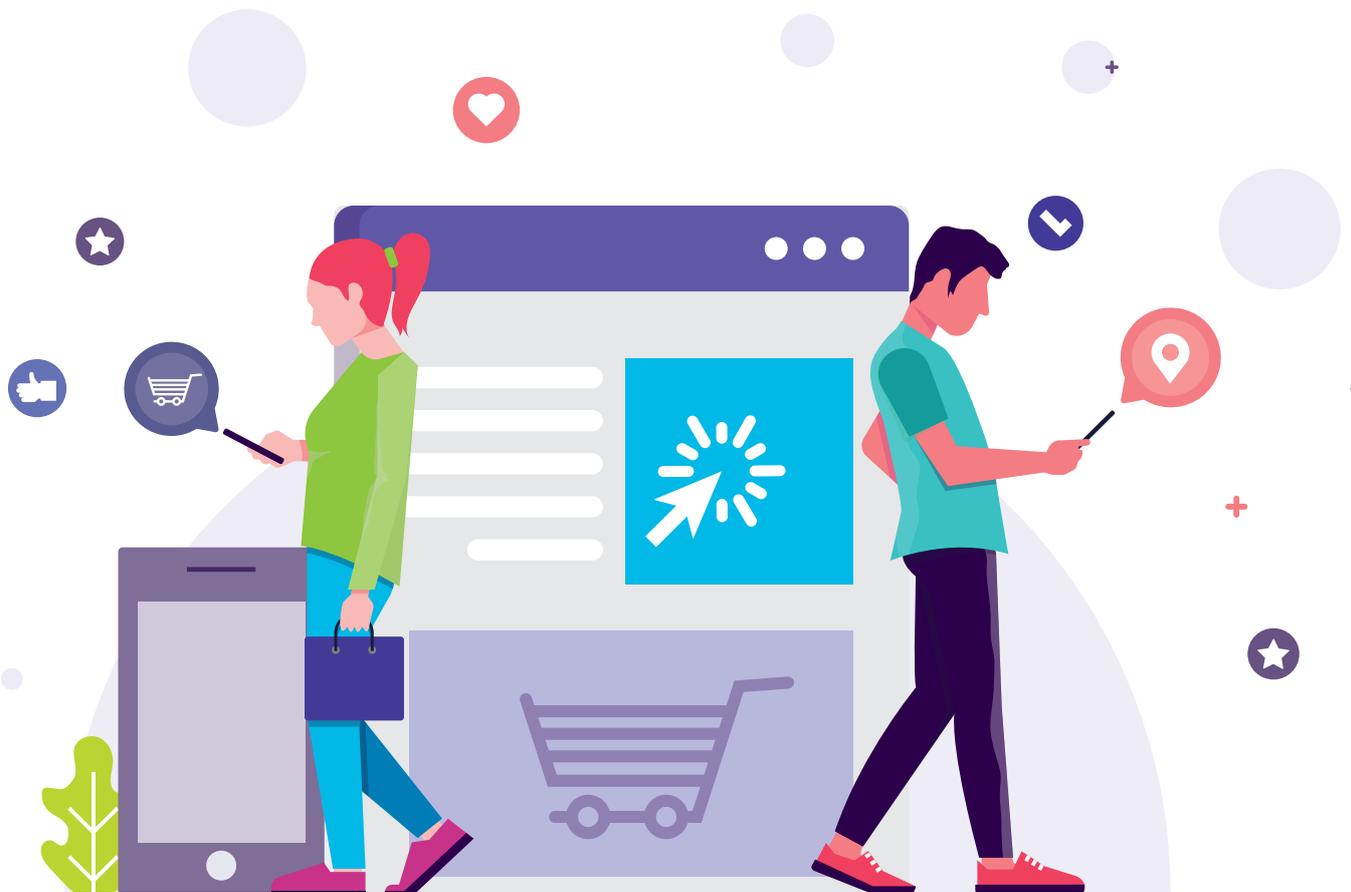
### AI interactions are evolving to provide “context-aware” engagements

AI solutions are evolving to build deeper customer engagement by understanding the human context and adopting a human-centric approach. For instance, insurance firms are using AI to process accident claims within minutes. The process is executed based on the vehicle pictures uploaded by the driver post-accident, facial recognition of the driver, and the damage details they provide.<sup>17</sup> In this way, the solution reduces the customer’s effort – and gets to a quicker resolution – in what is a stressful post-accident situation. We call these “context-aware” AI interactions.

We therefore analyzed the surveyed use cases to understand if customers derive more benefits and satisfaction from these sorts of context-aware use cases. We defined “context-aware” AI use cases as the ones in which customers find more of the following features:

1. **Personalization:** Provides personalized product recommendations and suggestions to customers by anticipating the next possible step for customers in different environments
2. **Empowering:** Provides customers greater control and consistency over their interactions
3. **Effortless:** Reduces customer effort and provides faster resolution of issues.

Figure 11 outlines some of the key use cases that customers consider to be highly “context-aware,” by sector.



**Figure 11: Top “context-aware” AI use cases by sector**

<b>Automotive</b> 	Solving customer queries using voice assistants (in-car)	Honda’s AI assistant detects the emotions behind the driver’s judgments and suggests new choices, recommendations, and solves customer queries apart from basing it only on past queries. It also makes music recommendations based on the driver’s mood. <sup>18</sup>
	Autonomous parking using AI and machine learning	BMW’s AI-led autonomous parking for its electric BMW i3 has four advanced laser scanners which record the environment to detect obstructions like walls or columns while parking the car in an underground parking garage. Once it approaches a wall or a column, it automatically brakes thereby preventing a collision. <sup>19</sup>
<b>Utilities</b> 	Using self-service capabilities to manage installation and operation of smart devices (ex., thermostats)	Utilities firms like Xcel energy, Ottertail Power have started offering rebates as high as \$150 on installation of smart thermostats for their customers. These smart thermostats allow customers to control their homes’ temperatures from anywhere they want to from their smartphones and tablets. The thermostats also learn customers energy use preferences over time to virtually make automatic adjustments for the customer. <sup>20</sup>
	Setting pricing based upon customer demand and supply	Vandebrom, an electric utility company in Netherlands, connects customers with renewable energy providers and helps in energy trading and pricing based on demand and supply. <sup>21</sup>
<b>Public sector</b> 	Identifying fraudulent or prohibited behavior (theft/ traffic violations) among citizens using public data	In Bengaluru, India, AI – by leveraging data sets of real-time situations from different cities and based upon local environment, was deployed to identify traffic violations of the riders through object identification (for example, identifying riders not wearing a helmet). <sup>22</sup>
<b>Banking and Insurance</b> 	Detection of fraudulent transactions	Citi uses AI for risk management and fraud detection in banking and agrees that AI helps its customers stay aware of new threats and fraud. AXA Group’s Sherlock, AI based fraud detection and investigation solution achieved very positive results after just one year of adoption helping AXA Italy generate over 3-million-euro savings, increasing their benefits by a factor of 3 as compared to the previous fraud tool and creating a fairer, more transparent and trustworthy relationship with customers. <sup>23</sup>
	Authentication using facial and voice recognition (biometrics or identity management) on banking/ insurance platforms and call support	Bank of America recently launched a new App Linking feature for all their mobile apps under the Bank of America umbrella (Bank of America, Merrill Lynch, Merrill Edge, and US Trust) that allows users to authenticate just once, using a fingerprint scan or facial recognition and switch between these apps without needing to reauthenticate. <sup>24</sup>
<b>Consumer products and retail</b> 	Searching/browsing for information about products and services using voice assistants	Tesco has integrated with Google Home to allow its customers to find items based on their need and add them to their basket at any time using voice commands. The technology has helped Tesco find customers items that they want and provide better shopping experience. <sup>25</sup>
	Making payment using AI/ biometric scanners	In May 2020, Google announced piloting of voice-based payments for their Google Assistants that lets users confirm payments for their purchases using their voice. <sup>26</sup>

**Source:** Capgemini Research Institute analysis.

**Note:** Each use case’s “context-aware” score was calculated based upon the customers’ extent of scores for personalized product recommendations, reduction of effort, faster resolution of issues and control and consistency. The higher the score, the more “context-aware” the use case is.

