

The Age of Now

Creating real-time customer engagement



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Foreword



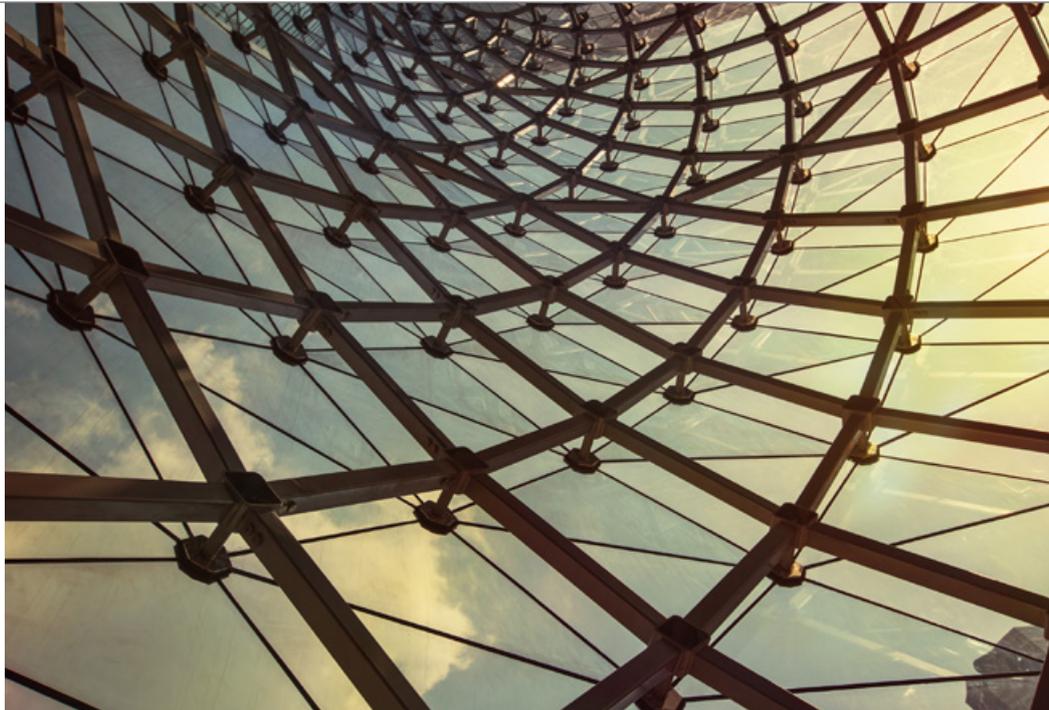
Tiffany Carpenter, Head of Customer Intelligence at SAS UK & Ireland

Customer experience has become an important focus for brands. Those like First Direct, John Lewis and Amazon feature high up in KPMG's annual customer experience excellence top 100 list, which demonstrates that 'the creation of positive memorable experiences is becoming the new battleground in improving customer value'.¹

In a hyper-connected, hyper-competitive environment where everything is reviewed online it is becoming increasingly difficult to compete on product or price alone. The concept of customer experience has become key as organisations fight to remain relevant and deliver against challenging customer expectations.

Customers want a seamless experience regardless of how they engage with you - whether it be online, via an app, a call centre or in person; and they expect the personal information and data that they have made available to be used appropriately by organisations to deliver relevant experiences. Against a backdrop of political uncertainty and a precarious economic recovery that is squeezing household incomes, consumers are scrutinising products, services and companies. Those brands able to offer a better customer experience, through an improved understanding of each customer as an individual, are the ones that will achieve growth.

While this may sound simple enough in principle, most organisations are only using a limited amount of data to try to understand their customers. In fact, most UK organisations admit to using a fraction of the valuable data available to them, and they will often analyse it using basic tools or spreadsheets that fail to provide a single view of the customer.



What's needed is an approach that allows organisations to concentrate on delivering a superior customer experience, by achieving relevancy at every touchpoint based on an understanding of each individual customer - a segment of one.

In the age of now, customers want the call centre to know when they have just been on the website. They want brands to adjust their marketing strategies if they've made a complaint or negatively reviewed a product or service. This means using data about what's already happened as well as what's happening now, to predict what's going to happen in the future, what the best outcomes will be and make profitable and accurate decisions at each point of a customer interaction.

Organisations have huge amounts of data at their fingertips that they can use to predict and plan, to shape products, services and messages. However, there will be moments when a decision needs to be made in real time as to what the right content, message, offer or recommendation for an individual customer might be. This decision should not solely be based on what area of a website a customer clicked on, or whether they liked your Facebook page.

Making accurate and profitable decisions requires insight into offline and online historical data. This must be combined with real-time context and new types of data such as consumers' emotions and feelings that will require new methods of collection. Added to this, organisations need a clear understanding of business goals and objectives, and clarity around the predicted outcome of each possible decision.

Businesses must move away from a channel-specific approach with fragmented systems and rules, and embrace a centralised analytical decisioning capability - a 'central brain'. This would analyse all the data available in a timely manner with the ability to inject that insight into any customer interaction across any department and channel, in real time if necessary.

Consumer organisations need access to all relevant data, a centralised set of logic and rules, and the ability to automate complex analytical decisions at scale and push those out to any channel across any business unit at the right time. The organisations that get this right will be the ones that survive.



Key findings

SAS set out to understand whether UK consumer organisations recognise the opportunity that real-time customer engagement brings, where they are on that journey and what the barriers might be to creating successful real-time interaction.

McKinsey says 61 per cent of consumers are more likely to buy from companies that deliver custom content based on real-time interactions. The same report outlines that successful projects to optimise customer experience **typically achieve revenue growth of five to 10 per cent and cost reductions of 15 to 25 per cent** within just two or three years².

Our research confirmed that UK businesses see the opportunity. Over half of all organisations said that as a result of improved real-time customer engagement, they would expect revenues to increase by at least 10 per cent. **One in five expects revenues could even jump by as much as 20-40 per cent.**

There are a few 'leader' organisations delivering successful real-time engagement, creating personalised experiences for consumers, driving expectations and changing the dynamics of the market. There are also companies being left behind. Organisations with the ability to capture more information and use this to make appropriate decisions in real time to personalise customer interactions are not always doing so, despite recognising these high potential returns.

The gap is set to widen: those organisations investing in real-time capabilities now have the ability to respond and adjust their approach to meet changing expectations and circumstances, ensuring they remain agile and win over more customers in the process. Most surprisingly, the research shows that for nearly half of companies (47 per cent), **barriers to optimising successful real-time customer experience are not necessarily financial.** With significant potential for revenue increases, **what is stopping UK organisations prioritising real-time customer engagement?** While eight in 10 organisations claim to use artificial intelligence, how many are harnessing it to deliver true real-time capabilities?

Reasons for the existence of a gap between capability and execution of real-time interaction are explored in more detail in this report. Whether the barriers to success are operational, regulatory or indeed budgetary, failure to align behind real-time customer engagement now means loss of opportunity and revenue share in a rapidly evolving market.



Setting the pace of change

Already offering highly personalised recommendations to its visitors, Amazon uses real-time pricing adjustments to ensure its prices constantly beat the competition. With the purchase of Whole Foods this year, Amazon became an instant player in the grocery industry. There is already much speculation about the type of technology Amazon will undoubtedly introduce to its stores and how it will change the way we buy our food.³

Monzo has recognised that the 'smartphone generation' is looking for a bank that shows a digital-first, customer-centric approach. The company is building its systems from scratch, incorporating the latest technology used by Amazon and Google to give a real-time balance on accounts and offer intelligent notifications. It has fostered a community of users during its beta phase, encouraging suggestions for features and feedback on app performance. Recently granted its full banking license, Monzo is now set to reinvent the current account.

The New York Times pays attention to its reader behaviour using real-time analytics so it knows what's being read at any time. It also knows which articles may be spreading more virally and which are being discovered on the site. It can see what is trending throughout the day so that it can deliver the right content at the right time. This drives footfall to its websites which in turn boosts advertising revenue opportunity.

About the research

SAS commissioned Coleman Parkes Research to survey 350 heads of marketing, customer service, digital and data. They were asked about:

- » the impact that real-time customer engagement could have on business performance
- » their ability to interact in real time, predict and influence customer behaviour, and tailor the experiences they offer
- » the barriers to achieving real-time marketing

Survey respondents came from seven important consumer sectors:



Energy



Government



Insurance



Media &
Entertainment



Retail

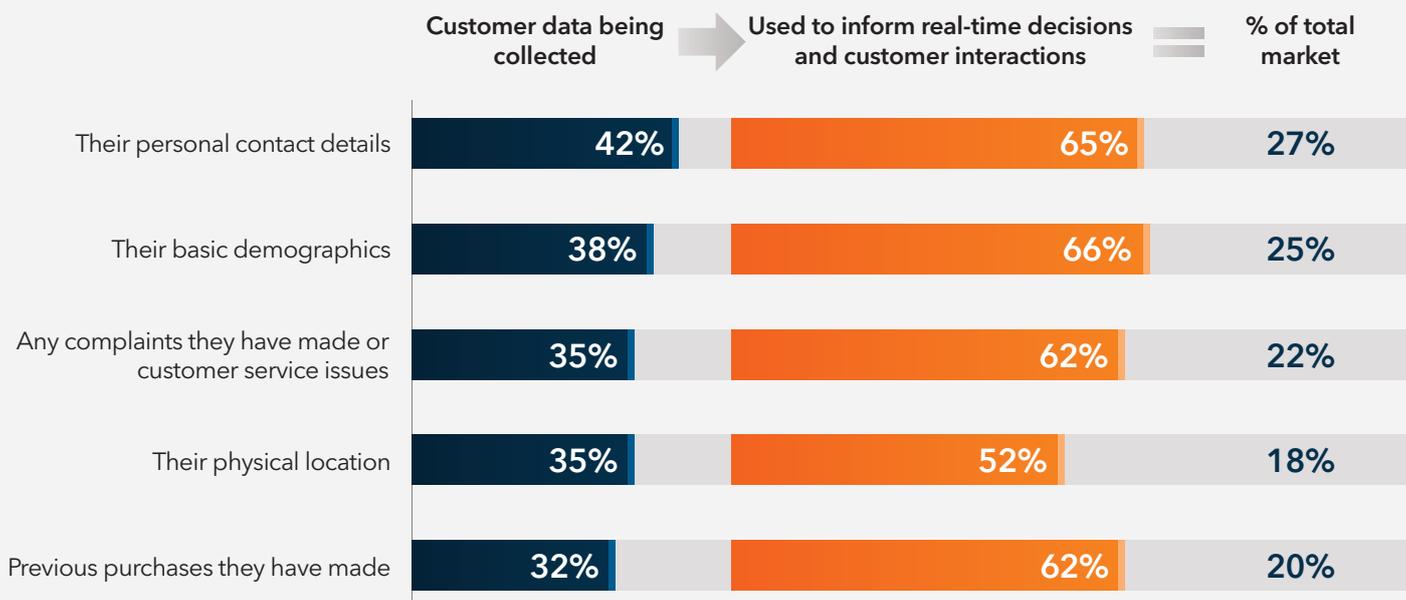


Retail Banking



Telecoms

Fig. 1: Customer data used to drive real-time engagement



Defining customer intimacy

By their own evaluation, consumer businesses fall into four broad maturity bands when it comes to driving customer intimacy. Based on the information that brands know about customers, they claim their relationship is either like one with a family member, friend, neighbour or a stranger - with 10 per cent in the most advanced band.

