

Think:Act

navigating complexity



April 2017

Inside the customer's mind

Successfully customizing retail by decoding
the digital customer genome

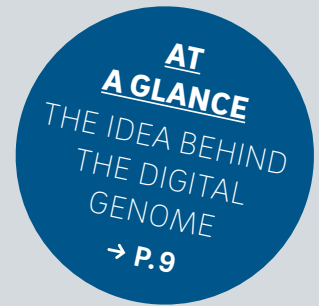
Roland
Berger



navigating
complexity

THE BIG

3



7,000,000,000

data points have already been generated by German users of Facebook through their "likes".

Page 7

300

"likes" on Facebook, and a computer-based model knows your customer as well as their life partners do.

Page 10

360°

A 360° perspective is the only way to fully understand today's customers and meet their wishes.

Page 13

Big Data in retail does not mean forgetting about the customer in the new passion for technology.

Tomorrow's retail belongs to firms that completely understand how their customers think, act and consume. It's not just about the masses, it's about each individual. Pure play e-retailers are already predicting exactly what we will buy tomorrow. Established retailers are adapting accordingly in the hope of staying a step ahead of the competition. Hesitate, or reject the transformation out of hand, and you risk being left behind or even being forced out of the market in the medium term.

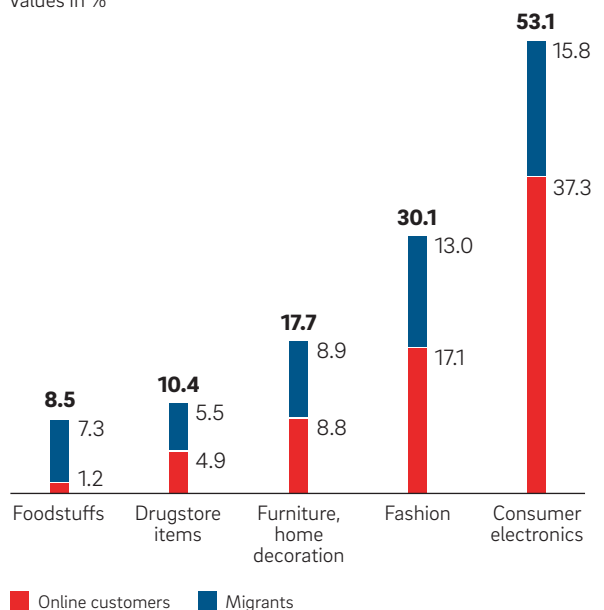
But retail must be careful not to lose sight of the customer in its newly discovered passion for Big Data and technology. This is a risk that we currently see at many companies – and we are watching it with concern.

Retailers need to take decisive action so they can continue making the right decisions in increasingly competitive markets. They must discover their customers' "digital genome" – their individual personalities as revealed by the footprint they leave behind them on the Internet. And they must learn how to use this customer intelligence to their advantage. We show what retailers must do to get this process started, how they can sift their way through the mountains of data and secure rapid success. → **A**

A

CUSTOMERS CONTINUE TO MIGRATE ONLINE

Values in %



Source: Roland Berger

Shopping experiences are becoming highly customizable. The digital genome helps retailers look inside their customers' heads.

AMAZON SETS NEW STANDARDS

Online retailers have seen this situation for the opportunity it is. They provide their customers with what they seek in vain elsewhere, using Big and Small Data to draw up precise customer profiles. Many "attackers" have integrated customer intelligence into the heart of their business models – companies such as American retail giant Amazon, for example, that not only knows the shopping history of each of its customers, but also keeps a record of every online search made and every item evaluated. The company then analyzes this data to predict the customer's buying habits. Using "anticipatory shipping" it delivers relevant goods to warehouses located close to the customer, even before the customer places an order (Wall Street Journal, 2014).

Amazon has long been a heavyweight in the German retail arena. Germany has 60 million Internet users, of whom 43.9 million regularly use Amazon (Statista, 2016).

