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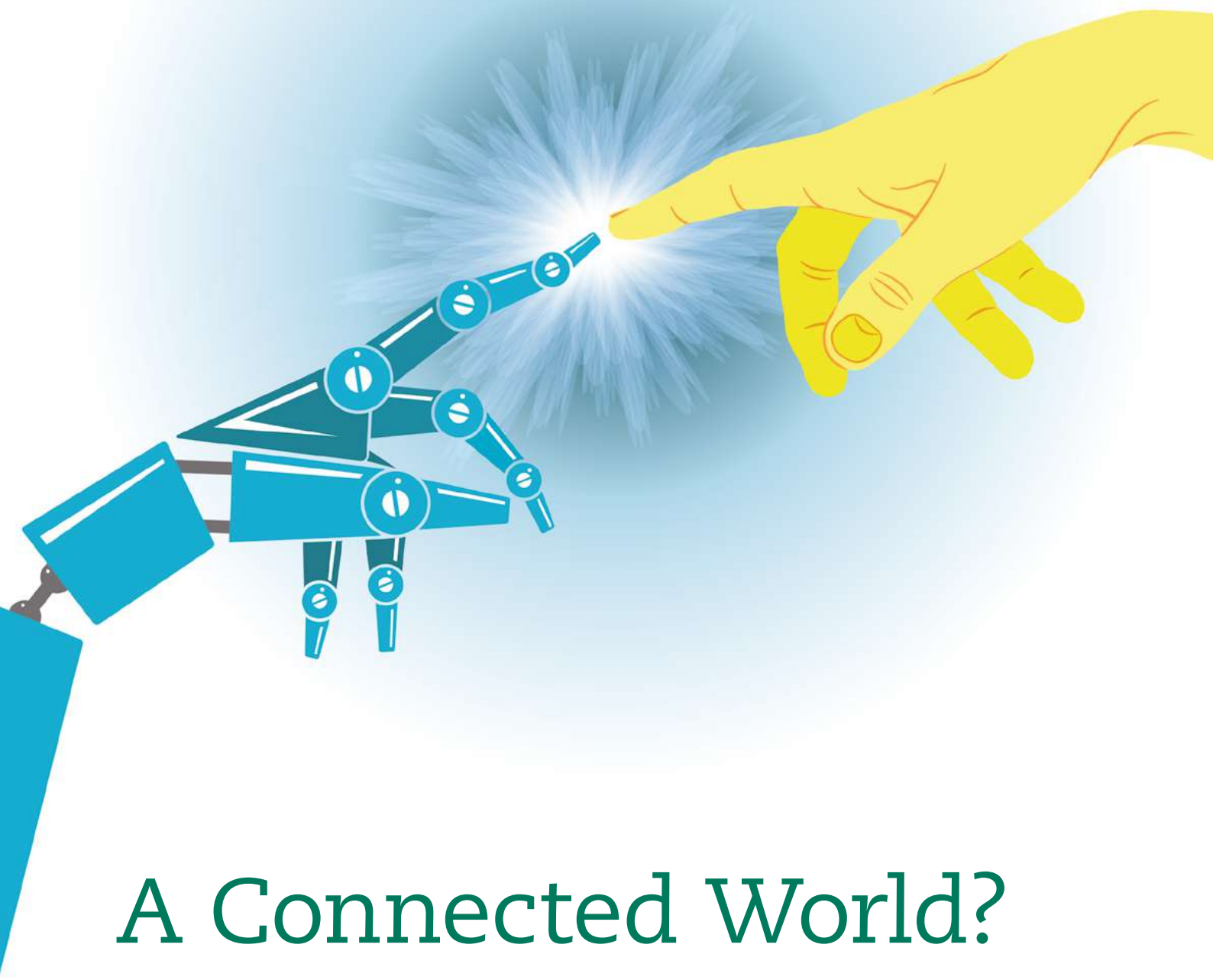


A Connected World?

Ensuring the right blend of people and technology for customer service

Foreword

Joanna Causon Chief Executive

In this research, we've examined how organisations are deploying technology in a customer service context and customers' attitudes about using technology in their relationships with organisations. I believe that the research shows us that the key to achieving superior customer satisfaction and business performance is finding the appropriate blend of technology and people to combine efficiency, speed, genuine care, empathy and responsiveness to personal circumstances. But technology alone is not a panacea that will enable organisations to reduce costs while improving business performance and customer satisfaction. Sometimes there is a risk of overestimating the capacity of technology to replace or replicate human intervention.

Organisations that have implemented technology successfully have taken a holistic view, considering user cases for both customers and employees; wider impact on the end to end customer experience; risks and mitigation, ongoing cost, resource and skills requirements; and implications for systems, scalability and security. They have also understood the boundaries, limitations and impact for groups of individuals who may be vulnerable, or digitally excluded, and are aware that these are not always the same group.

Many large organisations are achieving significant benefits in using technology to improve workflow processes, analytics to enable better decision-making and integration of data. Some of the most impactful applications relate to empowering employees to deliver better service experiences. These include real-time prompts based on analytics of similar customer interactions, increased visibility of relevant data and knowledge, and analysis of interactions with customers to identify training needs. One of the most striking examples of employees and technology combining to deliver service is the role of customer service advisers as "digital coaches", helping customers to use digital channels, stepping in where customers are experiencing a problem and providing reassurance. By working directly with the customer, these employees help customers improve their confidence, knowledge and capabilities.

Managing customer contacts through digital and voice channels is fundamental to organisations' deployment of technology because it has a direct impact on customer satisfaction and the expansion of inbound contact channels requires organisations to decide how they resource and prioritise different channels. Technology can enable rapid access to information, advice, new ideas and opportunities and it's clear that customers enjoy the speed and convenience of using an app to get information and services.

Many large consumer facing organisations are positioning digital channels as the primary method of contact, often underpinned by structured chatbot or online interactions using artificial intelligence. The motivation for this approach is to achieve a "win-win" of commercial and customer experience objectives by reducing the number of failed customer contacts, improving speed and accuracy and concentrating employee resource on complex issues. However, our research with customers suggests that interactions with chatbots can be amongst the least satisfying and most annoying experiences with organisations. Successful deployment of chatbots therefore requires excellent design and structuring of customer journeys, continual testing, transparency about use of an artificial intelligence enabled agent and quickly enabling human intervention when it is needed. But we should recognise that in practice, AI capabilities are often nowhere near as advanced as we might like: there is a need to think hard about how we use AI to build genuinely better experiences!

Personal context and circumstances are crucial in customers' experiences with organisations. As customers, we want service that recognises our individual needs, priorities and circumstances. But often, technology and data are just not sufficiently joined up to deliver meaningful and satisfying levels of personalisation. Personalised service is almost always better when given by a person. Our research reinforces the view that technology cannot adequately replace human contact in the context of issues of high personal importance that require sensitivity, discretion and judgement. As financial pressures grow, there is likely to be an increased need for personal advice, empathy and reassurance. Organisations may need to plan how they resource for more, not less, customer contact.

It's clear too that many customers are uncomfortable about how personal data might be used by organisations. While most people are receptive to technology being used to make it easier to use products and services, access information, enhance physical security or prevent fraud, significant numbers of customers are circumspect about technology and data being used in the context of personally sensitive issues. I found it particularly interesting that several organisations have set up mechanisms, that include an independent perspective, to review the ethical implications of technology and data deployments.

As organisations seek to exploit technology to differentiate their customer experience and improve efficiency, there is a risk that some customers may be disadvantaged or disempowered in their relationships with organisations. Vulnerable customers may be at risk of digital exclusion if they have a physical or mental disability that makes it difficult to contact organisations through digital channels; or lack skills or confidence in using technology; or cannot afford to pay for mobile or computer equipment or broadband services. Our research also found examples of consumers who are not vulnerable but might be regarded as "digitally disengaged": they either don't have access to digital technologies at home or only use them with help from a friend or relative. Often, these customers have never or rarely used computers or smartphones in their job. Organisations – especially those that provide essential services – therefore need to consider how they will enable communication both with vulnerable customers who have challenges in using technology and customers who prefer not to engage through digital channels.

Our research concludes by identifying 10 key enablers of technology implementation to generate customer satisfaction and commercial benefits. I want to highlight in particular the importance of clarity of objectives, quality of customer experience design, a holistic assessment of the potential impact of deployment across the breadth of the customer experience for the full range of an organisation's customers, and a proper consideration of ethical implications. It is perhaps telling that from the customers' perspective, the most important factors organisations should consider when deploying technology are the option to speak to a person, the availability of customer support and the needs of vulnerable customers.

I hope that this research provides you with practical insight and recommendations and will help you implement the optimum blend of people, technology and data to deliver better customer experiences and business performance. As always, I welcome any feedback or views. I truly believe that over the next 12 months, we will all need to work together to ensure we support our employees and customers through one of the most challenging periods in living memory.

Contents

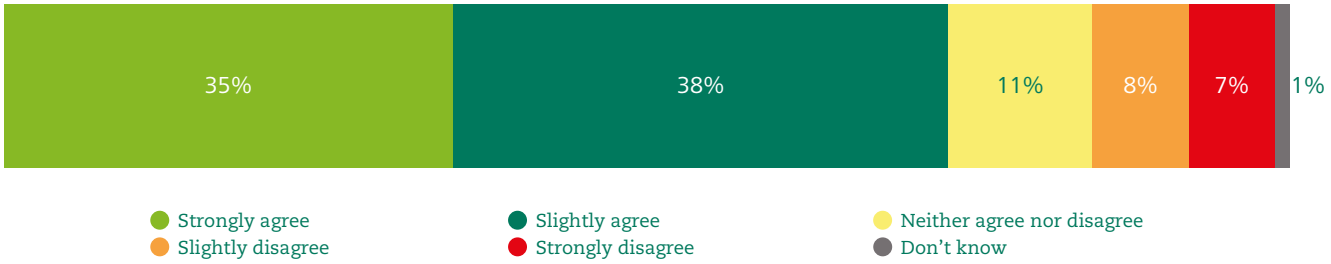
Executive Summary

This research investigates how technologies and applications are impacting or could impact customer service. We examine customer perspectives on potential applications to improve service, the risk of digital exclusion and how organisations should address it. The research looks at how organisations are combining human and technology-based experiences in the context of customer service. We conclude by highlighting the key enablers to deploy technology and achieve business performance and customer service objectives.

The research is based on the perspectives of over 1,000 consumers, 20 senior executives working in large organisations or companies that provide technology solutions, and 316 managers and employees from a broad range of sectors and size of organisation.

73% of consumers see themselves as confident users of technology, whereas 15% lack confidence

To what extent do you agree that you are confident using technology?



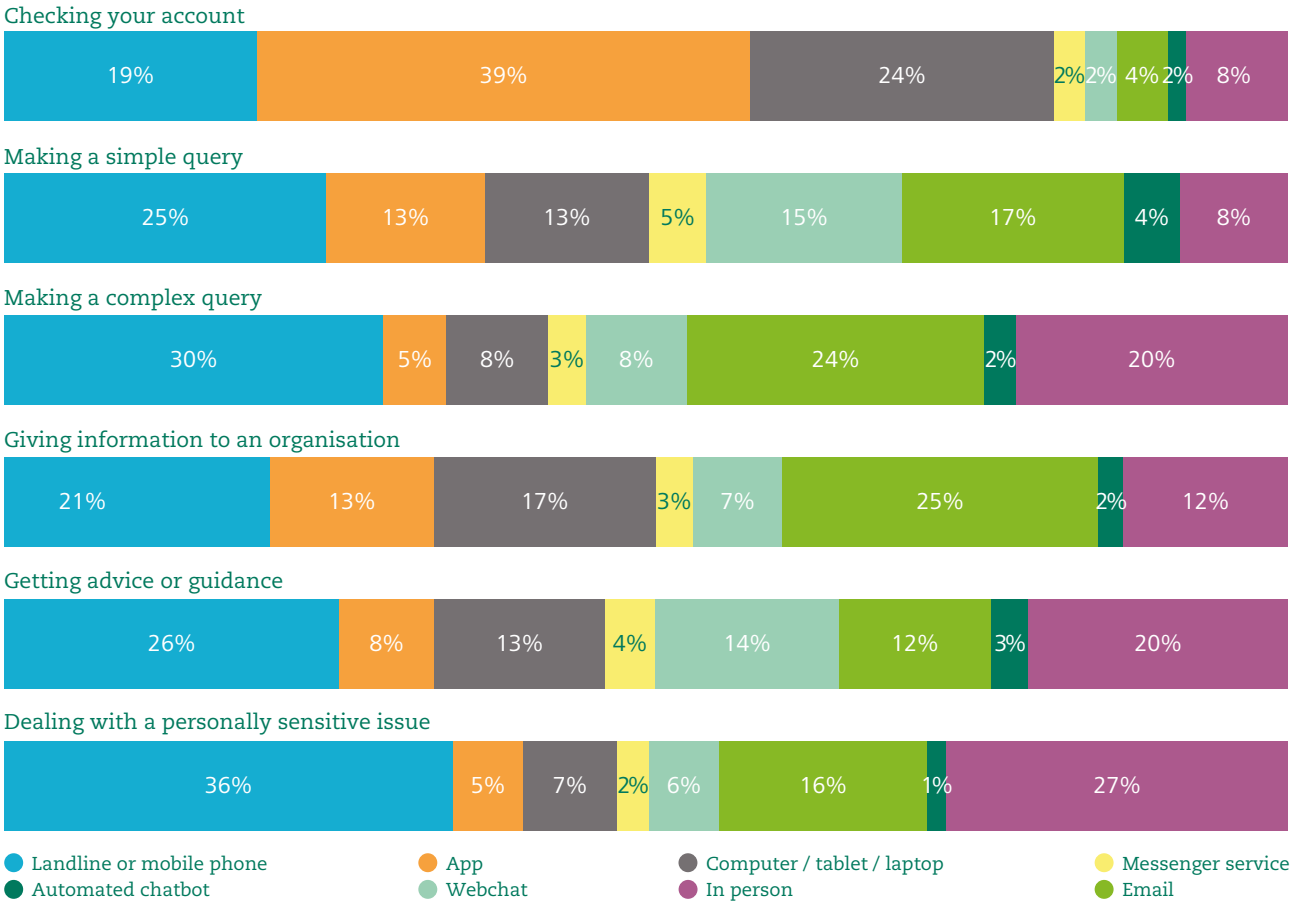
Given that respondents completed an online survey which is unlikely to reflect the views of people who seldom or never use the internet, the number of customers who lack confidence in using technology is probably even higher.

The range of channels customers use to contact organisations has expanded. Use of apps is widespread. Chatbot experiences are more likely than experiences in other channels to cause annoyance

41% of customers we surveyed have used at least 6 apps in the last 6 months, with banking, social media, shopping and groceries the most popular types. Key benefits include fast access to personal account information, the ability to change or upgrade services, receive timely service updates, or to contact the organisation directly from the app. But more than half of customers indicated that they have experienced a problem using an app, with app design, the availability of support and an app freezing the most common issues.

The range of channels customers use to contact organisations has expanded and there is a diversity in channel preferences depending on the situation or type of contact. Phone is the most frequently preferred channel for dealing with a personally sensitive issue, getting advice or guidance or making a query. An app is the most popular channel for checking a customer account. Email is often preferred when giving information to an organisation. Artificial intelligence-enabled chatbots are more likely than experiences in other channels to cause annoyance.

How would you prefer to interact with a large organisation?



Customers welcome practical applications of technology to improve service but views are polarised about the use of artificial intelligence and data in the context of highly personal or sensitive experiences

Potential technology applications seen as interesting or beneficial by many customers

- Trustworthy online reviews
- Better search functionality on organisations' websites
- Video services to help install or repair products
- Wider availability of sites to collect or return products
- Banks preventing payment if they believe there is a risk of fraud
- Technology that automatically switches a customer to the cheapest energy supplier
- Apps that display products available in local stores
- Artificial intelligence virtual assistants that combat online fraud, give reminders about personal appointments, provide security alerts or monitor domestic appliances

Applications of technology and data which attract a polarisation of views

- Analysing phone calls or messages with staff to improve service
- Analytics to assess customers' emotional state
- Organisations accessing and storing personal data
- Sharing body or face characteristics with an artificial intelligence agent in return for personalised recommendations
- Using stores where there are no employees or checkouts
- Receiving in-store service from avatars or robots
- Artificial intelligence virtual assistants that provide personal data to an organisation or predict individual needs

4 main factors contribute to the risk of digital exclusion

Difficulty in using technology because of an impairment, disability or health condition

Lack of skills or confidence to use technology

Lack of financial resources

For a relatively small number of customers, gaps in mobile or broadband coverage

Our research also found examples of consumers who are not vulnerable but might be regarded as "digitally disengaged": they either don't have access to digital technologies at home or only use them with help from a friend or relative. Often, these customers have never or rarely used computers or smartphones in their job.

23% of consumers say they currently help a friend or family member to deal with an organisation online or digitally and an additional 32% have done so in the past. The main reasons that some customers need help to deal with organisations online is because they don't understand the process / interaction or are unable to use digital technology.

Organisations have a key role in reducing the risk of digital exclusion

Many large organisations are undertaking a wide range of activities to support vulnerable customers and reduce the risk of digital exclusion

- Design and testing of customer experiencer journeys, explicitly taking into the account the needs of vulnerable people and customers who have limited access to digital technologies
- Maintaining a range of channel options including contact centre operations and where relevant a physical branch / office presence
- Training and developing employees to assist or coach customers who have limited digital skills
- Developing specialist knowledge and expertise to support vulnerable customers
- Identifying customers who are at risk of vulnerability or exclusion
- Working with specialist third parties to improve customer service for vulnerable people
- Authorisation for third parties to act on behalf of a customer
- Digital outreach programmes to increase the skills and confidence of people at risk of digital exclusion

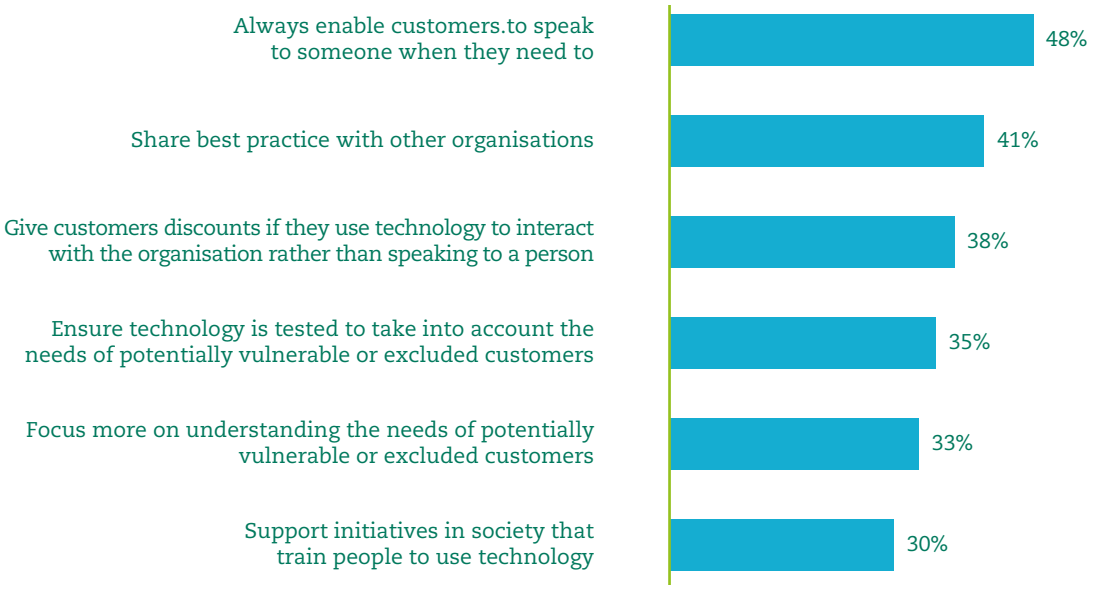
However, our research with a sample of managers and employees working in a broad range of B2C organisations suggests that practice to reduce the risk of digital exclusion may be variable.

57% of respondents say their organisation ensures technology is tested to take into account the needs of potentially vulnerable or excluded customers

46% share best practice with other organisations.

From the perspective of customers, the most important thing organisations should do to reduce digital exclusion is always enable customers to speak to a person when it is needed

What should organisation do to avoid digital exclusion?



5 key areas in which technology is important in the context of customer service

Workflow applications

CRM and data integration

Analytics to improve performance and decision-making

Retail: workflow, analytics and in-store experiences

Managing customer contacts through digital and voice channels

Voice
Website
Apps
Email
Webchat / livechat
Messaging
Text
Social Media

Many significant deployments of technology to improve customer service have focused on workflow processes, some of which are not directly visible to customers. This activity is often concerned with automating or speeding up processes or information flows to give increased speed, accuracy or scalability.

Effective collection, storage, integration and access to data is essential to consistency of customer service across channels, measurement and analytics, building internal knowledge and enabling use of artificial intelligence in customer contact. As a result, many organisations have focused on developing and integrating their systems, processes and capabilities in customer relationship management and data.

Many large organisations with high volumes of transactions position digital channels as the primary method of contact, supported by employee intervention when needed

Managing customer contacts through digital and voice channels is fundamental to organisations' deployment of technology because it has a direct impact on customer satisfaction and the expansion of inbound contact channels requires organisations to decide how they resource and prioritise different channels.

Organisations are seeking a "win-win" of commercial and customer experience benefits by reducing the number of failed customer contacts, improving speed and accuracy and concentrating employee resource on complex, sensitive or high value issues. Often, this is underpinned by structured chatbot or online interactions using artificial intelligence.

There is an acknowledgment that chatbots cannot replicate the personal understanding or reassurance given by a skilled employee. Effective deployment of artificial intelligence in customer contact therefore requires:

- Quality of customer journey mapping and decision trees
- Continuous testing and learning to improve the efficacy of chatbots and inform when they should be used
- Options to use free text, rather than just pre-selected options which may not fit with the customer's situation
- Quickly identifying where a customer needs expert help, or an experience is not working and enabling a customer to speak to an employee

There is a growing trend for asynchronous messaging though channels such as WhatsApp or Facebook Messenger to overcome some of the limitations of chatbots and provide a flexible, efficient way for organisations and their customers to communicate.

Experiences with employees create service differentiation

In a context where simple or routine queries are often handled through digital or automated channels, direct interactions between customers and employees are increasingly concerned with complex issues or problems. When these interactions are handled successfully, they create memorable, differentiated customer experiences. Organisations are deploying a range of technology applications to equip employees to give better customer experiences.