There is a stark difference between understanding a customer’s identity and being able to use the information available to drive intimacy. Although seven in 10 businesses claim to know the key information about customers that they would if they were friends or family, most are failing to use all the information available to form a complete picture of their customers that can drive a sense of familiarity. In reality, organisations are using less than a third of the relevant data available to them to inform real-time customer interactions; and less than a quarter in their customer segmentation.

While organisations think they know their customers well, they could be collecting a lot more data about them and doing much more segmentation. A quarter (27 per cent) claim to be able to target a segment of one in real time. To truly understand customer behaviour and deliver the most value at each customer touchpoint, non-digital data such as demographic, psychographic, transactional, risk and many others types of data - that sit both outside and inside the digital environment - needs to be analysed and mapped to specific stages in the customer lifecycle.

For those struggling to know their customers like family and create a sense of intimacy, each stage of the customer journey needs to be viewed as an opportunity to improve the customer experience. And each stage is an opportunity to gain more insight that can be fed back into marketing processes to draw from the next time, developing true customer intimacy over time. Only then can you deliver the right message at the right time via the right channel.

Band	Know customers like	Typical information held	Proportion
1	Family	Details about family, major life events, etc.	10%
2	Friends	Likes and dislikes, what’s happening in their lives, how they’re feeling, etc.	58%
3	Neighbours	Basic details and demographics	28%
4	Strangers	Very little	4%

Fig. 2: The customer intimacy maturity scale



Like neighbours: basic details and demographics

While many of us are on first name terms with our neighbours and could verify their identity, we don't necessarily know anything about their lives. We don't always know what their interests are or who their friends and relatives are. Nearly a third of businesses feel the same way about their customers, which is reflected in the information they are collecting. Around two-fifths of businesses (42 per cent) gather their customers' basic contact details, including their postcode, home address and mobile number (see fig. 1). Slightly fewer (38 per cent) collect demographic information such as age, gender and socio-economic groupings. Just over a third track their customers' physical whereabouts (35 per cent).

Overall, retailers and telcos collect the most information on their customers. Banks are just behind telcos when it comes to collecting demographics (46 per cent). Public bodies are better at knowing their customers' whereabouts (46 per cent) than other sectors. Energy providers currently collect the least information - but that may be about to change with the advent of smart meters and as they grapple with the highest rates of customer switching in years.

Moving from acquaintance to trusted partner

In February 2017, UK regulator Ofgem announced that customers switching providers was at the highest rate in six years, with many increasingly shopping around for the best deal and savings. At the same time, the way energy companies understand and interact with their customers is about to change. Smart meter rollout will see 53 million meters installed in over 30 million premises over the next four years. The energy sector is on the cusp of a data explosion.

Personalisation based on holistic understanding of customer data presents a unique opportunity for energy suppliers to improve customer engagement and revenue generation. All they require is the expertise and tools to be able to extract valuable insights from the repository of data they have at their disposal. Suppliers can then leverage data to take customers on a personal journey crafted specifically for individual households.

The next generation of energy users are demanding more control, clarity and hyper-personalisation. They expect their provider to be proactive and engage with them on a personal level. Using analytics, they can help itemise what is contributing to bills and identify key areas where savings can be made, as well as providing relevant and personal advice about managing energy use. This builds trust with customers and can directly impact retention rates.

All organisations need to be able to build a level of trust and familiarity with consumers. Previous research by SAS⁴ surveyed the attitudes to personal data sharing of 2,000 16 to 34-year-olds - members of the so-called 'Data Generation'. The findings showed that people willingly share data when they get something in return. Half of respondents in this survey were happy to share information with online retailers because they believe retailers can use it to give recommendations for products or personal advice and tips that fit exact needs. Consumer organisations must continue to build on the trust of this generation and demonstrate the advantages of data sharing for all generations.

Fig. 3: Firms collecting data on personal status, shopping behaviour, lifestyle, emotions and digital activity



Like friends: habits, preferences and emotional states

When it comes to knowing somebody like a friend, there has to be a certain level of awareness and trust: you understand their circumstances, freely share information and can tell by their behaviour what their mood is without it being overtly stated.

By far the largest proportion of firms (58 per cent) claim to know their customers like friends, but far fewer have access to the sort of details that provide a deeper understanding of an individual. Only around a quarter typically hold data on their personal status, shopping habits, lifestyle preferences, emotional state and digital activity (see fig. 3).

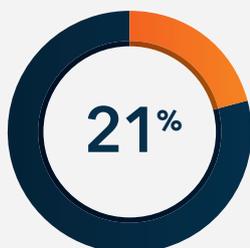
There are some exceptions to this, again driven by different data requirements in each industry. For instance, retailers are significantly more inclined to capture past purchasing behaviour (52 per cent). This may be partly due to advancements in point-of-sale (PoS) systems, which allow retailers to capture loyalty data. This gives them insight into when people shop, what they buy, and average basket size - which in turn informs deals and promotions aimed at keeping customers coming back. Fifty-one per cent of 16 to 34-year-olds⁵ admitted they will abandon their basket at checkout to get a better price at a later date. Retailers are using micro-changes in behaviour to tempt consumers into a purchase at a particular moment or sell goods at the optimum price. Retailers are also better at knowing their customers' preferred brands and likes and dislikes online (42 per cent), as well as their shopping habits (36 per cent).

As providers of web and mobile connectivity, telcos are ahead of the curve when it comes to knowing their customers' browsing behaviour (38 per cent). O2 is delivering new services based on personal data such as O2 Drive and O2 Travel Alerts - examples of what have been referred to as 'me2B' services that offer two-way communication channels between consumers and businesses, demonstrating the value that consumers can gain from using personal data⁶.

On the other hand, more government organisations garner lifestyle and culture data (38 per cent), as they strive to understand the demand for public services. And given their equal opportunities obligations, they're significantly more likely to gather information on disability, sexual orientation, race and ethnicity (38 per cent).

Fig. 4: Firms collecting intimate data

Personal and intimate details



Their feelings & emotions



What their friends and relatives like & dislike



Their political preference



Their credit rating

Like family: personal and intimate insight

Knowing someone as if they were a family member means knowing each other well – knowing what is happening in someone’s life and building a degree of kinship based on nurture and respect. One in 10 organisations claim to know intimate details about their customers, as if they were family members. This is reflected in the number of firms collecting more personal data. Typically, around a fifth gather data on their customers’ political leanings, credit ratings and friends’ likes and dislikes (see fig. 4).

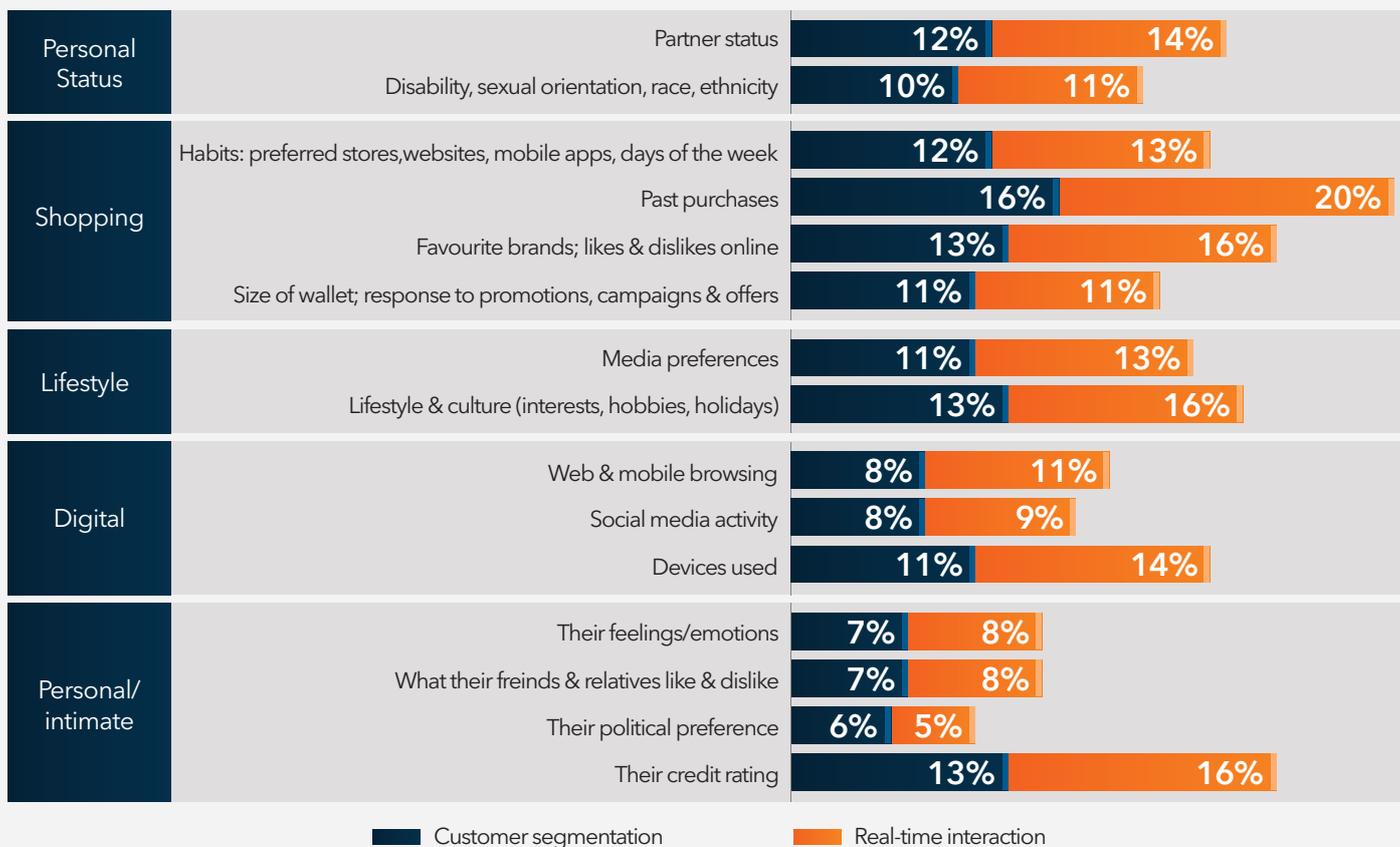
Our findings suggest that a group of organisations lead the way when it comes to forming a close bond with their customers, using intimate personal data to develop insight. These businesses are putting themselves in a position to act in real time – in a meaningful way – when the occasion demands.

