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Marketing Review St. Gallen



3 | 2020 **SCHWERPUNKT** Customer Foresight in B2B Markets • Localization of the Customer Foresight Territory • Business Forecast 4.0 • Trend Receiver Approach • Customer Foresight in Practice • Scenario Building Methods for Trend Translation **INSIGHTS** Oracle – Winning the Ultimate Treasure – Through Foresight Methods **SPEKTRUM** Premiumization as a Strategy in Competitive Markets • Product Category Priming in the Case of Chocolate

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Customer Foresight





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**«Wissen schafft
Wirkung»** 

Customer Foresight

Das erste iPhone erschien 2007. Damals noch von Wettbewerbern belächelt, hat es mittlerweile seinen Siegeszug in unsere Lebenswelten vollzogen. Andere Technologien, welche als Gamechanger angepriesen wurden, finden hingegen kaum Anwendung. So werden Segways – laut der Vision ihres Erfinders sollten sie in der Innenstadt das Auto ablösen und die Zukunft der Städte radikal verändern – heutzutage hauptsächlich als Touristenfortbewegungsmittel eingesetzt.

Wie werden wir in Zukunft leben? Wird es eine neue oder mehrere neue Technologien geben, welche unseren Alltag radikal verändern?

Customer Foresight ist ein Weg, sich einen besseren Überblick über die „Zukunft“ zu verschaffen. Customer Foresight umfasst verschiedene methodische Herangehensweisen, welche ein besseres Verständnis liefern, wo sich Märkte hinbewegen. Bis

zu einem gewissen Grad erlaubt Customer Foresight einen besseren Umgang mit der hohen Volatilität und Unsicherheit in unserer heutigen Welt.

Jedoch müssen all diese Ansätze auch mit Vorsicht betrachtet werden: Im Jahre 1937 wurde in einer grossangelegten Studie vorhergesagt, dass die Hälfte der amerikanischen Bevölkerung in den nächsten 15 bis 20 Jahren in Wohnwagen wohnen wird. Die Grundlage für diese Prognose erschien einleuchtend: Die Nachfrage nach Wohnwagen war zu dieser Zeit grösser als das Angebot und die Annahme der Experten war, dass sich dieser Trend fortsetzen würde.

Dennoch scheint scheint Customer Foresight zu Zeiten von Covid-19 wichtiger zu sein denn je. Auch wenn man die Zukunft durch Customer Foresight nicht vorhersagen kann, erlaubt Customer Foresight sich auf verschiedene Zukunftsszenarien vorzubereiten.



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3/2020



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Lessons From Market Making

Customer Foresight in the B2B Sector and What We Can Learn From It

When thinking about customer foresight, most often the consumer goods sector comes to mind. The question what our future will look like – how we will want to live and consume – is affecting every sphere of our lives. But customer foresight is a core competency of every company, and this is also true in the B2B sector. Thus, we considered it fruitful to take a less often considered perspective and chose to approach this topic from the B2B angle. We talked with Dieter Goerdten, Head of Products and Solutions in the SIX business unit Banking Services (BBS), who was a driving force behind, and an important expert in, the development process of the scenario “Pictures of the Future – Future of Money”. Together we explored what customer foresight means in B2B markets. How is the scenario method “Pictures of the Future” best utilized to understand a business's ecosystem? And what learnings can we derive from customer foresight in the banking and finance industry for other customer foresight processes?

The interview is conducted by Prof. Johanna Gollnhofer, Associate Professor at the Institute for Customer Insight und Birte Manke, Research Associate at the Institute for Customer Insight

Could you please introduce yourself and the SIX Group?

Consumers may have seen our logo on card readers while shopping or they may know us through the Swiss Stock Exchange, but SIX does much more: In essence, it is a provider of infrastructure and services in finance, mainly in the B2B sector. SIX offers many different platform solutions for the Swiss financial ecosystem (see the overview in figure 1). In a way, we can be compared to tracklayers. We are building infrastructures for critical players in the financial services sector so that banks do not have to do everything on their own. By doing so, we are reducing the costs for our clients and offering network effects. E-bills are a good case in point: if only a few people were using it, there would be little to no advantage in the concept. You would be able to send out a few e-bills but all the rest would still have to go out the conventional way. You only get a proliferation of channels: one more way to send out your bills. Now, the more people are using e-bills, the more benefit is being created by participating in the system because you can reach out to more people that way – the network effect – and at the same time the cost of a single transaction goes down because everyone uses the same infrastructure. We offer this type of central platform that allows many participants to send and receive bills, thus creating network effects and economies of scale.

Personally, I am heading the Products & Solutions Department of BBS, which was created in October 2018. Prior to that, I worked for several banks and in consulting and gathered work experience all around the globe. An economist by profession, I worked for Lufthansa for many years, but also in German development projects in Central America and in Africa before joining UBS in 1999.

Customer Foresight in the B2B Market

What does customer foresight mean to you and in your work?