As reflected above, “context-aware” use cases arrive at decisions considering varied parameters around the context where the customer engages, thus customers also prefer them.

**“Context-aware” use cases are more beneficial to customers**

We find that the share of satisfied customers on an overall basis is higher for all “context-aware” use cases as compared to the rest of the use cases. We also found a correlation of **0.77** between the share of satisfied customers and the “context-aware” scores for all the use cases.

This indicates that customers satisfaction increases in line with how “context-aware” a use case is. In fact, upon

comparing absolute levels of customer satisfaction, we found that 11% more customers are satisfied with “context-aware” use cases (62%) than those with the rest of the use cases (51%).

As well as helping with satisfaction, context-awareness also relates to the scale of benefits for a customer. The share of customers indicating higher benefits – in areas such as better privacy – is higher for context-aware AI use cases as compared to the rest of the use cases (see Figure 12).

**Figure 12: More than half of the customers find “context-aware” AI engagements to bring high benefits**



Source: Capgemini Research Institute, AI in Customer Experience Customer Survey, April–May 2020, N=5,300.

At the same time, organizations also need to ensure they are focusing on the right AI use cases. In the next section, we look at this in more detail.

# Are organizations scaling the right AI use cases?

## Organizations are yet to scale use cases with high customer benefits

Scaling AI has been a significant challenge to organizations. Our recently published research on research on scaling AI shows that organization who have been able to scale AI successfully – AI-at-scale leaders – achieve significantly higher benefits.<sup>27</sup> This research also shows that 97% of the AI-at-scale leaders have seen quantifiable benefits from their deployments.

This hold true for AI deployments in customer experience also. To better understand this, we did two sets of analyses which try to answer the following questions:

- 1. Sector analysis:** How do sectors stack up against each other in their use case selection and scaling the right use cases?
- 2. Use case analysis:** Which use case to select on the path to adopting AI in customer experience?

We analyzed forty customer-facing AI use cases on two views:

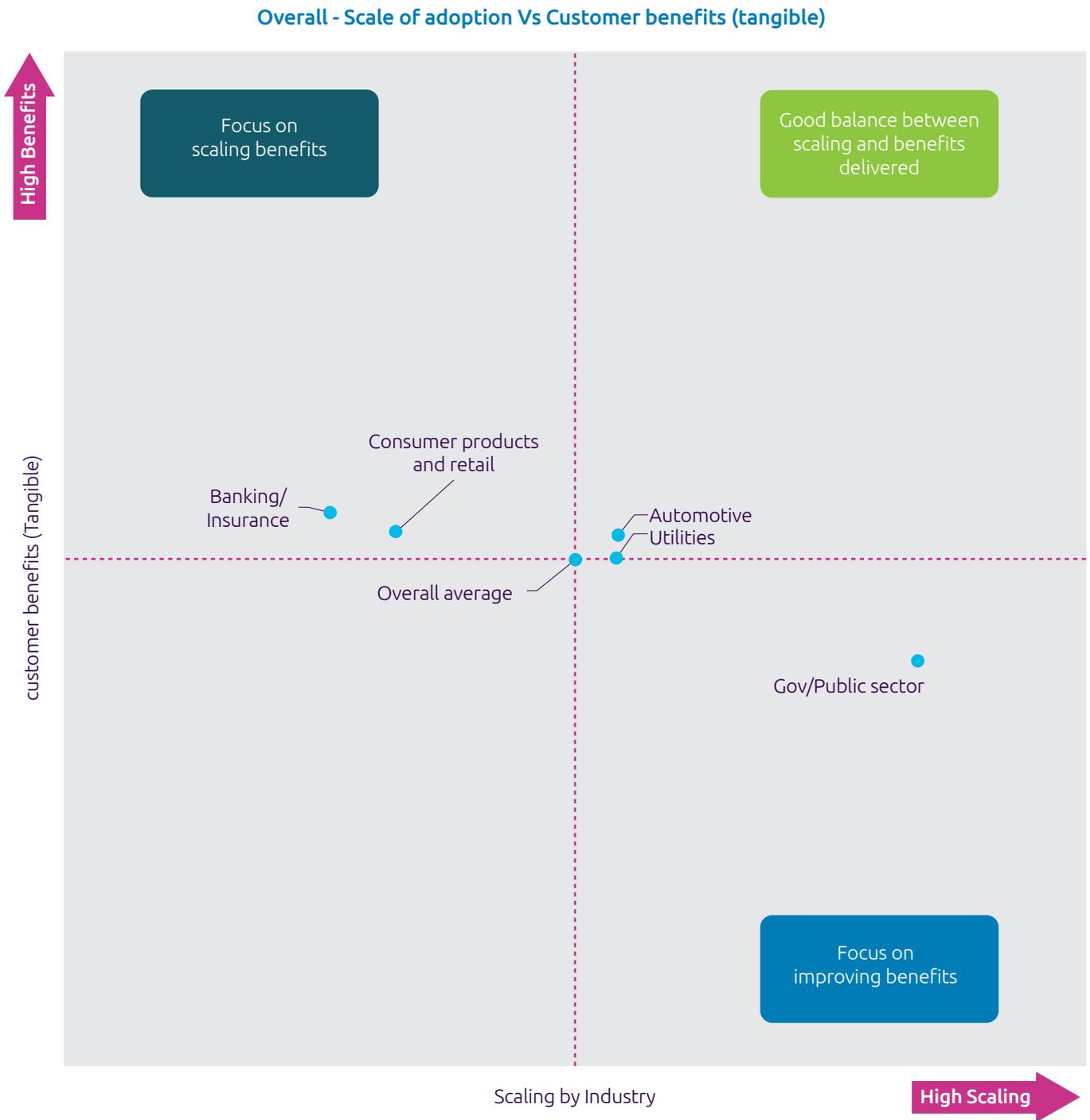
- Benefits view: To what extent a use case delivered tangible benefits to customers – as stated by the customer.
- Scaling view: To what extent they have been deployed at scale (prototyped/regionally scaled/globally scaled). As stated by the representative organizations.

### **Sector analysis: Achieving the AI potential remains a challenge for all sectors**

This analysis shows that many sectors are failing to deploy solutions, at scale, that also deliver significant customer benefits. Our analysis, captured in Figure 13, finds that:

- At a sector level, the automotive and utilities industries are the most successful at delivering use cases at scale that also deliver a high level of benefits.
- Banking/insurance and consumer products/retail industries are good at delivering tangible benefits, but less successful in doing so at full scale.
- The government/public sector are an exception. This sector cannot be appropriately judged on tangible benefits alone as there are many intangible benefits to the use cases in this sector. As an example, the use case of checking the spread of diseases are not driven by delivering monetary benefits or reducing customer response efforts. South Korea, as an example, has been using AI and data systems for contact tracing of COVID-19 patients. Using location history and Bluetooth signals allows the app to pinpoint emerging clusters and inform the public about infection sites or those who came close to infected patients.<sup>28</sup> This application has played a critical role in improving public health and tackling the pandemic in South Korea. As explained by a German customer, *“I like the application Ada, which is a symptom checker based on artificial intelligence for COVID-19. Without access to a physical doctor by phone or being physically present, I can examine a list of symptoms and be advised about my next steps.”*

**Figure 13:** Automotive and utilities lead in scaling use cases that provide high tangible benefits to customers



Source: Capgemini Research Institute analysis.