They’re the brands that know their customers’ latest relationship status come Valentine’s Day; the estate agents who know how much their home-seekers can afford; and the financial services providers that can offer products according to the financial needs of each individual customer. For example, targeting consumers who prefer short-term lending with products that offer lower levels of interest rates or special discounts and promotions. Or using personal information to make suggestions based on significant future events, such as wedding planning, parenthood and career changes. In an uncertain world, hyper-personalised financial tools will provide the bespoke help and future-focused advice that the ‘Data Generation’ seek but without the high costs of personal financial advisors.

Without sufficient valuable customer data, and the insight that can be gleaned from it, effective real-time customer engagement will remain a remote possibility. In the race to digitalisation, the mistake many businesses make when trying to achieve a segment of one is placing too much emphasis and focus on digital data.

Key to successful customer intelligence strategies is tying together offline and online data to get a better understanding of the customer. Each lifecycle stage, across each channel is important – from initial consideration, to active evaluation, to the moment of purchase and even the post-purchase experience.

Fig. 5: Use of intimate customer data



Putting the data to use

Holding intimate information about your customers is only the first step to real-time marketing. How you use it to inform your interactions is crucial. In our survey, respondents clearly recognised the benefits of enabling real-time interactions.

When asked to select the most important benefit of real-time insight: 28 per cent of organisations ranked improved customer service through relevancy, ensuring interactions with customers happen at the right time based on their personalised experiences and emotions; 22 per cent ranked increased sales as insights lead to higher response rates and the identification of up-sell opportunities.

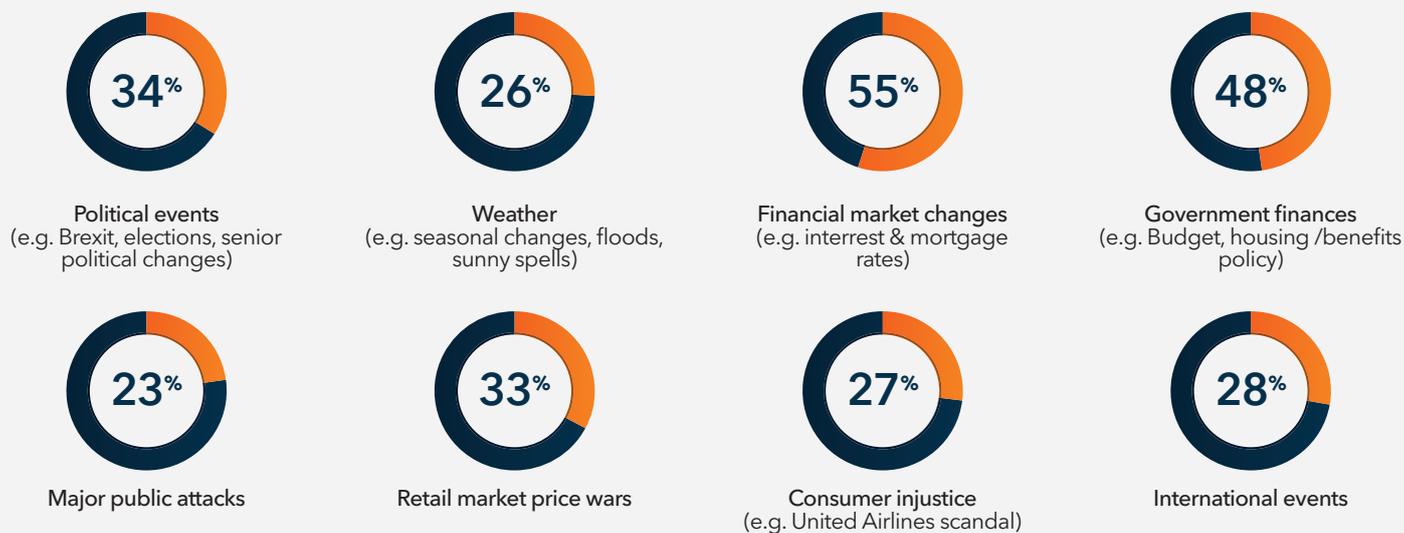
However, the results show organisations still aren't using their customer data to a significant extent in their segmentation or real-time engagement. Typically, around 20-25 per cent of businesses use their more basic customer data - contact details, demographics and location - to inform customer segmentation and real-time customer interactions.

The retail, banking, media and government sectors are ahead of the rest - around a third of these organisations are capitalising on this data. One in seven (14 per cent) of government organisations claim to know intimate details about their customers and 61 per cent use personal contact details or basic demographic profiles to inform real-time decisions and customer interactions. Government advertising - such as the £400m National Living Wage campaign in 2016 - relies on highly accurate targeting, and so requires detailed segmentation.

Fewer businesses are using the more intimate details they capture (see fig. 5). As expected, retailers are most likely to include their customers' favourite brands, likes and dislikes in their customer segmentation and real-time engagement activity together with shopping habits. Telcos - best at capturing browsing behaviour - are also the most adept at exploiting it. Similarly, government organisations are ahead when it comes to capitalising on lifestyle and culture information. The Office for National Statistics (ONS) collects enormous amounts of lifestyle data to help inform government policy.

Fig. 6: Data from events

Data informing real-time interactions



Informing real-time engagement

Meaningful engagement with customers requires an emotional connection. By understanding the issues customers care about, organisations can anticipate how factors as diverse as the weather and political events affect their individual mood and behaviour. As events unfold, staying relevant means absorbing data from all appropriate feeds – not just from within the business but external information such as political and economic data, news sources, social media platforms, and more.

Organisations must then adjust customer interactions, where necessary, based on what’s happening in real time. Although businesses are capitalising on information from a wide range of sources, they’re doing so in smaller numbers than might be expected (see fig. 6). Again, our research suggests a minority of ‘leaders’ are able to utilise a full range of data feeds.

Feeling happy, frustrated or disappointed are emotions that govern decision-making about brand loyalty or spend, so it is important that brands are able to understand what is driving customers’ emotions. Around half of firms use data on financial market movements (55 per cent) and government policy (48 per cent). Fewer are on top of major political events (34 per cent). Even easily accessible data like the weather is being exploited by only 26 per cent of organisations, yet this can have a significant impact on demand for weather-related products.

Working with the weather

In 2013, Pantene saw a decline in sales as a result of losing touch with its consumers, a lack of new product innovations, and stiff competition from other brands. In order to regain market share, Pantene focused on weather-affected hair problems. It identified key meteorological triggers for bad hair days including humidity and dry heat. Pantene partnered with TWC to serve ads on pages forecasting these ‘problem’ conditions, along with discount coupons and directions to the nearest store. As a result of serving meteo-targeted ads to consumers experiencing the ‘problem’ conditions, Pantene saw a 28 per cent sales increase as well as 600,000+ social impressions.

The beginning of April 2014 saw ASDA’s clothing brand George launch its summer campaign called ‘Real Summer Days’. In response to the notoriously changeable British weather, Asda created a weather-triggered landing page for its online store which displayed personalised product recommendations based on the visitor’s local weather. This follows a similar strategy to last year’s ‘Wear Your Summer’ campaign where dynamic, weather-responsive banner ads were employed across its online properties. As a result, George was able to drive sales by reacting quickly to temperature drops and changing stock, bringing forward its autumn/winter collection to ‘weather proof’ its summer turnover.



About a quarter of organisations use data on developments such as international events (28 per cent) and major public incidents (23 per cent), such as recent terrorist attacks in Manchester and London. Seventeen per cent of organisations rank protection of brand reputation and ensuring the company is not aligned with unsavoury events or seen as insensitive, as the most important benefit of real-time insight. As events in London demonstrated, it is vital for organisations to have the capability to act in the moment when required, to avoid inappropriate or insensitive actions. And yet less than one in five (17 per cent) say they can adjust their marcomms content in real time to respond to live developments. In the age of now, when relevance is everything, taking too long to react can have damaging consequences.

Knowing when to act

A day after the London Bridge terror attack, stories emerged of Uber hiking its prices in the area immediately after the incident. Of course, the taxi firm wasn't deliberately exploiting the sudden need for transport. Its algorithms were simply doing what they're programmed to do: respond to demand. As soon as it became aware, Uber switched off its dynamic pricing, and the firm later reimbursed customers who'd been overcharged.