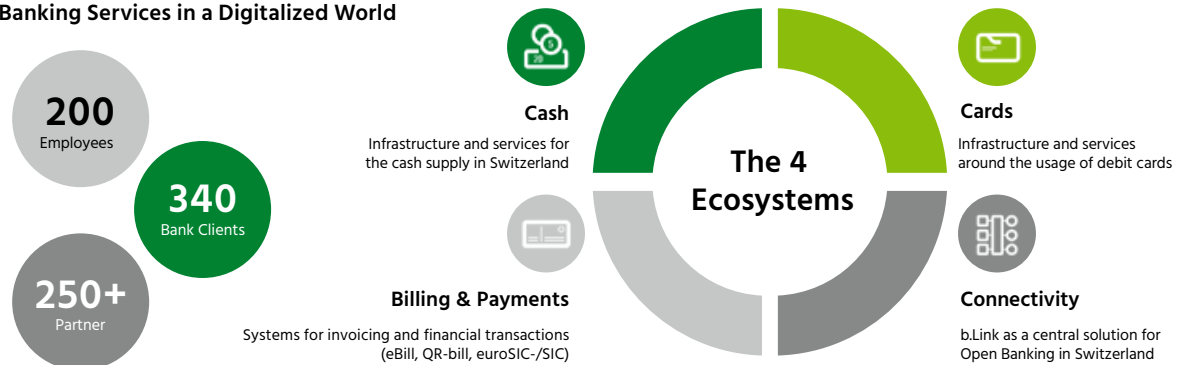
Customer foresight in the B2B sector is particularly challenging, but extremely important. In order to be able to offer relevant solutions to our clients, i.e. financial institutions, we need to understand their future needs and those of their customers. So we have to practice foresight in their markets regarding their customers. We then add value at

Dieter Goerdten

Head of Products and Solutions in the SIX business unit Banking Services (BBS)

www.six-group.com/banking-services



Fig. 1: Overview of SIX's Services and Solutions**Banking Services in a Digitalized World**

SIX runs, develops and digitalizes the professional and private payment transactions in the Swiss Financial Industry. At the core are infrastructures and services for billing and payments and all forms of card-based and mobile transactions.

Source: SIX, 2020.

our end by asking ourselves: What is the emerging consensual view, how will financial institutions fulfil those needs in their markets – and how can we help them do that? It is essential that we find out how we can create offerings that reduce our clients' costs, provide additional value in their offerings to end clients, and/or create network effects, as in the case of connectivity or e-billing. B2B is an extremely long-term approach, because we have to create a future offer, sell it to banks – that have very long investment cycles – and only if we find a sufficient number of clients does it make sense to start production. So, any offer usually is quite some time in the making before it becomes visible to the end customer (see figure 2).

Can you explain this with a concrete example?

As I mentioned before, we offer a distribution platform for e-bills. They present billing information in an electronic format, and we would like to see more people using this form of payment as it is easy to use, reduces paper consumption, and bills tend to be paid

It is essential to know what is actually valued by consumers, and our clients should be able to focus on that. Why spend resources on anything else?

on time – which is beneficial to the biller. The struggle is to get the whole process running for all participants in the market, i.e., the shop that sends the bill, the businesses that connect the biller to our platform (we call them network partners), the banks, and, finally, the consumers who receive the bill via their online banking system and should be able to pay very easily. Therefore, we have to look at the entire journey of such a bill through the system. Of special importance in this context are the

user experiences of billers and receivers. One of the pain points was that billers were oblivious of who could receive an e-bill in the first place. So we fixed that by offering a register of all customers who are participating in the e-bill network. Today, a biller can make conscious decisions on how he sends bills to different users.

Are there any special restrictions under which you operate?

Our situation is unique in that SIX is owned by the banks, our clients. We are “user owned and user governed”. So we are very close to our clients, which is what everyone wants. We can ask them very directly what they need and what they want and can get inspired by their ideas. Given the variety of banks in Switzerland, there is usually not one clear demand, but many different views, quite often even contradictory ones. So we had to become experts at finding common ground, negotiating compromises and brokering deals. However, sometimes the proximity to banks can be almost too close for comfort, because

our customers can heavily influence our decisions or even block them through our Board of Directors. Therefore, it is sometimes a challenge for us to keep the freedom to invest and innovate while there is not yet a broad consensus among our customers. But otherwise we would run the danger of long discussions and, consequently, our offerings would be too late for the market.

You applied a method called “Pictures of the Future”. Could you briefly explain this approach?

At SIX, we have implemented, and are continuously developing, a scenario planning method called “Pictures of the Future”. The goal is to model different future scenarios by identifying relevant signals and projecting their development. We do not aim to ‘foresee’ the future. However, our scenarios can spark discussions around possible futures we want to prepare for and futures we may want to create.