## Use-case analysis: The key to delivering customer benefits lies in use case selection

The assessment of high-value, high-scale use cases allows us to pinpoint the best ones for adoption. Figure 14 outlines the four clusters of use cases, with those in the sweet spot of high-value/high-scale our “star use cases”:

- 1. Star use cases:** Use cases in this cluster demonstrate the best of both worlds: high tangible benefits and high scaled. Organizations that are starting out on the path to adopting AI for the customer experience should start with these use cases. Organization that have already adopted them need to ensure that they are able to achieve their full potential. Examples would be autonomous parking in the automotive sector and energy consumption analysis in the utilities sector. Twenty percent of all AI use cases in customer experience fall under this quadrant.
- 2. Potential use cases:** These use cases should be the next priority for organizations on the path to scaling AI use cases. These deliver considerable benefits, but they are not yet commonly at scale. These use cases would require further investments and attention. An example for this is cashier-less payment/self-checkout for the retail sector. Thirty percent of all use cases fall in this quadrant.
- 3. Re-evaluate use cases:** The use cases in this cluster, while successfully scaled by many, do not deliver standout customer benefits. These need to be evaluated on a case-by-case basis to ensure that intangible benefits are being delivered or are supporting long-term goals or transformation of the organization. An example is shopping recommendations and personalization. A third of all use cases are in this quadrant.
- 4. Immature use cases:** This cluster of use cases are upcoming use cases and lack maturity. However, they may have considerable potential if scaled. Organizations that have mature AI implementation teams – along with experience in this field – can use these use cases to build first mover advantage. However, these will come with a high-risk/high reward. A good example of this is dynamic pricing and energy storage, which are closely tied with renewable energy deployment for the utilities sector. Organizations that can put in place these backbone AI systems will be able to adopt a large portion of renewable energy within their grids and portfolios. This will deliver considerable long-term advantage to their customers aiming to go green. Eighteen percent of use cases overall are from this quadrant.





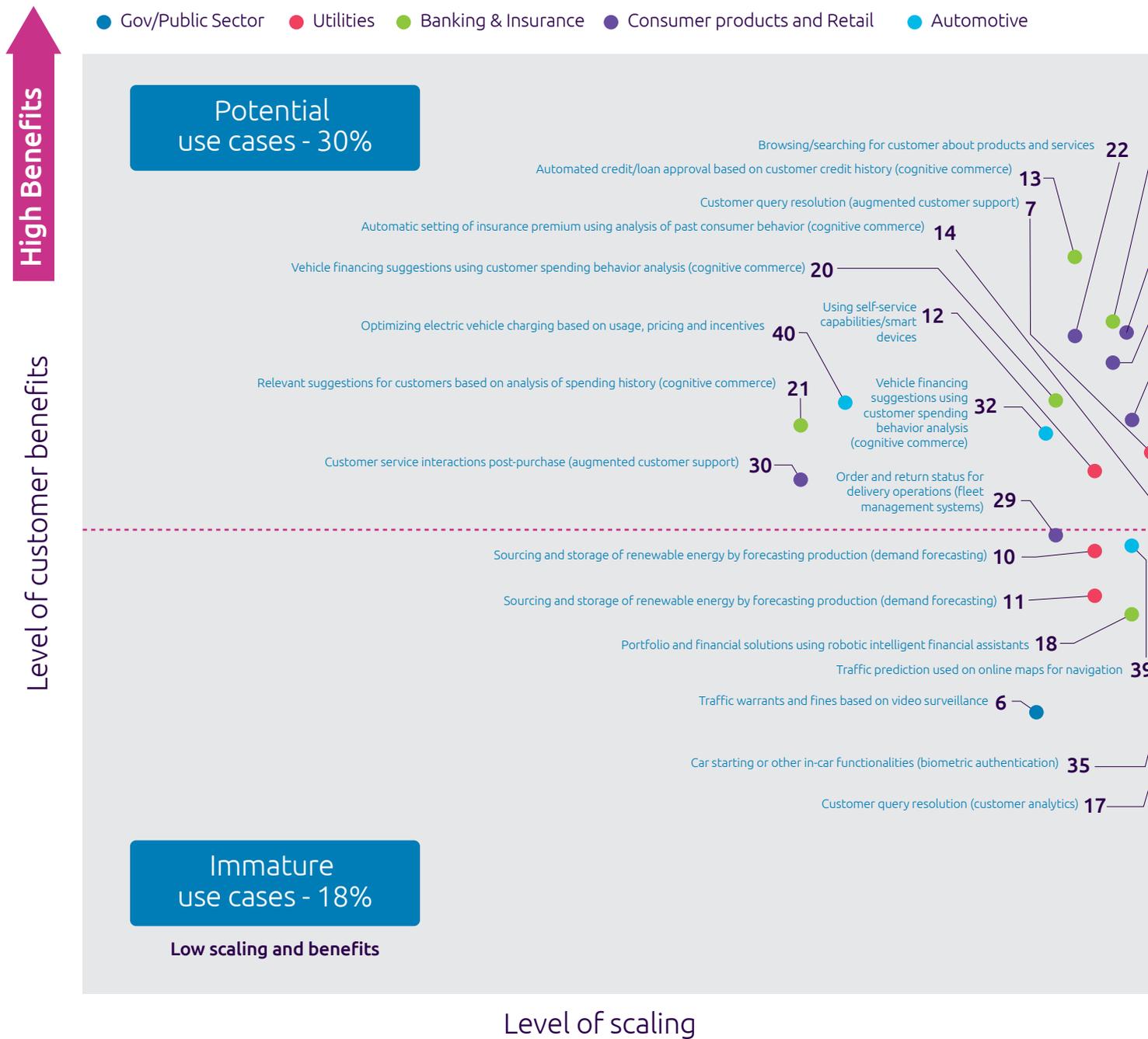
*Customer expectations have evolved to the point where they almost expect for interactions to be AI. So, when you actually put a human in the loop, they are very pleasantly surprised and sometimes shocked. This clearly shows that chatbots/Natural Language Processing/AI is making progress and has evolved.*



**Kelly Anderson,**

Director,  
Data Science and Artificial Intelligence at Procter & Gamble

**Figure 14:** AI use cases for customer experience have a wide amount of scaling and tangible customer benefits delivered



**Source:** Capgemini Research Institute analysis. Check appendix for more information.

Star  
use cases - 20%

- 19 Customer authentication using facial and voice recognition (biometric authentication)
- 31 Loyalty points/rewards system
- 28 Customer payment solution using biometric scanners (biometric authentication)
- 27 Cashier-less payment/self-checkout (contactless payment)
- 23 Delivering guidance for customer related to product information (customer tracking)
- 34 Autonomous parking
- 33 Solving customer queries (augmented customer support)
- 15 Product suggestions based on analysis of a customer's past purchases (cognitive commerce)
- 37 Avoidance of equipment failure/ predictive maintenance (quality prediction)
- 9 Avoiding energy theft and safety (TD loss detection)
- 16 Digital In-branch customer experience (customer tracking)
- 26 Shopping list creation using virtual assistants
- 36 Alerts over fuel levels, battery life and vehicle maintenance (quality prediction)
- 8 Consumption analysis and usage recommendations using historical consumption (cognitive commerce)
- 25 Customer guidance for product location in large stores (customer tracking)
- 24 Personalized marketing, shopping experience and recommendations for customers (cognitive commerce)
- 38 Alerts on safety concerns
- 3 Authentication using facial recognition in public spaces
- 4 Detection and prevention of spread of diseases with location and health monitoring tools (crowd sensing)
- 2 Physical security using computer vision (intelligent surveillances agent)
- 5 Identifying fraudulent or prohibited behavior
- 1 Utilizing social media and crowd sourcing to address citizens' concerns (PR alert systems)