Technology applications that equip employees to give better customer experiences

- Prompts to advisors about next best action or options
- Increased visibility of relevant data and knowledge
- Analysis of interactions with customers to identify coaching and training needs
- Measuring levels of stress or emotion in customer / employee interactions
- Personal customer satisfaction or net promoter scores
- Analysing phone calls or messages with staff to improve service

Direct intervention by employees is especially important in these contexts

- Complex issues that require investigation, discretion and judgement
- Issues of high personal importance where there is a heightened need for empathy and reassurance
- Dealing with customers or are unable to make effective use of technology because of a disability or impairment, lack of skills or confidence, or lack of financial resources
- In some cases, employees have a key role as "digital coaches", helping customers to use digital channels, building confidence and providing reassurance

Technologies and applications that will be important to customer service in the next 2 – 3 years

Existing investments in technology that will receive increased focus

- Self-service, for a wider range of queries
- Identify validation and authentication
- Continued importance of voice, through contact centres and to complement AI-enabled chatbots
- Giving customer service advisors greater transparency of customer data and the organisation's knowledge resources
- Greater flexibility and more features in apps
- Video analytics to monitor retail workflow and reduce shrinkage
- Wider deployment of automation of processes
- Next best activity prompts to give greater options for personalisation
- More proactive customer contact, especially about disruption or delay to services
- Continued growth in asynchronous chat through messaging services
- Geolocation services
- Payment services and processes

New developments

Augmented reality

- Helping customers set up or diagnose problems with complex or technical products and services
- Enhancing customers' experience of trying out clothes or beauty products
- Providing demonstrations of new products or services, leisure facilities or tourist destinations

Internet of Things

- Monitoring home and domestic appliances to support vulnerable or elderly people to live independently
- Monitoring physical assets and infrastructure
- Wearable technologies that allow people to better understand their own health or allow an approved medical practitioner to remotely monitor their health
- Assessing health and safety of employees working in hazardous conditions

Key enablers of technology deployment to achieve customer satisfaction and business performance objectives

The key to achieving superior customer satisfaction and business performance is finding the appropriate blend of technology and people to combine efficiency, speed, genuine care, empathy and responsiveness to personal circumstances. We have identified 10 key enablers of technology implementation to generate customer satisfaction and commercial benefits.

Objectives and methodology

Objectives

1. Which technologies and applications will be most important for customer experience?
2. What should organisations do to reduce the risk of digital exclusion?
3. How best to achieve optimum blend of human and technology-based experiences?
4. When is use of technology in a customer experience context excessive: from an AI, data, or personalisation perspective, what is "off limits" either for customers or organisations?
5. What is required to implement technologies successfully and achieve business performance objectives and improve customer service?

Methodology

20 interviews with senior executives representing organisations from a range of sectors, conducted May – July 2022

These include large organisations providing service to consumers, businesses or a mix of consumer and business customers and several companies that supply technology solutions and / or consultancy services.

The AA
Afiniti
Amazon
Boots UK
BT Group plc
Capita
Content Guru
Correla
Cosmos
Direct Line
Elephants Don't Forget
first direct
Limitless Technology
NewDay
O2
Post Office
Sainsbury's
Sky
Vizolution
A major online travel company

An online survey of 316 UK managers and employees, conducted June – July 2022

Manager and employee sample by sector and business focus

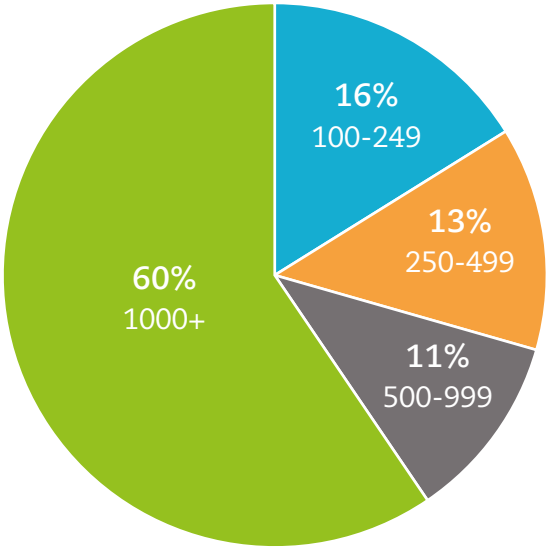
Retail / Supermarket	25%
Government / Housing Associations	17%
Financial Services	12%
Manufacturing / Construction	12%
Utilities / Telecommunications and Media	8%
Travel / Tourism / Leisure / Hospitality	8%
Business or Professional Services	7%
Delivery and distribution	6%
Other	5%

B2C
40%

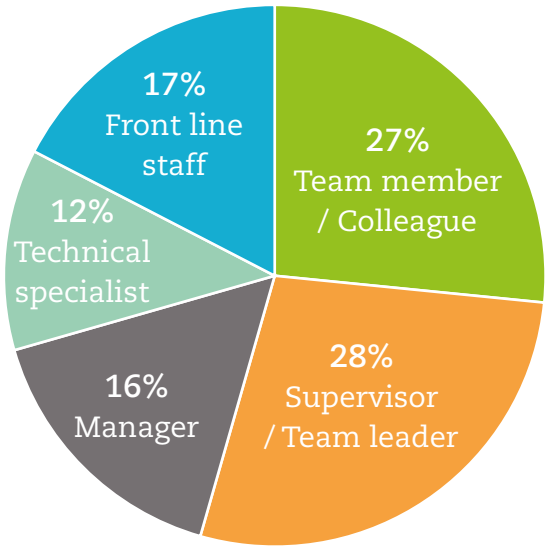
B2C and B2B
38%

B2B only
22%

Manager and employee sample by organisation size



Manager and employee sample by job role



12 in-depth interviews with UK consumers, conducted June 2022

6 Digitally Active Consumers

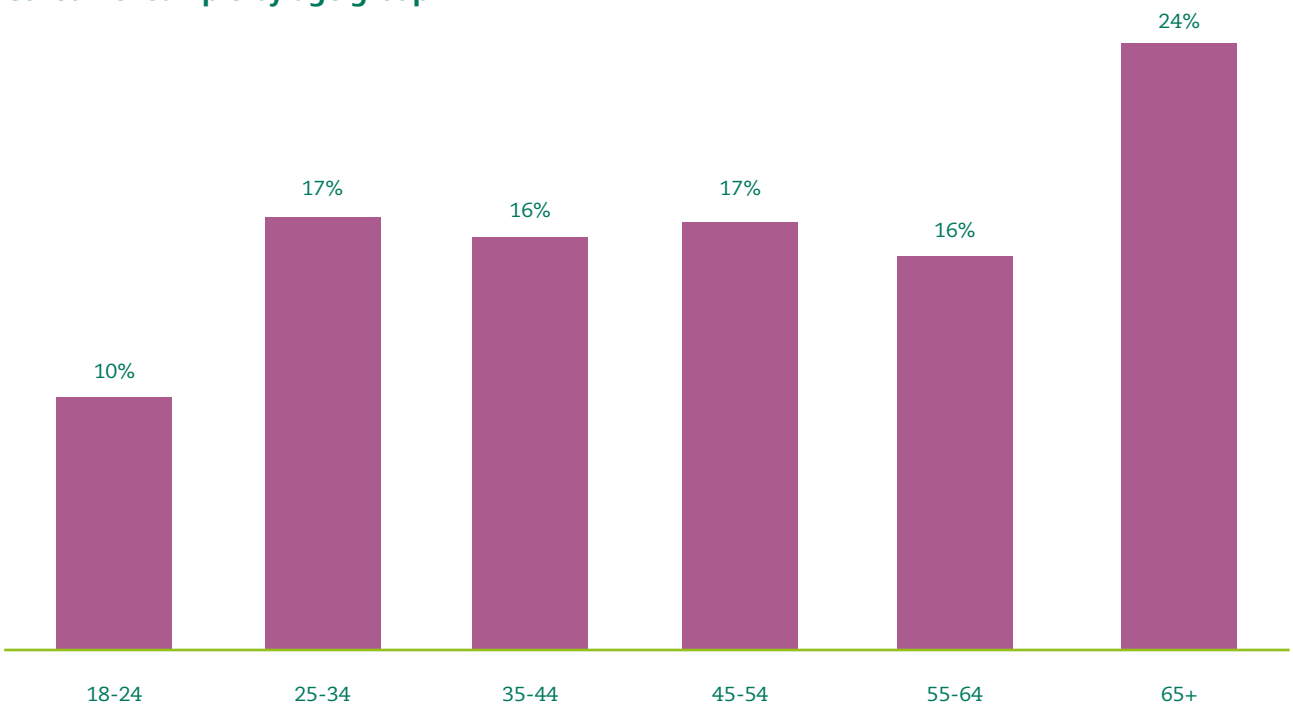
- Regularly interact with organisations using digital channels
- Regularly access services and information via an App

6 Consumers who are Digitally Inactive

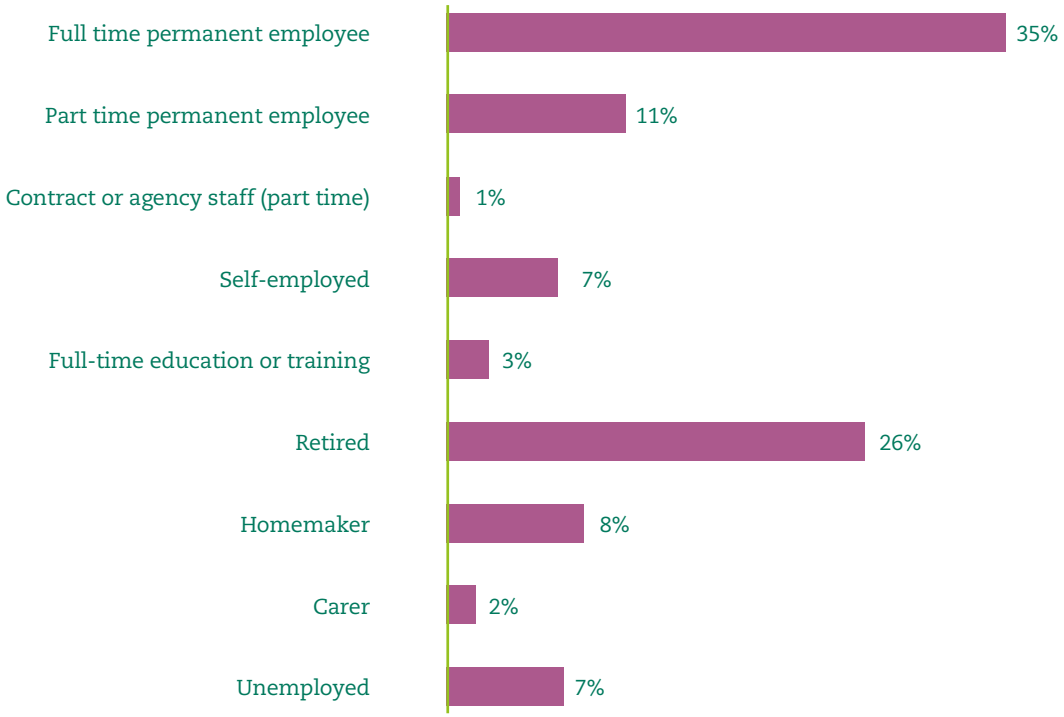
- Never or rarely use digital technologies to interact with organisations
- Do not feel confident using digital technologies to interact with organisations
- Either don't have access to digital technologies at home, or have access to digital technologies at home but often get help from a friend / relative to use them

An online survey of 1,003 consumers, broadly representative of the UK adult population, conducted June 2022

Consumer sample by age group



Consumer sample by employment status



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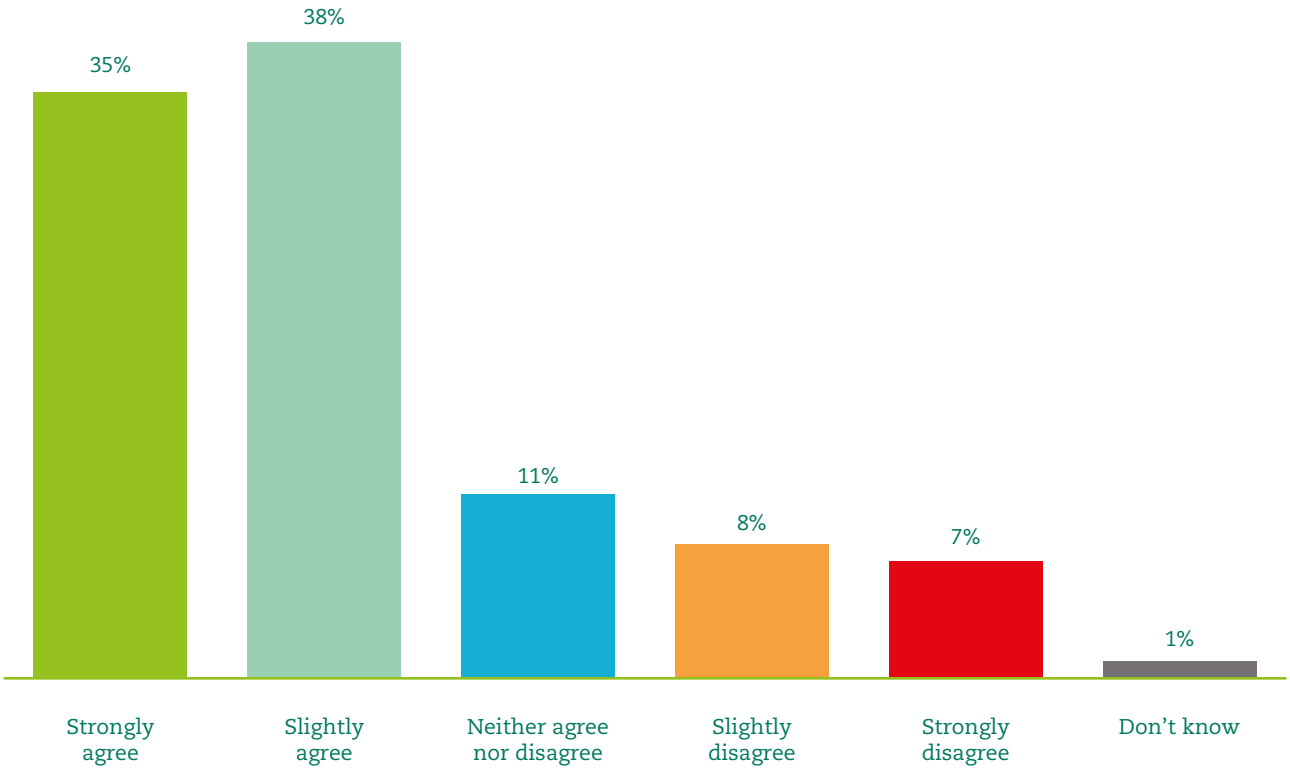
Customers' perspectives on how organisations use technology for customer service

In this section, we examine customers' confidence in using technology and their preferences and experiences in dealing with organisations. We review customers' perspectives on the potential for technology applications to improve service, personalisation and actions large organisations should take so that new technologies and applications are easy for customers to use.

73% of customers see themselves as confident users of technology

Amongst these customers, 35% of people agree strongly and 38% agree slightly that they are confident technology users. However, 15% of customers surveyed for this research lack confidence using technology and 11% are neutral. Given that respondents completed an online survey and unlikely to reflect the views of people who seldom or never use the internet, the number of customers who lack confidence in using technology is probably even higher.

To what extent do you agree that you are confident using technology?

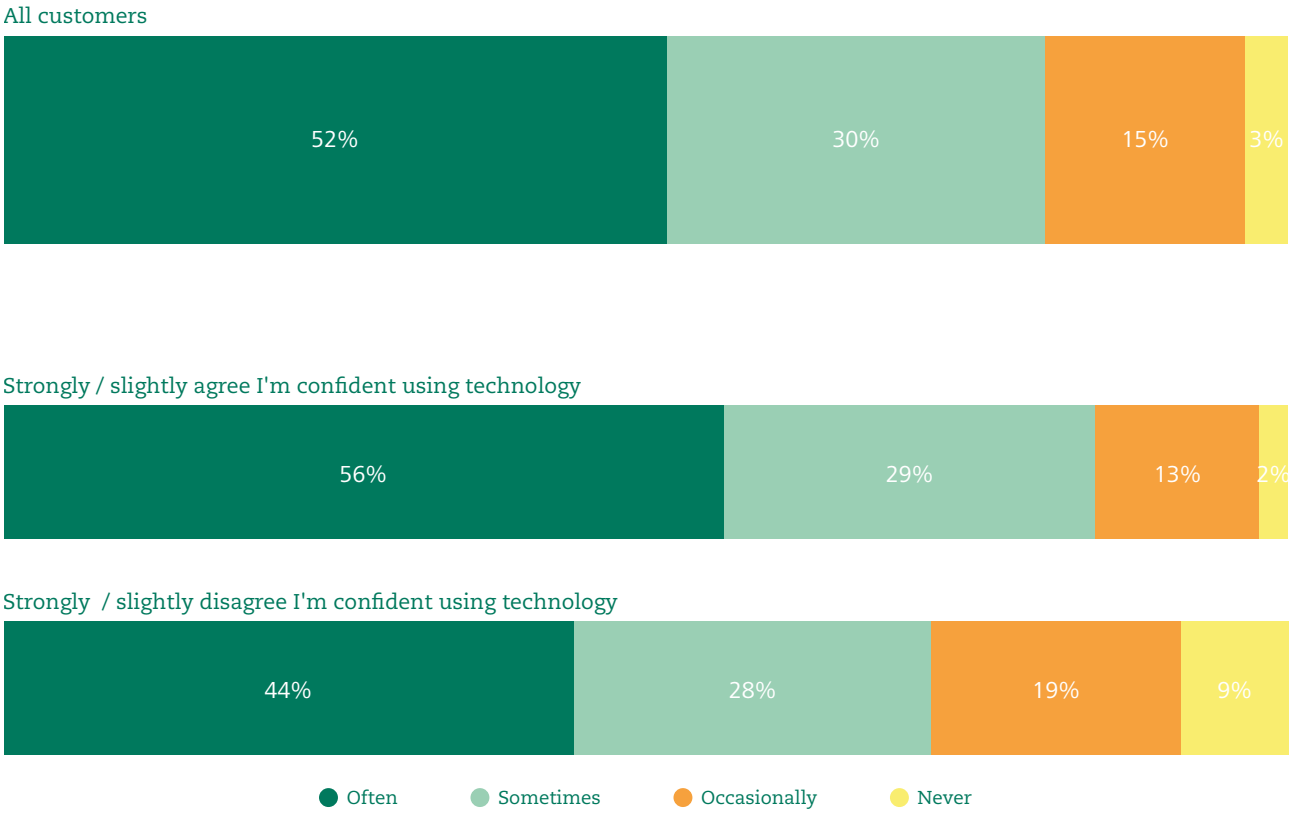


Based on an online survey of 1,003 UK consumers

82% of customers often or sometimes use digital channels to contact an organisation

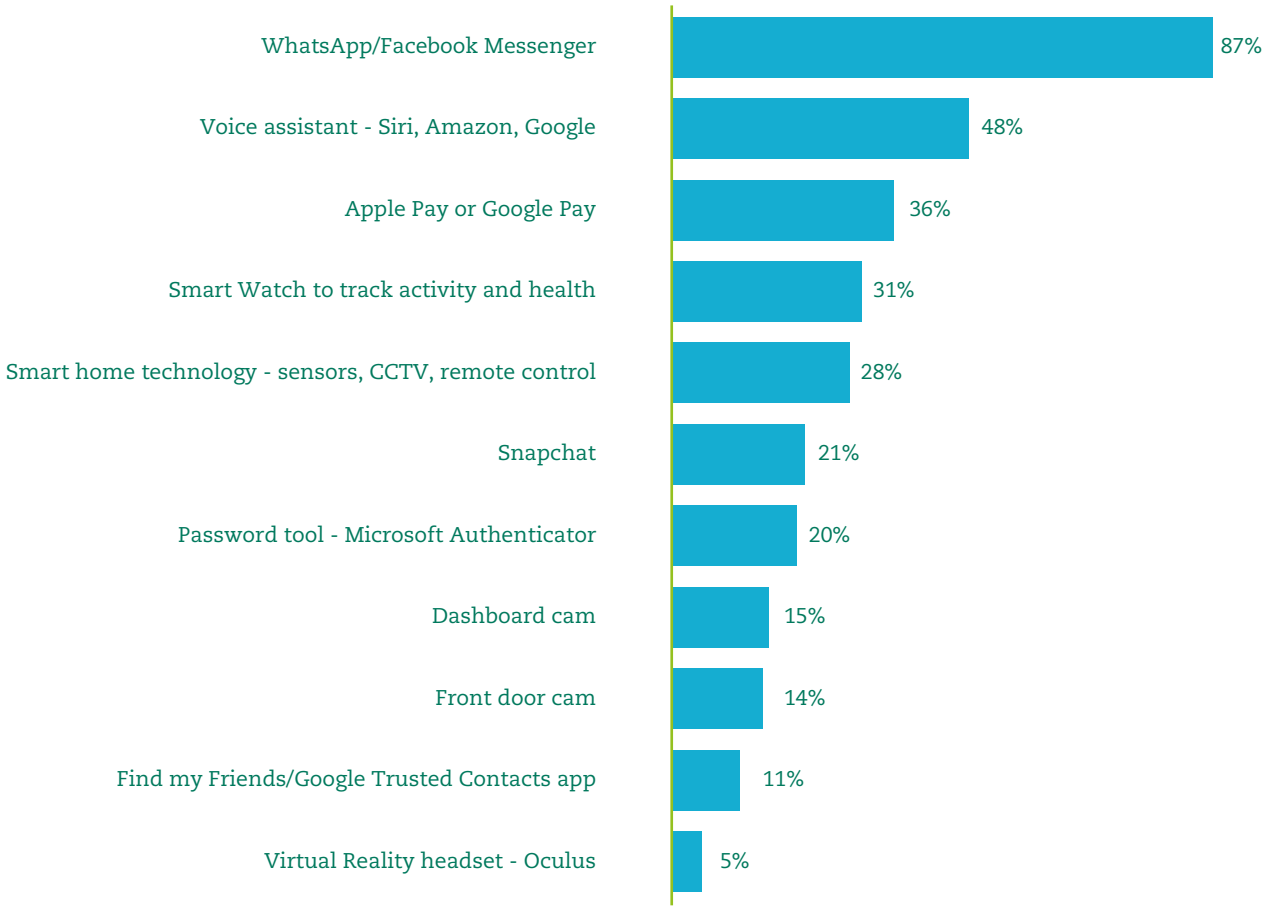
Amongst the sample of customers who lack confidence in using technology, 72% often or sometimes contact an organisation through digital channels, including the Internet, an App, webchat (also chatbot) or social media.

How often do you use digital communications (e.g. the Internet, an App, webchat, a chatbot or social media when you contact an organisation)?



87% of all customers surveyed say they use a messaging service such as WhatsApp or Facebook Messenger at least once a month and 48% are regular users of a voice assistant. Other applications such as Apple Pay, smartwatches or smart home technology are most likely to be used by customers with high levels of digital confidence.

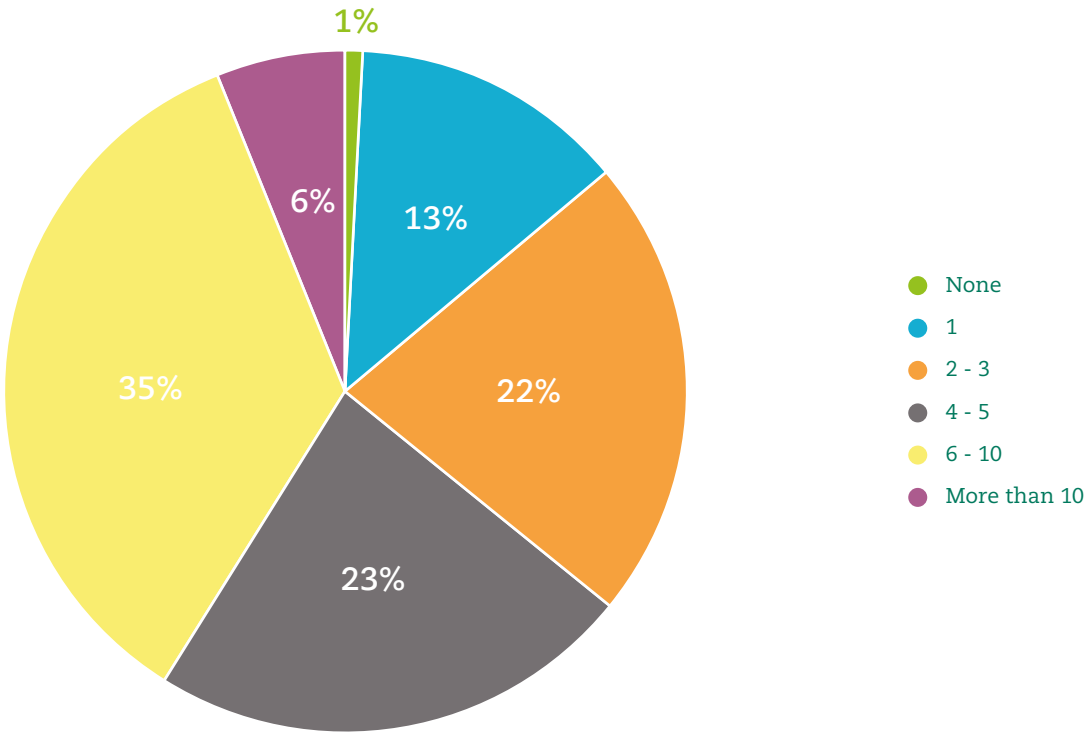
Do you use any of the following at least once a month?