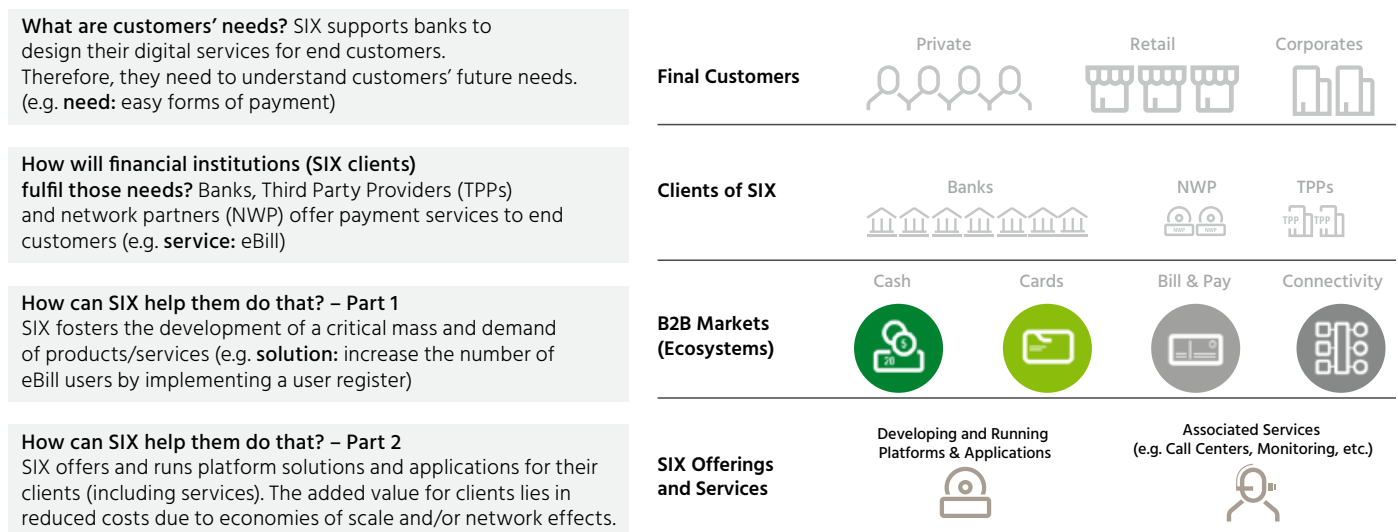
This sounds like a holistic approach to customer foresight. Could you explain this in more detail?

In our scenario project on the “Future of Money” we critically reflected on many root assumptions of our current lives and the role of money. Big questions were: What will happen to cash? Will consumers still use cash in the future? What are potential replacements? We concluded that cash will most likely become less relevant but will not vanish entirely. What does that mean for our clients, the banks? In the scenario process we reflected, for example, on the role of ATMs. Today, in any city center you usually have a fair amount of banks operating ATMs within short distance. If the usage of cash declines and all banks maintain their current numbers of ATMs, each transaction will become more expensive for the providers. Additionally, operating ATMs do not provide any differentiating value for customers – you do not choose your bank according

to the beauty of their ATMs. So we identified a business opportunity for us. As SIX, we could operate the ATMs in Switzerland on a large scale, create a network and thus increase cost efficiency for the banks. Currently, we do not yet have such a model here in Switzerland, but it already exists, for instance, in the Netherlands and in some Nordic countries. As this is a new model in Switzerland, we need to create this market.

But we didn’t stop at ATMs. There are many other things that banks currently provide which do not possess great potential for differentiation. Payments overall will not be a big differentiating factor for banks in 5–10 years’ time, including many processing and other back-end tasks. We believe that banks would not lose anything by centralizing these services. Quite on the contrary: they could shift resources to defining their future offerings and their interactions with the customers. Many services along the transaction chain could also be centralized – in fact, some

Fig. 2: Overview of Elements of Foresight at SIX



Source: SIX, 2020.

are already run by SIX, e.g., the card blocking center. There are not many differences in the questions and needs of the customers of different banks and the processes can easily be centralized. It is essential, however, to know what is

revenues generated. And then it takes even more time until you start making a profit in such a business. That is why we always need to be two steps ahead. Projects we start are usually long-term and capital-intensive bets.

It is a great advantage of the B2B market that you can start a joint process with your clients. In B2B we can co-create the future that we would like to live in.

actually valued by consumers, and our clients should be able to focus on that. Why spend resources on anything else? These are exactly the discussions we want to provoke during our scenario sessions. Ultimately, that brings us in a position of thought leadership and that is where we want to be in the future.

You talked about creating a market. How is this done?

Creating a market, or market making, is a multifaceted process. You study the final consumers' needs. You try to become a thought leader in a particular field. This is what we do with the white papers we publish. We want to engage people in discussions about developments in the markets. Once we can see the consensus emerging, we start to have a clue where to place our offering. Then we talk to potential clients about our ideas; maybe we also try to model a pilot offering. In this way, we close in on our future offering until we reach a critical mass of clients who say: "Ok, I'm interested, I would purchase this solution." All this can only be achieved by a player of a certain size because our offering usually is very infrastructure-heavy. If we take the tracklaying metaphor again: you may need several years to build the rails, and in year five, you may have the first trains running on them and the first

Is market making only relevant for the B2B sector?

When you introduce an innovation, you need to be sure that the market is existent in any business. However, you may have more opportunities to shape markets in the B2B business. The area I work in, payments, is changing rapidly at the moment: digitalization, new legal opportunities (e.g., the new European regulation on payments, PSD2), and emerging FinTechs. Nobody knows what the market will look like in 5–10 years' time and market making is a great challenge. Our "Pictures of the Future" are one piece in the puzzle called tomorrow.