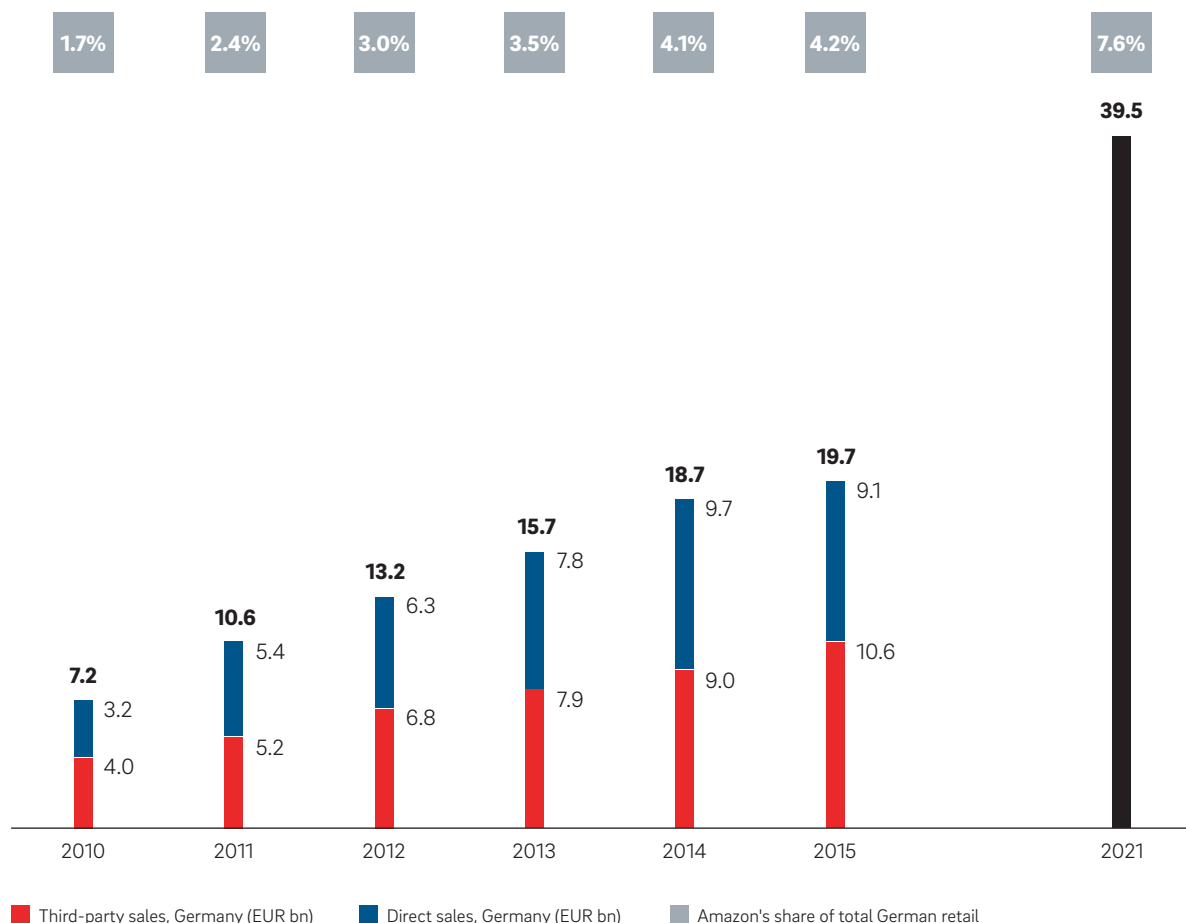
The company has an extremely wide range of products in nearly all categories, giving it a 360° view of all areas of customers' lives. It combines this knowledge with the ability to translate it into finely tuned recommendations, suggesting other products that the customer might be interested in. Other online retailers are increasingly following suit and adapting their business model to the new reality. → **B**

The trend towards retailers offering increasingly comprehensive product assortments means that customers very often find it difficult to keep an overview of everything that is on offer. They don't want to spend hours clicking through endless lists of products. They would prefer the retailer to use a smart system to recommend those products that are most relevant for them – and not just based on their current purchasing behavior but on their future wishes and needs, too.

B

AMAZON ALREADY PLAYS A MAJOR ROLE IN GERMAN RETAIL

Including third-party sales, Amazon's sales are forecast to reach almost EUR 40 billion in 2021.



■ Third-party sales, Germany (EUR bn)

■ Direct sales, Germany (EUR bn)

■ Amazon's share of total German retail

Source: Roland Berger

25
million

active Amazon
customer accounts
exist in Germany

150
million

articles are listed
on Amazon
Marketplace

50
percent

of the population
have ordered from
Amazon in the past

132
soccer fields

– the total size of
Amazon's logistics
centers

DATA RESOURCES AND MASS CUSTOMIZATION

Retailers make their recommendations on the basis of an almost inexhaustible volume of data. They use this data to derive personal predictions with a level of accuracy undreamed of just a few years back. New technologies enable quick and cost-effective access to this information.