41% of customers have used at least 6 different apps in the past 6 months to buy something or access services

Customers' use of Apps to access information and services or interact with a wide variety of organisations has grown significantly in recent years, often resulting in high levels of customer satisfaction. 41% of customers have used at least 6 different apps in the past 6 months to buy something or access services. Evidence from interviews we conducted with digitally active consumers confirms that they appreciate the speed, convenience, information, and accessibility afforded by many apps.

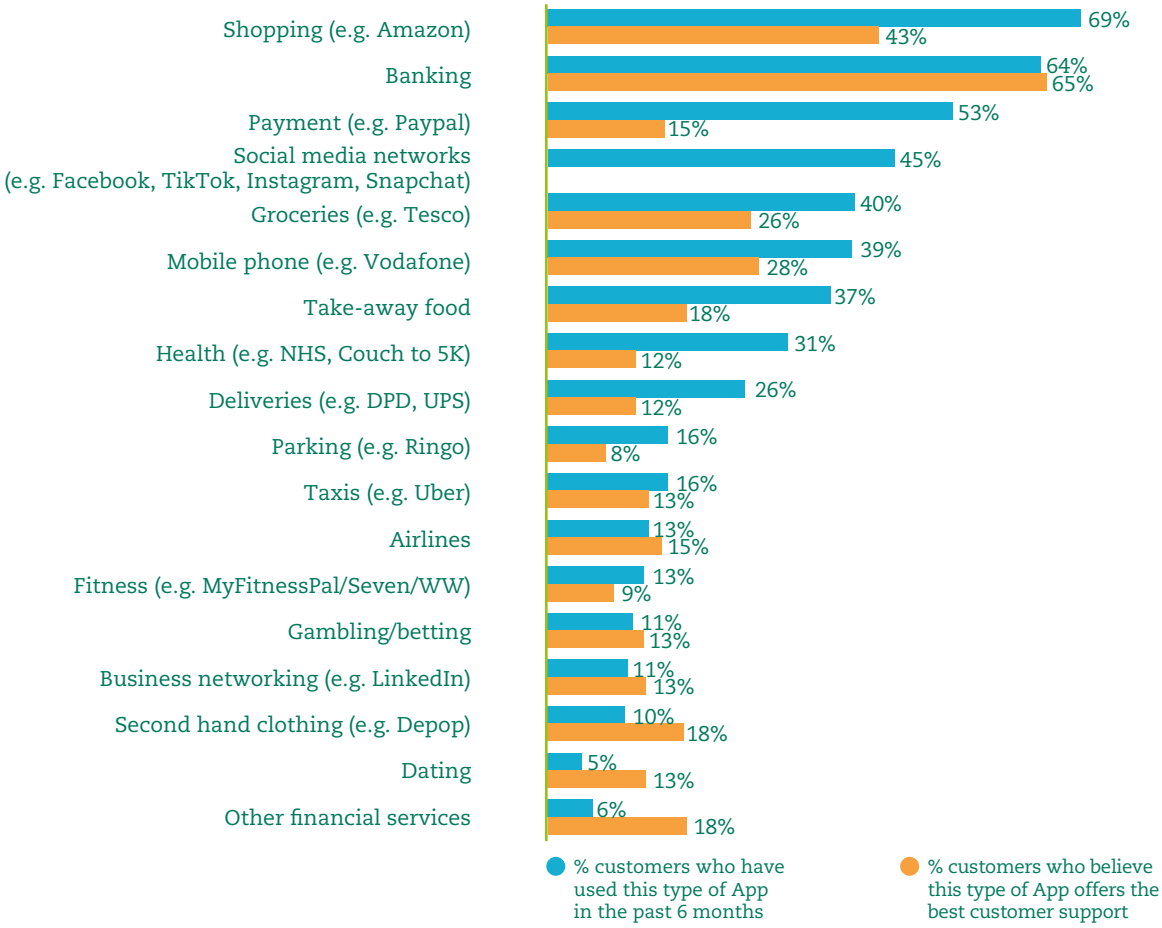
How many apps have you used in the past 6 months to buy things or access customer service?



Banking, social media, shopping and groceries are the most widely used apps

More than half of customers surveyed for this research have used at least one App concerned with shopping, banking, or a payment application in the past 6 months. 65% of respondents feel that banking apps offer the best level of customer support.

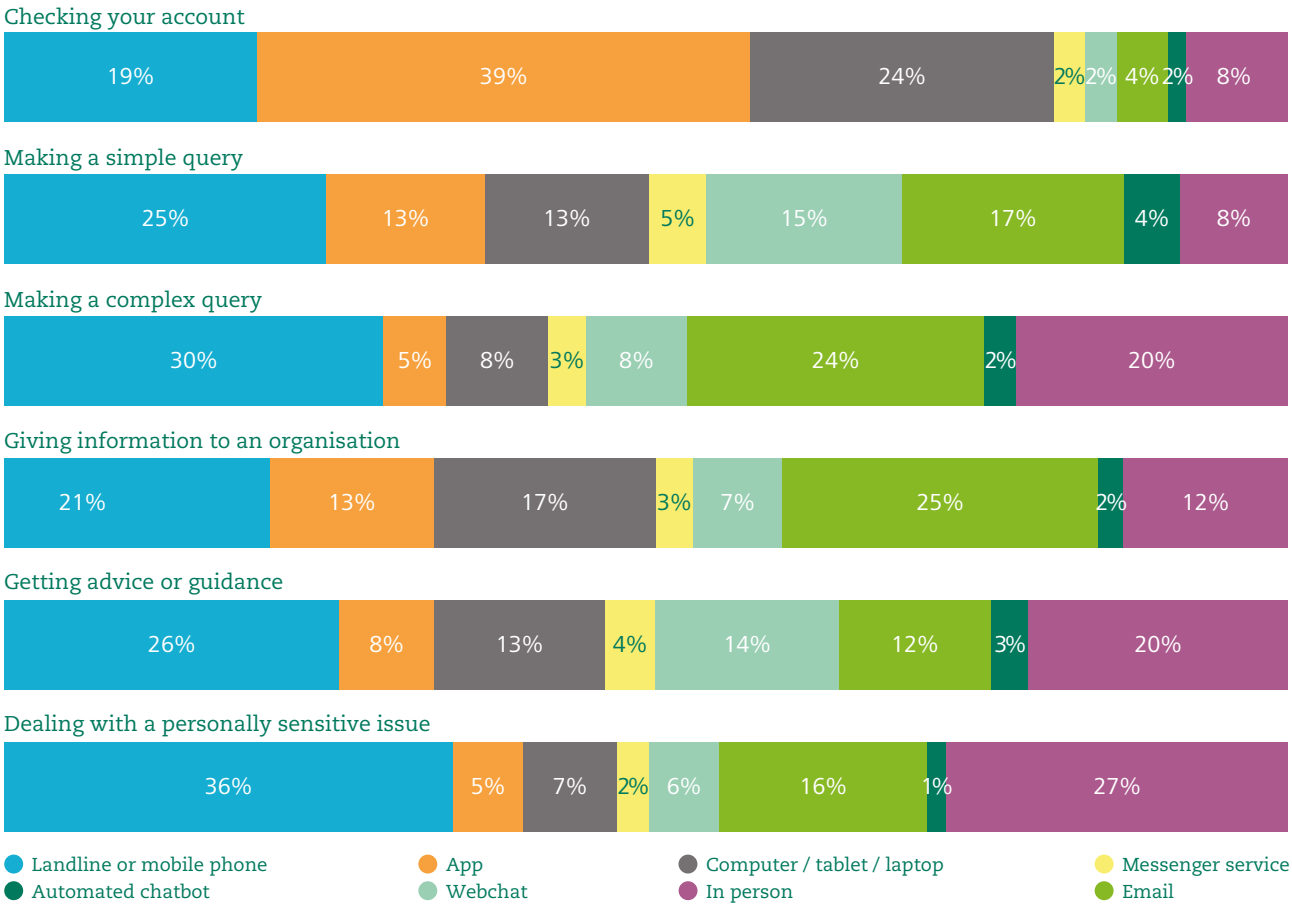
Most popular types of Apps used UK consumers



There is a wide diversity in customers' preferred channels for contacting organisations, depending on the situation or type of contact

Phone (either via a landline or mobile) is the most frequently preferred channel for dealing with a personally sensitive issue, getting advice or guidance, or making a query. An app is the most popular channel for checking a customer account. Email is preferred by 25% of customers when giving information to an organisation.

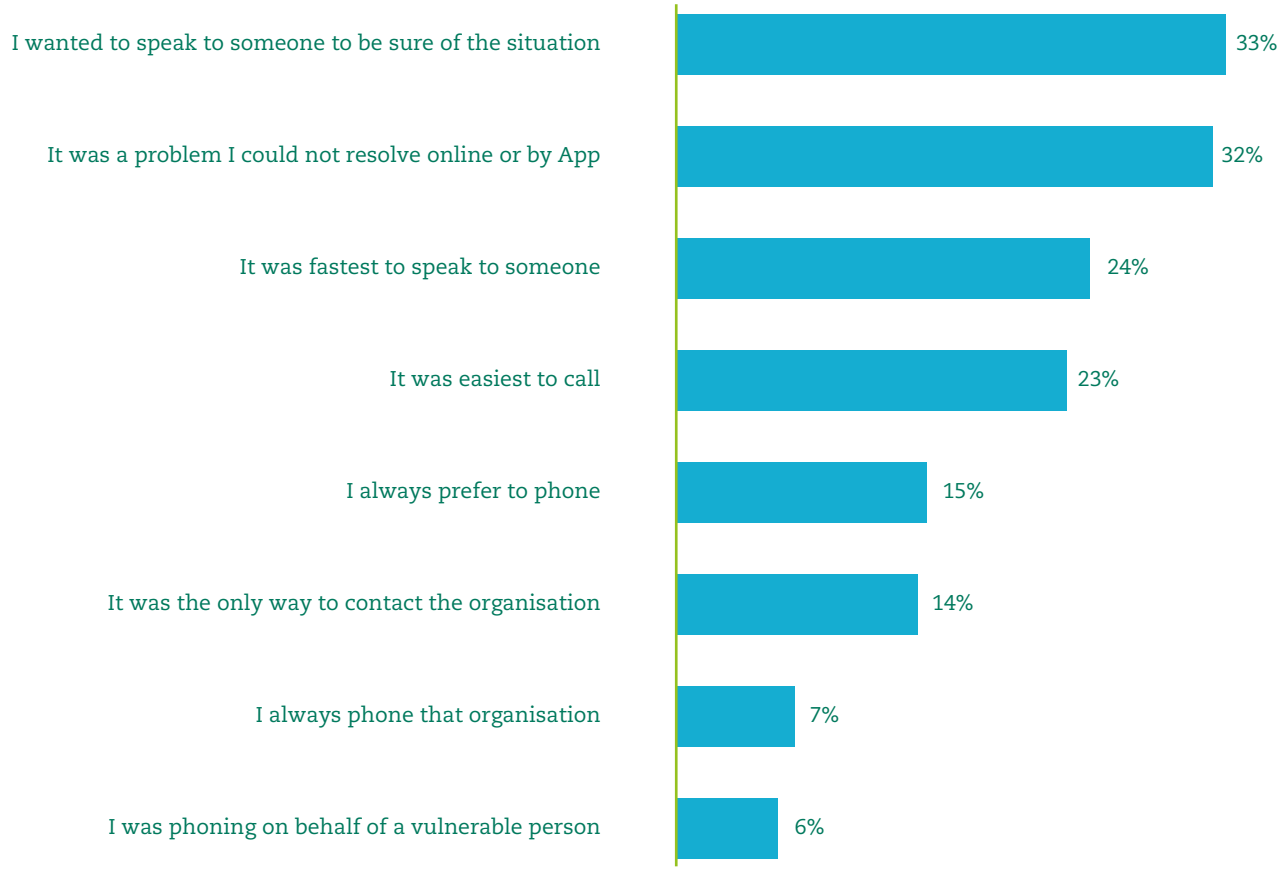
How would you prefer to interact with a large organisation?



The main reasons for contacting an organisation by phone were the need for reassurance and certainty or about an issue that could not be resolved online or via an app

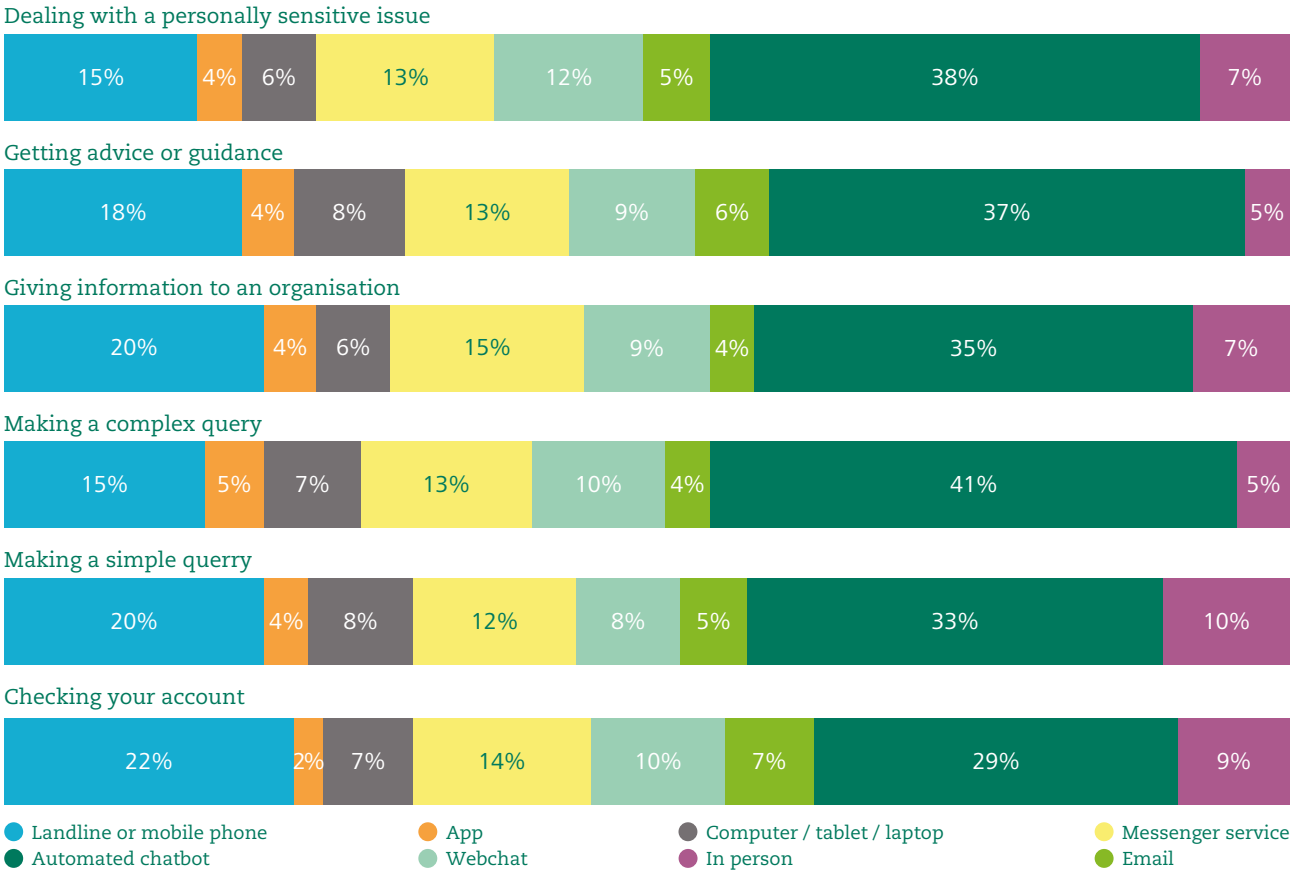
In addition, over 20% of customers said they contacted an organisation by phone because they felt it was the quickest and easiest way to deal with an issue. Only 15% said that they always preferred to contact the organisation by phone.

The last time you phoned an organisation, what was the reason for your contact? (select all that apply)



There is a wide spread of views about channels customers would least prefer to use when interacting with a large organisation. Automated chatbots are the least preferred option across all types of contact.

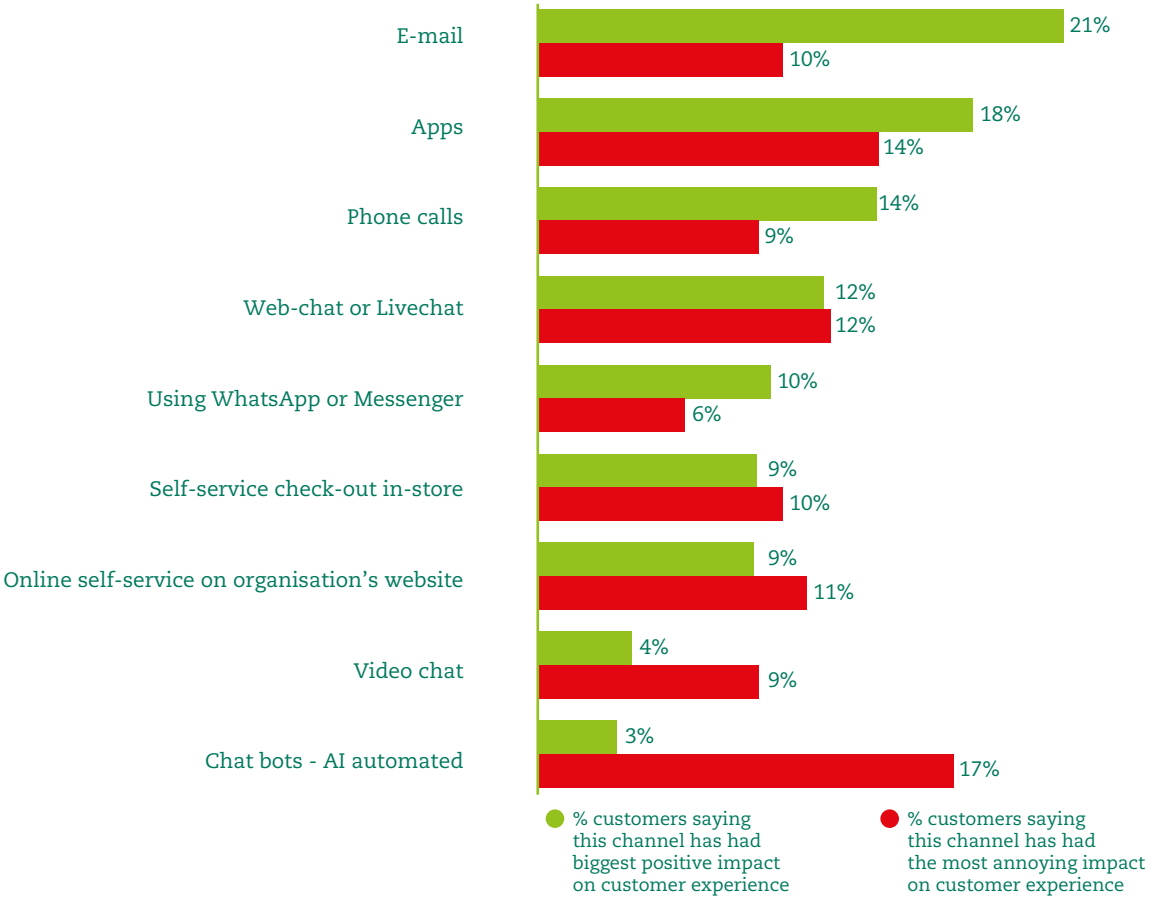
Which channel would you least prefer to use to interact with a large organisation?



Artificial intelligence-enabled chatbots are more likely than experiences in other channels to cause annoyance

We asked customers to identify a channel or technology they used to contact an organisation which resulted in a particularly positive or annoying experience. The findings suggests that experiences with artificial intelligence-enabled chatbots are more likely than experiences in other channels to cause annoyance, rather than satisfaction. Indeed, most of the digitally active customers we interviewed recounted (unprompted) a frustrating experience with a chatbot. Email and phone calls were associated with the highest number of positive customer experiences, perhaps reflecting the widespread use of these channels to deal with organisations.

Thinking of your interactions with large organisations like banks, retailers, utilities or travel companies, which technologies have had the biggest impact of your customer experience?