Scenario Methods Can Be Used to Gain an Understanding of a Complete Ecosystem

Why did you decide to do a "Picture of the Future of Money"?

Ideas for relevant topics come from every direction and all players in the market. At the moment, a lot is changing in the area of payments. On the one hand, we are approached by banks that want us to solve specific issues for them. Much is triggered by current trends like digitalization and the opportunities that come

with them. On the other hand, we have to investigate the market on a long-term basis. The Pictures of the Future method was suggested to us by colleagues when we were discussing our perspectives in the cash ecosystem, as a solution that could integrate inputs from different perspectives. In the beginning, we were skeptical regarding the effort we had to put into the process and asked ourselves what we would gain from it. But then we just decided to give it a try and see what happens. We worked on this project for more than six months and we put a lot of effort into it – but it was worth it.

What were the reactions to your report?

Overall, the reactions were enthusiastic. We got a lot more reactions and comments than we had expected. We were very surprised by this but it's great to see that the effort paid off handsomely. In a way, we also were lucky that the topic had a certain spin, fueled by discussions around bitcoin and libra. But it was great to see so many people referring to our paper. It has been cited in all kinds of places including Australia. Of course, social media played a large role in that and should be consciously used in order to disseminate such results.

What was the most important factor that made it successful?

You have to offer something your audience wants and is able to digest. The topic is very complex, and people have precious little time. The majority of readers will only read the most likely scenario and the summary. So you have to offer enough food for thought in these sections. In this picture of the future, we also introduced human-centric stories to bring the topic closer to our readers' everyday life and made an effort to illustrate where necessary. Of course, this hasn't been my effort alone but the creation of very talented people at SIX,

and we have to thank all those who contributed with their views and ideas.

What is the value of this kind of work?

When you open up the discussion with something like “The Future of Money”, you want to work on building a mainstream. In the beginning you have to be careful to introduce enough facts, evidence, and numbers. As long as people do not have facts and are only discussing their own beliefs, you cannot really agree on anything. With the scenario method you can shift the perspective to the likelihood of an option – and get people to agree on probabilities. Dissenting views are then not simply discarded but kept on the table. Participants can agree to disagree, without being excluded from the results. Once you get to this point, you can start to discuss solutions. We strive to become thought leaders in all the markets relevant for us. We are still far from this position, but we definitely have come one step closer to it in the market for cash. We have talked to relevant stakeholders, we appear on their map, and we have demonstrated that we bring specific competencies to the table. You cannot build a mainstream behind closed doors. It is a great advantage of the B2B market that you can start a joint process with your clients. That is a lot more difficult in the B2C market with its large numbers of end customers. You can interview them, watch them. But a continuous dialogue is much more difficult. In B2B we can co-create the future that we would like to live in.

What happened with the white paper? Did you launch any initiatives afterwards?

We are in the process of making some of the conclusions more concrete in order to turn them into offerings. We launched an innovation sprint to deal with a couple of outcomes. We carefully dis-

cussed them with stakeholders in the market, banks, retailers. At the moment, we are about to launch a conceptual phase to define the potential future of cash in a village-type setting and with a central provider of the ATM network. It is incredibly interesting and rewarding and would probably not have been possible without the white paper.

We are currently living through the Corona crisis, which has led to a drastic decrease in the usage of cash. Did the work on future scenarios prepare you for this extreme situation?

True, everything happened a lot faster and more extremely than expected. But with the development of the scenarios and our discussions about the topic we are better prepared for such a situation than we were half a year ago. However, if I could turn back time, I would have started even earlier with the scenario work.

What developments do you anticipate for the future? Will we return to cash?

With the normalization of life, the number of financial transactions will normalize. Maybe we will have less traffic because of a recession, but that will be overcome eventually. However, the structural changes in our use of money – i.e., electronic and contactless payments preferred over cash – will not be reversed.

Learnings From Customer Foresight in the Banking and Finance Industry


What do you think is important for successful foresight work?

With innovation comes the need for new skills and talents. Successful foresight

work does not yield results if you do not include the right people to implement ideas and put the results into practice. In 2018, I took over the product management department with around 25 employees. Many of them did not have any particular experience in the areas of user experience, client journeys, or moderating skills. And we still are not particularly good at running the services which should come with the platforms we sell. In the case of ATMs, for example, you need to make sure that they are filled or emptied when needed, and there is a need for maintenance and security services. However, providing these services is a very different business from providing and operating platforms, which has so far been our core focus. These are two very different aspects of our offering and you need different types of people to run them.

With innovation comes the need for new skills and talents. Successful foresight work does not yield results if you do not include the right people to implement ideas and put the results into practice.

Is there something other companies can learn from the process?

There are lots of co-creation processes implemented at the product level these days. But what about the strategic level? Companies need to start discussion processes on market strategies. I think this is very relevant for the B2B sector. However, it raises a lot of questions about competition and legal issues. Our world is growing ever more complex and sometimes confusing, so it's great to kick-start a discussion and incorporate a multitude of views. Of course, openness is essential for that and you must like to communicate a lot. But in the end, it is our future and we are in this together. So why not shape it together as well? 