Corporations evaluate terabytes of data every day, collected continuously along online touch points. They can do this because more and more people use their smartphones to go online as a matter of course these days, posting on social media about what interests them and the way they consume. Every click on the Web, every "like" on Facebook, every photo on Instagram is another piece in the mosaic that the retailer is building of the customer – and which the retailer can use to get closer to the customer or create a personalized offer. We all leave our digital fingerprints behind us on the Web, indirectly revealing a great deal of information about our needs. Smartphone apps are also good for collecting data for use in customer profiling. Users allow the applications to access the information stored in their phones and are not shy about disclosing personal data. → **C**

Put all this data together and interpret it correctly, and you gain an insight into the customer's mind. You

can then use this insight for the purpose of "mass customization" – the finely tuned personalization of your offer to the customer, at limited cost to yourself. This can range from a customized shop interface and preselected products to individually adjusted prices.

An exciting example of customer-triggered personalization is found at e-commerce specialist ABOUT YOU, a subsidiary of the German mail-order company Otto. ABOUT YOU invites its customers to describe their style preferences by taking their fun Stylequiz. The quiz generates a profile of the customer that the company then uses to customize the shop interface for that user, using specially selected "product worlds". Other customization solutions do not even require the active involvement of consumers. The sales price of online package tours can be adjusted in line with the type of device the customer is using to access the site, or the previous websites they have visited – users of Apple products being classed as better off and therefore being quoted higher prices, for instance. In the entertainment and media industry in particular, the level of individualization has risen significantly: Apple Music puts together a tailored playlist for customers on the basis of the music that they have listened to earlier, adapting it to their individual taste in music.

CUSTOMIZATION ON THE MOBILE SCREEN

Internet access is increasingly shifting to mobile devices, such as smartphones and tablets. In their specific ecosystem, apps play a central role. According to industry association Bitkom, somewhere in the region of 3.7 million apps are available from the five biggest app stores (Bitkom, 2015). To make the best use of the space available on the smaller screens of mobile devices, both the interface and the product offering have to be customized.

LOOKING FOR LOW-THRESHOLD OFFERS

Research into the log-in habits of consumers using desktop and mobile devices shows that e-commerce customers dislike complicated log-in processes when they come to pay for their purchases. This is particularly true for mobile apps, where logging in is even more difficult due to the size of the screen. Retailers are turning instead to social log-ins, whereby customers log in using their existing social media profile – and the retailer gains full access to the customer's profile.

C

LEAVING TRACKS ON THE INTERNET

Retailers use different sources to develop detailed profiles of individual customers.

ONLINE FOOTPRINT**360° PERSPECTIVE****OBSERVATION-BASED****CHRONOLOGICAL SEQUENCE****LOOK-ALIKE PRINCIPLE****POTENTIAL SOURCES OF DATA (SELECTED)****FACEBOOK**

25 million users in Germany – profiles are often public – 7 billion data points based on "likes"

INTERNET EXPLORER

Retrospective analysis of browser histories – 4.9 billion websites visited each month in Germany

GOOGLE

Retrospective analysis of search histories – 6.6 billion searches made each month in Germany

APP STORE

Added-value software in exchange for access to Facebook account or geo-localization

Source: Roland Berger

OPPORTUNITIES FOR RETAIL

In most cases, the data currently available to retailers internally is insufficient for these new applications – both in quality and quantity. What are those customers like who have only a few touch points with your organization (those buying furniture, home improvement products or consumer electronics, say) or who can only choose from a limited range of products? It is almost impossible for retailers to understand what makes these customers tick without additional points of contact and sources of data. Detailed personal information is needed to complete the necessary image of each individual customer.

Learn to decipher your customers' digital genome and you can build a more direct relationship with them. This will allow you to boost your sales, cut your costs and keep up with the attackers. Fail to do so, and your competitors will gain an insuperable advantage over you in the market. Because tomorrow's consumers will buy from the retailers they believe understand them best.

Understanding customers leads to success. Deciphering the digital genome is the way to do it.

HIGHER REVENUES, LOWER COSTS

Retailers who successfully decode the digital genome stand to reap two main advantages. The more accurate their image of the individual customer, the better they can tailor their offer to the customer's specific needs. They no longer have to provide services that are neither here nor there for the customer and which therefore lack any impact. By offering only those products that truly interest the customer, retailers can boost their sales and at the same time avoid the expense of offering unwanted products.