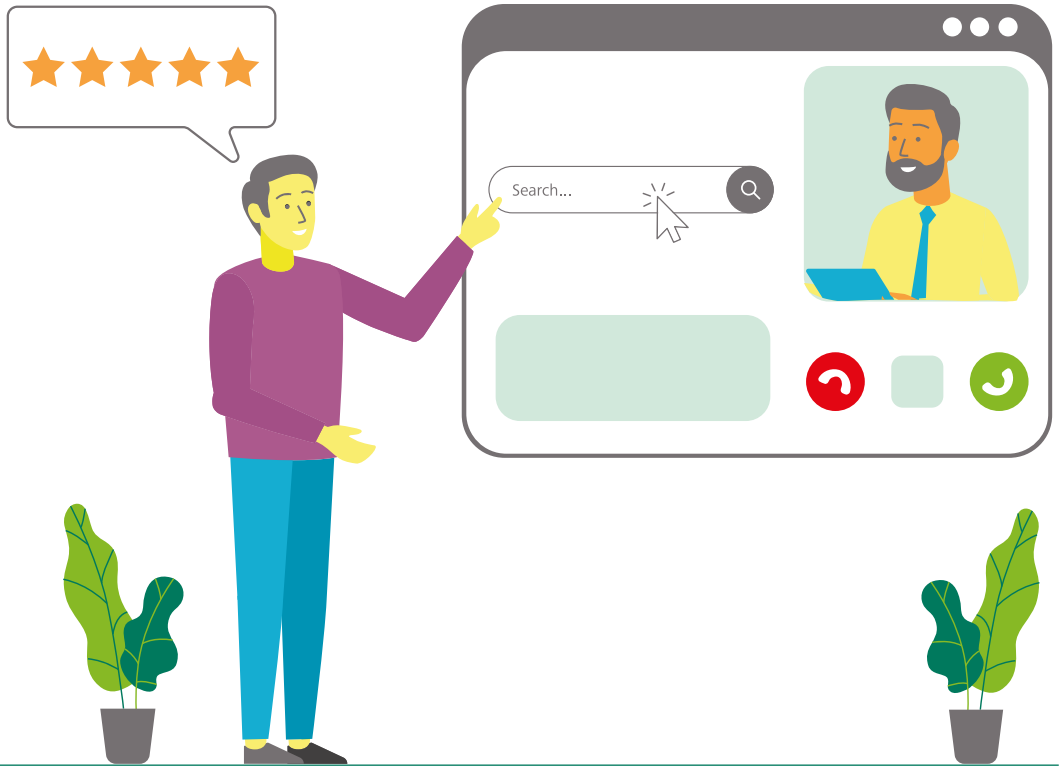


Trustworthy online reviews, better search functionality on organisations' websites, video services to help install or repair products and more opportunities to collect or return products are seen by customers as opportunities to improve service

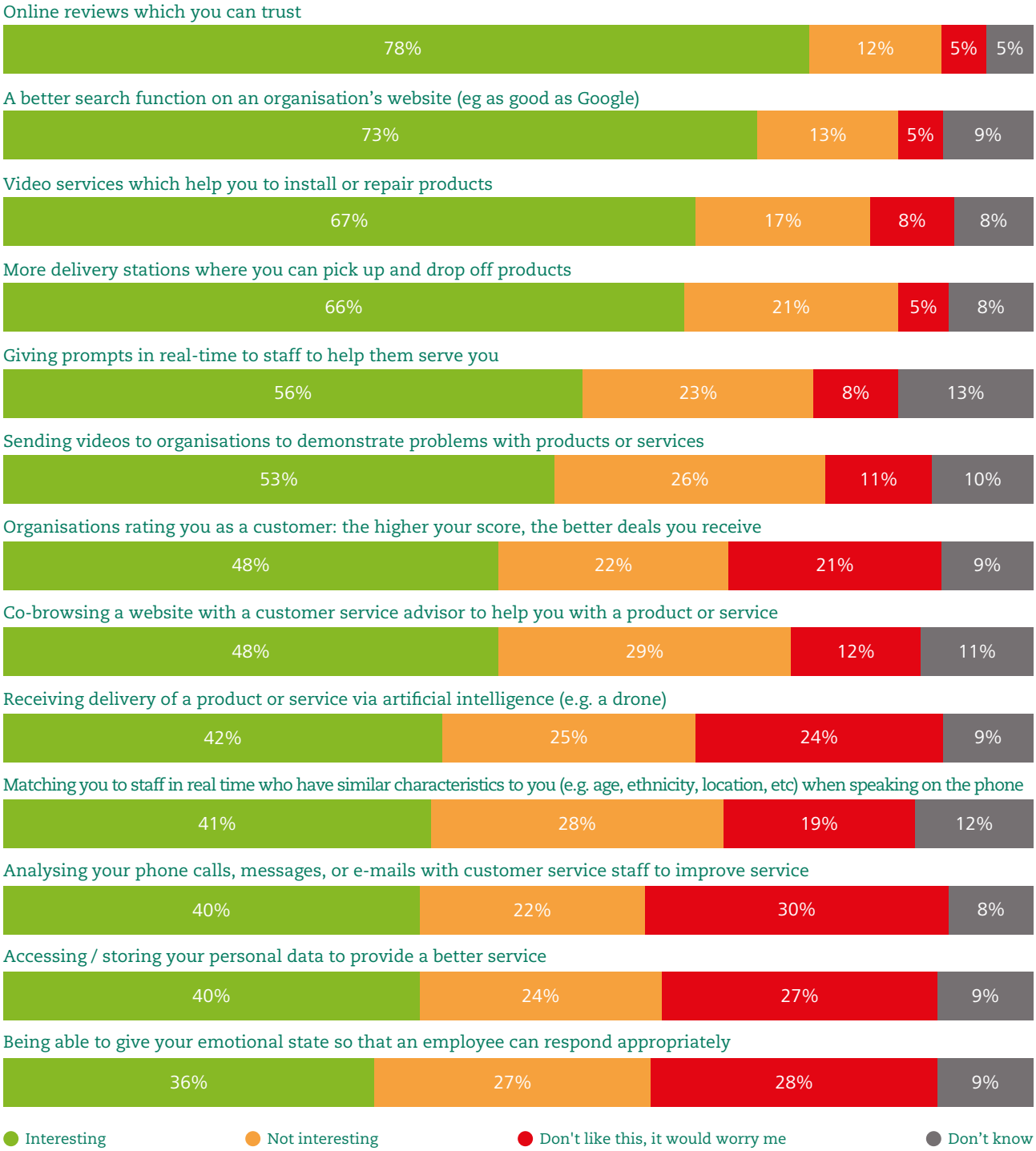
We asked a sample of over 1,000 UK consumers about their levels of interest, or anxiety, relating to technology applications that could potentially be used to improve service across a range of sectors and situations.

From the perspective of these consumers, the most popular ways in which technology applications could improve customer service include trustworthy online reviews, better search functionality on organisations' websites, video services to help install or repair products, and wider availability of sites to collect or return products. In addition, more than 50% of consumers are open to the idea of employees being given real-time prompts to improve service or receiving videos to demonstrate products and services.

However, a significant minority of customers have major concerns about organisations analysing phone calls or messages with staff to improve service, analytics to assess emotional state, or organisations accessing and storing personal data.



Customers' perspectives on technology applications that could improve service

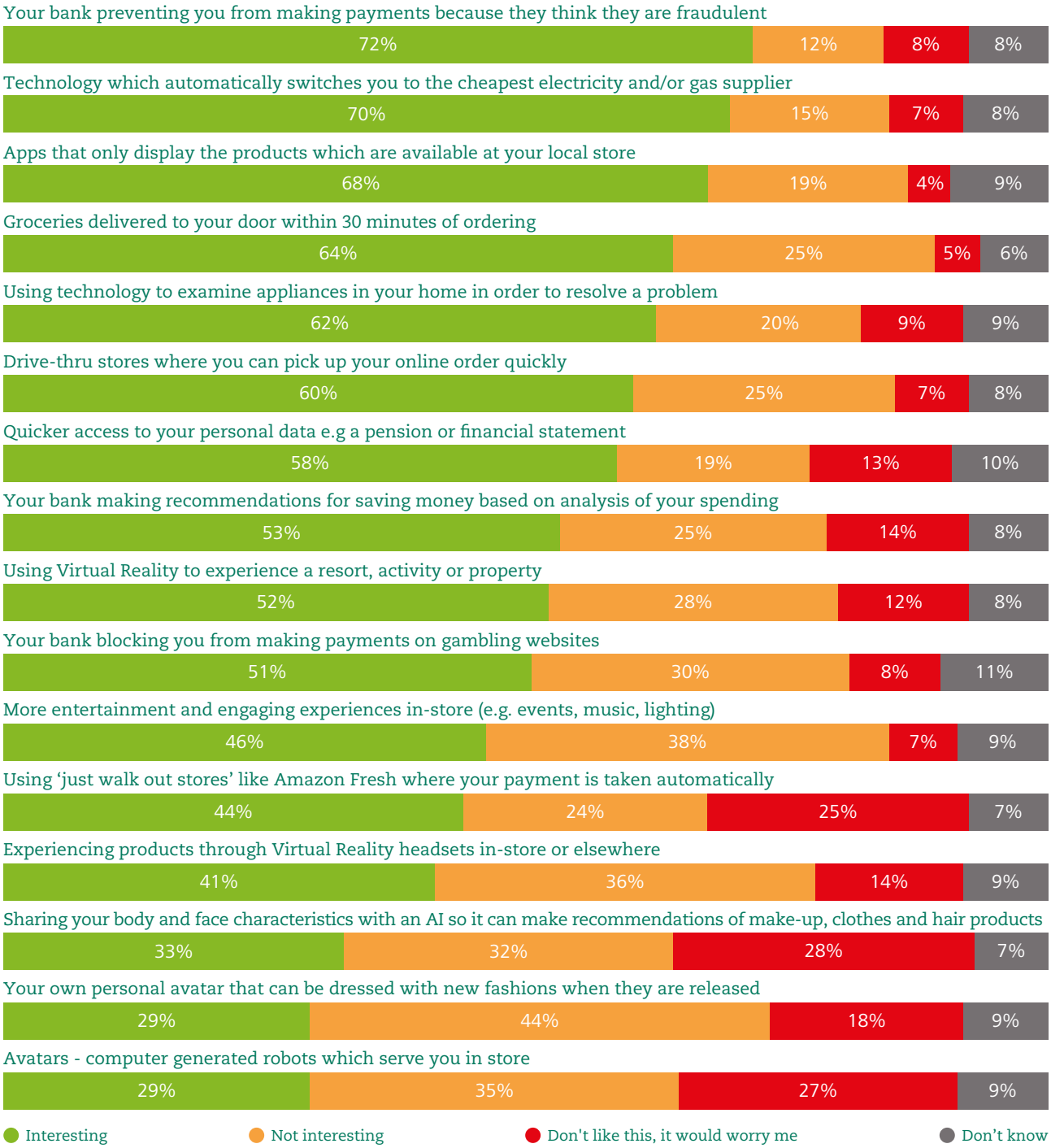


At least 70% of customers are interested in the potential benefits of technology being used to prevent fraud or enable switching to the cheapest energy suppliers

Customers were asked about their levels of interest, or concern, about a range of sector-specific applications of technology with the potential to improve customer service. Applications seen as the most interesting include banks preventing payment if they believe there is a risk of fraud, technology that automatically switches a customer to the cheapest energy supplier and apps that display products available in local stores. In addition, at least 60% of customers are interested in rapid grocery delivery (within 30 minutes of placing an order), applications that remotely diagnose and resolve problems with domestic appliances and drive thru stores for collection of online orders.

By comparison, there is a polarisation of views about sharing body or face characteristics with an artificial intelligence agent in return for personalised recommendations, using stores where there are no employees or checkouts and payment is taken automatically, or receiving in-store service from avatars or robots. Most customers are either uninterested or have concerns about these applications and services but at least 29% express a positive interest.

Consumers' perspectives on sector-specific technology applications that could improve customer service

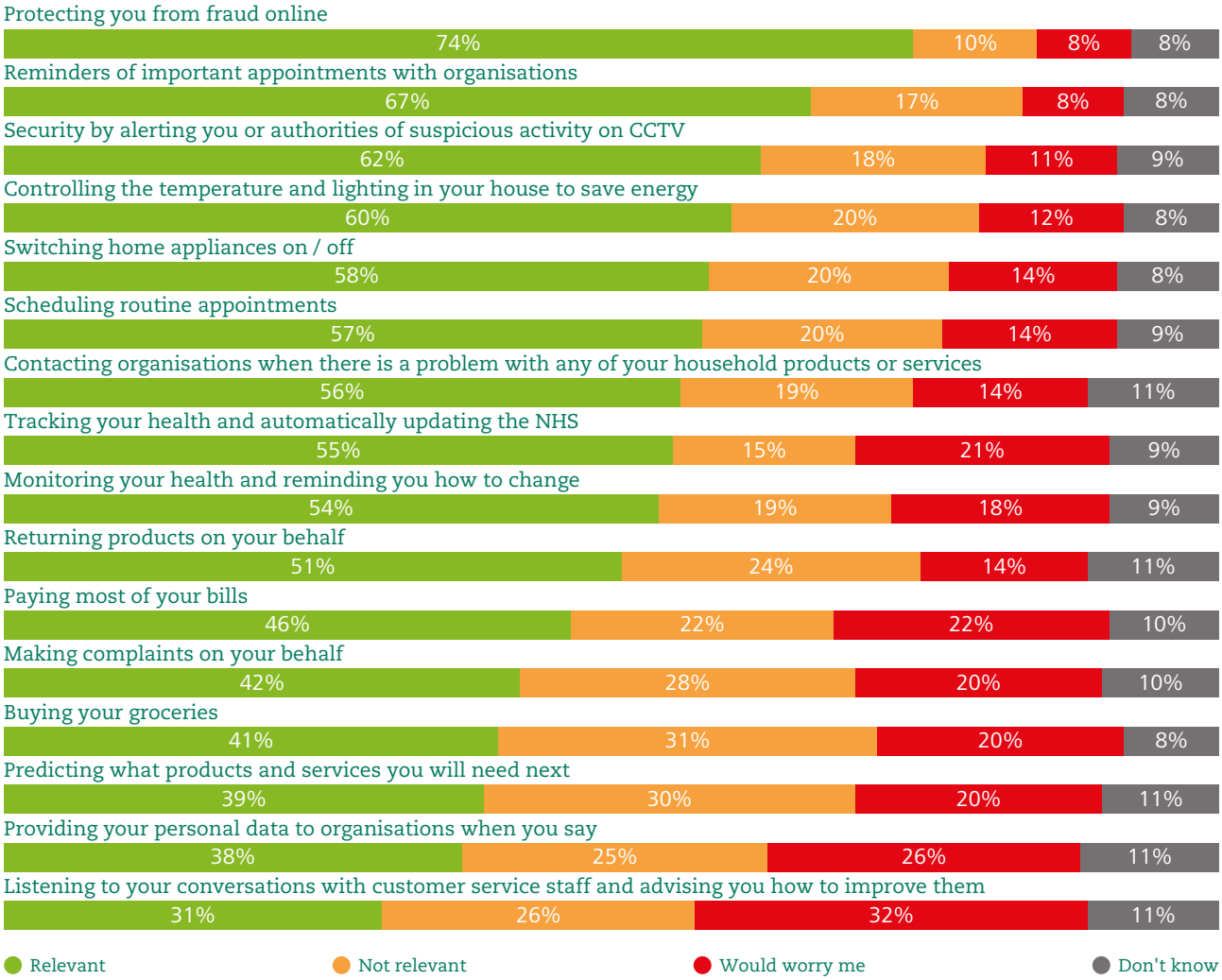


Most customers regard physical security, fraud prevention, appointment reminders and monitoring of domestic appliances as relevant potential applications for artificial intelligence-enabled virtual assistants

Consumer respondents (including both people who regularly use a voice assistant like Alexa or Siri and those who do not) were asked whether they feel it would be personally relevant to use an artificial intelligence-enabled virtual assistant for a range of customer service-related tasks. Most customers regard physical security, fraud prevention, reminders about personal appointments and monitoring of domestic appliances as relevant potential applications for artificial intelligence-enabled virtual assistants.

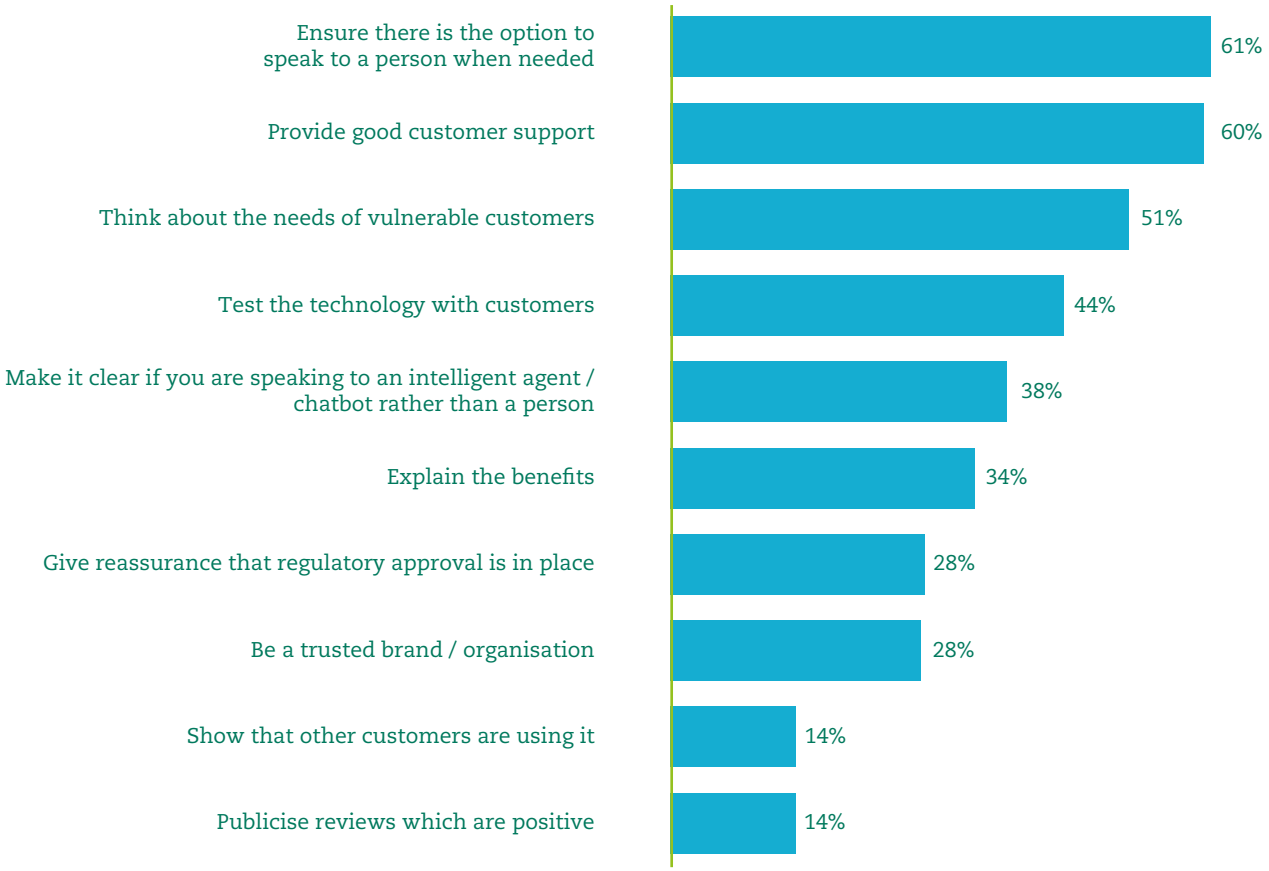
Consumers tend to be less persuaded about virtual assistants being used in providing personal data to an organisation, predicting individual needs or analysing conversations with customer service staff. Nevertheless, a sizeable minority of customers appears to be relatively open to the potential for virtual assistants being used in these highly personalised contexts.

Consumers' attitudes about using artificial intelligence-enabled virtual assistants



When organisations launch new technologies, the most important factors they should consider from a customer service context are the option to speak to a person, the availability of customer support and the needs of vulnerable customers

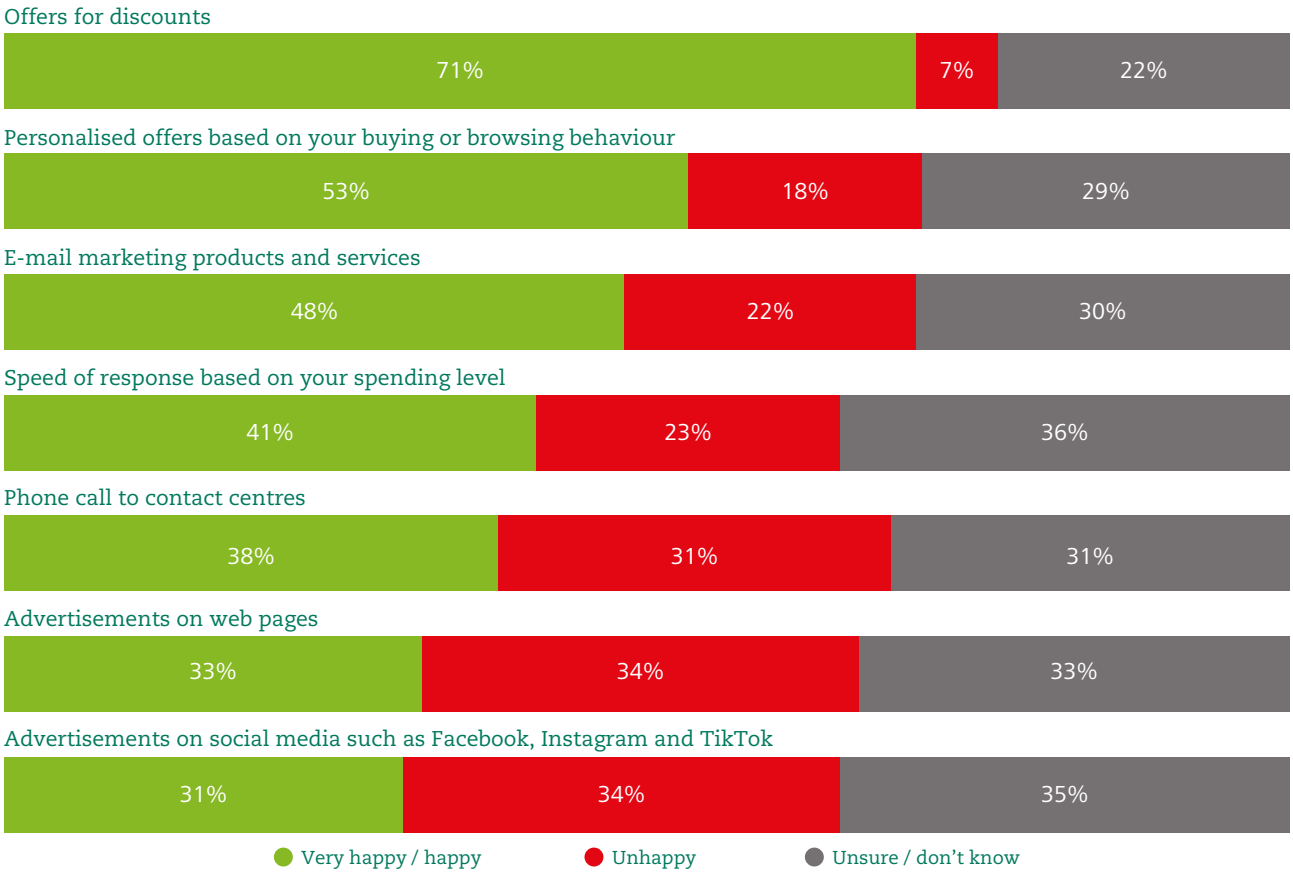
What should large organisations do when they introduce new technologies and applications to ensure they are easy for customers to use?



More than half of customers are relatively uncomfortable about their data being used to provide personalised service experiences

71% of customers are happy for organisations to provide discount offers based on personal information and 53% say they are comfortable with their browsing or buying behaviour being used to inform personalised service. However, over half of customers are unsure or unhappy about a variety of options for personalised experiences in the context of email marketing, adverts on web pages or social media or speed of response based on spend level.