The Customer Foresight Territory

Customer foresight is a relatively new research field. We introduce the customer foresight territory by discussing its localization between customer research and foresight research. For this purpose, we look at a variety of methods that help to understand customers and future realities. On this basis we provide an overview of customer foresight methods and outline an ideal-typical research journey.

Dr. Eric Eller, Dr. Rupert Hofmann, Prof. Dr. Jan Oliver Schwarz

Customer foresight is currently emerging as a new field of applied research. The objective of customer foresight is to understand customers' future circumstances and wishes with regard to tomorrow's products and services by combining two highly relevant, yet mostly separate fields: the investigation of customer needs based on their everyday usage (i.e., customer research) and the dynamics of change and projections (i.e., foresight research). From a methodological perspective, the focus on customer foresight implies that a different approach, in terms of the techniques and tools used, needs to be taken to understand the needs and preferences of future customers. Whereas both customer research and foresight research use a broad range of methods, it is not yet defined what particular methods of the two fields or combinations of methods are suitable to conduct customer foresight studies. We perceive this as a missing link in the literature in the emerging field of customer foresight.

In this article we analyze the methodological scope of customer research and foresight and assess which tools are most suitable for conducting customer foresight studies. In this context, we refer to the methodological playground of customer foresight as customer foresight territory, introducing a more structured version of this playground. The customer foresight framework integrates practicable methods to develop our understanding of customers, future realities, and their interaction. We then sketch out an ideal-typical research process. The suggested customer foresight research journey combines several approaches from the field of customer research and customer foresight. Today, many companies have understood that successful business needs to be customer-centered. With this article, we aim to equip these companies for taking a strategic perspective on customer centricity by understanding, and focusing on, the customer of the future.

The Customer Foresight Territory

Customer foresight combines the needs of customers with the dynamics of change and expectations of future circumstances, products and services (Schweitzer, Hofmann, & Meinheit, 2019). The evolution of customer foresight reflects, on the one hand, the relevance of foresight in general and, on the other hand, the growing challenge of placing the customer at the center of strategy, innovation and foresight. While in the 1990s it was argued that consumers are increasingly unmanageable

for firms (Gabriel & Lang, 2015), this state has not improved. Approaches such as design thinking (Brown, 2008, 2009; Brown & Martin, 2015; Liedtka, 2018) and lean startup (Ries, 2012) have gained attention because of their human-centered approach to innovation. In the field of foresight, the terms strategic or corporate foresight are used to describe similar activities of anticipating changes in the business environment (Rohrbeck, Battistella, & Huizingh, 2015). Thus, whilst human-centered approaches align business activities with the problems and needs of today's customers, strategic customer foresight aligns business activities with the problems and needs of tomorrow's customers.

Insights from customer foresight (e.g., what customers may want to buy in 10 years' time) are highly sought after but hard to come by. Understanding future customers is a key factor in the success of all kinds of industries. The industries that could benefit the most from customer foresight are those with long development cycles (such as manufacturing) because those companies need to develop value propositions today that customers will want to buy in several years' time (Hofmann, 2010). On the other hand, creating tangible insights into customers' future realities

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is difficult from a methodological perspective because it deals with at least three unknown factors: How will customers evolve over time? What will everyday reality look like in the future? How will customer foresight approximate customers' future realities regarding future consumption? These three questions help us envision the customer foresight territory (figure 1).

Understanding Customers

A first step in the direction of understanding tomorrow's customers is to understand the customer of today. The social sciences aspire to understand human behavior. Customer research uses qualitative methodologies such as behavioral observation, in-depth interviews and quantitative methods such as surveys and experiments. In this article, we do not

A first step in the direction
of understanding tomorrow's
customers is to understand
the customer of today.

attempt to explain all possible approaches, but we will focus on the most promising ones in terms of developing our customer foresight framework. Ethnographic research is based on the observation of what people actually do. Design thinking, for example, uses participant observation to understand the latent needs of customers when using cultural products (Cranz, 2016). Netnography is a kind of virtual or online ethnography, i.e., the observation of behaviors on the internet (Kozinets, 2013). On that basis and through capturing and reflecting on factors that are likely to influence how customer needs and behavior might change in the future (see also Schweitzer et al., 2019), assumptions on future customer behavior can be made. Such factors may, for instance, be culture (culture analysis; Ullrich, 2006), values (value research; Inglehart & Baker, 2000) and individual motives (motivation research; Heckhausen & Heckhausen, 2009).