But it was too late to avoid some harmful media headlines (one described the price hike as 'sickening'⁸) and a furious social media backlash. As Uber explained what had happened, the story evolved. The next wave of headlines criticised the company for taking too long to disable its surge pricing.

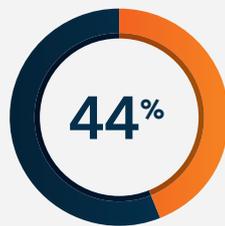
The digital revolution has driven a demand for greater transparency from organisations. The increased flow of information and greater transparency brought about by technology means there is less tolerance of societal failures. Consumers reward or punish companies based on a single experience in a moment of time. Values and beliefs shape purchasing decisions so businesses and governments now need to live in the goldfish bowl of the online world. Consumers expect them to do the right thing, show respect and compassion, and respond to unfolding events in the right way. When they fail, it hits their reputation - and their revenues. Marketers must be able to react in the moment if they're to seize the right opportunities, see off threats, protect their brands and influence customer behaviour.

Fig. 7: Ability to target a segment of one in real time

How close are you on the journey to being able to target based on a segment of one in real time?



We are currently able to target the segment of one in real time



We are close to being able to target the segment of one in real time in the coming months



We are not able to target the segment of one in real time but plan to be able to do so in the next 1-2 years



We are not interested in targeting the segment of one in real time

Creating a segment of one

The holy grail of customer intimacy and real-time interaction is the segment of one: the ability to know each customer individually, and target each one based on their needs, motives and preferences at any given moment.

With enough depth of information, it is possible to identify any customer over any communication channel. You can interact with each one as an individual – down to the segment of one. It is something that Shop Direct is working hard to achieve.

Shop Direct is the UK's second biggest online pureplay retailer, with digital department stores Very.co.uk, Littlewoods.com and VeryExclusive.co.uk. Search for a pair of jeans and you won't be met with dozens of pages of results to scroll through while you try to find the colour and design you're looking for. This is because Shop Direct personalises each customer's online journey. Search results are automatically pre-sorted to produce a list of the products the customer will mostly likely want.

Shop Direct's goal was to make it easier for customers to shop with it, improving the customer experience whilst increasing customer spend. As a 40-year-old business that started as a catalogue company, it was sitting on a huge amount of data that had been captured over the years about its customers, and it wanted to find a way to use that data to deliver a highly personalised customer experience.

Personalisation goes beyond search results. Shop Direct tailors customer emails, off-site advertising, homepage content, navigation menus and product suggestions. The upshot is customers stay on its sites for longer, meaning they are less likely to try a competitor instead and are more inclined to buy.

The results speak for themselves. The group's last annual results showed 43 per cent profit growth, and a 12 per cent increase in web traffic. It put the improvements down to its investment in technology and the ability to deliver personalisation.

In the age of now, customers demand the sorts of bespoke experiences Shop Direct is providing. Competitiveness depends on the ability to carry out individual segmentation and real-time targeting.

A healthy majority of firms have relatively sophisticated segmentation capabilities. But once again, a minority 'leader' group stands out: just over a quarter of firms (27 per cent) can actually segment down to an individual level in real time.

Our findings suggest that true real-time segment-of-one targeting is still in its infancy. Despite the challenges they face, organisations realise the importance of real-time, segment-of-one targeting. Many are making encouraging strides towards achieving it: more than two in five (44 per cent) expect to have the capability in a matter of months, and a further 25 per cent plan to develop it within two years.

Fig. 8: Adjusting marketing communications in real time based on customer insight

Adjusting communications in real time



Brands need the ability to know when their customers are paying the most attention, are feeling upset or will appreciate extra attention, and market to them in those micro moments.

Products, promotions and communications can be pre-planned and stored ready to be pushed out at the right time. However, less than a fifth (16 per cent) can adjust their marketing communications in real time based on customer insights. Most do so on a daily basis, but less frequent adjustments are more common (see fig. 8). Linked to these findings is the fact that only a quarter (24 per cent) can adjust their communications based on customer insight without manual intervention - which significantly slows down interactions.



Delivering real-time customer engagement

Overcoming barriers to adoption

Organisations are facing a range of issues as they implement real-time customer interaction. Only three per cent of respondents say they face no barriers at all. The most commonly cited hurdle is budgetary constraints, identified by just over half of businesses (53 per cent). Interestingly, this suggests that almost half (47 per cent) of organisations are not being held back by financial limitations. Yet our findings consistently suggest that at most, only around a quarter of firms have genuinely embraced real-time marketing.

So what else might be getting in the way? One factor is concern about the technology needed to drive real-time capabilities. The threat of a customer data breach is a barrier for more than two-fifths (42 per cent) of firms. This is understandable when high-profile targets like the US election has allegedly fallen prey to state-sponsored hacking and large organisations - notably the NHS in the UK - have been victims of the recent spate of global ransomware attacks.

Almost one in three firms (30 per cent) are labouring with outdated systems and processes. With the EU's General Data Protection Regulation (GDPR) looming, regulatory compliance is proving a barrier to real-time marketing according to 30 per cent of organisations. Getting data systems ready for GDPR will be a particular challenge for those citing legacy technology issues.

Some businesses are yet to make the business case for real-time marketing. Just over a fifth (21 per cent) say they still need to prove return on investment; the same proportion point to a lack of stakeholder buy-in.

These last two findings are interesting given the budget limitations holding back just over half of organisations. Only if they understand the potential return can businesses make informed decisions about budget constraints and secure stakeholder buy-in.

Internal politics may also be playing a part. Respondents reported that the IT department could be more open to the necessary investment. Only 29 per cent view IT as a 'conduit' to buying the technology needed to improve customer experiences. Almost a quarter (23 per cent) even describe IT as a 'frequent block' to such purchases. In addition, KPIs across the business are not always designed to put the customer first. Close to half (46 per cent) of respondents say departments are measured by separate KPIs, not all of which prioritise what is best for customers.



Seizing the GDPR opportunity

After budgetary constraints, the threat of security breaches targeting customer data is the biggest obstacle to extracting insights in real time, encountered by 42 per cent of organisations. GDPR will have significant ramifications, as it aims to protect consumers by placing new requirements on organisations when collecting, handling and moving personal data.

The new rules come into force in May 2018 and represent an opportunity for organisations to build trust with their customers when they demonstrate compliance. Failure to meet GDPR risks hefty fines of up to €20 million or four per cent of global turnover, whichever is greater, along with significant reputational damage that will erode customer trust further.

GDPR is a data analytics challenge - and opportunity - for consumer organisations. More than a quarter (27 per cent) say it will greatly restrict what they can do with their customer data. As with any new regulation, it will also create an additional compliance burden for analytics teams. Approaching half (43 per cent) of respondents point to the additional paperwork and record-keeping that will be required. Almost a fifth (19 per cent) say they will need to carry out more regular data protection impact assessments on their customer information.

However, a third (33 per cent) of survey participants recognise GDPR as a chance to overhaul their data governance, and in doing so, improve their ability to analyse and understand customer information.

Organisations that grasp this opportunity will be putting customers at the centre of their strategy, involving all key decision makers and embracing innovation to deliver compliance whilst protecting a competitive edge. This would be a welcome development, as nearly half of organisations admit departments are measured by separate KPIs, not all of which prioritise what is best for customers.

Fig. 9: Expected benefits from data analytics

Benefits of data analytics



Embracing analytics

Generating real-time customer insight depends on robust data analytics capabilities. Businesses need to interpret large quantities of data instantly in order to predict what their customers want. Little wonder that IDC sees global analytics spend increasing by almost 12 per cent year-on-year between 2016 and 2020, reaching US \$203 billion by 2020.⁹

Our findings reflect this enthusiasm. The majority of businesses believe data analytics will improve their customers' experiences. And approximately two-fifths say it will enhance their marketing strategy, campaign reporting, behavioural predictions and real-time customer engagement (see fig. 9).

As result, there is strong demand for data analytics from a range of business functions within consumer organisations - including sales, customer experience and support, marketing, and even operations, finance and HR. But a familiar picture emerges if we look at firms' current data analytics capabilities. Less than a third (29 per cent) describe them as advanced.

Harnessing Artificial Intelligence

Artificial Intelligence (AI) has the potential to take real-time marketing to the next level. It offers brands the opportunity to deliver personalisation and predictive analytics with the increased speed and efficiency needed to operate at a segment of one. Effective real-time customer interaction is not possible if human intervention is required to make it work. Yet real-time customer interaction still relies on human interpretation and intervention in all but a quarter (24 per cent) of leading organisations. Recent progress in AI technology shows the capabilities needed to truly automate the process - powerful data analysis, sophisticated prediction, and intuitive adaptiveness - is possible across multiple channels in an instant.

But these advancements are still relatively new, and many of their commercial applications remain largely hypothetical. This may explain some of the high-profile failures we've seen when businesses have tried to harness AI. Despite the concerns, businesses are embracing AI to enhance their customer interactions.

Learning from early AI mistakes

Microsoft's experimental Twitter bot, Tay, was soon repeating unpalatable views she'd been 'taught' by online pranksters.

Uber's driverless car trial saw its vehicles jumping red lights.

Alexa, Amazon's intelligent personal assistant, ordered dolls houses for hundreds of homes in San Diego, having 'misheard' a report on the local TV news.