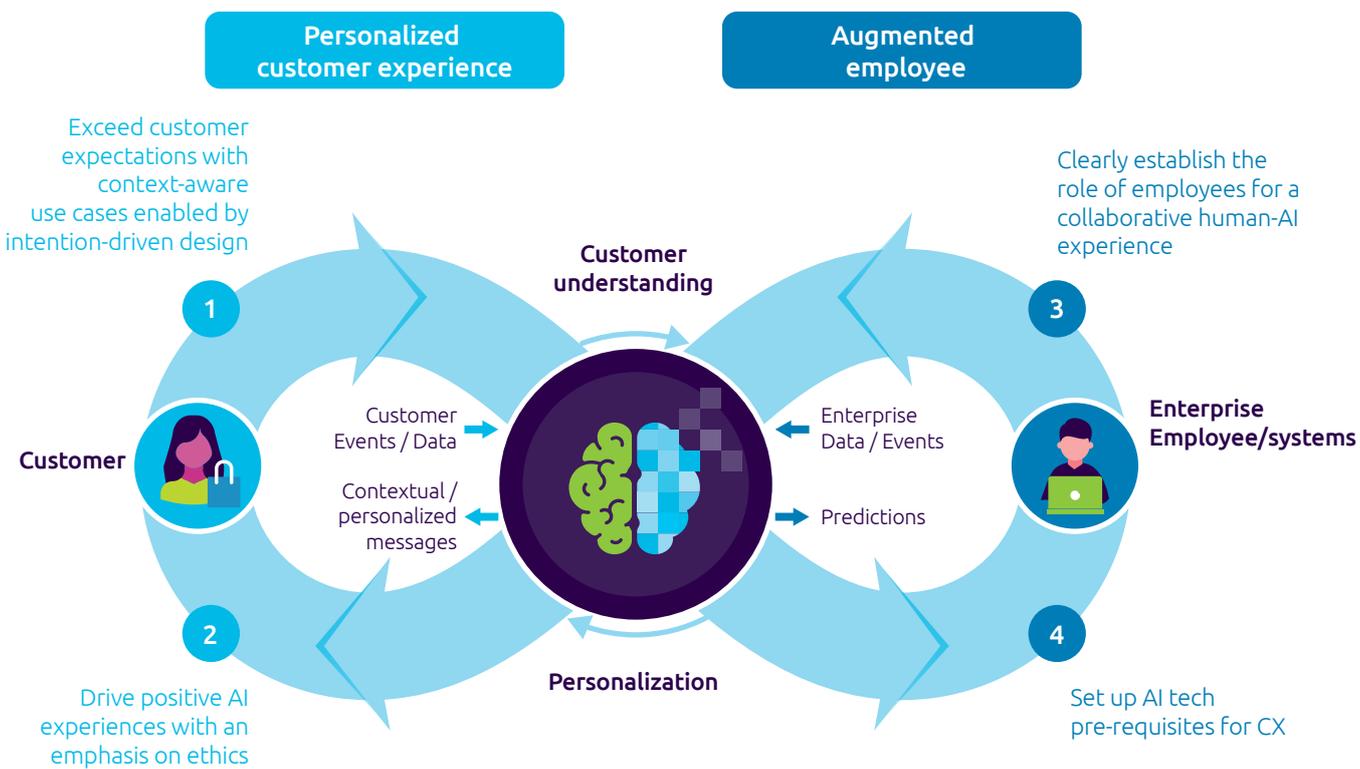
Re-evaluate  
use cases - 33%

High Scaling

# How can organizations unleash the full potential of a humanized AI experience?

Based on this research, and our experience of working on customer-facing AI initiatives in a range of industries, we believe that organizations must take four key steps to unleash the full potential of AI use cases in enhancing the customer experience (see Figure 15).

**Figure 15:** Four key actions to unleash the full potential of humanized AI experience



Source: Capgemini Research Institute analysis.

## Exceed customer expectations with context-aware use cases enabled by intention-driven design

As we saw previously, few customers receive AI experiences that far exceed their expectations. As AI becomes more

pervasive, applications that capture the attention of customers and engage him or her will tend to drive more value. Therefore, to exceed customers' expectations, it will become increasingly important to understand customers' context as best as possible. This is possible by focusing on context-aware use cases that we highlighted earlier. The key to enable true context-awareness lies in anticipating customers' intentions before they express them or register them with the AI system. This is what we call

“intention-driven design” – designing an AI experience that strives to closely predict a customer’s intent using all available sources of data, as customers are ready for these context-driven decisions from AI. For any AI-enabled customer experience use case, this requires:

- **Maximize context understanding:** Bringing in an outside-in perspective to the customer journey to maximize understanding of the customer’s context at every stage of the journey. This step should involve extensive research on customer journeys to capture expectations and establish a business case for the AI use case. This also means understanding if AI engagements help solve customer pain points – for example, AI tech that help drivers autonomously park their car considers several contextual factors – the position of the car, that of other cars/obstacles in vicinity, amount of space available etc. and then precisely navigates into the parking space.
- **Reimagine customer understanding with AI:** A digital-first and standardized customer interaction process with avenues for implementing AI (personalization, recommendations, voice-based interaction among others). This serves as the foundation to “reimagine the process with AI,” rather than just “bolting on AI.” And the COVID-19 crisis offers a radical opportunity to do this, as customers are more willing to engage with AI-driven systems for health and safety reasons – for example, using AI (through AR, voice bots, etc.) to help customers find the location and route to products of their choice in large retail stores, to avoid direct/close interaction with a store employee. Further, as in physical environments, a digital twin of the customer journey can be created to identify the ideal AI-enabled customer journey against which actual customer journeys can be mapped and any deviations risks identified.
- **Unleash the power of data to identify the next step:** Fueling the AI use case with the power of data (insights from customer behavior, demographics, usage patterns, etc.) to anticipate what the customer may want to do next and why. For instance, Amazon’s personalized recommendations and suggestions are based upon detailed individual profile for each customer, collected from varied touchpoints across their platforms<sup>29</sup> (for example, Amazon.com, Prime video, Alexa voice assistant, Amazon Go store visits of each customer). However, not all organizations will have the right amount of data and partnering with third-party data providers can help.

- **Set in customer expectations by making them aware of outcomes:** A key reason for the drop in satisfaction levels can be customers’ high expectations. Organizations need to educate customers on what AI can and cannot deliver in the context around which customers are engaging. Organizations, however, are currently lagging in making customers aware. In 2020, 51% of customers agreed that organizations are not making them aware of how AI can help them – this remaining at the same level since 2018 with 48% of customers agreeing to the same.
- **Blend in empathy:** Building in empathy to handle customers’ complex and exceptional issues and offer other ways of connecting with the organization when AI is not able to sufficiently resolve customer query.

Equally important is to measure feedback. In fact, a large majority of organizations (73%) still follow a basic KPI – the number of customers served by AI interactions. Organizations need to add measurement and feedback management into AI design and development, so that AI systems can deliver their true potential of learning and improving over time. When done right, intention-driven design will give rise to those signature micro-moments in which customers make key decisions and build long-lasting association with a brand or organization



## Drive positive AI experiences with an emphasis on ethics

Our research found that 61% of organizations have attracted legal scrutiny because of data handling procedures for AI tools, and 43% have discovered bias in AI systems where they discriminated against certain demographics.

As organizations scale AI interactions, exposure to ethical risks increases. From previous research we have conducted into ethics in AI, we also found that “pressure to implement AI quickly” – where organizations move too quickly to implement, skipping the due diligence and ethical guardrails – is the top reason for organizations experiencing increased ethical issues related to AI.<sup>30</sup> With rushed deployments of AI amid the COVID-19 crisis, privacy issues are increasingly coming to the fore, and customer concerns are clear if they feel privacy is breached. A US-based focus group participant actually started disconnecting their device after finding that it intruded on their family life in unwanted ways, saying,

“I used to ask the voice assistant in our home to tell bedtime stories to my kids at night. One night – and this is the scariest thing that’s probably ever happened to me with AI – it started telling a bedtime story that was combined with the things that I used to say to them, like ‘go brush your teeth.’ And from that point, I started deleting my conversation history because it just freaked me out. My husband and I started unplugging the assistant when not in use because it’s constantly listening.”