Understanding Future Realities

Customer foresight is impeded by the fact that tomorrow's customers cannot be observed today, and today's customers are not able to predict what they might do in the future. Con-

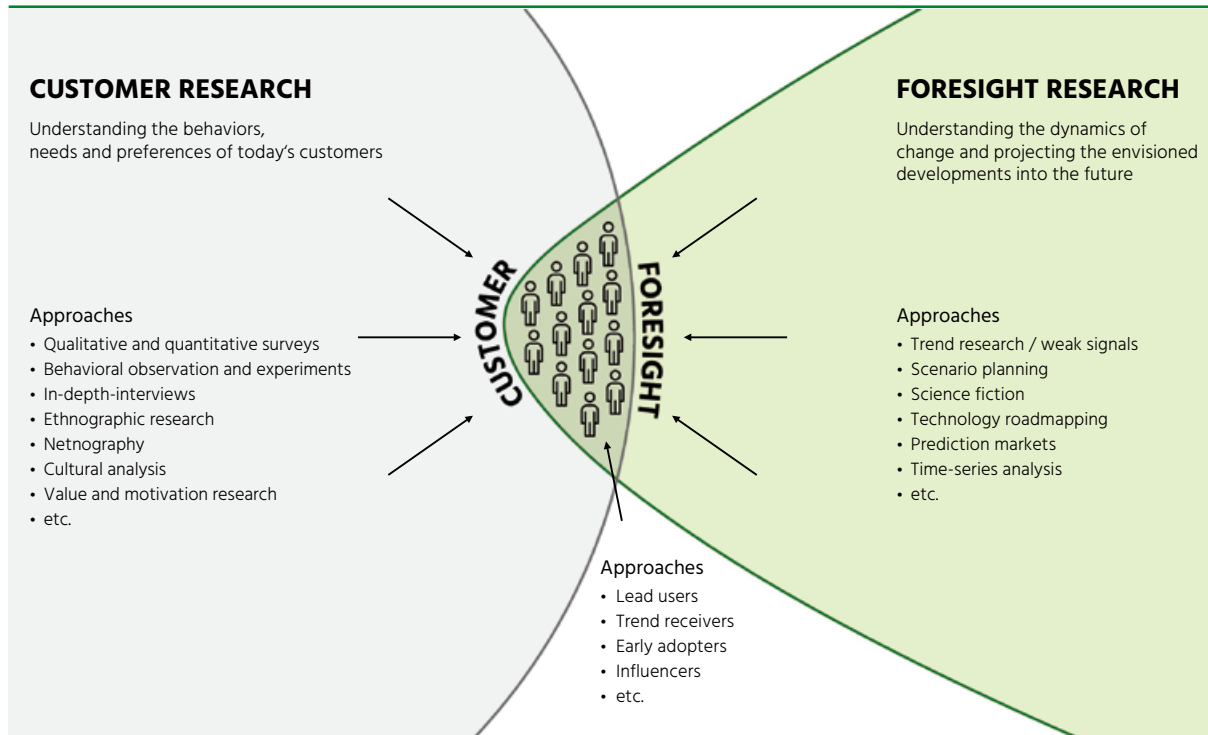
sequently, the future context of customers needs to be understood and researched to assess customers' future behavior. We therefore propose to combine the customers' context and future realities with elements of customer research. Foresight research uses different approaches to envision the future. With respect to foresight tools, we refer to those used in corporate foresight (Rohrbeck & Schwarz, 2013; Schwarz, 2008), such as trend research and scenario planning, and to a less-known approach that we believe adds value to our framework: science fiction (Schwarz, 2015; Schwarz, Kroehl, & von der Gracht, 2014; Schwarz & Liebl, 2013).

Trend research builds on the concept of weak signals (Ansoff, 1975). The main argument is that trends develop from a weak to a strong signal over time (Liebl & Schwarz, 2010). This implies that trend research can be perceived as a search for new ideas. New things usually start at the periphery of an industry (Day & Schoemaker, 2005) and may over time develop to a mass market phenomenon. This implies that a weak signal will not come with complete information, in contrast to a strong signal where full information is available but competitive rivalry may also be strong. However, if we want to assess the future context of customers, engaging in trend research and looking for weak signals of change are prerequisites.

Scenario planning builds on weak signals to develop alternative, plausible pictures of the future (Ramírez, Churchhouse, Palermo, & Hoffmann, 2017; Ramirez & Wilkinson, 2016; Schoemaker, 1995). While acknowledging that the

Management Summary

Customer foresight is emerging as a new field of applied research which aims to study customers' future realities and needs with regard to tomorrow's products and services. The present article localizes the customer foresight territory within the methodological scope of both customer research and foresight and assesses which tools are most suitable for customer foresight research. Based on an overview of customer foresight methods, we sketch out an ideal-typical research journey that starts with relevant research questions derived from business needs and ends with the transfer of customer foresight insights into business value.

Fig. 1: The Customer Foresight Territory

Source: Eller, Hofmann, & Schwarz, 2020.

future cannot be predicted, scenario planning in the customer foresight framework permits the assessment of future possible realities of customers and their behavior.

Science fiction assumes that customers' reality is socially constructed and that this process of social construction is based on fictional narratives, such as movies or novels (Schwarz, 2015). Analyzing cultural products, such as novels and movies, therefore allows an understanding of the foundations upon which future realities are constructed and therefore provides further context for assessing the behavior of future customers.

In addition to these qualitative methods, there are quantitative foresight methods such as prediction markets (Eller & Schneider, 2016; Wolfers & Zitzlerwitz, 2004), a method based on trading potential outcomes of an event in market environments, or statistical methods such as time-series analysis (Box & Jenkins, 1976), which allows for the projection of relevant values based on the analysis of sequences of data points.