Fig. 10: Applications of Artificial Intelligence

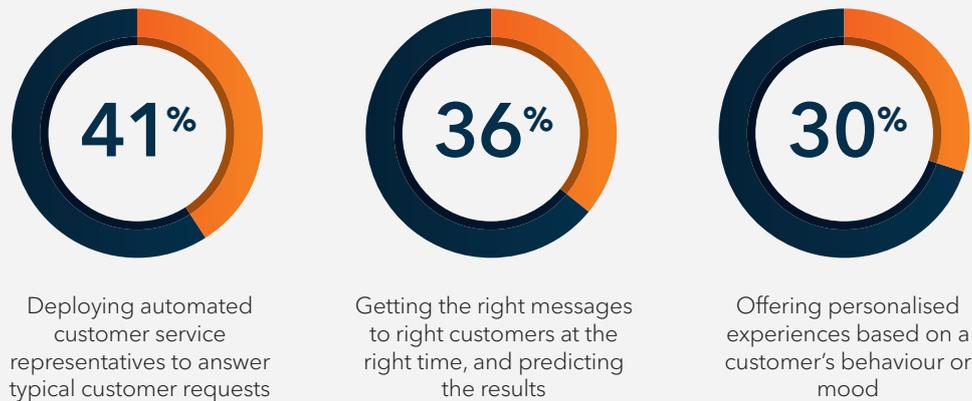
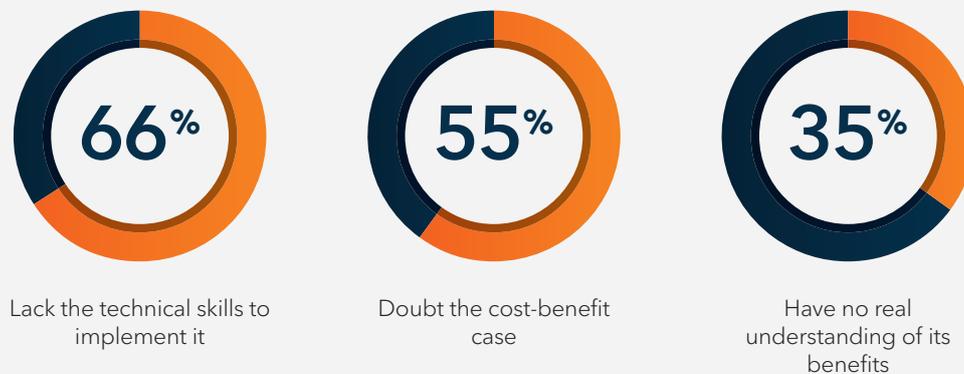


Fig. 11: Concerns around Artificial Intelligence



More than three-quarters (77 per cent) currently use AI in marketing, communications or customer service. Its main applications are shown in fig. 10.

Almost half of respondents (46 per cent) say they are concerned that AI is still in its infancy, and not yet ready to be applied to marketing. Many firms are not yet fully ready, citing concerns around skills, cost-benefits and understanding of how it might deliver value (see fig. 11)

Increasingly, AI will be the computerised extra that builds truly meaningful relationships between individuals and companies. It offers instantaneous analysis of large datasets relating to the individual's footprint, with the ability to translate the results into natural language.

In the age of now, more companies will leverage the power of AI not just to analyse massive volumes of data in seconds, but to increasingly supplement consumer-brand conversations on a human level.

Supplementing human interaction

Simple AI chat bots are steadily being adopted by companies as a way to interact and engage with consumers on a more frequent and on-demand basis without increasing labour costs. Pefin, a new financial advisor platform from the US, uses AI to learn about the user and guide them through planning, saving and investment decisions. Unlike a sole human financial advisor, Pefin instantaneously and continuously tracks all of the user's incomes and outgoings and uses the data to predict multiple future scenarios. The power of a team of financial advisors is achieved for a fraction of the cost of one human financial advisor.

Fig. 12: Decision engine



Creating a central hub

Delivering real-time customer engagement can be a complex problem to solve in organisations with large customer bases (in the millions) and huge levels of customer interaction across multiple channels. These interactions require a deep understanding of customer context and the application of true marketing science - analytics - to determine and deliver the ideal response, ensuring consistency and relevancy.

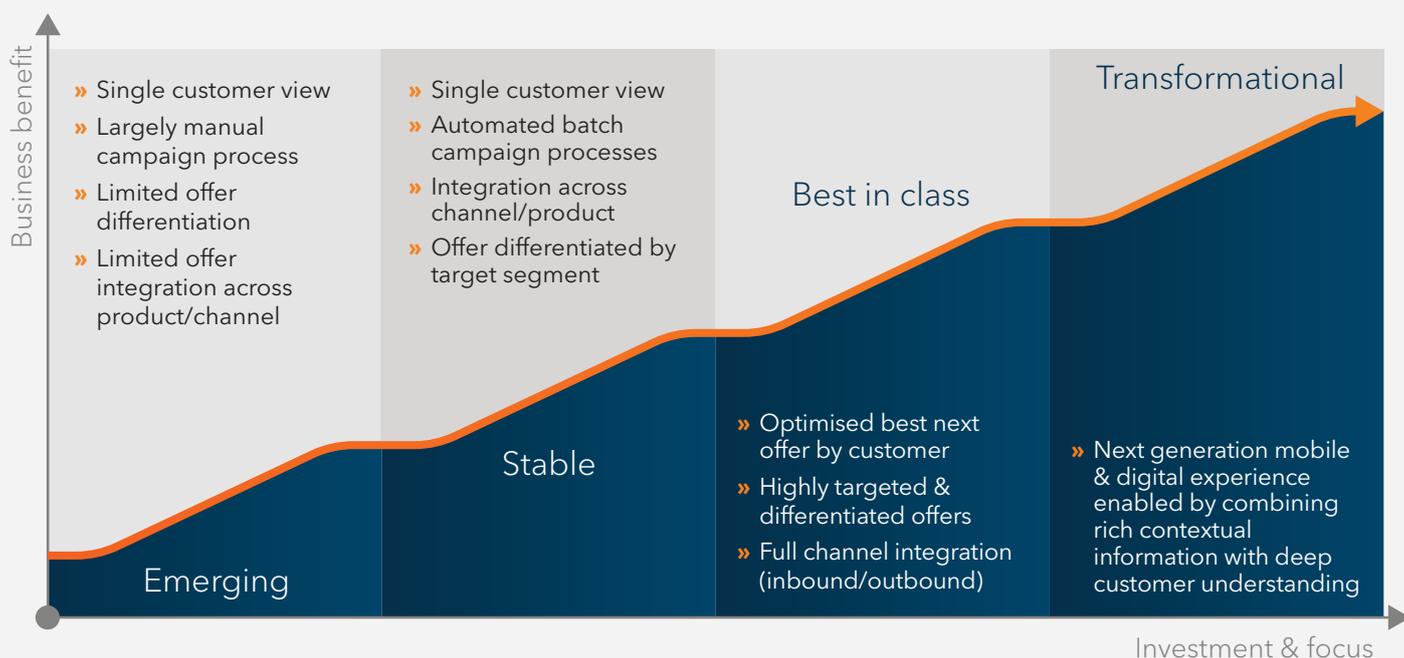
For those organisations that have the data they need for real-time customer interaction, there needs to be a central decision-making hub - or 'brain' - to manage communications via multiple channels in a joined-up way. The system should capture each moment that a customer interacts via a particular channel and store the history of all interactions.

A decision engine works as a central 'brain' to drive real-time interaction

Once this capability has been achieved, organisations are in a position to transform the insight rapidly, in real time, into actions that will enhance the customer experience with personalised content, leading to an increase in conversions and satisfaction levels.

For example, an existing customer of a financial institution at the start of a mortgage journey might visit a web page to find out how much can be borrowed. Information put into a mortgage calculator, such as a new salary, could be used in a personalised message, delivered in the same web session, to invite the customer to visit a mortgage advisor in branch at a time that is open in the advisor's calendar. Information about this decision, and the customer response, is then available for future decisions across any channel ensuring consistent, relevant interactions at every touchpoint in a journey.

Fig. 13: Real time customer experience maturity curve



Why act now?

The challenges facing businesses wanting to adopt effective real-time engagement with customers are varied and complex. But the revenue opportunity on offer (10 per cent or more in most cases) should be more than enough incentive to overcome them.

Because the pace of change continues to accelerate - both in terms of the products and services available in the market and the ways in which consumers make their decisions - it is vital that the process of learning about your customers continues to evolve based on all the information learned about them up to each point in time. This rate of learning must be maintained on a continuous basis and take into account changes in product and service trends, prices and a whole range of macro events occurring in political and economic landscapes. Not doing so risks organisations being left behind and falling out of the race to secure revenue and customer loyalty.

Keeping your customers and prospects close and creating instant appeal that will get them spending over and over again, means getting to them first and understanding them better than your competitors. Working out how this can be achieved, while optimising costs accurately and with game-changing advantage, is something that should be the number one business priority for all consumer organisations.

1. Identify what you want from real-time marketing

How can it create value for your customers? How can it help you to predict - and deliver - what they want from your organisation?