To ensure privacy concerns do not undermine what can be a positive experience, organizations are focusing on ethics and privacy. When Apple and Google started collaborating on a coronavirus contact-tracing app, they tried to make it as privacy-friendly as possible – fully opt-in, using Bluetooth only, and collecting no location data of users.<sup>31</sup> Ensuring that you manage concerns, and deliver a positive AI experience, is critical to positive word of mouth and driving value:

- Half of the customers in our survey said that they always or often told their friends and family about their positive AI experiences.
- Close to half (46%) said they purchased more from organizations where the AI delivered a good experience. And, they were on average spending 14% more than they would otherwise.





*We have prioritised the topic of Digital Trust including security, privacy, ethics, compliance, reliability and explainability, so that we can continue advancing AI and other digital technologies at pace but do so responsibly. We are monitoring the regulations and policies in this area, but recognise that these take time to emerge and that industry needs to take action meantime. We are continually revising our internal processes around risk management, testing and validation, data anonymization etc, and we translate policies into executable instructions and guidelines as they become ready”*



**Lilybeth Go,**  
IT director for artificial intelligence at BP



Action points for organizations include:

- **Build transparency into handling customer data:**

Close to a third of customers (30%) do not feel that the AI systems they interact with give them the freedom to opt-in or opt-out from receiving marketing communication from the company or its AI system. This must be a key part of building transparency into how customer data is collected, analyzed, and used in AI. Additionally, AI must allow customers to withdraw consent and have their data erased if they are not happy with an AI system collecting their personal data. Providing this control is crucial to empowering customers and making them partners in use of AI, rather than just data subjects who need to handover control and ownership over their data to organizations. A US focus group participant adds, “I am okay with my data being collected, because the data is going to be used for my benefit. But I want to make sure that I have full control over the data at any time. And I think many of the regulations globally for customer data are basically going towards that”.

- **Make AI outcomes explainable:**

To earn and sustain customer trust, transparency, and explainability need to be part of the design phase. Customers should be informed about how a decision is reached and the factors considered. For instance, if an AI-based application rejects a loan, the system should explain the critical factors that went into the decision. Procter & Gamble’s Kelly Anderson says, “Customers need reassurance. We need to give them full transparency of what went into building that AI and how their data is being handled. They need to know what we are doing to ensure not just security and privacy, but also any bias. For example, does it work better for one segment of the population versus another? Customers should know that.”

- **Ensure AI outcomes are fair:** Critical steps include:

- **Define what fairness means for the organization:**

Organizations should establish their accepted fairness objectives. Establishing the attributes (ex., gender, zip code/area code) that needs to be fair and free of bias should be agreed upon and built in the AI design. For instance, experiments by Stanford and MIT revealed both skin-type and gender-based biases in facial recognition systems.<sup>32</sup> Likewise, a customer tech firm’s credit card was alleged for gender discrimination shown by their algorithms in assigning credit scores.<sup>33</sup>

- **Test a representative data set:** Test the critical attributes of a solution with a set of end users before it gets deployed. For instance, organizations can check if the AI acts differently for two sets of customers who share the same financial profile, but where there are differences in sensitive attributes such as gender, age

or ethnicity. Matthias Schindler, head of AI Innovation at the BMW Production System, points to the importance of integrating end users when testing for AI bias, “We have a definite setup for testing of bias. We must not only prove mathematically – but also prove in a way that the user will understand – that there is no discrimination in the initial data and in the AI itself. Therefore, whenever possible, we include extensive and diversified data sets for all applications of AI in the production system to train and test the AI.” It is critical for organizations to check their own historic data bases for any inherent bias. For instance, banks and insurers can check if AI is replicating any of their old rating models.

- **Keep the bias in check with technology:** It is imperative for organizations to integrate new tech solutions and control mechanisms to keep AI bias in check. Google’s What-If tool for AI bias, for instance, allows organizations to define their bias thresholds for different variables and explains the outcomes according to different thresholds.<sup>34</sup> Other testing strategies include outsourcing the testing and auditing of AI to an independent agency. A controlled, crowdsourced testing mechanism to simulate the possible outcomes before deploying the solution at large can help as well. Also, it is critical to monitor AI technologies once it is deployed into action to identify any ‘drift’ from the expected outcomes owing to change in nature of data or any new events.

Further as appeal for regulations grow in this space especially around facial recognition technologies, it is critical for organizations to drive an ethical use of AI balancing regulations and positive customer experiences. For instance, the US government issued draft guidelines in January 2020 to promote AI deployments with public trust, public participation and ensuring fairness and non-discrimination in accordance with existing laws and rules<sup>35</sup>. Likewise, the European Union’s guidelines in 2019 were updated in February 2020 to include stricter legal requirements for high-risk use of AI (ex., use of AI in healthcare).<sup>36</sup>



## Clearly define the role of your employees to deliver a collaborative human-AI experience

While many organizations might be looking to drive headcount efficiency through AI's use in the customer journey, it is important to remember that customers still prefer human-only interactions in several areas:

- When purchasing high-involvement products/services (50% prefer human-only)
- For after-sales support for product maintenance (43%), and for providing feedback or making a complaint (42%).

It is therefore important to define which tasks are to be delegated to AI and which ones will fall to humans. It will also be necessary to design a seamless handoff from AI to humans if you want to avoid significant customer frustration when meeting customer needs not for human-only interaction, but a collaborative human-AI experience. Google revealed that its AI service "Duplex" – a voice assistant service that allows customers to book reservations with salons, restaurants, etc. – involved about 25% of the calls which start with a human caller (in a call center), and 15% of the calls that began with the virtual assistant had a human intervention at some point.<sup>37</sup>

We found that 41% prefer a mix of human and AI-based interaction when making a purchase and 39% when using a product/service. These preferences have not changed significantly since 2018, which means that for a large portion of the customer journey – excepting the initial stage of information search and browsing – a human touch is still very essential and will continue to be so.

At the same time, relegating some of the more routine and low-value tasks – such as answering frequently asked questions – gives human workers the opportunity to add more value in sophisticated interactions:

- **Driving trustworthy, high value and high involvement interactions:** For example, when purchasing a car, customers depend on the expertise of the salesperson. That said, AI can augment the capacity of expert frontline workers by offering the right insights at the right time. P&G's Kelly Anderson points to the importance of a balance between human and machine: "What we are still working on is how to have that balance between the machine, which can do 90% of the job, and then having that human in the loop. The human intervention is for the extra touch needed, a super-premium proposition, and for the softer aspects that are required to drive that customer satisfaction."
- **Resolving complex issues with human empathy and emotional intelligence:** Even as AI takes over more tasks, customers still need the reassurance of a human interaction, particularly if the AI is failing to understand what they want or is failing to grasp a nuance that demands human empathy or emotional intelligence. Our survey showed that 38% of customers chose a human interaction following a negative AI experience.

SEB – a major bank in Sweden – uses its AI-powered assistant 'Aida' to serve millions of its customers. In addition to speaking with customers in natural language to resolve their issues, Aida can determine the tone of voice of the customer and use that to provide a better service. When it cannot solve a customer problem, it hands over the conversation to a human agent and tries to learn from the interaction to independently resolve similar issues in future.<sup>38</sup>



*With our chatbots, if a consumer is unsatisfied, we can immediately offer him the option to talk with a real assistant. We have been training our people to deal with customer issues with greater empathy and sensitivity than AI can offer, at least for now."*