Understanding the Interaction of Future Customers and Future Realities

Even if we had a clear picture of future technological, political and economic developments, the question of how people will react to future realities would still be a mystery. Some techniques of customer foresight stimulate an interaction and critical engagement of particular persons (i.e., agents of the new, Hofmann, 2011) with future realities to examine how the customer of the future may want to live.

The lead user method (Hippel, 2006) assumes that highly motivated and skilled customers or users may become involved in product development and thus in innovation processes, for instance by inducing technical alterations of a given product based on their usage experience and needs. Similarly, further types of agents of the new such as early adopters or influencers are used to approximate future customer realities (Schweitzer et al., 2019). The trend receivers concept (Hofmann, 2014) focuses on particularly visionary customers who perceive changes and potentials of the new in a specific domain in a highly sensitive and differentiated way. They usu-

ally have connections in many contexts and have discerning views of what drives people and which aspects are changing. Their visionary competence and the ability to imagine and project result from a combination of everyday experience (e.g., in the consumer arena, with a given product or service), curiosity, open-mindedness, the ability to observe and recognize patterns, life experience, networks, and intuition.

An effective way to identify trend receivers is pyramiding, where people are asked to suggest other people in their personal network who fit a particular search profile. These people suggest others, and so on (Hofmann, 2014).

The Customer Foresight Framework

The customer foresight territory reflects customer foresight as a multidisciplinary research field. Despite the field's novelty, and thus low maturity and a still rather blurry definition, the illustrated territory (cf. figure 1) gives the reader a fair understanding of the field. However, we also see the practical need for a more structured view of the customer

foresight territory that might be easier to work with operationally. We therefore suggest a framework that is a 3 x 3 matrix of the customer foresight perspectives mentioned above (i.e., understanding customers, understanding future realities, and understanding the interaction of customers and future realities) and the three major phases of any customer foresight research process (i.e., identifying relevant participants, generating insights, and data analysis; see figure 2).

There are several ways to conduct a systematic search for, or selection of, participants. We have already introduced pyramiding as a method that permits the identification of participants with a particular, often rare profile. Screening allows the identification of participants based on predefined criteria, such as age or personality (Schweitzer et al., 2019). Broadcasting and signaling are means of selection in which search profiles are published and potential participants decide for themselves whether they are suitable or not.

Whereas customer research is mostly based on customer elicitation, foresight research is often based on expert elicitations. There are several means of expert identification.

Fig. 2: The Customer Foresight Framework

Understanding Customers	Understanding the Interaction of Customers and Drivers of Change / Projected Future Realities	Understanding Drivers of Change and Projected Future Realities
Identifying relevant participants <ul style="list-style-type: none"> • Screening • Broadcasting • ... 	Identifying relevant participants <ul style="list-style-type: none"> • Pyramiding (e.g. of trend receivers, agents of the new, or lead users) • Signaling • ... 	Identifying relevant participants <ul style="list-style-type: none"> • Superforecasting • Evaluation of experience • ...
Generating insights <ul style="list-style-type: none"> • Quantitative and qualitative surveys • Behavioral experiments and observations • Ethnographic research • Netnography • ... 	Generating insights <ul style="list-style-type: none"> • In-depth Interviews • Workshops • Simulation gaming, role play • Dialogues • ... 	Generating insights <ul style="list-style-type: none"> • Scenario planning, roadmapping • Weak signals, science fiction • Prediction markets • Statistical modeling, time-series analysis • ...
Data analysis <ul style="list-style-type: none"> • Value and motivation research • Cultural analysis • ... 	Data analysis <ul style="list-style-type: none"> • Qualitative scenarios • Future personas • ... 	Data analysis <ul style="list-style-type: none"> • Aggregation and projection • Trend research • ...

Source: Eller, Hofmann, & Schwarz, 2020.

Main Propositions

1. The new research field of customer foresight aims to understand future customers, their needs with regard to future products and services, and how they will deal with future realities.
2. Methods within the customer foresight territory aim to understand today's customers, to identify possible future realities, and to stimulate the interaction of selected persons with possible future realities.
3. Based on the tools of the customer foresight territory, practitioners can achieve strategic user centricity by following a structured process.
4. The research journey starts with the identification of relevant business needs and ends with practical guidance on how to transfer customer foresight insight into business value.

According to intuition research, the selection of experts should be based on an evaluation of their personal experience (Kahneman & Klein, 2009). The more experience an expert has in the relevant domain, and the more stable that domain is, the greater the potential accuracy of the expert's judgment. Systematic expert elicitation techniques such as superforecasting (Tetlock & Gardner, 2016) base their selection of experts on factors such as prior performance in comparable tasks and thinking style (e.g., looking at problems from an inside and an outside view).

On that basis, generating insights can be approached with the methods that we have already introduced in the customer foresight territory. What is particularly challenging is the approximation of the framework's middle cell (cf. figure 2): the generation of insights for understanding the interaction of customers and future realities. How can we ensure an effective interaction between identified agents of the new and possible future realities? Customer foresight methods such as the trend receivers concept mostly use qualitative interviews and workshops – or even just dialogues – to discuss future realities with specific individuals. In addition, simulation gaming and role playing allow participants to experience future scenarios and dynamics (Schwarz, 2009).