To increase sales, retailers must identify early on the reasons why customers buy products, translating this information into a personalized message that leads straight into a purchase process. Retailers must tailor their message to the customer – be it by sending them a personalized newsletter, choosing the right style of language for the customer in question (formal or informal), customizing the interface with the online shop, or recommending products that match the customer's tastes and needs. Product ranges can be optimized down to the level of individual products, as can the placement and pricing of items.

In order to avoid costs, retailers must try to keep the amount of advertising that misses its true target to a minimum. The data they gather can also provide them with insights into how to reduce the number of costly returns, stock levels, transportation costs and write-offs. Importantly, it can also reduce the risk of fraud.

Continuously recording and evaluating data provides you with detailed knowledge of the past and present behavior of your customers (i.e. descriptive analytics) and can also predict their future behavior – specifically, the probability of a customer having an "intention to purchase" and the preconditions for this (i.e. predictive analytics). It's all about knowing your customers in depth so you can adapt your services in line with their expectations. At the same time, you must ask yourself what steps you can take to influence the behavior of your customers (i.e. prescriptive analytics).

THREE LEVELS

Decoding the digital customer genome involves developing – and then combining – three different levels of customer understanding:

1. Shopping behavior (e.g. brand preferences, price preferences, choice of outlet)
2. Value system (e.g. safety, simplicity, quality)
3. Personal worlds (e.g. hobbies, favorite artists, political views, vacation preferences)

Existing data is often enough to cover the first two levels. However, for the third level, retailers will have to turn to external sources of data. → **D**

To decode the digital genome correctly, retailers need to combine all three levels of customer understanding. The key questions are: Who is the customer, and what does the customer buy? But other questions are also important, too: What does the customer like?

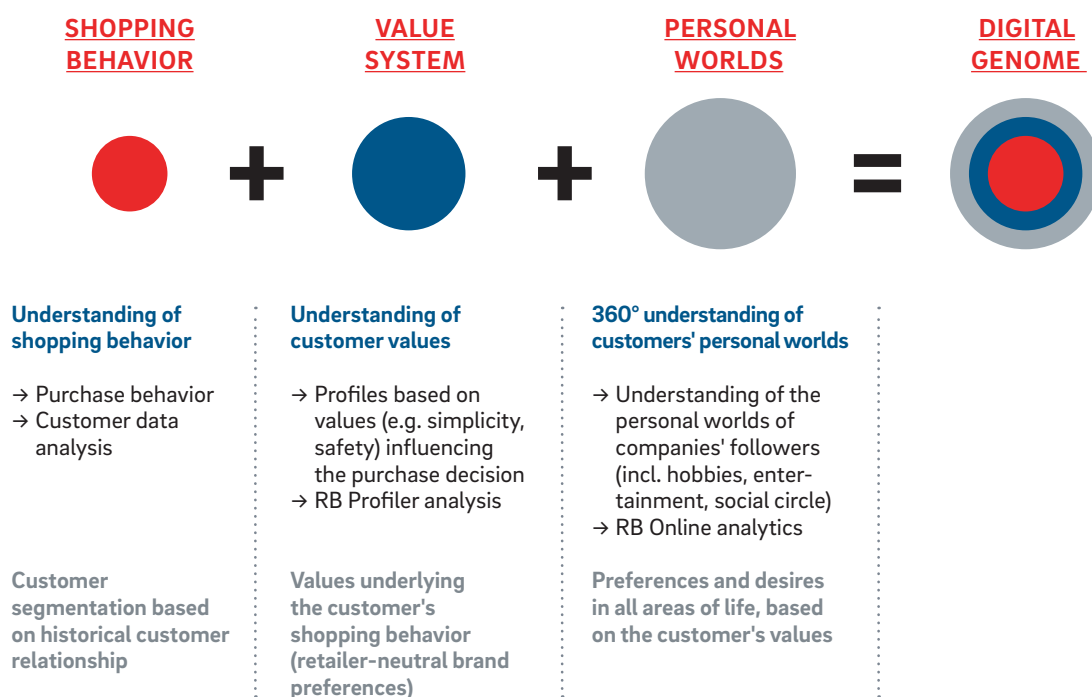
Who influences the customer? What is the customer's lifestyle? What does the customer care about? What stage of the purchase process has the customer reached? Where is the customer located? Which channels does the customer like? Retailers can find answers to many of these questions by looking at the customer's behavior online, their use of social media, and how they access apps on smartphones and tablets (see reference on p. 7).