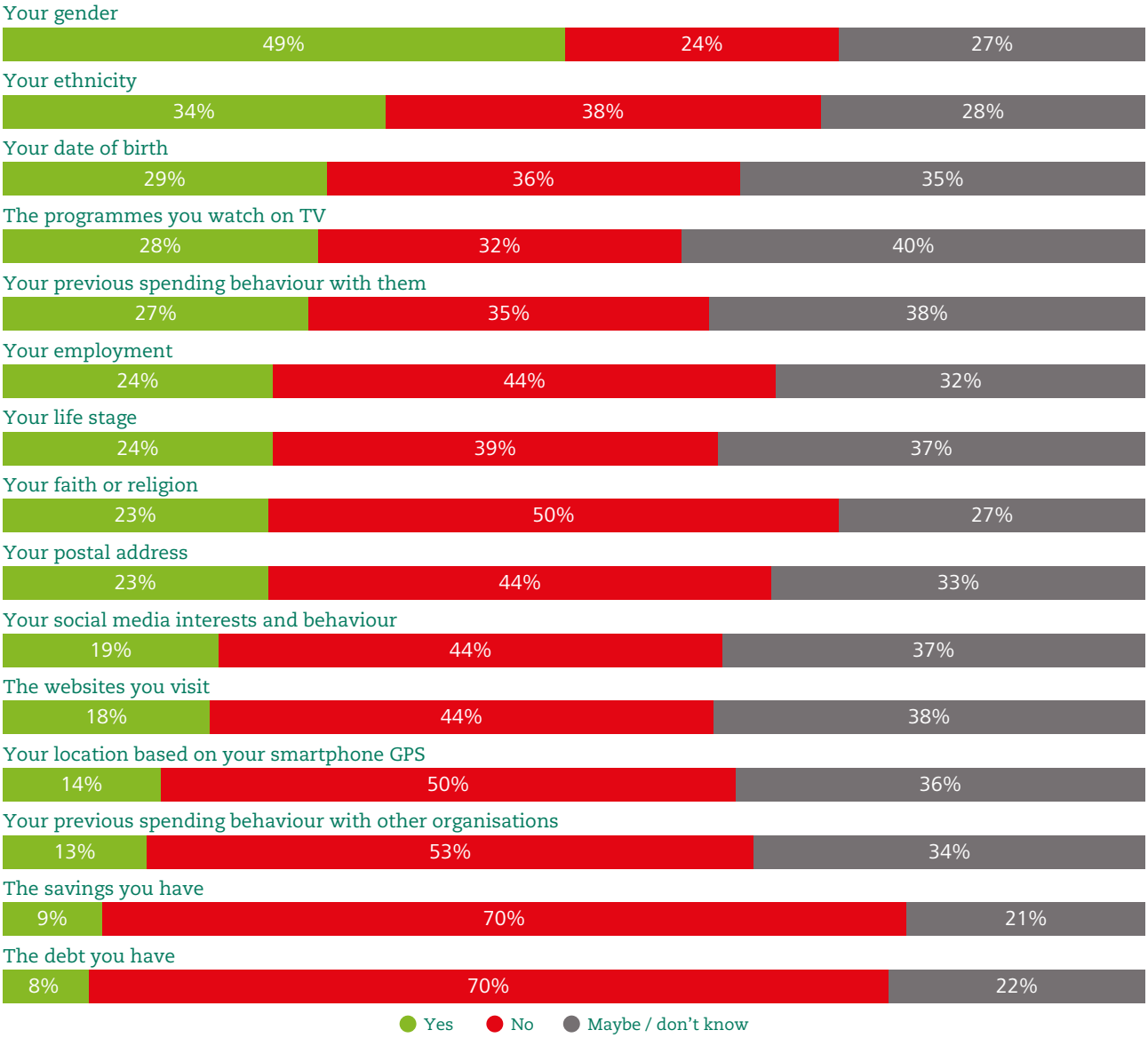
For which of the following are you happy that organisations personalise the service they offer?



70% of customers feel uncomfortable about sharing personal information with an organisation about their level of savings or debt, even if this information would be used to give better, personalised service

Around half of the customers we surveyed are reluctant to share information about their previous spending with another organisation, location (via a smartphone). Most customers even have concerns about sharing a variety of factual personal information about their age, ethnicity, employment status or postal address.

Which of your personal data are you comfortable sharing to enable large organisations to give you personalised service?



This evidence suggests that organisations need to mindful about understanding individual customers' receptiveness to personalised service and communications. Whilst many digitally confident customers are open to the trade-off of sharing personal data in return for more satisfying experiences, a significant number of other customers are guarded about sharing personal data and unconvinced about the benefits of doing so. Organisations therefore need to be selective and specific in the ways they personalise service and transparent about why personal data is being sought and how it will be used.

Customer's perspectives on how organisations use technology for customer service:

Key takeouts

- 73% of customers see themselves as confident users of technology
- 82% of customers often or sometimes use digital channels to contact an organisation
- 87% of customers say they use a messaging service such as Whats App or Facebook Messenger at least once a month
- 41% of customers have used at least 6 different apps in past 6 months to buy something or access services
- 65% of respondents feel that banking apps offer the best level of customer support
- There is a wide diversity in customers' preferred channels for contacting organisations, depending on the situation or type of contact
- The main reasons for contacting an organisation by phone were the need for reassurance and certainty or about an issue that could not be resolved online or via an app
- Artificial intelligence-enabled chatbots are more likely than experiences in other channels to cause annoyance
- When organisations launch new technologies the most important factors they should consider from a customer service context are the option to speak to a person, customer support and the needs of vulnerable customers
- 71% of customers are happy for organisations to provide discount offers based on personal information but over a half are unsure or unhappy about a variety of options for personalised experiences in the context of email marketing, adverts on web pages or social media or speed of response based on spend level.

Potential technology applications seen as interesting or beneficial by many customers

- Trustworthy online reviews
- Better search functionality on organisations' websites
- Video services to help install or repair products
- Wider availability of sites to collect or return products
- Banks preventing payment if they believe there is a risk of fraud
- Technology that automatically switches a customer to the cheapest energy supplier
- Apps that display products available in local stores
- Artificial intelligence virtual assistants that combat online fraud, give reminders about personal appointments, provide security alerts or monitor domestic appliances

Applications of technology and data which attract a polarisation of views

- Analysing phone calls or messages with staff to improve service
- Analytics to assess customers' emotional state
- Organisations accessing and storing personal data
- Sharing body or face characteristics with an artificial intelligence agent in return for personalised recommendations
- Using stores where there are no employees or checkouts
- Receiving in-store service from avatars or robots
- Artificial intelligence virtual assistants that provide personal data to an organisation or predict individual needs

2

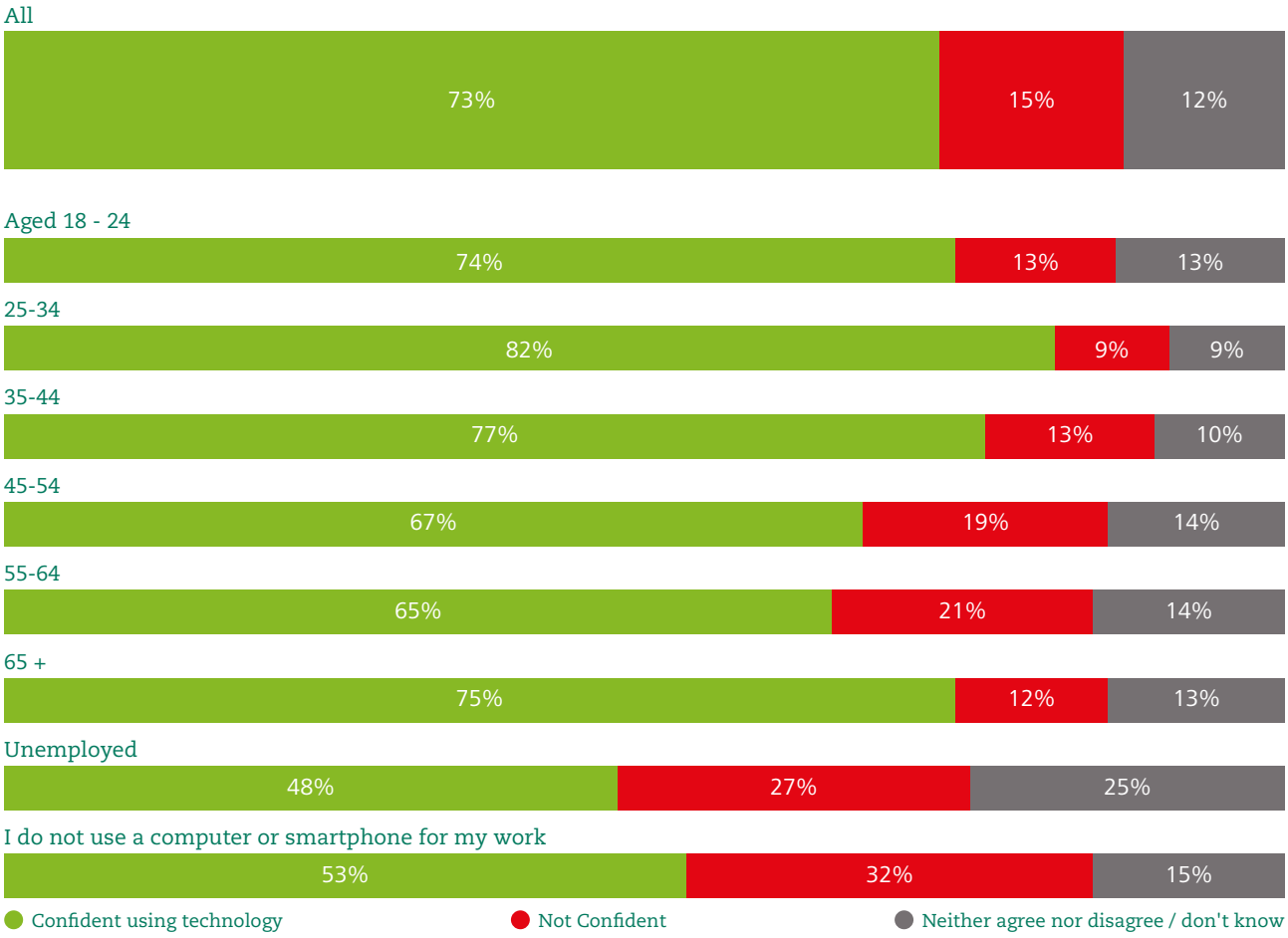
How are organisations addressing the risk of digital exclusion

As organisations seek to exploit technology to differentiate their customer experience and improve efficiency, there is a risk that some customers may be disadvantaged or disempowered in their relationships with organisations. In particular, organisations that provide essential services need to cater for diverse needs and preferences including customers who have high expectations about the quality of digital experiences; people who would prefer to use traditional channels; and customers who have difficulty in using technology or need help from others to do so. This section examines the extent of the risk of digital exclusion in a customer service context, its causes and what organisations should do to address it.

73% of customers agree (either strongly or slightly) that they are confident using technology. But 15% lack confidence and 12% are either neutral or don't know. Given that respondents completed an online survey which is unlikely to reflect the views of people who seldom or never use the internet, the number of customers who lack confidence in using technology is probably even higher.

At least
15% of customers
do not feel confident about using technology

To what extent do you agree you are confident using technology?



Our research suggests that people who are unemployed or do not use a computer or smartphone at work are particularly at risk of digital exclusion

Whilst average levels of confidence in using technology is highest amongst the youngest age groups, age does not appear to be the strongest predictor of the risk of digital exclusion. Our research suggests that people who are unemployed (or have a relatively low household income) and those who never use a computer of smartphone at work are the most likely to lack confidence is using technology.

4 main factors contribute to the risk that customers lack the ability or opportunity to use technology effectively in their relationships with organisations

Physical or mental disability or health condition

Difficulty in using technology because of impairment(s) to sight, hearing, dexterity, mental health or other conditions

Confidence or willingness to use technology

Lack confidence, skills or knowledge to use the technology, or prefer not to do so

Economic exclusion

Lack financial resources to pay for computer or mobile equipment or broadband services

Technology infrastructure coverage

A relatively small number of customers live in areas with gaps in mobile or broadband coverage, which may reduce their ability access services, or communicate with organisations through digital channels

Vulnerable customers, who are "susceptible to harm, particularly when a firm is not acting with appropriate levels of care"[1] may be at risk of digital exclusion if they have a physical or mental disability that makes it difficult to contact organisations through digital channels; lack skills or confidence in using technology; or cannot afford to pay for mobile or computer equipment or broadband services.

Digital exclusion or disengagement?

Our research included interviews with customers who might be regarded as "digitally disengaged": they either don't have access to digital technologies at home or only use them with help from a friend or relative.

Most of these customers have never or rarely used computers or smartphones in their job. They prefer and often take pleasure in conversations with employees and visits to stores and other commercial locations. In general, these customers do not necessarily feel they are missing out by avoiding online experiences although there is a growing awareness that the range of high street shops has diminished.

There is also an acknowledgment that sometimes they get help from family members to use technology, especially to manage essential services such as insurance or utilities, buy a holiday, or products that are not readily available in local shops. All these customers were aware of the threat of online scams or security breaches, which perhaps reinforces a preference not to engage digitally with organisations.

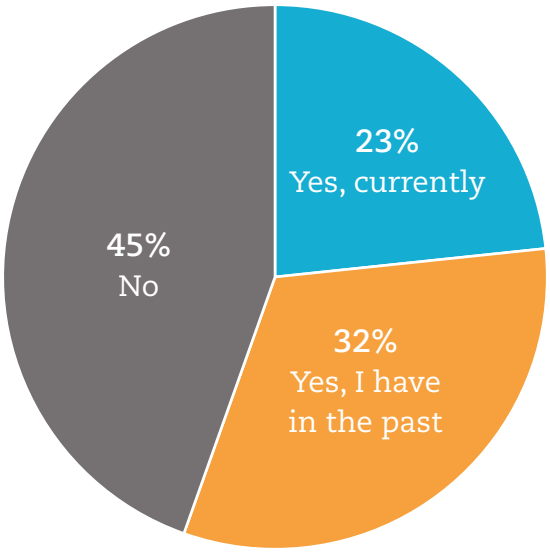
Some of the people we spoke to had undertaken basic courses in using computers but without the motivation to continue their digital usage had lapsed.

In assessing the risk of digital exclusion, organisations – especially those that provide essential services – therefore need to consider how they will enable communication both with vulnerable customers who have challenges in using technology, and customers who prefer not to engage through digital channels.

[1] FCA, Guidance for firms on the fair treatment of vulnerable customers, February 2021 www.fca.org.uk/publication/finalised-guidance/fg21-1.pdf

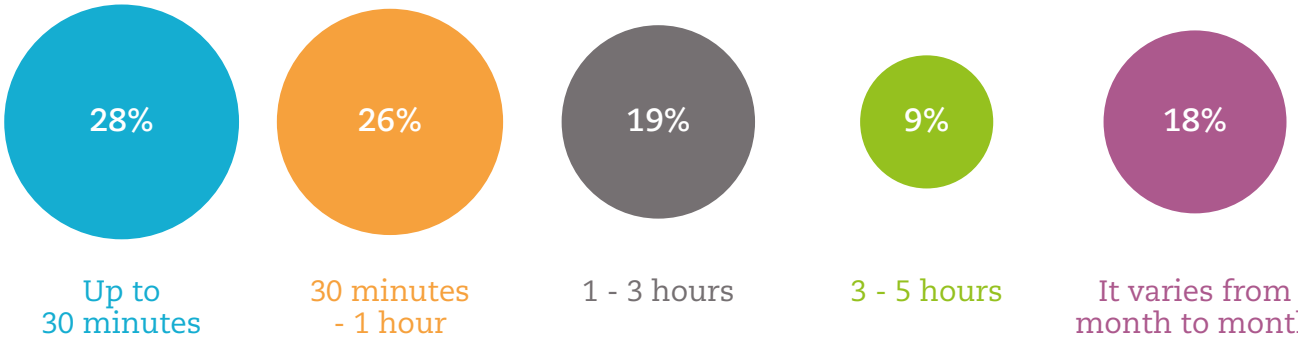
23% of consumer respondents say they currently help a friend of family member to deal with an organisation through digital channels and 32% have done so in the past

Do you help friends or family make purchases or deal with organisations online and digitally because they find it difficult?



54% of respondents spend a relatively small amount of time (up to 1 hour per month) helping someone else deal with an organisation online. But a further 28% of people spend between 1 and 5 hours a month assisting others. 18% say it varies from month to month.

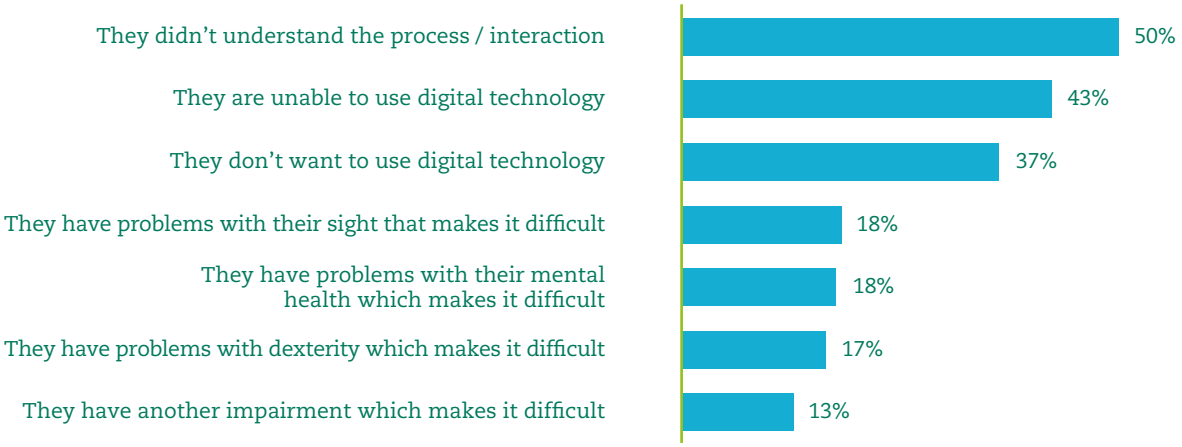
How much time do you spend each month helping friends and family deal with organisations through digital channels?



The main reasons that some customers need help to deal with organisations online is because they don't understand the process / interaction or are unable to use digital technology

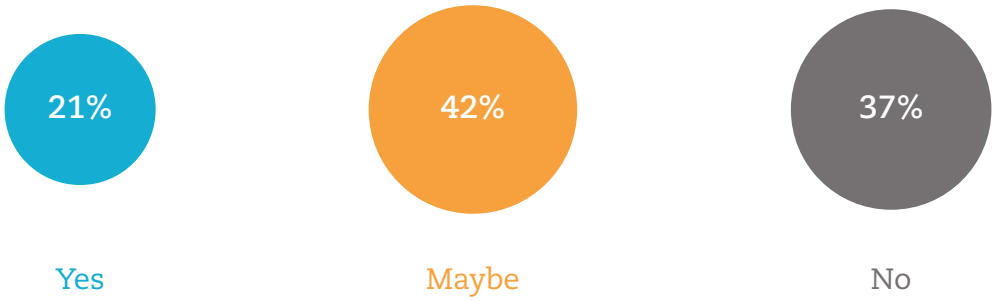
Our online survey of 1,003 consumers asked those who help others to deal with organisations why their help is required. The main reasons that some customers need help to deal with organisations online is because they struggle with the process / interaction (cited by 50% of respondents), are unable to use digital technology (43%) or don't want to use digital technology (37%). Almost a fifth of respondents surveyed for this research help a friend or relative because that person has an issue(s) with their sight, hearing, dexterity or mental health that makes it difficult to deal with an organisation through digital channels.

Thinking about the person you help most online, why don't they do it themselves?



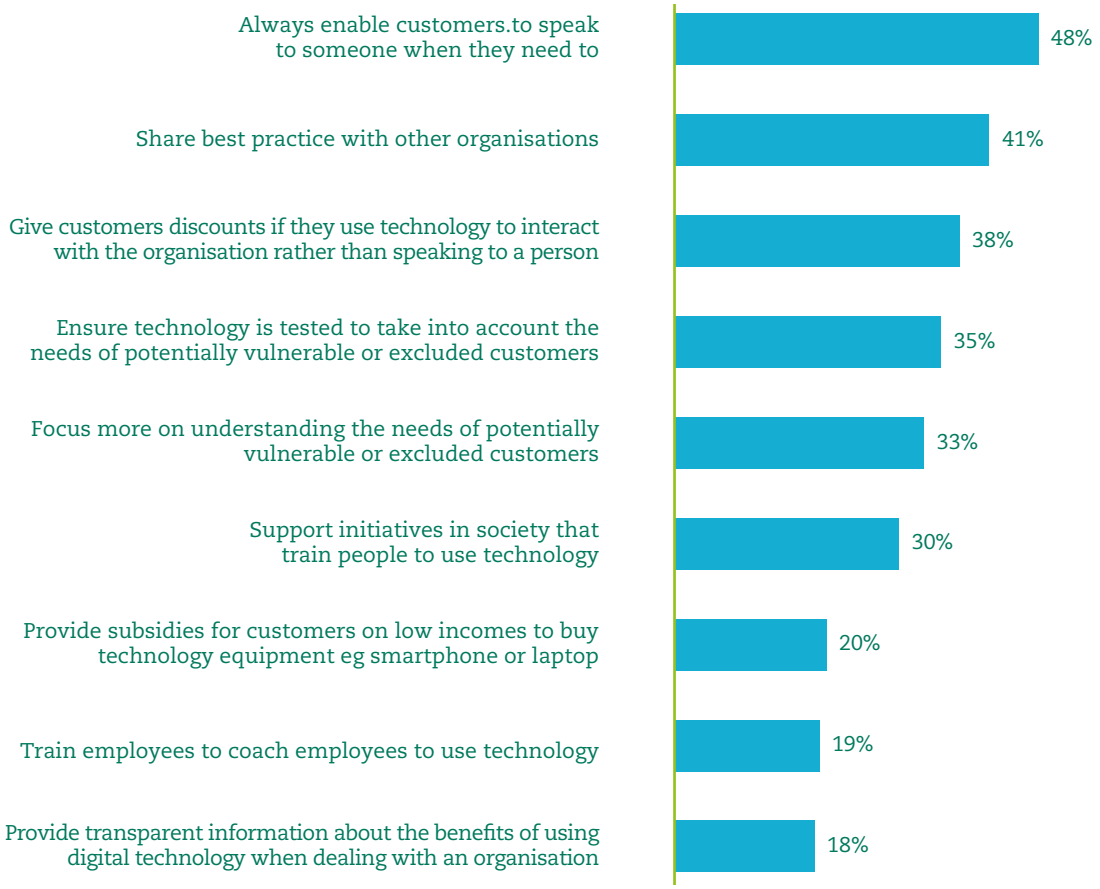
Only 21% of respondents believe it is likely that the person they help the most will ever learn to use digital channels to interact effectively with organisations. 42% suggest that it is possible that their friend or family member's online competence will develop but 37% feel it will not.

Thinking of the person you help online the most, do you think they will ever learn to use digital channels to buy things online or get customer service?



Customers believe that the most important way organisations can reduce the risk of digital exclusion is by enabling people to speak to an employee when it is needed

What should organisations do to reduce digital exclusion ? (% customers who say this is one of the top 3 things organisations should do)



Our research asked 1,003 consumers to identify the top 3 things organisations should do to avoid customers being digitally excluded. Almost half of customers surveyed believe that always enabling customers to speak directly to an employee is important to reduce the risk of digital exclusion. 41% want organisations to share best practice about tackling digital exclusion. At least 30% of people feel organisations should prioritise testing technology and understanding the needs of potentially vulnerable or excluded customers and support initiatives that help more people learn how to use technology. While 38% of respondents are attracted by the idea of receiving a discount for interacting with organisations through digital channels rather than speaking to a person, this implies a risk that customers who do not interact digitally could be disadvantaged or pay more for the products and services they use.

How organisations are addressing the risk of digital exclusion

Interviews conducted with senior executives from 20 organisations indicate that large organisations are undertaking a wide range of activities to support vulnerable customers and reduce the risk of digital exclusion. There is a recognition that achieving equity of outcomes across all customers may require greater levels of effort and resources from organisations, depending on an individual customer's needs and situation.

1) Design and testing of customer experience journeys, explicitly taking into the account the needs of vulnerable people and customers who have limited access to digital technologies

2) Maintaining a range of channel options including contact centre operations and where relevant a physical branch / office presence

3) Training and developing employees to assist or coach customers who have limited digital skills

In some cases, customer service advisors spend a relatively large proportion of their time helping customers who don't interact digitally; or introducing and guiding customers to adopt digital channels. Organisations therefore need to ensure that resourcing models take into account these requirements.