2. Assess where you are now

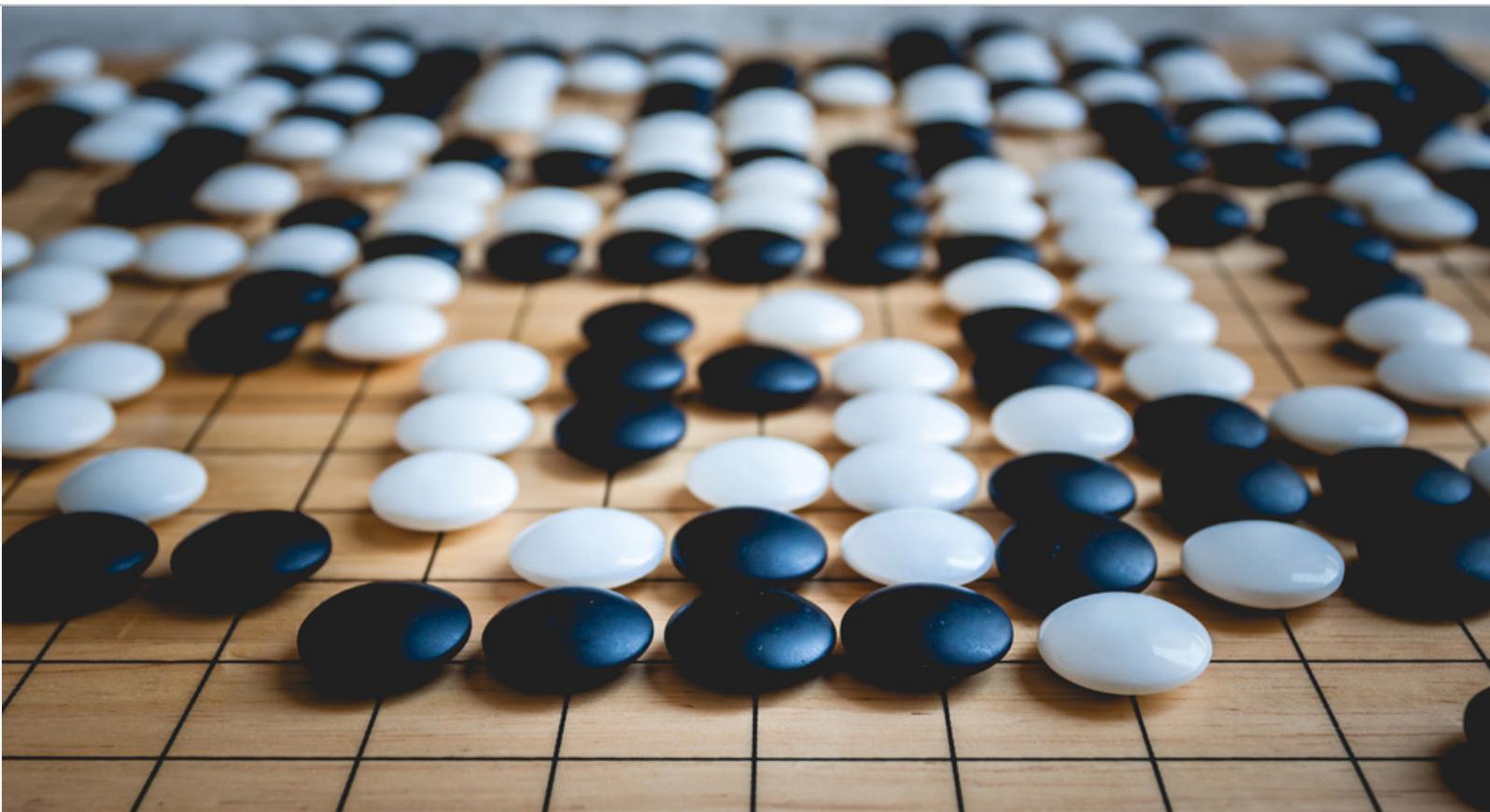
Look at your current data collection, and predictive and interaction management models and capabilities. What are you lacking? How can you bridge the gaps through talent acquisition, partners and vendors?

3. Analyse the cost-benefit of implementation

What will it cost to put the required technology, processes and skills in place, and bring about the necessary cultural change? And what will the investment help you achieve in terms of revenue uplift?

4. Understand your customers' ecosystem - and your part in it

What are the touchpoints in your customer journey? Which interactions can you directly control and influence, and where do other organisations need to be involved?



About SAS

SAS is the leader in analytics. Through innovative analytics, business intelligence and data management software and services, SAS helps customers at more than 83,000 sites make better decisions faster. Since 1976, SAS has been giving customers around the world **THE POWER TO KNOW®**.



Leader in real-time interaction management

Forrester named SAS a Leader in Real-Time Interaction Management earning near perfect marks for predictive and real-time analytics, AI and offer optimisation.

SAS has helped solve some of the most complex problems over the years to the little things that matter:



Powerful data analytics has provided clinicians at Royal Brompton & Harefield NHS Foundation Trust with access to valuable patient insights that enable better intervention, more rapid diagnosis and treatment based on over 400 data systems and 20 critical clinical data sets.



Analytics helped the conservation of albatrosses across the Southern Ocean after The Royal Society for the Protection of Birds (RSPB) analysed the data it collects on sea temperatures, fishing grounds and foraging habits to tackle the problems affecting wildlife.



Data mining was instrumental in showing the distribution of gun crime across Europe, enabling law enforcement agencies to cross-reference information to build a profile of crime networks across Europe.



The UK's second biggest pure-play retailer, Shop Direct, uses its analytics to deliver a hyper-personalised shopping experience.

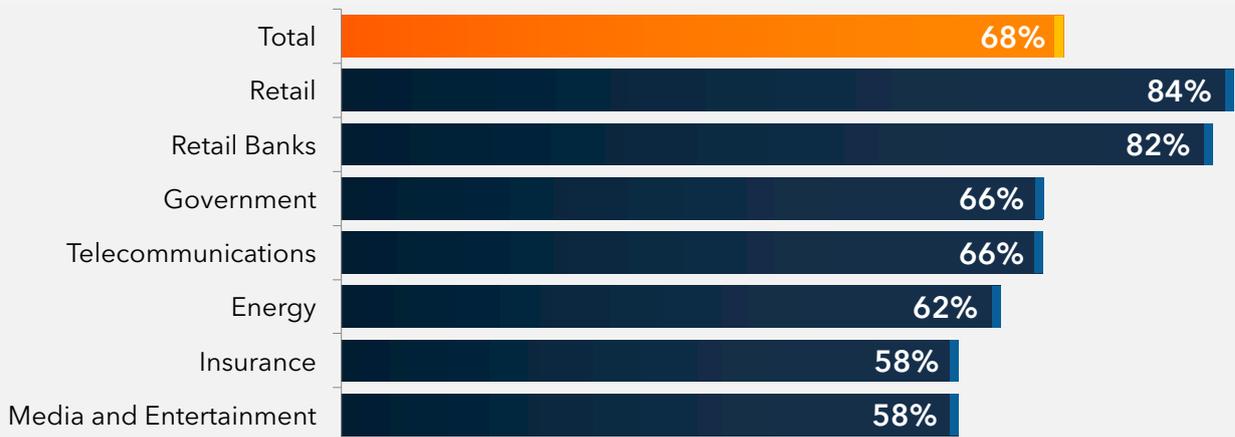


Fraud losses were reduced by 75 per cent at Nationwide after analytics was implemented to tackle a variety of fraudulent activities and automate fraud reporting.

Results by sector

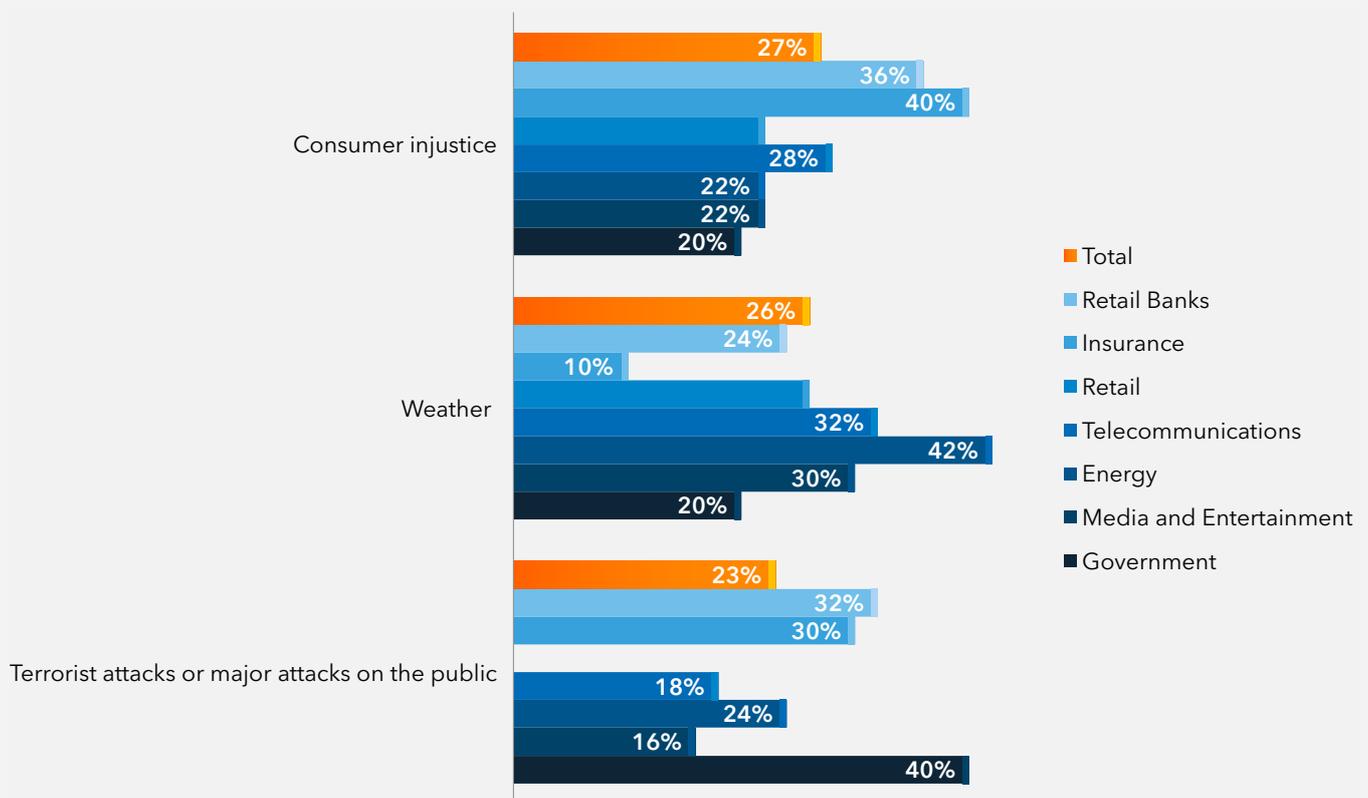
How well do you know your customers?