**Sebastián Fuenzalida Garcés,**  
Program Manager of Artificial  
Intelligence at Falabella Retail

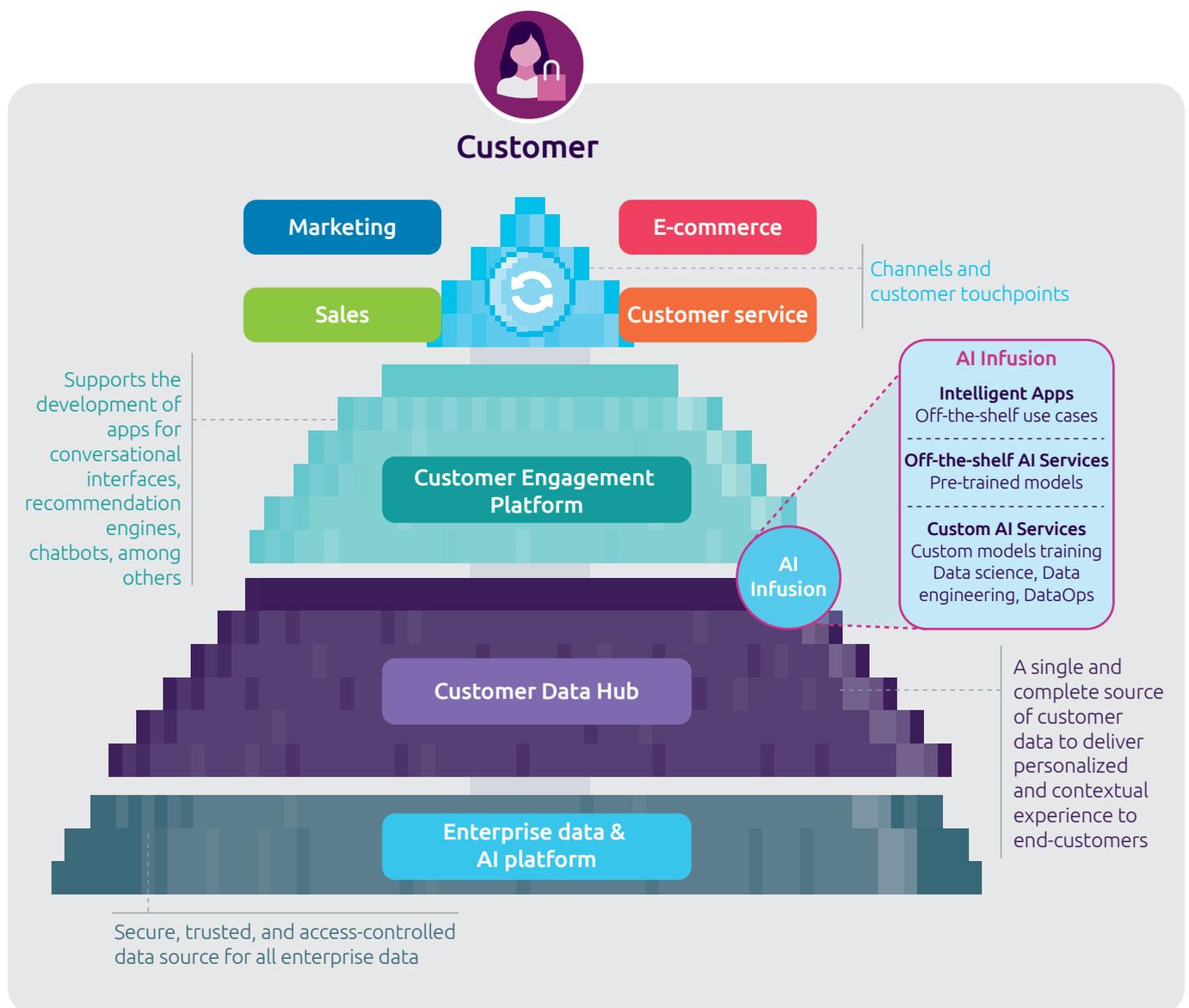
## Set up AI tech prerequisites for customer experience

The framework for setting up technology pre-requisites for AI in customer experience has three key components (see Figure 16):

1. A customer engagement platform
2. Customer data hub
3. AI infusion in the customer engagement platform and data hub.

Procter & Gamble's Kelly Anderson told us, "I think the biggest change in the last two years is the appreciation of data, data management, setting up the right processes and then having the in-house expertise to deliver the AI experience."

**Figure 16:** Technology prerequisites for the AI-powered customer experience



**Source:** Capgemini Research Institute analysis.

- **Design an AI-enabled customer engagement platform that connects to your customer data hub.**

The AI-enabled platform powers a host of touchpoints from marketing to customer services via, for instance, conversational interfaces, recommendation engines in e-commerce apps, and facial recognition systems in banking apps among others.

The Customer Engagement Platform then needs to connect to a state-of-the-art customer data hub. This provides a single-source and unified view of the customer. The hub leverages data from various enterprise data systems, external (e.g. partner) systems, as well as the customer engagement platform. It is entrusted with creating an actionable view of customer data allowing generation of customer insights and next-best propositions. This way, the customer data hub is the engine behind creating personalized and truly contextual experiences for end customers. *“The most crucial thing was, and still is, the connection of all databases – which are typically globally spread – into one data lake,”* says BMW Group’s Matthias Schindler. Data is crucial for taking AI to the next level of deploying intent-driven interactions, and for predicting the next best step for customers. The customer data hub is supported and fed by an enterprise data and AI platform that acts as a secure, trusted, and access-controlled source of all enterprise data.

- **Infuse AI into the customer platform and data hubs:**

AI infusion into the customer platform and customer data hub involves plug-and-play tools and technology for:

- **Intelligent apps:** Off-the-shelf AI-powered customer experience use cases e.g. chatbots, voice apps that allow organizations to simply plug them into enterprise systems and quickly bring these services to market with little customization.
- **Off-the-shelf AI services:** Containing standardized AI models already trained on live customer data from speech, vision, next best action, empathy etc. – for example, models that can uniquely authenticate users using their speech/face. Once deployed, these models can be trained on data from customer data hub and readied for developing.
- **Custom AI services:** Including tools for data science, data engineering, and DataOps among others. These are customized tools which helps organizations’ do quick experimentation and test-and-learn for new AI services, perform advanced data analysis, and help scale these analyses to cloud.

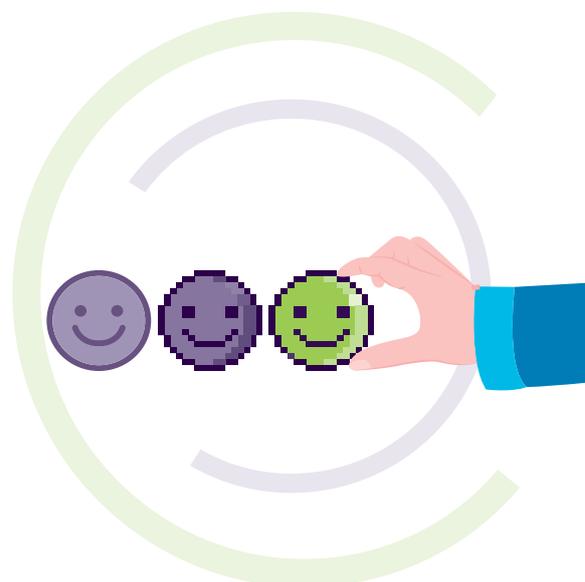
Beyond the technology prerequisites, as we indicated in our recently released research report on “AI powered enterprises,”<sup>39</sup> a well-balanced governance framework with the right talent and collaboration is essential to operationalize AI.



*The fact that we have one digital platform that is deployed all over the world is really helpful. If you really want to take advantage of the results and the benefits of AI, you cannot afford to have silos everywhere, with different platforms in different regions.”*



**Eric Chaniot,**  
Chief Digital Officer at Michelin



# Conclusion

Using AI in customer-facing interactions is an ideal response to the changes that the COVID-19 crisis has created in customer behavior. However, making the most of this opportunity requires organizations to make some bold bets. You will only transform your customer satisfaction performance if you deliver an AI experience that delights customers beyond their expectations. You will need to humanize the AI experience if you are to meet customers continued demands for human interactions in certain stages of the journey. Especially, a successful AI engagement emerges when you select use cases that prove to be relevant to the customer, understand the context in which the customer is engaging and drive an intent-driven AI interaction. This requires carefully selecting and scaling use cases that deliver tangible value to customers. And, finally, you will need to lay down strong ethical foundations – including transparency, fairness, and data privacy – if you are to earn their lasting trust and loyalty. A workmanlike response will be enough – only bold strategies that really raise the customer experience bar will deliver a transformative impact on customer engagement, loyalty, and long-term value.