4) Developing specialist knowledge and expertise to support vulnerable customers

Many large organisations have developed specialist expertise to help customers who have a disability of long term health condition, or who are vulnerable, access products and services. Their role involves giving advice about potential modifications to an organisation's products and services and signposting customers to a range of free and paid-for services available from specialist suppliers. Examples include:

- Ergonomic keyboards designed to help people suffering from RSI (Repetitive Strain Injury)
- BEMyEyes is an app that connects visually impaired users to volunteer helpers who can aid with everyday tasks
- HearYouNow is a free amplification tool for people who do not use a hearing aid but experience difficulties in being heard
- Relay UK is designed for deaf, hard of hearing or speech-impaired people It enables customers to type in what they would like to say, with an assistant relaying the conversation in real time
- LanguageLine's BSL (British Sign Language) app gives customer service representatives live face-to-face access to a BSL interpreter using a handheld device or a laptop. The app is activated during visits to deaf customers' homes and for online appointments to enable more inclusive and accessible communications
- VisionAid provides desktop magnifiers, extendable monitor arms and specialist software to assist people with limited eyesight

5) Identifying customers who are at risk of vulnerability or exclusion

In general, the organisations we interviewed enable employees to record details of customers who have particular needs related to vulnerability of a disability or health condition so that this knowledge is recorded in customer relationship systems. As a result, service can be adapted to address customers' needs, for example by routing a customer to a specialist team or ensuring that certain customers by-pass chatbot interactions.

6) Working with specialist third parties to improve customer service for vulnerable people

Many of the organisations interviewed for this research have sought input from charitable, not-for-profit or commercial third parties to assess and improve accessibility of their service. In some cases, this leads to specialist training or qualifications, independent accreditation of accessibility and sharing best practice with other organisations.

In the financial services sector, Plain Numbers provides specialist advice and training to help organisations improve the way data and numbers are communicated. This activity is designed to address the needs of customers who find it difficult to interpret financial data or have relatively low levels of financial numeracy.

7) Authorisation for third parties to act on behalf of a customer

Some customers need a trusted third party to act on their behalf, either on a temporary or ongoing basis. As a result, most organisations have formal processes to validate and confirm individuals who are designated to access account records and act in the interests of a customer.

Difficulties can arise when a customer suddenly needs help from a third party in the absence of a formal authorisation. Organisations have a responsibility to protect customers from potential abuse or unwanted intervention, whilst recognising that situations can arise where there is an urgent, unplanned need for help from a third party. In these cases, it is important to have a consistent policy and guidelines and that employees respond with tact and empathy, taking appropriate steps to check the authenticity of individuals identifying as trusted third parties.

Several organisations we interviewed are developing services that enable a number of parties including an employee, a customer, a carer or other third party to be connected through a combination of voice, video and online technologies.

8) Digital outreach programmes

Sky has launched a £10 million fund, Sky Up, to provide technology, training and connectivity to help customers who are digitally isolated. The programme focuses on supporting young people aged under 25 in low income areas including those who do not have access to a suitable device to do online homework, and people aged over 65 who lack the skills and confidence to make effective use of online services.

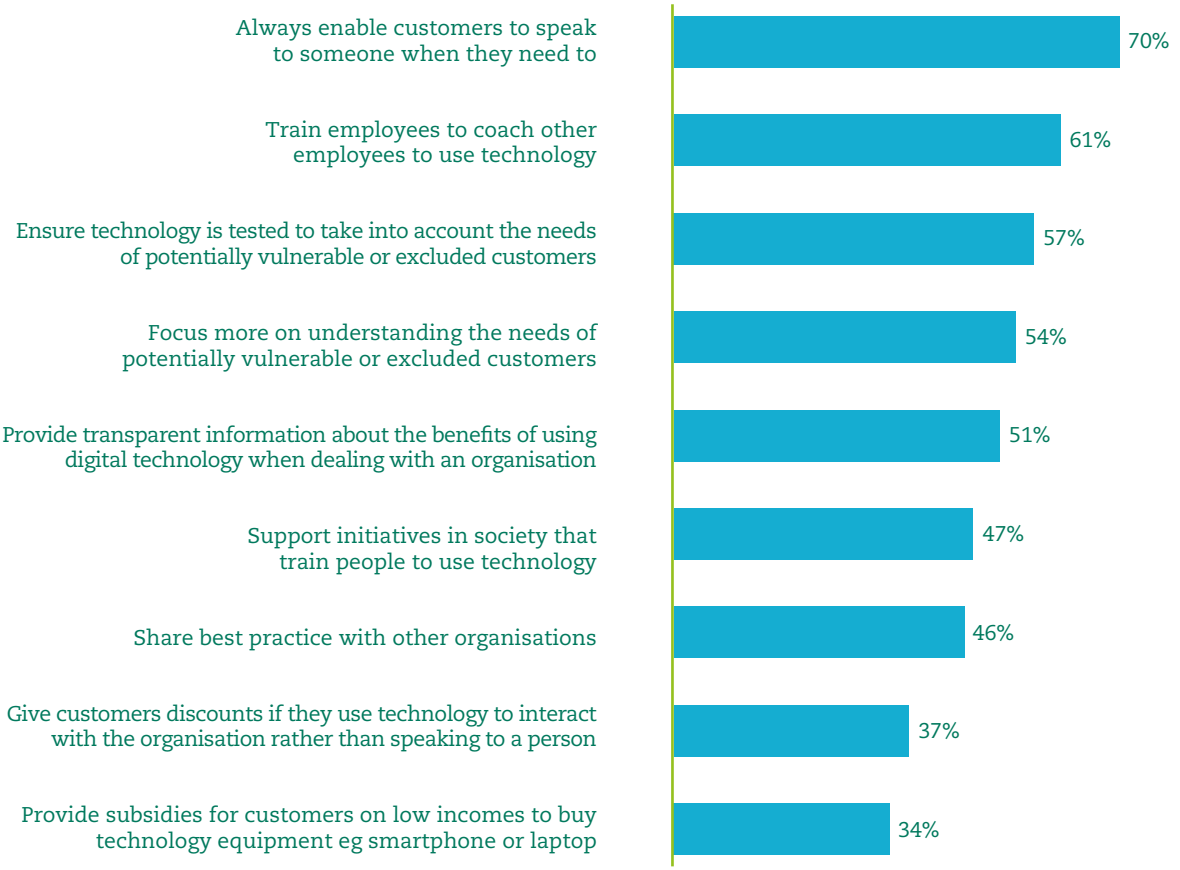
Barclays Digital Eagles programme features a range of initiatives to build develop digital skills and confidence in its customers and the wider community. The programme includes helping care home staff learn digital skills and support residents in communicating online with their family; interactive sessions and lesson plans for schools to develop children's coding skills; virtual events to improve customers' understanding of digital banking and cybersecurity; tips about how to communicate with organisations or access public services online.

These community-focused initiatives have significant potential to boost skills and life chances for thousands of people. Their long-term impact will require a sustained commitment from organisations and may benefit from linkages to local skills, economic development and regeneration activity.

Evidence from our research with a sample of 316 managers and employees suggests that practice to reduce the risk of digital exclusion may be variable

70% of the sample of managers and employees working in B2C organisations say their organisation always enables a customer to speak to a person when needed. Only 57% say their organisation ensures technology is tested to take into account the needs of potentially vulnerable of excluded customers and just 46% share best practice with other organisations.

% Managers / employees who agree that their organisation does the following to provide customer service to vulnerable people



Based on a survey of 306 UK managers and employees

This evidence suggest that many organisations need to develop greater awareness of the extent of potential vulnerability and digital exclusion across their customer base and reassess the suitability of their products, services, employee training and communications channels.

Tackling the risk of digital exclusion requires action from organisations, government, regulators, the third sector and individuals

Regulators and government have a key role in monitoring customer service outcomes for vulnerable people, setting minimum standards and encouraging organisations to share practice. As technology develops and organisations seek to offer differentiated customer experiences to digitally confident customers, it will be increasingly relevant to assess fairness of customer service outcomes for all customers. Regulators will need to develop their understanding of innovation and technology in a customer service context and the implications for access to essential services.

Growing cost of living pressures may strengthen the public policy case for ensuring that people have access to technology equipment and connectivity in public spaces like libraries and community centres.

It is also clear that friends and family play a crucial role in helping people who lack the skills, confidence or ability to use technology to access services and communicate effectively with organisations.

Potential actions to reduce digital exclusion	Key actors
Define minimum standards of access to customer service for vulnerable people or people at risk of digital exclusion	• Organisations • Regulators, in sectors that deliver essential services
Monitor customer service outcomes for vulnerable people or people at risk of digital exclusion	• Organisations • Regulators, in sectors that deliver essential
Consider the needs of vulnerable people or people at the risk of digital exclusion in the design, testing, implementation of products and services and channels for interacting with organisations	• Organisations
Share best practice between organisations	• Organisations • Third sector • The Institute of Customer Service

Potential actions to reduce digital exclusion	Key actors
Create specialist applications or consultancy to empower vulnerable or digitally excluded people to deal effectively with organisations	• Organisations
Encourage employees to coach customers in using digital channels and applications	• Organisations
Develop content and training courses to increase digital skills, confidence and participation by customers	• Organisations • Third sector
Enable access to digital communications in community locations	• Government / third sector organisations
Reduce gaps in communications infrastructure coverage	• Communications providers / government
Give informal help to customers who lack confidence or skills to deal with organisations	• Individuals

How are organisations addressing the risk of digital exclusion?

Key takeouts

The extent of digital exclusion

- At least 15% of customers lack confidence in using technology
- Key indicators of potential digital exclusion include people who lack skills and confidence, or have a disability or health condition that make it difficult for them to deal with organisations through digital channels, or who lack the financial resources to make effective use of communications technology
- Our research with consumers suggests that people who are unemployed or do not use a computer or smartphone at work are particularly at risk of digital exclusion

Actions that organisations are taking to address the risk of digital exclusion

- Design and testing of customer experience journeys, explicitly taking into the account the needs of vulnerable people and customers who have limited access to digital technologies
- Maintaining a range of channel options including contact centre operations and where relevant a physical branch / office presence
- Training and developing employees to assist or coach customers who have limited digital skills
- Developing specialist knowledge and expertise to support vulnerable customers
- Identifying customers who are at risk of vulnerability or exclusion
- Working with specialist third parties to improve customer service for vulnerable people
- Authorisation for third parties to act on behalf of a customer
- Digital outreach programmes to increase the skills and confidence of people at risk of digital exclusion

Our research with a sample of 316 managers and employees working in a broad range of UK organisations suggests that practice to reduce the risk of digital exclusion may be variable

- 57% of respondents say their organisation ensures technology is tested to take into account the needs of potentially vulnerable of excluded customers and just 46% share best practice with other organisations.

3

Factors driving the implementation of technology in customer service

This section examines the factors influencing organisations' deployment of technology in a customer context. It draws on two sources:

316 managers and employees

- Working in UK-based organisations in a range of sectors and size of organisation
- Gives a broad perspective of drivers of technology investment and adoption across the UK economy

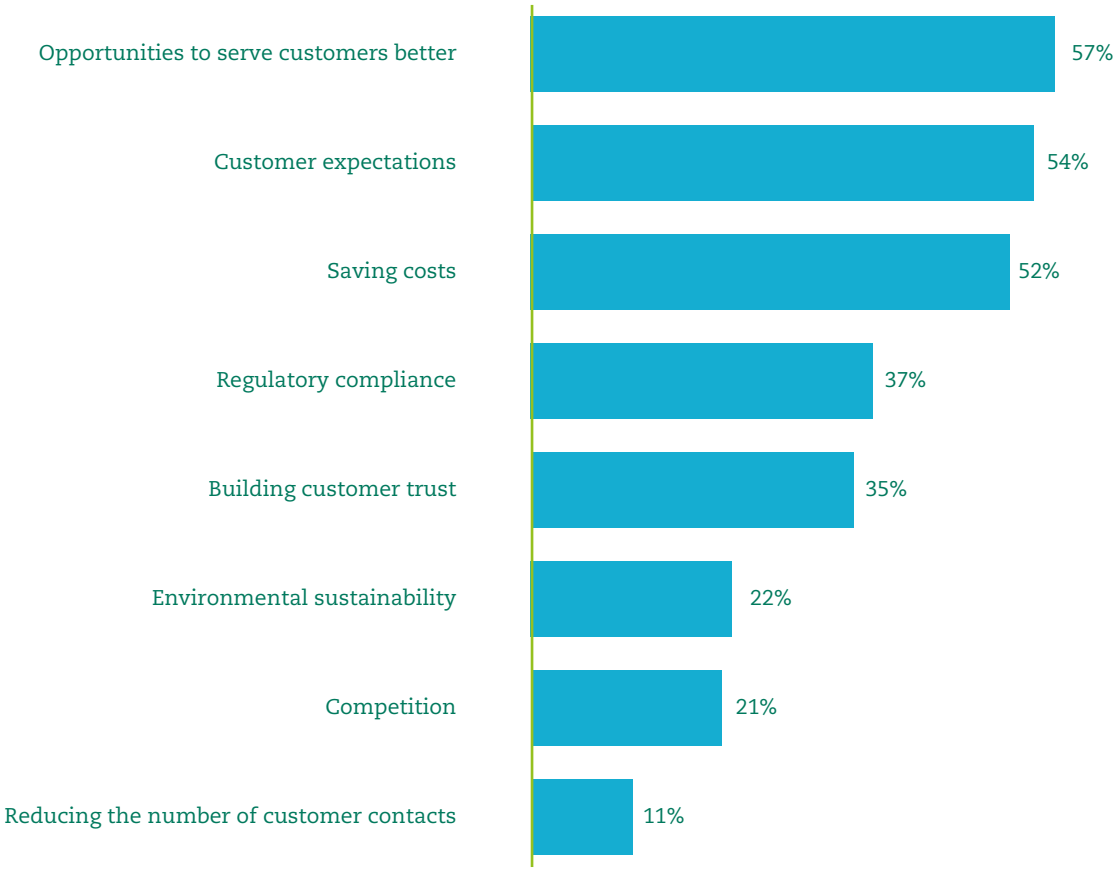
20 senior executive interviews

- Representing organisations that provide customer service to consumer, business or a mix of consumer and business customers as well as several companies that provide technology solutions for customer service
- Gives qualitative feedback about the drivers of technology investment

Improving customer service, responding to customer expectations, and saving costs are leading drivers of technology deployment in a customer service context

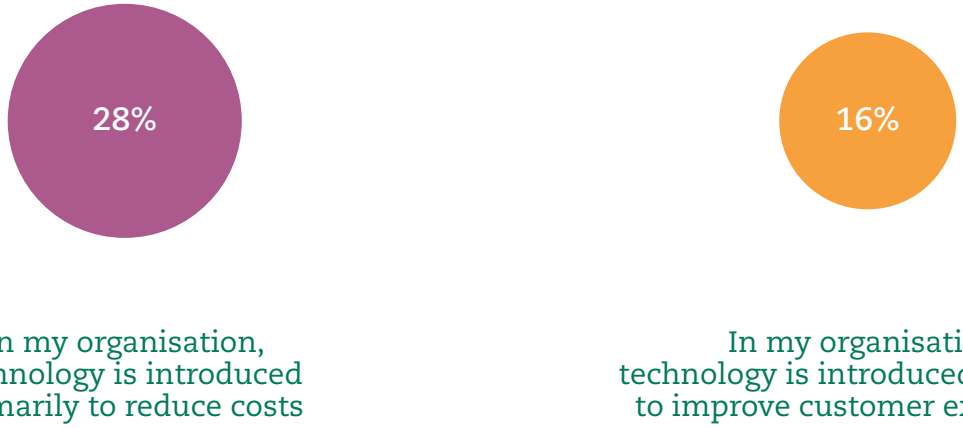
In a survey of 316 managers and employees in UK-based organisations, over 50% of respondents highlighted these as the most important drivers of their organisation's deployment of technology in customer service context. More than 30% attached high importance to the role of technology in enabling regulatory compliance and building trust.

What are the most important drivers of your organisation's deployment of technology? (respondents selected all that apply)



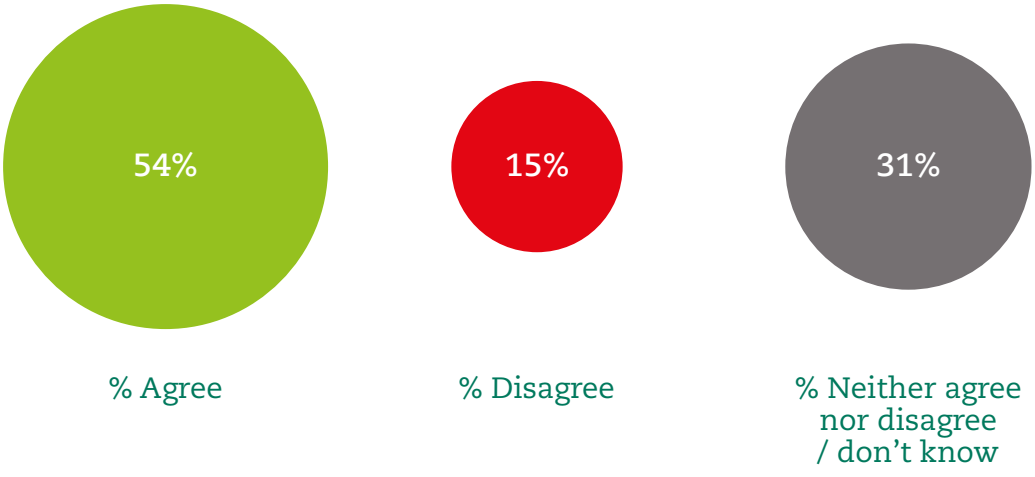
While improving customer experience and cost saving are both drivers of technology deployment, the 316 managers and employees participating in the research are more likely to feel that technology deployment in their organisation is primarily driven by cost savings.

How would you characterise the implementation of technology in your organisation?



54% of managers and employees across UK organisations agree that, since the emergence of Covid-19, their organisation has focused on reducing the volume of customer contacts.

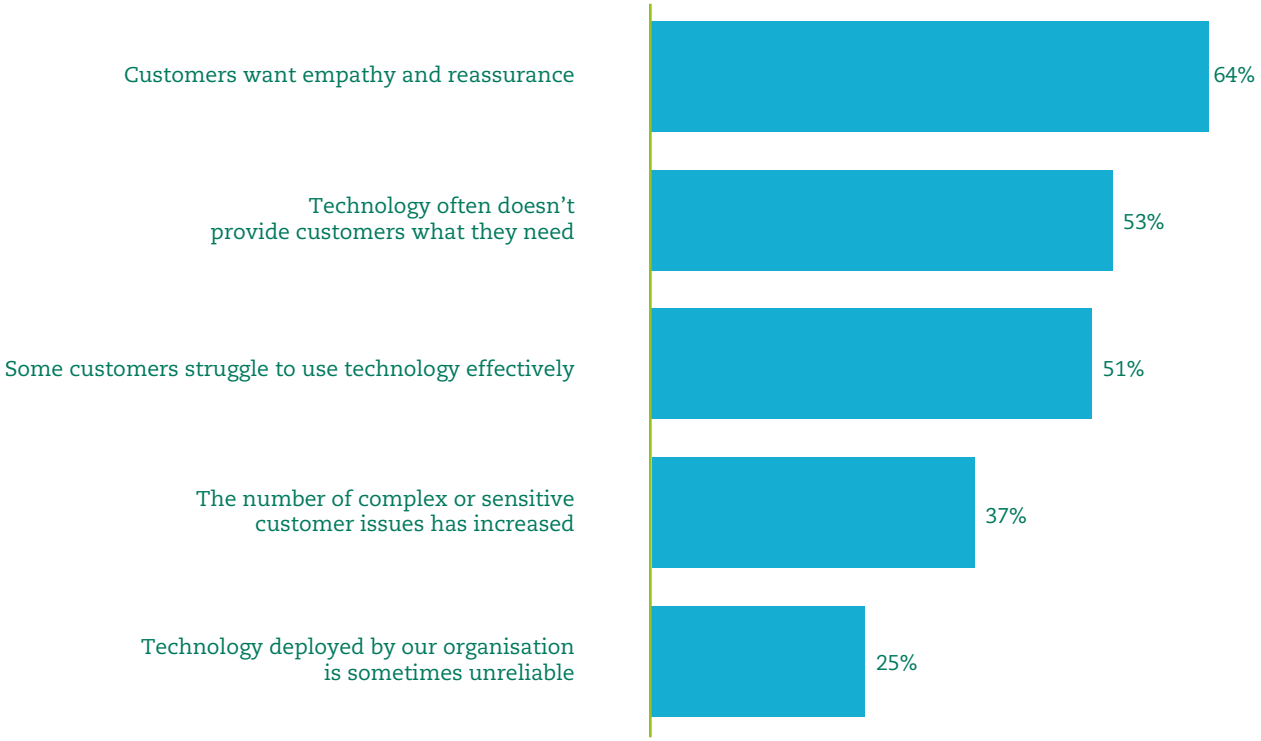
Since Covid-19, has your organisation focused on deploying technology to reduce the volume of customer contacts?



However, 68% of managers and employees believe that, during the Covid-19 pandemic, it has become more important that organisations enable customers to speak to a person when needed

The main reasons are for enabling customers to speak to a customer service employee are to give empathy or reassurance, technology alone not being sufficient to address customer needs and the limitations of some customers' ability to use technology effectively.

Why do you say it has become more important to enable customers to speak to a person?



Interviews with 20 senior executives highlighted the importance of benefits for both organisation and customer as drivers of technology deployment

Changing customer expectations and behaviours

As we saw in chapter 1, the range of channels used by customers to interact with organisations has expanded in recent years. This means that there is a greater requirement for organisations to understand customers' channel preferences for different types of contact and deploy technologies that enable consistent, joined-up service across channels.

In Retail, the need to respond to changing customer behaviour, or competition was often cited as an important driver of technology deployment in a customer service context. For many customers, experiences with technology leaders such as Amazon and Apple have raised expectations about the quality and level of technology available more generally in experiences with organisations.

During the Covid-19 pandemic, customers often had to interact with organisations only through digital channels, in some cases, using digital channels for the first time. Alongside the resurgence of in person experiences, many people have continued to interact with organisations digitally and across the economy: the volume of digital customer experiences is higher than its pre-Covid-19 level[2].

Seeking a win-win for organisation and customers

In sectors with a high volume of digital customer experiences and transactions, such as Banking, Insurance and Telecommunications, technology is often seen as an opportunity to enable a "win-win" for customer and commercial objectives. For example, if technology is used to diagnose or reduce service failures or direct customers quickly to a relevant expert, it can allow organisations to reduce costs whilst providing better customer experiences.

[2] See UK Customer Satisfaction Index July 2022: the state of customer satisfaction in the UK, available at www.instituteofcustomerservice.com/ukcsi

Impact of regulation designed to increase competition

In regulated sectors, the drive to make it easier for customers to switch providers has stimulated investment in technology to reduce complexity and barriers to switching. The advent of open banking – giving customers the option of using their transaction data to access products and services from a range of providers – has heightened the importance of technology that supports data security and integration.

Productivity and hybrid working

The Covid-19 pandemic has made a lasting impact on organisations' deployment of technology in the context of customer service, working practices and collaboration. Many organisations have strengthened and expanded their technology capabilities to enable flexible and hybrid working for employees and deal with increased customer contact through digital channels.