5 point scale summary: 5 Extremely well + 4 very well



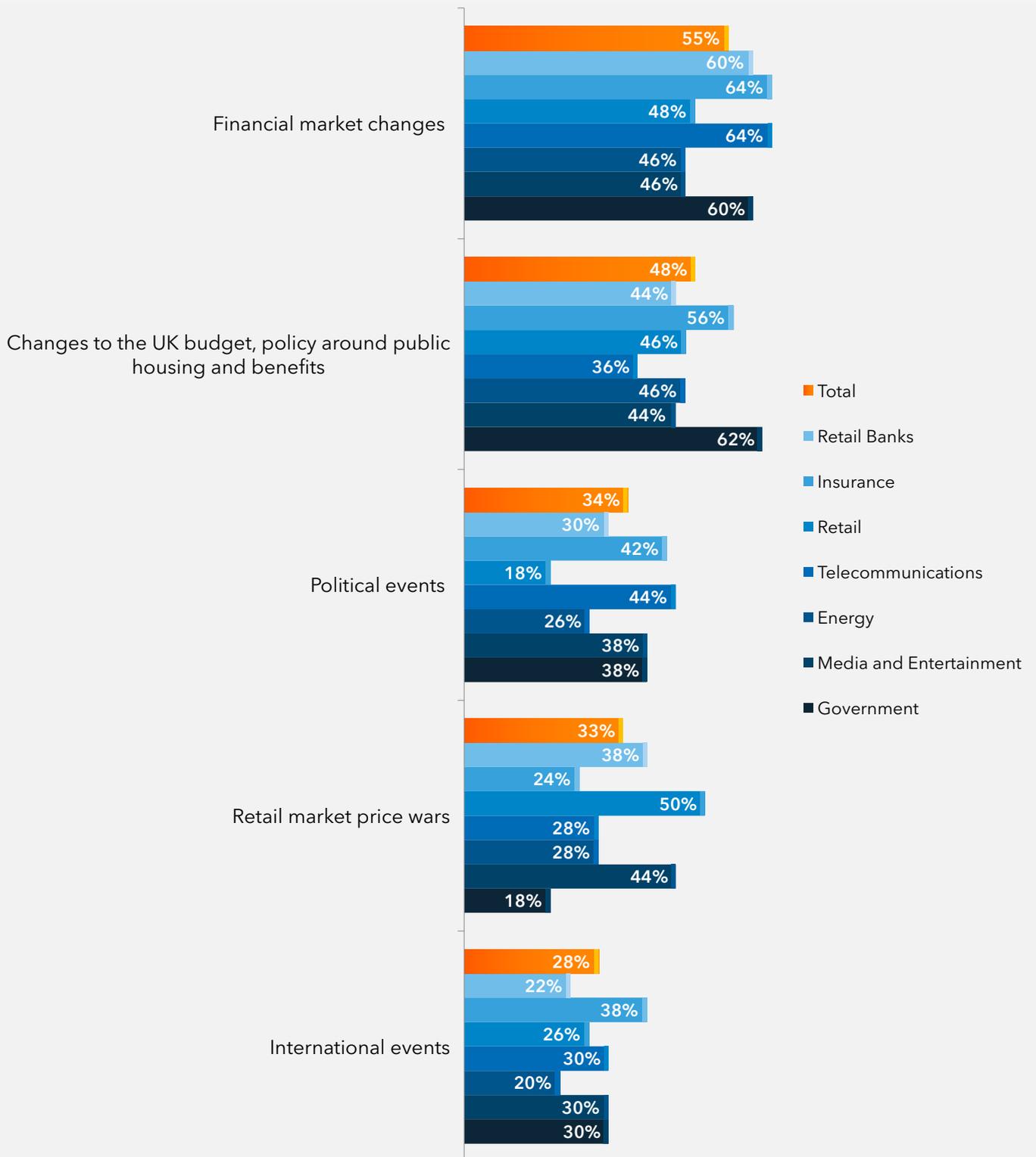
Q.1. How well do you think your company knows its customers? Please select the option which most closely represents how you would describe your organisation's relationship with its customers. Single-coded question

Types of information collected and used to inform real-time communications



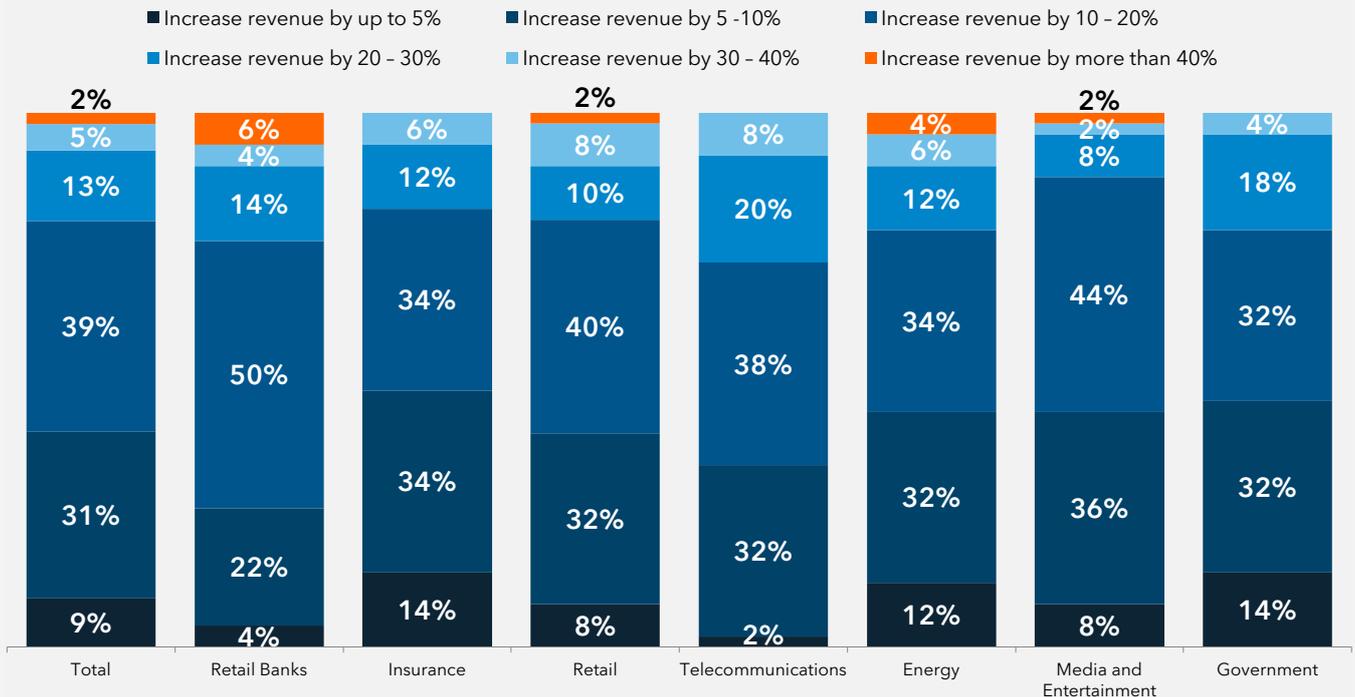
Q.5. Which of the environmental, political and economic data, do you actively use to inform real-time interactions with your customers? Multi-coded question

Top 5 types of information collected and used to inform real-time communications



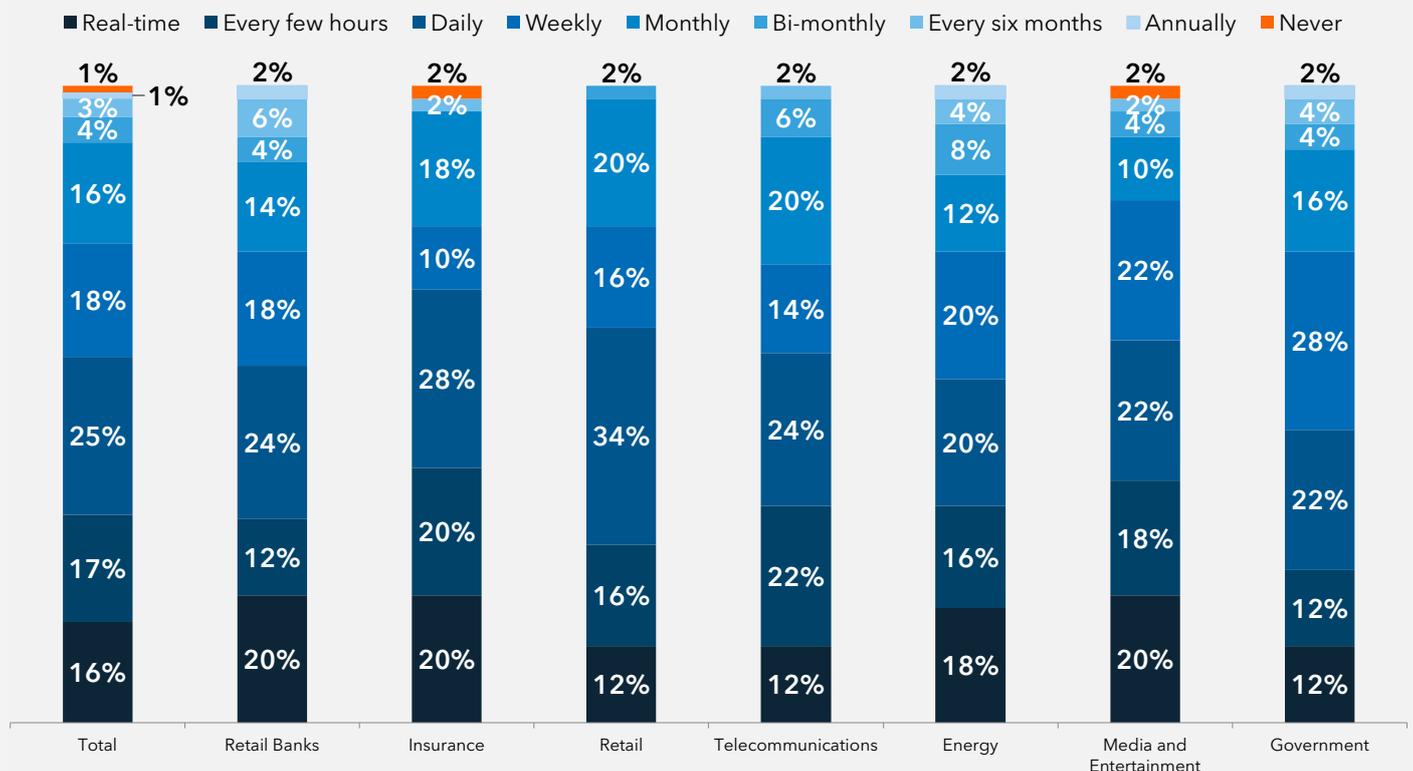
Q.5. Which of the environmental, political and economic data, do you actively use to inform real-time interactions with your customers? Multi-coded question