Essentially, it's all about acquiring an individual understanding of the customer based on the historical relationship between retailer and customer, supplemented with data that allows you to predict their future behavior. The crucial thing is not how you segment your customers, which only goes so far – it's how you individualize them.

D

THE IDEA BEHIND THE DIGITAL GENOME

Customer understanding is developed on three levels and then combined.



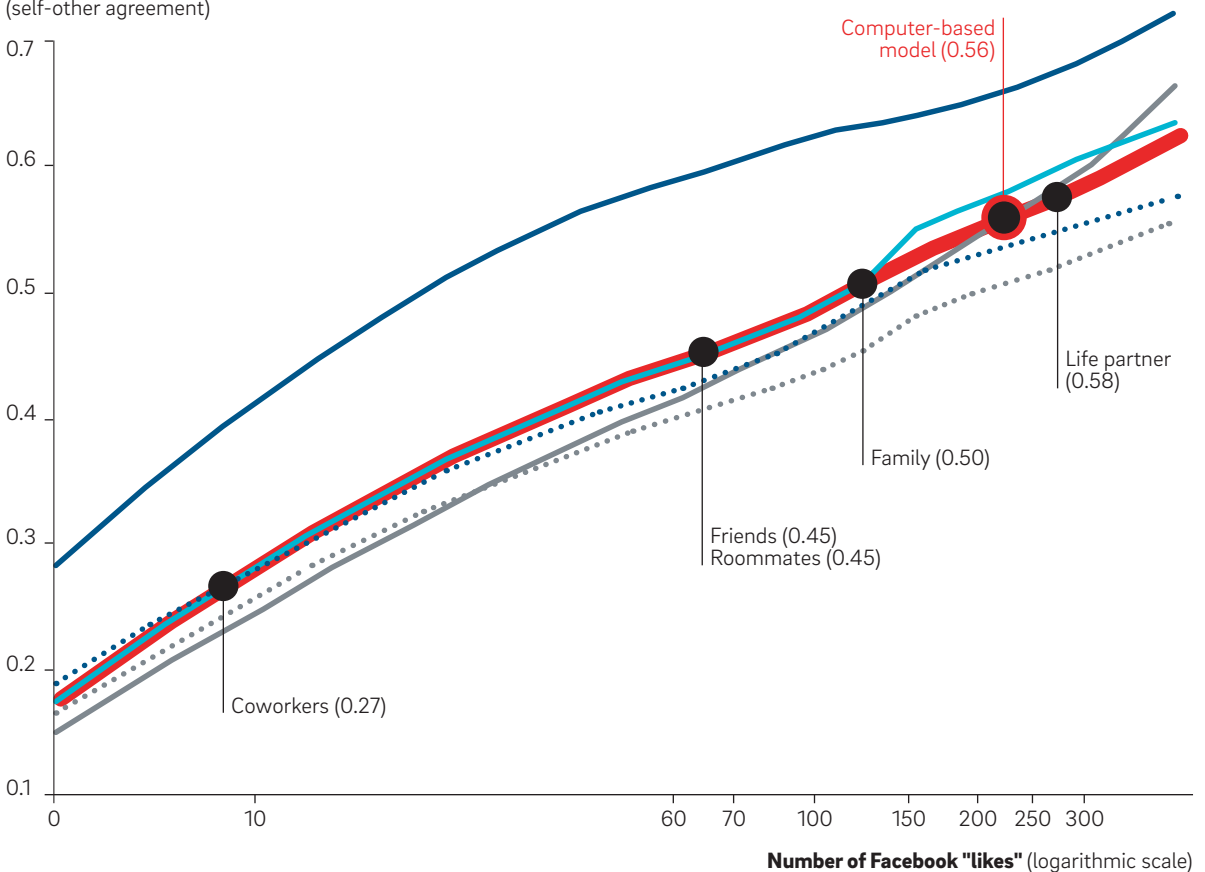
E

A CUSTOMER ANALYSIS BASED ON "LIKES"

Facebook "likes" offer profound insights into customers' personalities and preferences.