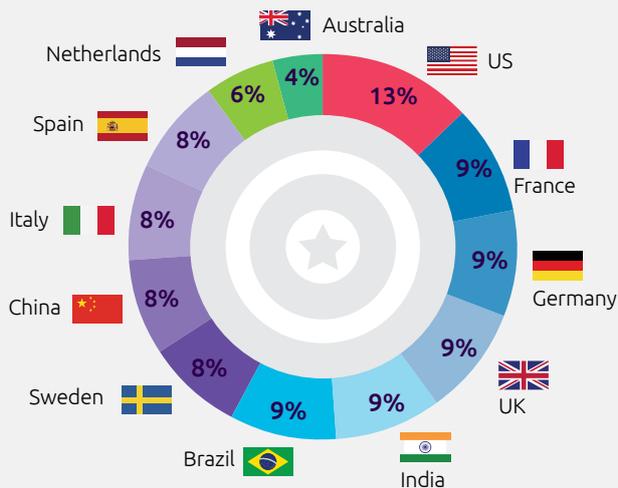
# Research Methodology

## Primary surveys

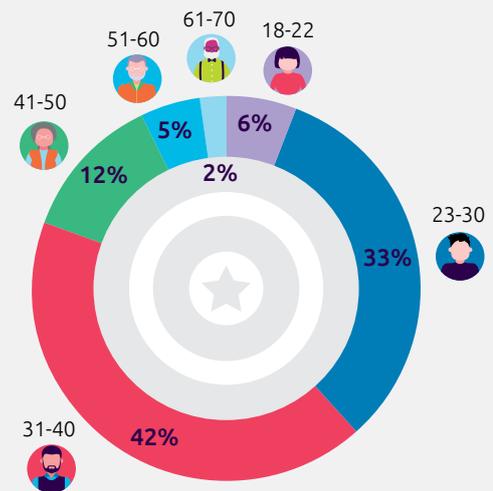
### Customer Survey:

In April and May 2020, we surveyed 5,300 customers across 12 countries.

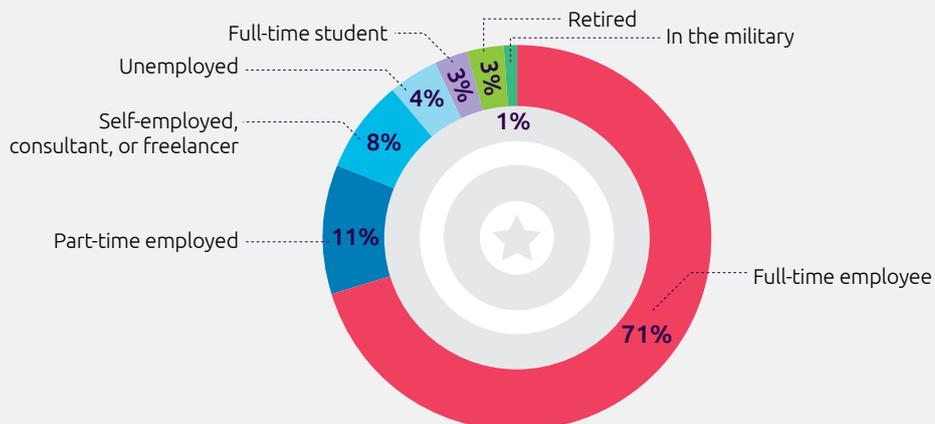
#### Customers by country



#### Customers by age



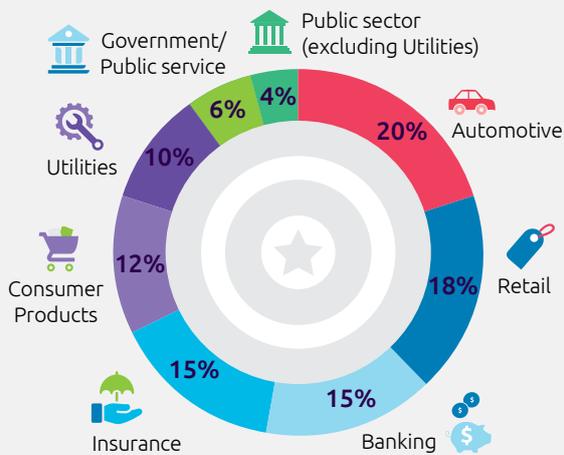
#### customer's by employment status



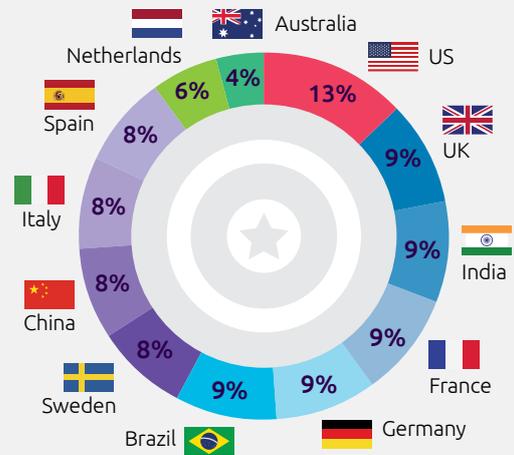
**Executive survey:**

We surveyed 1,060 business leaders from large organizations with at least \$1 billion in 2019 annual revenue across a range of sectors and countries.

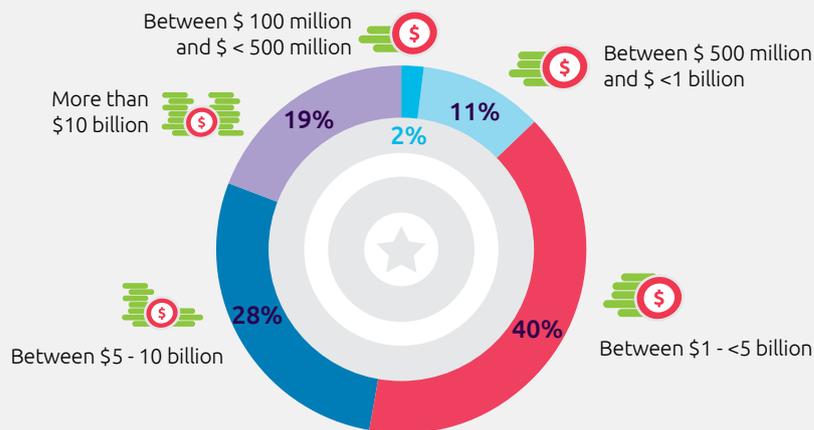
**Executives by sectors**



**Executives by country**



**Executives by organisations' revenue**



**In-depth interviews:**

We also conducted interviews with industry executives examining how the customer experiences with AI in CX have evolved, what organizations are doing to get more benefits, where they are implementing AI in CX, what the challenges are and how they are ensuring trust among consumers with respect to their AI systems.

**Focus group discussions:**

The quantitative research was complemented with two virtual focus group discussions, with eight to ten consumers per focus group, for Germany, and the US. The survey, as well as the focus group discussions, had a healthy mix of demographics and AI user and non-user respondents.