Economic benefit



Q.7. As a business, what economic benefit do you believe you will get from real-time customer targeting & engagement?
Single-coded question

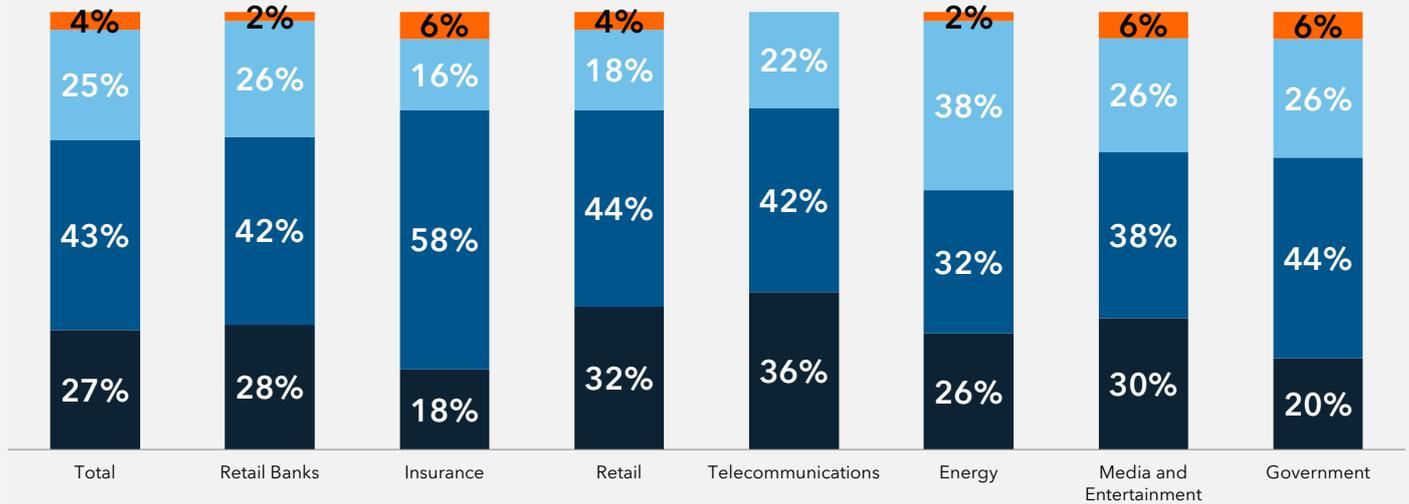
Frequency of adjustment of marketing communications: Based on customer insights



Q.9. How frequently do you adjust your marketing/communication content based on the insights you can generate into your customers' behaviour (e.g. personal data, spending habits) or their mood? Single code per row

Ability to target the segment of one in real time

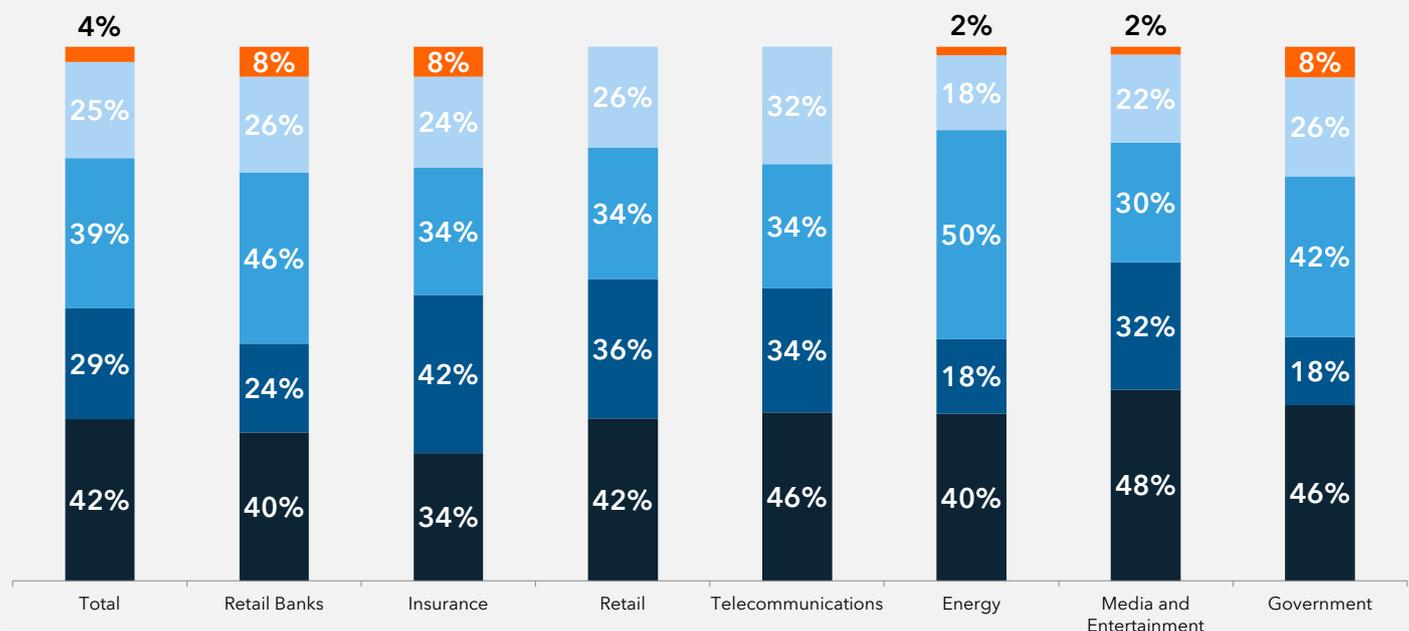
- We are not interested in targeting the segment of one in real time
- We are not able to target the segment of one in real time but plan to be able to do so in the next 1 - 2 years
- We are close to being able to target the segment of one in real time, in the coming months
- We are currently able to target the segment of one in real time



Q.12B. How close are you on the journey to being able to target based on a segment of one in real time? Single-coded question

Customer communications in real time

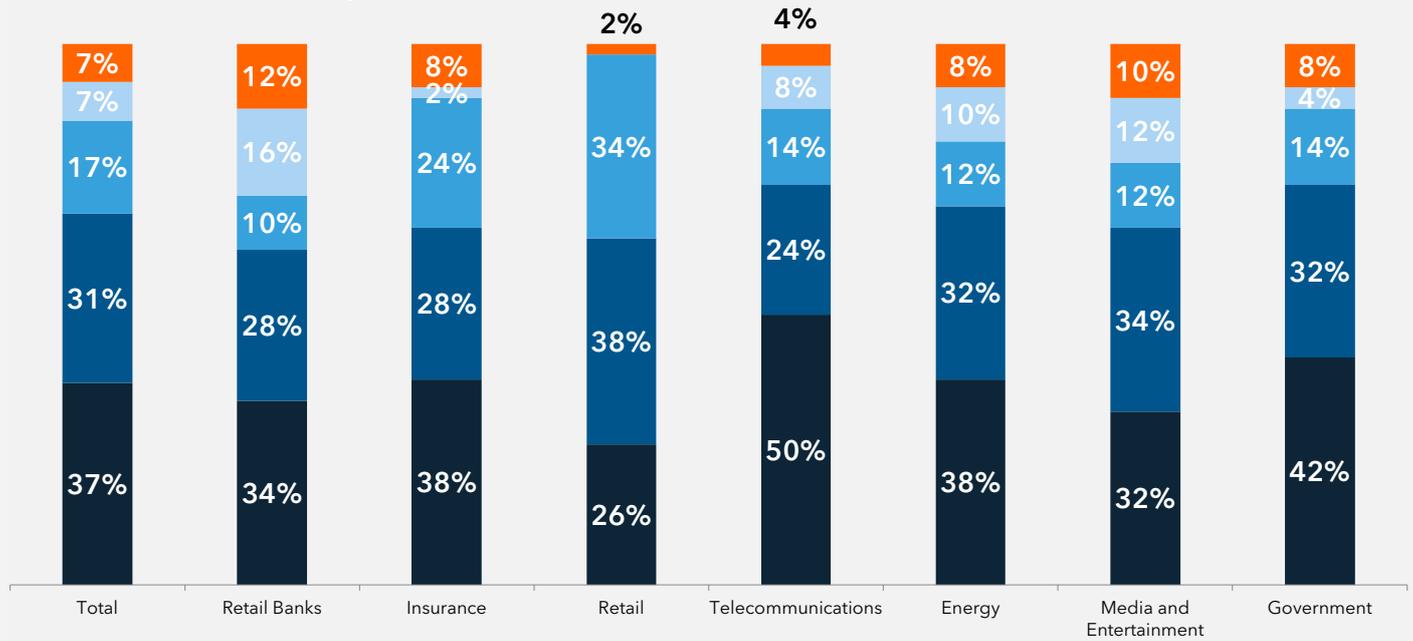
- No, we cannot communicate in real time
- Yes, we can communicate based on real-time information
- Yes, we can communicate via a single channel based on real-time information
- Yes, we can communicate via multiple channels/omnichannel based on real-time information but not currently in a joined-up way
- Yes, we can communicate via multiple channels/omnichannel based on real time information in a joined-up way



Q.12C. And how close are you on the journey to being able to communication to your customers in real time? Select all that apply or simply 'no, we cannot communicate in real-time' if you don't communicate in real-time. Multi-coded question

Embedding behavioral insight into corporate communications

- We don't do this
- We do this automatically using a combination of historical and real-time data, sophisticated rules and advanced analytical models
- We do this automatically using historical data and simple rules
- We do this, but it's a manual process throughout
- We do this, but it's partly a manual process



Q.12D. How effective are you at being able to embed and change (operationalised) behavioural insight into customer communications? Single-coded question

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- ⁴ Analytics for the Future: The New 'Data Generation': Future Foundation and SAS
- ⁵ Analytics for the Future: The New 'Data Generation': Future Foundation and SAS
- ⁶ <https://www.marketingweek.com/2016/09/29/how-o2-has-built-new-businesses-out-of-personal-data/>
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- ⁹ <http://www.idc.com/getdoc.jsp?containerId=prUS41826116>

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