Rebuilding trust

In cases where customers, partners or suppliers have been impacted by data breaches, technology or process failures, there has been a need to invest in technology to rebuild trust and confidence.

Lower technology costs have created new opportunities

The growth of cloud computing and data storage has increased the opportunities for cost-effective flexible, secure and scalable technology solutions. Previously, organisations often needed to build standalone systems for a specific purpose or application. Cloud computing and software services afford the potential for data to be deployed across a range of integrated applications. As a result, skills and resources in data management and integration have become increasingly critical to customer service performance.

Factors driving the deployment of technology in customer service: Key takeouts

- Improving customer service, responding to customer expectations and saving costs, regulation and building trust are important drivers of technology deployment
- 54% of managers and employees across UK organisations believe that during Covid-19 their organisation has focused on reducing the volume of customer contacts
- 68% of managers and employees believe that since the Covid-19 pandemic it has become more important that organisations enable customers to speak to a person, to provide empathy and reassurance or because technology alone does not sufficiently address customer needs
- Senior executives identified the importance of delivering benefits for both organisation and customer as drivers of technology deployment

4

How organisations are deploying technology in a customer service context

This section examines the technologies and applications that are most important to customer service and the benefits for organisations, customers and employees. We also assess how organisations are using technology alongside employees and approaches to personalisation of service experiences.

The research draws on two distinct and separate sources:

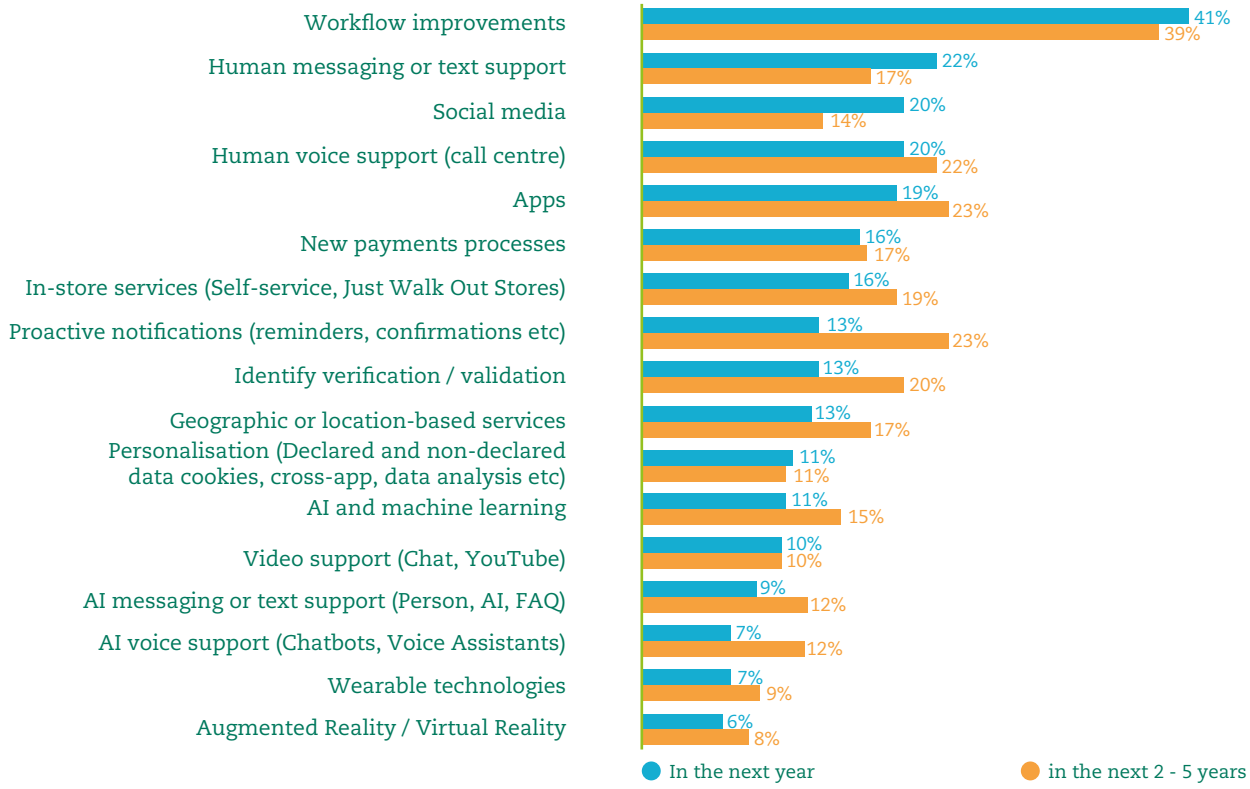
- An online survey of 316 managers and employees currently working in UK organisations, representing a range of sectors and size of organisation
- Interviews with senior executives from 20 organisations including both organisations that are major providers of customer service to consumer and / or business customers; and several companies that supply technology-based customer service solutions to business clients

Workflow improvements are especially important to deliver customer service objectives, according to a survey of 316 managers and employees

41% of respondents identified workflow improvements as being significant in delivering their organisation's customer experience objectives, more than any type of technology or application. At least 20% of managers and employees attached importance to messaging services, social media and voice or contact centre support. Between 10 and 19% of respondents cited payment processes, in-store services, proactive notifications, apps, identity verification, geographic or location based services, personalisation of data, artificial intelligence and machine learning, and video support as being critical to their customer experience.

In the next 2 – 5 years, apps, proactive notifications, identity verification and geolocation-based services are likely to become more important to customer service objectives. Artificial intelligence and machine learning, AI messaging and voice support will also receive increased focus. Support and communication provided by employees over the phone will continue to be central to many organisations' customer experience.

Which technologies or applications are most important to delivering your organisation's customer experience objectives?



Based on a survey of 316 UK managers and employees

Providing information more quickly, improved handling of simple interactions, empowering employees to give better service, back office processes and predicting customer needs will benefit most from effective deployment of technology

According to our survey of 316 UK managers and employees, the leading customer service benefits of deploying technology will be providing customers with information more quickly, improved efficiency of simple customer transactions and empowering employees to give better service through access to data, prompts and knowledge. More than a quarter of respondents highlighted the potential benefits in back office processes, stock availability and data analytics to enable better business decision-making or predictive insight about customer needs.

Which elements of your customer experience will benefit most from effective deployment of technologies or applications?

Based on a survey of 316 UK managers and employees

Senior executives highlighted 5 key areas in which technology is important for their organisation's customer experience

We asked 20 senior executives to identify the most important ways in which technology deployment is influencing their organisation's customer service. These executives were much more likely than the broader sample of 316 UK managers and employees to say that their organisation is deploying a wide range of technology and applications in a customer service context. They highlighted 5 areas of significant impact.

Workflow applications

CRM and data integration

Analytics to improve performance and decision-making

Retail: workflow, analytics and in-store experiences

Managing customer contacts through digital and voice channels

Voice
Website
Apps
Email
Webchat / livechat
Messaging
Text
Social Media

1) Workflow applications

Many significant deployments of technology to improve customer service have focused on workflow processes, some of which are not directly visible to customers. This activity is often concerned with automating or speeding up processes or information flows to give increased speed, accuracy or scalability. Specific examples of workflow improvements include:

- More efficient appointment scheduling
- Identification of errors / exceptions
- Speeding up information flows across the organisation
- API (application programming interface) software enabling rapid information exchange between an organisation and its customer, particularly in B2B context
- Faster processing and delivery of orders
- Payment processes
- Real time, continuous monitoring of inventory and stock
- Speeding up payments and customer authentication
- Enabling employees to sign in to a shift via an app, rather than through paper-based methods

2) CRM and data integration

Effective collection, storage, integration and access to data underpins many of the key applications of technology in a customer service context. Data is essential to providing consistency of customer service across channels; measuring performance; analysing trends, problems and opportunities; building internal knowledge; and enabling use of artificial intelligence in customer contact. As a result, many organisations have focused on developing and integrating their systems, processes and capabilities in CRM (customer relationship management) and data. Specific applications enabled by of CRM and data integration that were highlighted in our research include:

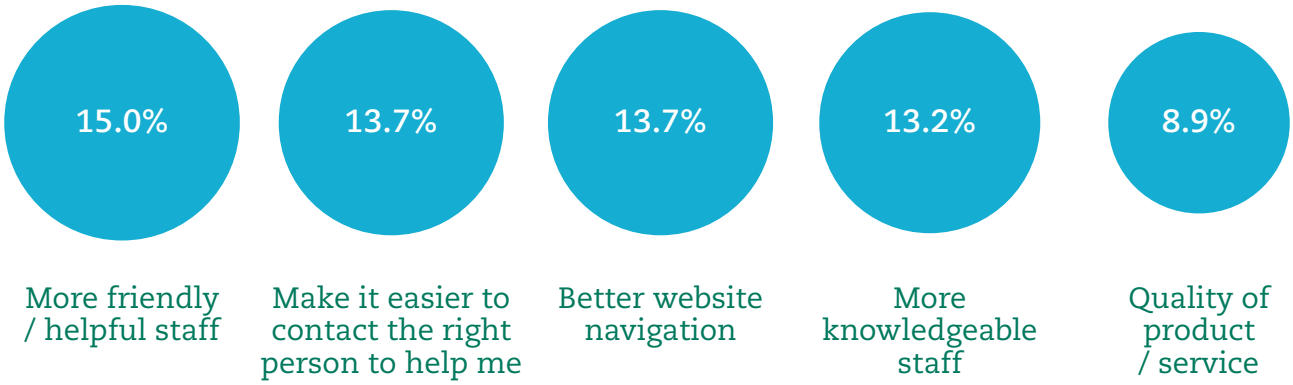
- Providing employees with a 360 degree view of customer data and history
- Enabling an end-to-end view of key customer journeys
- Giving employees structured access to internal knowledge sources
- Enabling customers to access data dashboards
- Measuring types of queries and quality of customer experience
- Rapid feedback on individual or team measures of customer satisfaction
- Linking customers to the right expert

3) Managing customer contacts through digital and voice channels

Website optimisation

Although websites are hardly a novel technology, evidence from the UKCSI shows that website navigation is consistently one of the leading issues customers want organisations to improve. Many organisations therefore maintain an ongoing focus on website performance and customer engagement.

Customers' perspectives on the top issues organisations should improve to give better service (UKCSI July 2022)



Key actions and investment to improve website performance include:

- Reviewing hosting and content delivery network arrangements to improve website speed and robustness
- Updating content management systems which underpin website functionality to remove outdated plugins or datasets with an irregular format that can impede performance
- Managing web fonts and imagery to assist quicker browsing and navigability
- Ensuring websites are configured to work effectively on mobile and tablet devices
- Updating essential content, especially frequently asked questions or information about service changes or interruptions
- Continual testing of customer journeys so that customers are able to locate key information quickly

Apps

Most senior executives we interviewed, especially those in large, consumer-facing organisations, see apps as among their most impactful investments in customer service. Key benefits for customers include fast access to personal account information, the ability to change or upgrade services, update personal information, receive timely service updates, or to contact the organisation directly from the app.

Many of the organisations we interviewed have so far focused on delivering a core set of services and information through their app(s). They have sought to build customer confidence and uptake by promoting their app and encouraging employees to coach customers in setting up the app and using it for key transactions. Our research suggests that investment is likely to accelerate as organisations seek to enhance the range of services available through their app and integration of experiences across channels.

Managing inbound customer contact

Managing inbound customer contact is fundamental to organisations' deployment of technology in a customer service context, for 4 key reasons:

- How organisations respond to inbound contact has an immediate and visible impact on customer satisfaction
- The expansion of inbound contact channels requires organisations to decide how they resource and prioritise different channels
- Inbound customer contact and messaging is the crux of how technology works alongside employees to deliver customer service
- Managing inbound customer contact is seen as a key opportunity both to reduce customer effort and enable cost efficiencies

Our research suggests organisations are adopting 3 distinct approaches to managing inbound customer contact:

- Positioning digital channels as the primary method of contact, supported by employee intervention when needed
- Allowing customers to choose their preferred channel, whilst improving digital options to increase their attractiveness
- Explicitly offering only digital inbound contact, with limited or no facility for voice contact with a person

Many large, consumer facing organisations with high volumes of transactions are focusing on positioning digital channels as the primary method of contact, supported by employee intervention when needed. The motivation for this approach is to achieve a "win-win" of commercial and customer experience objectives by reducing the number of failed customer contacts, improving speed and accuracy and concentrating employee resource on complex, sensitive or high value issues. Often, this is underpinned by structured chatbot or online interactions using artificial intelligence.

Analysis of inbound contacts

A starting point for reducing the number of customer contacts that are the result of a failure is an understanding the profile of inbound customer contact:

- Analyse the reasons why customers contact the organisation and in particular the volume of contacts that are result of a problem or service failures
- Identify critical points where the customer journey fails and customers are unable to achieve their objective in contacting the organisation
- Use analytics to define opportunities where self-serve or automated responses will reduce customer effort and failure rates and where human intervention will be required

Qualification of inbound contacts and dealing with routine issues

Artificial intelligence analytics is increasingly used to qualify and structure inbound contacts, routing a customer either to self-serve online information, an automated chatbot, or an employee, depending on the nature of the contact. However, there is an acknowledgment that chatbots cannot replicate the personal understanding or reassurance given by a skilled employee.

Effective deployment of artificial intelligence in customer contact therefore requires careful mapping of user cases and customer journeys, and judgement about how the need for human intervention is recognised and enabled. In an example from our interviews with senior executives, customers contacting the organisation about moving home and installing technology products – a critical customer experience – are asked a series of qualifying questions via a chatbot before being routed to a specialist customer service advisor.

Our research with consumers in chapter 1 underlines the challenges organisations face in deploying chatbots in customer service interactions. Feedback from a sample of over 1,000 UK consumers suggests that experiences with artificial intelligence-enabled chatbots are more likely than experiences in other channels to cause annoyance rather than satisfaction.

This means that the effectiveness of artificial intelligence in the context of chatbots or online interactions is highly dependent on:

- The quality of customer journey mapping and decision trees that frame the customer experience
- Continuous testing and learning to improve the efficacy of chatbots and inform when they should be used
- Options to use free text, in addition to pre-selected options which may not fit with the customer's situation
- Quickly identifying where a customer needs expert help and advice
- Identifying where an experience is not working and enabling a customer to speak to an employee

The growth of messaging

Our research suggests a growing trend for asynchronous messaging to overcome some of the limitations of chatbots and provide a flexible, efficient way for organisations and their customers to communicate. Asynchronous messaging channels include Whats App, Facebook Messenger or in some cases direct messaging from an app.

From the customer's perspective, asynchronous messaging offers a degree of control and the convenience of communicating via a mobile device, provided the organisation responds with timeliness. It also usually displays a record of previous messaging interactions with the organisation.

From the organisation's perspective, asynchronous messaging contributes to reducing the volume of inbound contacts, enabling quick response to customer queries in a resource-efficient way. An interviewee commented that the format of messaging channels encourages customers to express themselves with clarity and conciseness, which can enable faster resolution of queries. Whereas email communications often feature unstructured, dense text that prolongs interactions between customer and organisation, instant messaging gives the opportunity to request specific items of information that can be linked to CRM (customer relationship management), supporting analytics and a better understanding of individual customers' needs.

Expert help and employees as digital coaches

In a context where simple or routine queries are often handled through digital or automated channels, direct interactions between customers and employees are increasingly concerned with complex issues or problems. When these interactions are handled successfully, they can create memorable, differentiated customer experiences. Organisations are therefore deploying a range of technology applications to equip employees to give better customer experiences. Examples include:

- Providing employees with real-time prompts or guidance based on analytics of similar customer interactions
- Giving employees comprehensive visibility of relevant customer data and documentation in a structured format
- Analysis of the content of customers' interactions with employees to identify training needs or in some cases prove that regulatory compliance has been achieved
- Analysis of voice tone and emotional content of customer interactions to coach performance and alert an employee that a customer may require extra reassurance or specialist help
- Training, enabled by artificial intelligence, that generates questions to assess and build employees' knowledge and competence. Employees are regularly asked a small number of questions to check knowledge and understanding in key areas that affect customer satisfaction
- Generating personalised Net Promoter or customer satisfaction scores based on employees' individual performance

In some cases, the role of customer service advisers has evolved to be a digital coach or assistant, helping customers to use digital channels, stepping in where customers are experiencing a problem, building confidence and providing reassurance. Feedback from organisations is that these initiatives have been highly effective in improving employee capabilities, operational efficiency and customer satisfaction.

Connecting brand advocates and customers

A combination of new business models and technology platforms have created opportunities for organisations to engage their brand advocates as experts who deliver differentiated customer experiences. For example, companies invite their advocates to register on the platform as "experts" and take on tasks, such as advising customers and resolving problems, on a case by case basis. This model gives organisations access to a global pool of talented, skilled people who are highly engaged with the brand and motivated to deliver excellent service. The advocates and experts are from a wide range of backgrounds. They are often highly educated and typically include people who want a portfolio career, mature students semi-retired people, or people working part-time in other professions. Organisations that adopt this model tend to be providers of technology-rich consumer services such as computing, software or gaming, who need to differentiate their customer experience and have a high requirement for flexibility and scalability.

This type of business model may not be readily transferrable to large scale B2C or B2B organisations that serve a diverse range of customers, or who need to demonstrate compliance with regulatory imperatives. The model also raises questions about employee relations, especially if it was adopted on a large scale. But this example shows how the combination of a technology platform, innovative business model and brand advocates or experts creates the opportunity to deliver differentiated customer experiences with scale and flexibility.

4) Analytics to improve performance and decision-making

Organisations are using analytics in a range of ways to measure quality of customer experience, identify faults or problems, understand customer needs, or predict customer behaviour.

Specific examples of analytics in a customer service context include:

- Identifying causes of successful or unsuccessful customer interactions
- Measuring types of queries and quality of customer experience
- Providing prompts to advisors about next best action or options
- Inform training to improve employee competence and accuracy
- Rapid feedback on individual or team measures of customer satisfaction
- Measuring levels of stress or emotion in customer / employee interactions
- Translation of voice or text into different languages
- Proactive diagnosis of faults
- Social media listening to gather insight about customer preferences, needs and issues
- Predictive analytics of customer preferences to inform personalised messaging or offers
- Analysis of response / opening rates

5) Retail: workflow, analytics and in-store experiences

The retail sector has been the subject of intense debate about the role of technology, as established companies seek to optimise the mix of online and physical commerce, deal with supply chain issues, manage the impact of rising costs and respond to changing customer behaviours.

This research suggests that key areas of focus for deploying technology in a customer service-context include a mix of workflow processes, enhanced in-store customer experience and predictive analytics.

Workflow and analytics

- Improving speed and reliability of orders and deliveries and integrate processes across channels
- Continuous real-time monitoring of stock and inventory levels
- Predictive analytics of customer needs and behaviour based on transaction and loyalty card data
- Linking video analytics and transactional workflow data to detect and prevent retail shrinkage

Enhanced in-store experiences

- In-store scanning that allows customers to track their spend, locate products, collect and pay for goods more quickly
- Expansion of self-service checkouts to reduce queuing and enable employees to spend more time with customers
- Better in-store communications, for example using headsets and wireless technology that enable employees to resolve issues more quickly
- Contactless, checkout free stores

Personalisation relies more on understanding and responding to a customer's particular situation and context than on predicting future customer behaviour

Our research with customers (see chapter 1) shows a diversity of attitudes about organisations' use of data to improve or personalise customer experiences. Many digitally active customers are confident about sharing their data with organisations in return for relevant offers and recommendations. Other customers are reluctant to share any of their data with organisations or they seek transparency and reassurance about how their data will be used. At the same time, there is an expectation that an organisation and its employees will know about a customer's previous contacts and transactions and use it to give relevant advice or take appropriate action.

Organisations are increasingly taking a careful approach to personalisation of service experiences to avoid appearing intrusive, inauthentic or "creepy." There is also a growing sense that genuine personalisation relies more on understanding and responding to a customer's particular situation and context than on predicting future customer behaviour.

Interviews with senior executives suggests methods for sense-checking that personalisation is appropriate:

- Be clear about the customer service benefit to the customer, not just the opportunity for the organisation
- Understand and respond to a customer's specific context and situation
- Ensure employees have access to relevant customer data
- Train employees to recognise and respond to specific needs and context
- Treat a customer as an individual, not part of a homogenous group or segment
- Avoid communicating with a customer about products, service offers that are not appropriate to them or they cannot access
- Avoid assuming a customer will not be interested in a product or service because of their customer segment or previous history
- If a customer buys a large, or unusual purchase, make contact to see if they need help
- Proactive communication about delays or disruption to service
- Use next best activity prompts based on analytics as guidance, rather than a pre-scribed script

At least one of the organisations we interviewed runs a formally-constituted data ethics committee to scrutinise potential applications of personalisation.

Applications of technology that are "off limits"

Our research with customers suggests that many people are uncomfortable about data or technology applications being used in the context of highly sensitive or personal experiences, even where there are potential customer service benefits.

Interviews with senior executives identified applications of technology that organisations could deploy but eschew because of ethical and reputational reasons:

- Tracking a customer's location without their consent
- Spyware to monitor customers' online behaviour
- Using personal information to target customers with products linked to a specific health condition
- CCTV and ANPR technologies: these are used only for a specific purpose, usually monitoring of physical premises for security
- Collecting or using data associated with gender, ethnicity or religion, unless it is essential for customer service purposes

In some cases, organisations need to make a risk assessment which may result in a decision not to deploy technology, even when there appear to customer service benefits:

- Proactive advice on personal finances that some customers may regard as intrusive or judgmental
- Assessing the data security implications of integrating customer messaging services and an organisation's CRM system
- Checking that the organisation's deployment of technology does not cause a customer inadvertent harm or discrimination

Technologies and applications that will be important to customer service in the next 2 – 3 years

We asked 20 senior executives to identify technologies and applications that will be particularly significant to their organisation's customer service and will receive increased focus on and investment in the next 2 – 3 years.

Existing investment in technology that will receive increased focus in the next 2 – 3 years

- Development of self-service for a wider range of queries
- Identify validation and authentication including biometrics and voice identification
- Continued importance of voice, through contact centres and AI-enabled chatbots
- Omnidata – giving customer service advisors greater transparency of customer data and the organisation's knowledge resources
- Greater flexibility and more features in apps
- Video analytics to monitor retail workflow and reduce shrinkage
- Wider deployment of process automation
- Next best activity prompts to give greater options for personalisation
- More proactive customer contact, especially to give notice of potential disruption or delay to services
- Continued growth in asynchronous chat through messaging services
- Geolocation services
- Payment services and processes

Several organisations we interviewed were relatively sceptical about use of video in customer experiences, despite the increased uptake of video conferencing services during the Covid-19 pandemic. Video is seen as having greatest benefit for high value or personally sensitive experiences such as a discussion about a mortgage. It also has the potential to improve customer service for people who are hard of hearing by enabling sign language to be used by a customer and a trained employee (see also p46).