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# Appendix

## Customer-facing use cases across industries

Sector	Use case	Legend
 Gov/ public sector	Utilizing social media and crowd sourcing to address citizens' concerns (PR alert systems)	1
	Physical security using computer vision (intelligent surveillances agent)	2
	Authentication using facial recognition in public spaces	3
	Detection and prevention of spread of diseases with location and health monitoring tools (crowd sensing)	4
	Identifying fraudulent or prohibited behavior	5
	Traffic warrants and fines based on video surveillance	6
 Utilities	Customer query resolution (augmented customer support)	7
	Consumption analysis and usage recommendations using historical consumption (cognitive commerce)	8
	Avoiding energy theft and safety (TD loss detection)	9
	Variable pricing to reduce peak loads (demand forecasting)	10
	Sourcing and storage of renewable energy by forecasting production (demand forecasting)	11
	Using self-service capabilities/smart devices	12
 Banking and insurance	Automated credit/loan approval based on customer credit history (cognitive commerce)	13
	Automatic setting of insurance premium using analysis of past customer behavior (cognitive commerce)	14
	Product suggestions based on analysis of a customer's past purchases (cognitive commerce)	15
	Digital In-branch customer experience (customer tracking)	16
	Customer query resolution (customer analytics)	17
	Portfolio and financial solutions using robotic intelligent financial assistants	18
	Customer authentication using facial and voice recognition (biometric authentication)	19
	Detection of fraudulent transactions	20
	Relevant suggestions for customers based on analysis of spending history (cognitive commerce)	21



Sector	Use case	Legend
 <b>Consumer products / retail</b>	Browsing/searching for customers about products and services	22
	Delivering guidance for customers related to product information (customer tracking)	23
	Personalized marketing, shopping experience and recommendations for customers (cognitive commerce)	24
	Customer guidance for product location in large stores (customer tracking)	25
	Shopping list creation using virtual assistants	26
	Cashier-less payment/self-checkout (contactless payment)	27
	Customer payment solution using biometric scanners (biometric authentication)	28
	Order and return status for delivery operations (fleet management systems)	29
	Customer service interactions post-purchase (augmented customer support)	30
Loyalty points/rewards system	31	
 <b>Automotive</b>	Vehicle financing suggestions using customer spending behavior analysis (cognitive commerce)	32
	Solving customer queries (augmented customer support)	33
	Autonomous parking	34
	Car starting or other in-car functionalities (biometric authentication)	35
	Alerts over fuel levels, battery life and vehicle maintenance (quality prediction)	36
	Avoidance of equipment failure/ predictive maintenance (quality prediction)	37
	Alerts on safety concerns	38
	Traffic prediction used on online maps for navigation	39
Optimizing electric vehicle charging based on usage, pricing and incentives	40	

 Immature use cases

 Star use cases

 Potential star use cases

 Re-evaluate use cases

Source: Capgemini Research Institute analysis.

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## Capgemini Perform AI: AI for Customer Experience

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AI is a powerful tool to reach, understand and connect with the customer, in a more humanized way. Brands exist in the experiences they enable. It's how they differentiate from competitors and connect with consumers. Applying AI to the customer experience (CX) makes every interaction a more human experience – one that customers love, trust, and come back too. AI allows brands to behave more like people. They can express empathy, apply humor, show understanding and respect. Those that do will thrive.

While AI is humanizing users' experience, it also allows enterprises to scale up employee connection and customer engagement. On one side, AI simplifies and personalizes user experience with natural language-based "conversations" that will progressively become the vehicle of choice for connecting individual consumers with brands. On the other, AI relieves employees from repetitive tasks (automation) and feeds them with predictions /recommendations (augmentation) for a better focus on judgement / decision when engaging and serving customers, at scale. It's time to exploit the real-world power of Artificial Intelligence in Customer Experience.

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## Experiment with new technology and architecture focus

- Evaluate AI technologies and their applications for CX, understand their potential and limits.
- Experiment with use cases for CX by applying AI Technology, Platforms, Tools and Solutions.
- Enable organizations to continuously experiment and apply AI to CX.

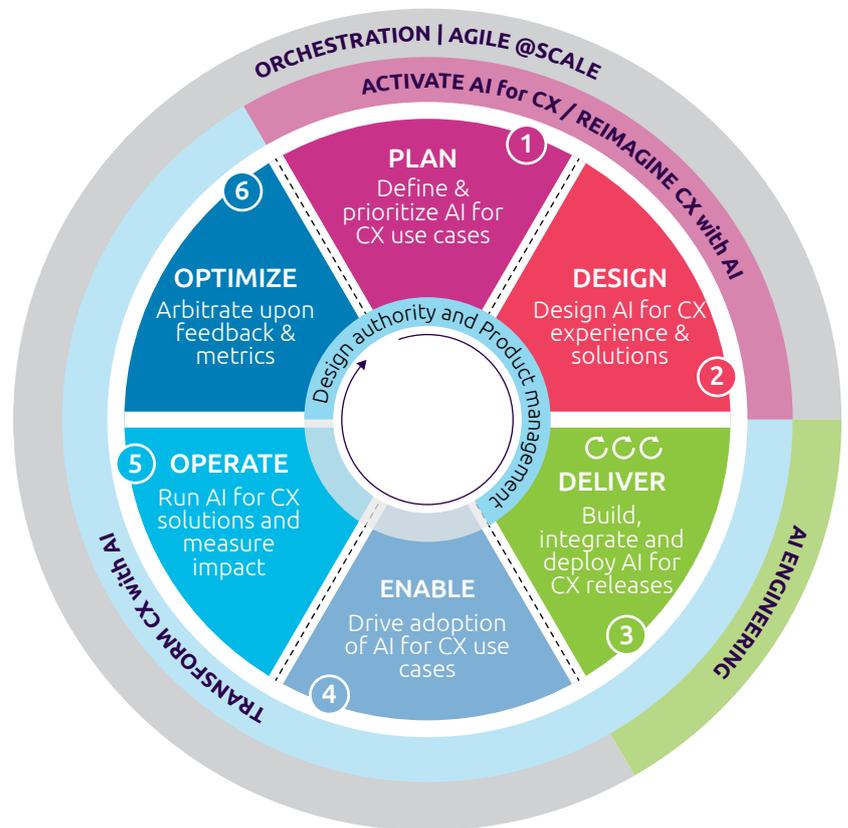
## Transform towards conversational customer experiences

- Amplify existing user experiences with natural language (Voice, text) and vision.
- Implement predictive solutions for next-best-action and connect with user experience.
- Deliver and connect the customer data architecture that enables CX platform to learn and predict.

## Empower clients to deliver new customer centric business models

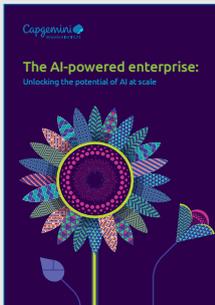
- Design and deliver AI-first CX platforms at scale to support newer business models.
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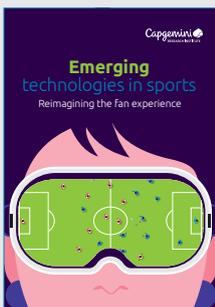
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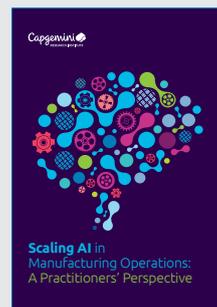
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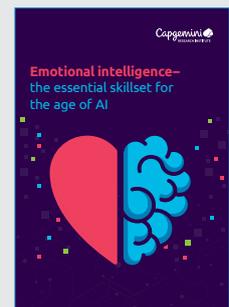
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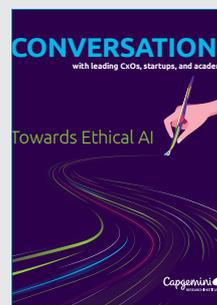
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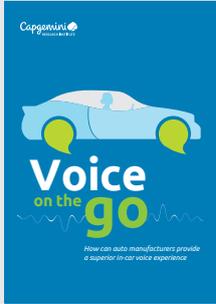
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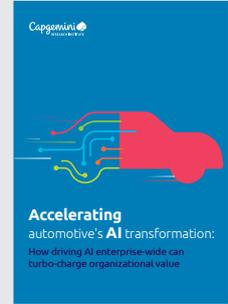
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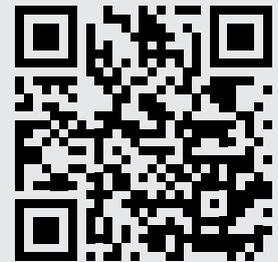
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