Accuracy

(self-other agreement)



— Openness — Agreeableness — Extraversion Conscientiousness Neuroticism — Five-trait average

KEY INSIGHTS

- "Likes" are the most generic form of digital footprint, but they provide deep insights into personality and preferences
- Models based on "likes" provide similar insights to other digital footprints (e.g. Web browsing logs, Web search queries)
- Analyses based on "likes" are highly accurate (10+ "likes" make them more accurate than coworkers, 70+ more accurate than friends, 150+ more accurate than family members, 300+ more accurate than life partners)

Facebook "likes" are a valuable source of new information to help you understand your customer better.

THE KEY DATA SOURCE: FACEBOOK

Facebook is probably the largest database of social relationships and activities in the world today. Some 25 million people in Germany are currently active on Facebook, 21 million of them using it every day (Facebook, 2016 – Q1, Q2, Q3; as per 2/2016). Twitter, the second-largest social network in Germany, has just 15 percent of Facebook's reach (Nielsen, 2016).

Many scientific studies have shown that Facebook data can be used to predict people's preferences and behaviors. Researchers from the Universities of Cambridge and Stanford found that users' preferences can be predicted on the basis of just a few "likes" more accurately than they can by people in the user's immediate circle. Thus, predictions made on the basis of 10 or more likes are already more accurate than those made by coworkers – and those made on the basis of 300 or more likes are more accurate even than those made by the user's life partner (PNAS/University of Cambridge, 2015; Stanford University, 2015). This is exactly what it's all about: systematic profiling that helps the retailer understand the individual customer and predict their wishes. On this basis, the retailer can then derive patterns and apply them to other users using a "look-alike" system. → **E**

READING SOCIAL MEDIA DATA

To interpret data from social media, we first need to map the entities (companies, music groups, actors, etc.) that can be "liked" by users to different categories. Our basic categorization comprises four major areas: leisure, body/health/nutrition, education/household/family, and politics/society/finance/technology. We break these areas down further into subcategories, such as relationships, career, politics, investments, dieting, and shopping.

Roland Berger has developed a representative panel of 50,000 Facebook profiles, whose "likes" we can analyze on an ongoing basis. To understand the users' personal worlds, we look at a group of the 5,000 most important entities in the categories and subcategories above. The profiles based on users' "likes" can then be matched with customer segments or predefined target groups.

DECIPHERING THE GENOME

Given the abundance of available information, companies must take a systematic approach to processing the data, first using a "smart data" approach to get to know their customers efficiently. We recommend a five-step process for decoding the digital genome.

BEST PRACTICE (1): WALMART LABS

Traditional bricks-and-mortar retailers are investing heavily in Big Data to build long-term customer loyalty. American retail group Walmart created its Walmart Labs division especially for this purpose. The division combines data from its own stores with data from e-commerce, the Web and social media. The company holds customer data from around 145 million Americans (DeZyre, 2015), which it uses among other things to generate personalized product recommendations and adapt its product ranges. In 2011, Walmart also spent USD 300 million on acquiring Kosmix, a start-up specializing in social media analysis (Walmart, 2016).

BEST PRACTICE (2): TESCO & DUNNHUMBY

British retailer Tesco recognized the value of customer data early on, bringing the customer loyalty specialist Dunnhumby into the company's fold. By acquiring Sociomantic and BuzzAgent, the company strengthened its position in the fields of social media analytics and social media communication. Dunnhumby aims to gain an in-depth understanding of customers in order to make the shopping experience as personal as possible and so build customer loyalty.

STEP 1:**DESIGN A CONCEPT**

The first step is to hold a cross-functional workshop to establish the importance of customization for continuous customer development (increasing sales) and internal process design (increasing efficiency). The aim of the workshop is to develop a common end-game scenario, showing what retailing looks like if you can successfully leverage a combination of deep customer knowledge and the ability to customize.

STEP 2:**BUNDLE YOUR DATA**

The second step is to identify relevant data pools along the customer journey – for example, devices used, profiles on Facebook and other social media, browsing histories, data from loyalty programs, and location data from cell phones. It is also important to evaluate access to these data pools and get hold of sample data from the most promising sources.

STEP 3:**ANALYZE**

The third step is to condense the data so that it presents a precise image of individual customers and their purchasing motivation. For example, it is possible to identify indicators for needs, which can then be addressed in a highly targeted fashion. Creating a visual representation of individual customers, their lives and their consumption patterns avoids the "black box effect" that often plagues data-driven projects. It also enables people from different company functions to work more creatively with the information obtained.