New developments in the next 2 – 3 years

Augmented reality

Several organisations we interviewed are investigating the potential benefits of augmented reality (AR) "the real-time use of information in the form of text, graphics, audio and other virtual enhancements integrated with real-world objects[3]." Key potential applications of augmented reality include:

- Helping customers set up or diagnose problems with complex or technical products and services
- Enhancing customers' experience of trying out clothes or beauty products
- Providing demonstrations of new products or services, leisure facilities or tourist destinations

Internet of Things

The Internet of Things refers to the interconnection via the internet of computing devices embedded in everyday objects, enabling them to send and receive data. The ability to monitor physical objects, infrastructure and appliances has created a growing number of applications in a customer service context, including:

- Monitoring of the home and domestic appliances to support vulnerable or elderly people to live independently
- Monitoring of physical assets and infrastructure to measure performance, detect faults or theft
- Wearable technologies that allow people to better understand their own health or allow an approved medical practitioner remotely to monitor their health. This technology could also be used by organisations to assess health and safety of employees working in hazardous conditions

[3] Gartner Glossary, see Definition of Augmented Reality (AR) - Gartner Information Technology Glossary

How organisations are deploying technology in a customer service context:

Key takeouts

An online survey of 316 managers and employees gives a broad perspective on the nature and extent of deployment of technology across the UK economy

- 41% of respondents identified workflow improvements as being significant in delivering customer experience objectives, more than any type of technology
- In the next 2 – 5 years, apps, payment processes, identity verification, geolocation-based services, messaging, proactive customer contact and artificial intelligence applications are likely to receive increased focus
- Support and communication provided by employees over the phone will continue to be central to many organisations' customer experience

How organisations are deploying technology in a customer service context:

Key takeouts

Technology / Applications	Benefits
Workflow processes	• More efficient appointment scheduling • Check for errors / exceptions • Speed up information flows across the organisation • APIs to speed up information flow between the organisation and the customer • Faster delivery of orders • Real time, continuous monitoring of inventory and stock • Speed up payment and identity authentication • Reduce faults, downtime • Resolve problems more quickly
CRM and data integration	• Provide employees with a 360 degree view of customer data and history • Enable an integrated end-to-end view of key customer journeys, across channels • Measure types of queries and quality of customer experience • Rapid feedback on individual or team measures of customer satisfaction • Link customers to the right expert • Enable customers to access data dashboards • Give employees structured access to internal knowledge sources • Personalised customer messaging or offers • Analysis of response / opening rates
Managing customer contacts through digital and voice channels	• Fast access to information and services • A choice of channels to interact with organisations • Enable interactions through a range of devices • Give customers the ability to manage their account, modify information or service options • Proactive service and information updates • Efficient handling of simple, straightforward queries • Ability to speak to a person for complex, personally important or sensitive issues • Secure and rapid identification of customers or authorised third parties

How organisations are deploying technology in a customer service context:

Key takeouts

Interviews with 20 senior executives identified 5 key areas of focus

Technology / Applications	Benefits
Analytics to improve performance and decision-making	• Provide prompts to advisors about next best action or options • Identify causes of successful or unsuccessful customer interactions • Inform training to improve employee competence and accuracy • Measure levels of stress or emotion in customer / employee interactions • Translation of voice or text into different languages • Social media listening to gather insight about customer preferences, needs and issues • Detect potential fraud • Advise about relevant local services
Retail: workflow, analytics and in-store experiences	• In-store scanning that enables customers to track spend, locate products, collect and pay for goods more quickly • Expansion of self-service checkouts to reduce queuing and enable employees to spend more time with customers • Contactless, checkout free stores • In-store communication allowing employees to communicate quickly to resolve issues • Improve speed and reliability of orders and deliveries and integrate processes across channels • Continuous real-time monitoring of stock and inventory levels • Predictive analytics of customer needs and behaviour based on transaction and loyalty card data • Link video analytics and transactional workflow data to detect and prevent retail shrinkage

How organisations are deploying technology in a customer service context:

Key takeouts

New developments that will be important to customer service in the next 2 – 3 years

Augmented reality	• Helping customers set up or diagnose problems with complex or technical products and services • Enhancing customers' experience of trying out clothes or beauty products • Providing demonstrations of new products or services, leisure facilities or tourist destinations
Internet of Things	• Monitoring of the home and domestic appliances to support vulnerable or elderly people to live independently • Monitoring of physical assets and infrastructure to measure performance, detect faults or theft • Wearable technologies to allow monitoring of personal health assess health and safety of employees working in hazardous conditions

Applications of technology that are "off limits"

Interviews with senior executives highlights potential applications of technology and data that organisations eschew because of ethical and reputational reasons:

- Tracking a customer's location without their consent
- Using spyware to monitor customers' online behaviour
- Using personal information to target customers with products linked to a specific health condition
- CCTV and ANPR technologies: these are used only for a specific purpose, usually monitoring of physical premises for security
- Collecting or using data associated with gender, ethnicity or religion - unless it is essential for customer service purposes

5

Key enablers and recommendations

Based on our research with senior executives, managers and employees and consumers we have identified 10 key enablers of technology implementation to generate customer satisfaction and commercial benefits. Organisations that have implemented technology successfully have taken a holistic view, considering user cases for both customers and employees; wider impact on the end to end customer experience; risks and mitigation, ongoing cost, resource and skills requirements; and implications for systems, scalability and security.

1) Clarity of objectives

Deploying technology in a customer service context involves alignment of customer needs, commercial objectives, processes, systems and applications. It is therefore critical that the core objectives and scope are defined and agreed and are the reference point for decision-making and measurement.

Clarity of objectives: key actions

- Give a clear articulation of the problem or opportunity and how this will be addressed
- Define the desired outcomes for the customer experience and the organisation and how these will be measured
- Position how the technology solution, project or implementation will support the organisation's purpose, customer satisfaction and commercial objectives and enhance differentiation from competitors
- Define the return on investment, taking into account required costs and resources and a forecast of revenue and customer satisfaction benefits
- Make an assessment of risks associated with implementation, or of failing to address the problem or opportunity

2) Quality of customer experience design and testing

Changes to customer experience or key processes and workflow need to be informed by insight about the practical implications for customer and employee behaviours. This can only be achieved by detailed mapping of experiences and testing of options with customers and employees. The quality of customer experience or workflow design and testing will increasingly be a key enabler of differentiation and competitive advantage.

Quality of customer experience design and testing: key actions

- Understand why customers interact with the organisation, what influences their choice of channel and the extent to which they achieve their objectives
- Assess how customer experiences are influenced by personal context and situation such as key life events, an emergency or issues of high personal importance
- Identify current and potential points of failure
- Map customer journeys for key experiences, how customers will access information, services or help and assess factors that are critical to success at each point
- Map the hand-offs or transfers between channels, especially between digital channels and direct employee intervention
- Conduct testing with customers to assess the effectiveness of different experiences and options
- Design experiences from both the customer / user and employee perspective
- Test and learn: continuously review customer journey design and decision trees to identify issues or opportunities to simplify and improve experiences

3) Customer engagement and trust

Organisations need to invest time and effort in communicating the benefits of new technologies and applications, providing reassurance abut security and navigating new ways of interacting. In some cases, there may be need to reset expectations of customers who have learnt that they can get a fast response or be offered a better deal if they contact an organisation through traditional channels. Ultimately, the most effective way of building confidence and trust is by demonstrating the convenience, usability and quality of new applications.

Customer engagement and trust: key actions

- Involve customers in testing of technologies and applications
- Make it transparent when a customer is interacting with an artificial intelligence-enabled chatbot
- Train and encourage employees to coach customers in adoption of new applicationss
- Ensure customers can easily speak to a customer service adviser in situations that have a high personal importance or sensitivity
- Seek customers' feedback after technology that affects service has been introduced
- Give transparent information about the organisation's data governance and security
- Develop contingency plans to communicate and engage with customers, employees and other stakeholders in the event of data losses or security incidents

4) Integration of systems and data to support customer experience objectives

Lower computing costs and expansion of available datasets have created opportunities for a wide range of applications to improve customer experience and workflow processes. Many organisations have a requirement to integrate legacy systems so that data can be distributed and accessed across channels. Growth in the volumes of data being used by organisations has heightened the importance of data security. The ability to align data and systems integration to customer experience and business objectives is fundamental to effective deployment of technology.

Integration of systems and data to support customer service objectives: key actions

- Identify internal and external datasets needed to enable business and customer experience objectives
- Engage key stakeholders in defining and mapping key data and process flows
- Put in place governance around data use including standards and accountability for how data is collected, stored, accessed and updated
- Identify platforms, tools and infrastructure required to store, integrate and distribute data across the organisation
- Continually review data and systems development so that they support current and future business and customer experience objectives
- Invest in and continually monitor the security and integrity of technology infrastructure and applications
- Prioritise risk assessment and planning to prevent or reduce the risk of data breaches

5) Procurement and third party relationships

Deployment of technology in a customer service context often relies on collaboration with a network of suppliers or partners, each with specialist capabilities. Effective procurement of services and relationships with suppliers is therefore critical to an organisation's ability to deliver its commercial and customer experience objectives.

Procurement and third party relationships: key actions

- Develop ability to scope requirements, evaluate suppliers and assess assess how technologies and applications translate into customer experiences
- Evaluate potential suppliers on cultural fit and understanding of your customer service objectives as well as their technical capabilities
- Select an appropriate number of measures and Service Level Agreements (SLAs) that reflect both overall performance and performance against critical activities
- Develop multi-level, peer to peer personal relationships between the procuring organisation and the supplier. Invest the time so that each party understands reciprocal expectations and preferred ways of working
- Encourage all parties to be open and honest about problems and issues in order to develop joint, sustainable solutions
- Ensure that there is an executive sponsor for major projects, and appropriate leads in procurement, operational teams and the supplier organisation
- Put in place an agreed schedule of operational and strategic reviews with transparent objectives and terms of reference

6) A consistent implementation methodology

Most of the organisations we interviewed use a defined methodology, such as Agile, to enable consistency and effectiveness to project management and implementation. Using a consistent methodology can enable clarity in problem and opportunity definition, engagement of stakeholders at the right time, identification of all relevant issues, speed of implementation and continuous improvement.

A consistent implementation methodology: key actions

- Train relevant employees in the organisation's chosen implementation methodology
- Communicate the organisation's chosen methodology so that employees understand the benefits to customers and the organisation
- Identify and engage all relevant stakeholders in technology implementation projects so that their needs, role and potential risks are clarified
- Assess linkages or impacts on other projects or initiatives
- Define factors that are critical at the point of launch as distinct from those that can be developed or improved in future
- Identify risks and mitigation, implications for volumes of customer contact through different channels and required resources
- Develop a "fail fast" approach so achieve timely feasibility of implementation is and avoid committing time and resources to unviable projects
- Review how well the methodology is working and if necessary, refine it

7) Employee skills, learning and engagement

Many significant applications of technology focus on the hand-offs between digital channels and employees, equipping employees with knowledge or prompts to give better service, or coaching customers to improve their experience of using digital channels. Implementation of technology may result in changes to the skills and behaviours organisations require from employees. Some roles may no longer be required in their current form but there may be opportunities for new or hybrid roles. Employees' ability to adapt to change and work effectively with technology will be crucial, both to career development and quality of customer service. Engaging employees effectively is central to deploying technology to improve customer service.

Key skills and capabilities

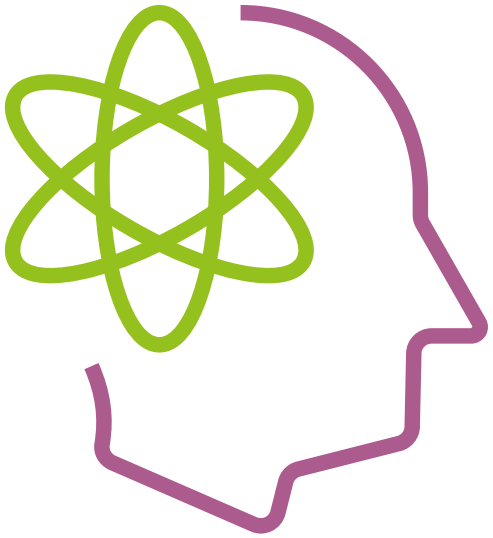
- Coaching customers to use digital tool and applications
- Ability to interact with customers across different channels
- Enhanced communication, relationship and management skills
- Heightened ability to deal with complex issues
- Complaint handling and problem solving
- Design of customer experience journeys in an omnichannel context
- Workflow mapping and design
- Integration of processes, application and systems
- Data science and analytics
- Data management, security and integration
- Cybersecurity
- Project management
- Customer insight and customer experience testing
- Commercial management
- Leading and engaging teams
- Procurement and supplier relationship management
- Individuals with a hybrid mix of customer experience design, data, technology, interpersonal and commercial skills

Key attitudes and behaviours

- Empathy and emotional intelligence
- Openness and adaptability to change and new ways of working
- Urgency and persistence
- Resilience
- Capacity to learn
- Commitment to the organisation's values

Employee skills, learning and engagement: key actions

- Communicate transparently about the organisation's technology strategy, how it supports overall purpose and customer experience objectives and the potential impact on job roles
- Provide opportunities for employees to develop their knowledge and skills in technology and digital applications
- Involve customer service people directly in proof of concept design and testing
- Build hybrid, collaborative teams to drive development and launch activities
- Seek employee feedback about impact of technology deployment on customer experience
- Publicise opportunities for new roles that have been created as a result of investment in technology

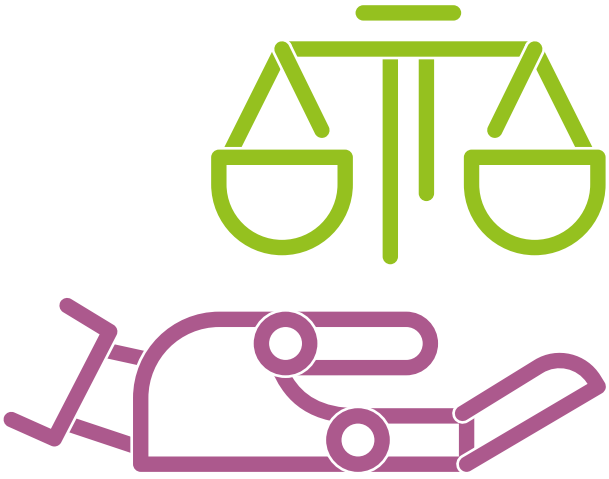


8) Evaluating ethical and reputational implications of technology deployment

The combination of data and technology has the potential to create powerful applications to improve and personalise customer service but raises issues of privacy, security and the risk of unintended consequences. Organisations therefore need to evaluate the ethical and reputational implications of technologies and applications as well as commercial benefits.

Evaluating ethical and reputational implications of technology deployment: key actions

- Ensure that technology applications comply with appropriate regulation and legislation
- Ensure governance and controls are in place to monitor rules, coding and the processes underpinning autonomous learning and decision-making by technology applications
- Assess the risk that deployment of technology could inadvertently disadvantage some customers
- Evaluate the impact of technology deployment on employee well-being and engagement
- Consider setting up an ethics advisory committee to review the ethical and reputation implications and risks of technology deployment



9) Addressing the risk of digital exclusion

Our research has shown that a significant minority of customers are at risk of digital exclusion because they lack skills, confidence, financial resources or have a disability or health condition that makes it difficult to deal with organisations using technology or digital channels. Organisations – especially those that deliver essential services – have a responsibility to consider the needs of vulnerable people and ensure that all their customers can access service in appropriate ways. Organisations can also play a valuable role in developing digital confidence and skills by committing resources to community outreach and volunteer programmes.

Addressing the risk of digital exclusion: key actions

- Design and test customer experiencer journeys explicitly taking into account the needs of vulnerable people and customers who have limited access to digital technologies
- Maintain a range of channel options including contact centre operations and where relevant a physical branch / office presence
- Train and develop employees to assist or coach customers who have limited digital skills
- Develop specialist knowledge and expertise to support vulnerable customers
- Identify customers who are at risk of vulnerability or exclusion
- Work with specialist third parties to improve customer service for vulnerable people
- Develop processes for authorisation of trusted third parties to act on behalf of a customer
- Create or participate in digital outreach programmes to increase the skills and confidence of customers who may be at risk of digital exclusion

10) Measuring impact and return on investment

Organisations will need to deploy a range of customer satisfaction, quality, productivity, compliance and commercial measures to assess the impact and return on investment of technology deployment.

Key suggested measures include:

- Overall customer satisfaction
- Satisfaction with specific experiences of transactions
- Customer effort
- The number of experiences rated by customers as being right first time
- Volume of work completed
- Time to process work / resolve issues
- Amount of rework / repeat contacts
- Volume of complaints
- Regulatory compliance / breaches
- Employee feedback about the effectiveness and customer service impact of technology
- Return on investment in cost savings, customer retention or new revenue generation

Conclusion

Technology deployment is most successful when it underpinned by a clear customer service purpose and complements human intervention

Many significant deployments of technology to improve customer service have focused on workflow processes, some of which are not directly visible to customers. This activity is often concerned with automating or speeding up processes or information flows to give increased speed, accuracy or scalability. Organisations have also focused on integrating systems, processes and data to support key applications of technology in a customer service context.

Managing customer contacts through digital and voice channels is fundamental to organisations' deployment of technology because it has a direct impact on customer satisfaction and the expansion of inbound contact channels requires organisations to decide how they resource and prioritise different channels. Many large, consumer facing organisations with high volumes of transactions are focusing on positioning digital channels as the primary method of contact, supported by employee intervention when needed. The aim is to achieve a "win-win" of commercial and customer experience objectives by reducing the number of failed customer contacts, handling routine contacts through automated channels and concentrating employee resource on complex, sensitive or high value issues.

Our research with consumers shows that many people value the speed, convenience and access to information enabled by apps. However, customers' experience of using artificial intelligence-enabled chatbots is mixed and has the potential to cause dissatisfaction and frustration.

The effectiveness of chatbots and artificial intelligence in the context of customer interactions is highly dependent on the quality of customer journey mapping and decision trees, continuous testing and learning, quickly identifying where a customer needs expert help or an experience is not working and enabling a customer to speak to an employee.

Direct intervention by employees is especially important in these contexts:

- Complex issues that require investigation, discretion and judgement
- Issues of high personal importance where there is a heightened need for empathy and reassurance
- Dealing with customers or are unable to make effective use of technology because of a disability or impairment, lack of skills or confidence or financial resources
- In some cases, employees have a key role as "digital coaches", helping customers to use digital channels, building confidence and providing reassurance

For most organisations, employee skills and behaviours will continue to be crucial in providing a differentiated customer experience. Organisations are therefore deploying a range of technology applications to equip employees to give better customer experiences. Examples include real-time prompts based on analytics of similar customer interactions, increased visibility of relevant data and knowledge and analysis of interactions with customers to identify training needs.

Organisations have a key role in reducing the risk of digital exclusion

This research suggests that at least 15% of customers do not feel confident about using technology. Given that respondents completed an online survey which is unlikely to reflect the views of people who seldom or never use the internet, the number of customers who lack confidence in using technology is probably even higher. Our research also found examples of consumers who are not vulnerable but might be regarded as "digitally disengaged": they either don't have access to digital technologies at home or only use them with help from a friend or relative. Often, these customers have never or rarely used computers or smartphones in their job.

4 main factors are likely to contribute to the risk of digital exclusion: a physical or mental disability that makes it difficult to contact organisations through digital channels; lack of skills or confidence in using technology; lack of financial resources; and for a relatively small number of customers, gaps in mobile or broadband coverage.

Interviews conducted with 20 senior executives indicate that many large organisations are undertaking a wide range of activities to support vulnerable customers and reduce the risk of digital exclusion. However, our research with a sample of managers and employees working in a broad range of B2C organisations suggests that practice to reduce the risk of digital exclusion may be variable. This evidence suggests that many organisations need to develop greater awareness of the extent of potential vulnerability and digital exclusion across their customer base and reassess the suitability of their products, services, employee training and communications channels.

From the perspective of customers, the most important things organisations should do to reduce the risk of digital exclusion is to enable customers to speak to an employee when needed and share best practice with other organisations.

Customers are most likely to feel uncomfortable about data or technology applications in the context of highly sensitive or personal experiences

Most people are receptive to technology being used to make it easier to use products and services, access information, enhance physical security or prevent fraud. But there is a polarisation of attitudes about applications that are concerned with sensitive personal experiences or data or which remove employees from familiar contexts. Whilst a sizeable minority of customers have a positive interest in these applications, significant numbers of customers express concern or have no interest.

Applications of technology and data which attract a polarisation of views

- Analysing phone calls or messages with staff to improve service
- Analytics to assess customers' emotional state
- Organisations accessing and storing personal data
- Sharing body or face characteristics with an artificial intelligence agent in return for personalised recommendations
- Using stores where there are no employees or checkouts
- Receiving in-store service from avatars or robots
- Artificial intelligence virtual assistants that provide personal data to an organisation or predict individual needs

Similarly, many digitally confident customers are open to the trade-off of sharing personal data in return for more satisfying experiences. But significant numbers of customers are guarded about sharing personal data and unconvinced about the benefits of doing so. 70% of customers feel uncomfortable about sharing personal information with an organisation about their level of savings or debt, even if this information would be used to give better, personalised service. Organisations therefore need to be selective and specific in the ways they personalise service and transparent about why personal data is being sought and how it will be used.

Interviews with senior executives highlighted applications of technology and data that organisations could potentially deploy but choose not to for ethical and reputational reasons. These include tracking a customer's location without their consent; using spyware to monitor customers' online behaviour; using personal information to target customers with products linked to a specific health condition; collecting or using data associated with gender, ethnicity or religion, unless it is essential for customer service purposes.

Future investment will focus on existing technologies but augmented reality and the Internet of Things are likely to become more influential

Much of organisations' future investment is likely to focus on developing the effectiveness and functionality of existing technologies and applications. Significant areas of investment include app flexibility and functionality, identity validation and authentication, payment services, more use of technology in proactive customer communications, especially alerts about potential disruption or delays, wider deployment of process automation and omnidata – giving employees greater transparency of knowledge resources and customer data.

Several organisations we interviewed are investigating the potential benefits of augmented reality. Examples of applications include: helping customers to set up complex products or diagnose problems; enhancing experiences of trying out clothes or beauty products; providing demonstrations of products, leisure facilities or tourist destinations.

The Internet of Things - the interconnection via the internet of computing devices embedded in everyday objects, enabling them to send and receive data – is likely to be increasingly influential in customer experience. Key applications include monitoring of the home and domestic appliances to support vulnerable or elderly people; monitoring of physical assets and infrastructure; and wearable technologies to assess an individual's health or the safety of working environments.

10 key enablers of technology implementation to achieve business performance objectives and improve customer service

Organisations that have implemented technology successfully have taken a holistic view, considering user cases for both customers and employees; wider impact on the end to end customer experience; risks and mitigation, ongoing cost, resource and skills requirements; and implications for systems, scalability and security.

Our research has highlighted in particular 10 key enablers of technology implementation to generate customer satisfaction and commercial benefits. Specific actions associated with each of these enablers are set out in section 5, Key enablers and recommendations.

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The Institute of Customer Service

About The Institute of Customer Service

The Institute of Customer Service is the UK's independent, professional body for customer service.

Our purpose is to enable organisations to achieve tangible business benefits through excellent customer service aligned to their business goals and to help individuals maximise their career potential and employability by developing their customer service skills.

We provide tools and services to support continuous customer service improvement and a framework for our members to share and learn from each other.

We are independent – setting standards so that our customers can improve their customers' experiences and their business performance.

The Institute is the secretariat for the All Party Parliamentary Group on Customer Service.

Key Activities

- Research and reports on the latest customer service trends and thinking
- Publication of the UK Customer Satisfaction Index (UKCSI) twice a year
- Benchmarking customer experience to identify areas for improvement, drawing on the views of both customers and employees
- Bespoke customer insight and research
- Training and accreditation programmes for customer service professionals
- Professional qualifications for individuals at all stages of their career
- Public policy development.

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August 2022
instituteofcustomerservice.com

ISBN 978-1-913314-95-8
£600