STEP 4:**DEVELOP A USE CASE**

Having built a detailed picture of the customer, it is now time to develop "use cases". First, customers' core needs must be identified. Next, potential solutions must be developed for them in a creative process. A set of use cases for implementation should then be defined through repeated detailing and prioritization. It is crucial that further developing and refining the ideas is allowed – and indeed encouraged – during the detailing and prioritization process.

STEP 5:**IMPLEMENT**

In the final step, a limited number of quickly implementable use cases are tested by means of rapid prototyping. The aim is to find out whether customers accept the improved offers and consider them worthwhile. This dialogue with end customers allows the retailer to optimize the offers.

IMPLEMENTATION IN THE ORGANIZATION

The whole process will only be successful if the company develops a fundamental awareness of the value of customer data. The challenges are not only technical in nature – they also involve how to implement the new thinking within the organization.

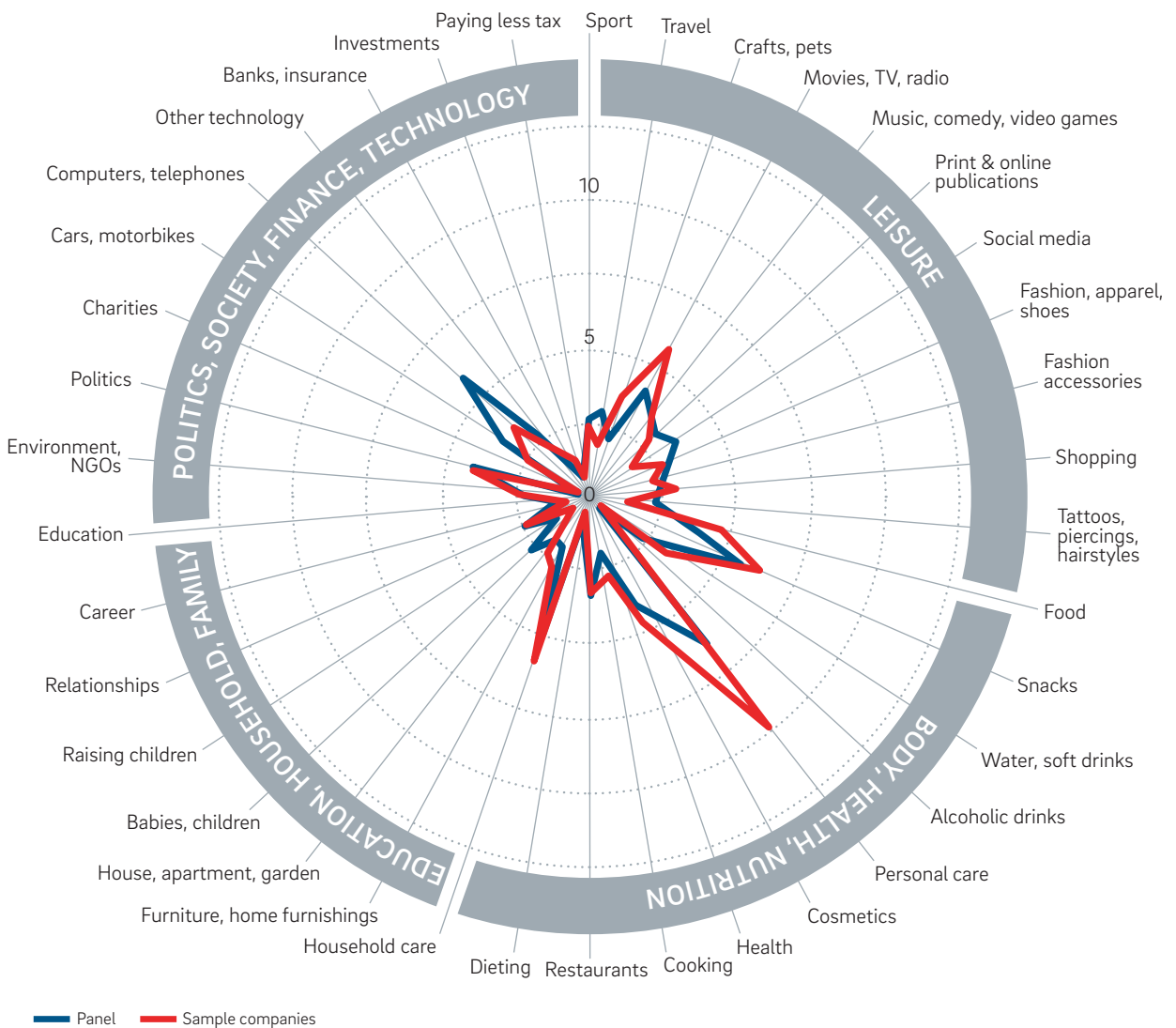
Typically, responsibility for effective customer management is spread across many different departments. With the development of omni-channel models, this fragmentation is growing. But when it comes to creating a holistic customer experience, departmental boundaries often represent a barrier – especially when a quick reaction is needed to new findings from the data. This makes it particularly important to bundle competencies and establish clear responsibilities for developing customer groups within the organization.

Retailers need customer managers who are responsible for understanding specific target groups from the ground up, and for communicating with those customers via all channels in a consistent and coherent manner. These customer managers must ensure that the physical and digital solutions that are developed actually reach their target audience. They must make sure that the various internal function teams take into account the interests of their particular target group. Using agile working practices, they must combine a profound understanding of the digital genome of their specific customer group with a continuous improvement process. This will enable them to build a convincing USP that has the customer at its heart.

F

THE ROLAND BERGER APPROACH

We analyze followers' personal worlds and their various components from a 360° perspective.



NOTES:

- Classification of the top 5,000 Facebook entities
- Frequency analysis for RB Facebook panel (percentage of total "likes")
- Continuous recording and adjustment

Conclusion: By taking action now, retailers can use an individual customer approach to strengthen their business model.

Internet giants such as Amazon are winning market share. Why? Because they have understood something really fundamental: Customers like offers that are tailored to their needs. That calls for understanding customers at the very beginning of the customer journey – knowing what they want even before they know it themselves – and having the right offer ready for them in terms of pitch, recommendation and price. To be competitive, companies with their roots in bricks-and-mortar retail and e-commerce firms alike need to increase their access to customer data as much as possible so they can successfully decode the digital customer genome. Having a customer card program is no longer a prerequisite. New data sources exist that can now replace (or supplement) loyalty programs as sources of customer data. The individuals within the organization who are responsible for the company's performance with specific customer groups need to work hard at decoding the customer genome and deriving the best offers on this basis. They can then convert

the interests of the customer group in their care into an attractive shopping experience by working with the internal functional areas.

By taking this approach, retailers can boost their sales, reduce costs and build long-term customer loyalty. Roland Berger can help companies shape this process and achieve success quickly. Often, analyzing a small group of customers is enough to reveal the enormous potential of decoding the digital customer genome.

Retailers who embrace digital transformation in this age of e-commerce can enjoy unique benefits. Understanding the digital customer genome is the key. ◆

ABOUT US

Roland Berger, founded in 1967, is the only leading global consultancy of German heritage and European origin.

With 2,400 employees working from 34 countries, we have successful operations in all major international markets. Our 50 offices are located in the key global business hubs. The consultancy is an independent partnership owned exclusively by 220 Partners.

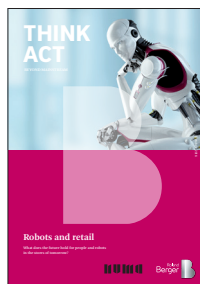
FURTHER READING



RADICALLY DIGITAL

Shaping the digital transformation

Companies are launching one digitization project after another at breathtaking speed. New platforms, new products, new processes; lower costs or more flexibility – almost every issue has a new hype attached. But are the countless projects embarked upon by Europe's market leaders actually getting them anywhere? Many of your future competitors and many of your future customers will not be the same ones as you have today. Break out of the traditional patterns of your industry. Come up with your own plan D for digital, custom-tailored to your business. Be radically digital!



ROBOTS AND RETAIL

What does the future hold for people and robots in the stores of tomorrow?

In an environment where digital sales are set to double over the next 10 years, stores can no longer restrict themselves to solely a transactional role, which itself is increasingly being fulfilled by e-commerce. They are going to have to boost their role as purveyors of an image, implying a radically different economic model. Robots – now affordable and offering substantial gains in terms of competitiveness – is one possible answer. Robots are any form of "mechatronic" device (combining mechanics, electronics or computers), which does not necessarily need to look human and which can accomplish tasks that are generally performed by people.

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WE WELCOME YOUR QUESTIONS, COMMENTS AND SUGGESTIONS

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