Ultimately, the gained insights need to be condensed in a comprehensible way to allow translation into value-adding practical implications.

The Customer Foresight Research Journey

The purpose of the customer foresight framework is to combine future realities, future customers, and their interactions, with selected tools from customer research and foresight to describe how customer foresight projects can be carried out. On that basis we want to provide an even more hands-on view of the customer foresight research journey (figure 3). The journey illustrates an ideal-typical research process that allows practitioners to create powerful insights that they can turn into value.

First, it is crucial that the business need (e.g., corporate strategy, innovation, product development, or production planning) is understood and that tangible research questions are defined based on business needs. It makes sense to describe the context and to understand future realities early on in the process. Above, we have argued that trend research, scenario planning, roadmapping, and science fiction are valuable tools from the field of foresight research to derive these future realities. And as customer foresight is mostly based on creating insights through interaction, study participants must be systematically identified. We have discussed techniques such as pyramiding, broadcasting, screening, and signaling as exemplary tools to select participants. Moreover, customer foresight researchers interact with participants to understand their views and reactions on future realities through techniques such as in-depth interviews, dialogue, simulation gaming, role play, or workshops. Finally, insights from customer foresight are only

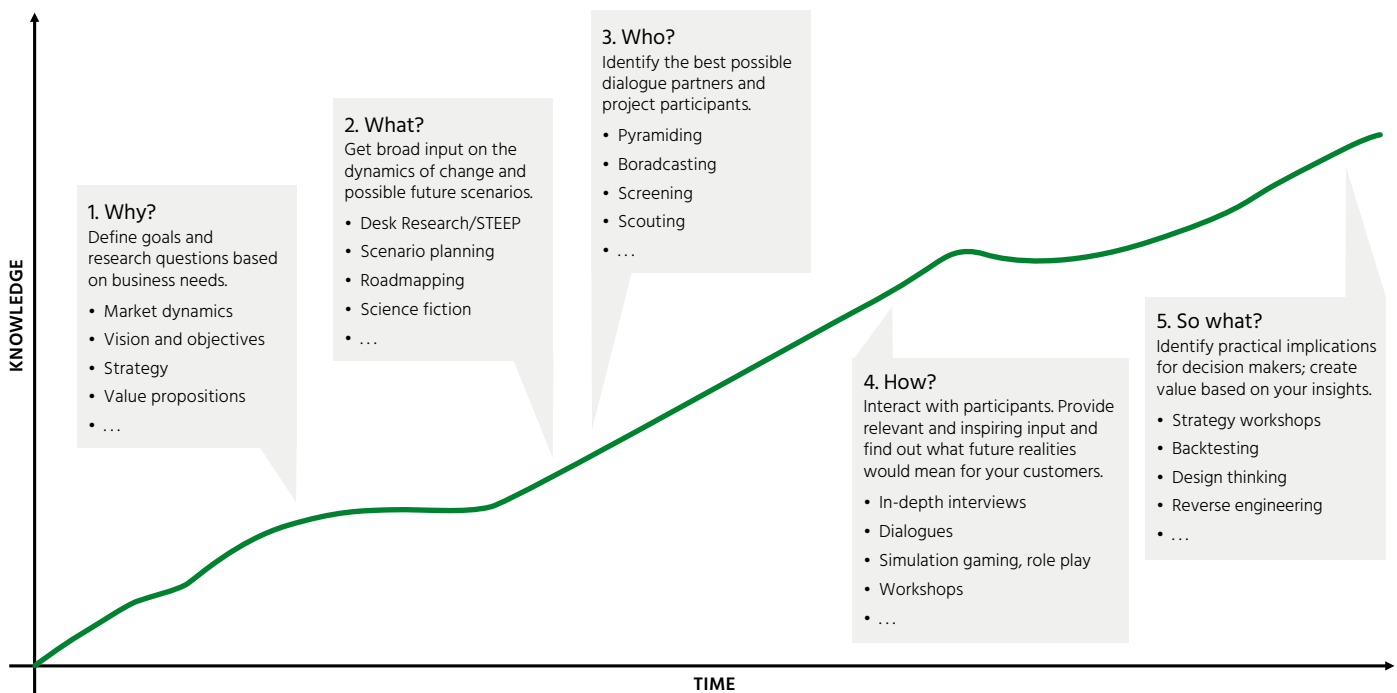
“As customer foresight is mostly based on creating insights through interaction, study participants must be systematically identified.”

as valuable as the implications regarding the business needs addressed in the first step. Strategy workshops and techniques such as backtesting can help, as well as innovation techniques such as design thinking and reverse engineering (Jarvis, 2011).

Discussion

Customer foresight is a new research discipline. Instead of starting from scratch, it can build on insights and methods from related fields. New approaches are currently evolving at the intersection of customer research and foresight research

Fig. 3: The Customer Foresight Journey



Source: Eller, Hofmann, & Schwarz, 2020.

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as well as at the intersection of industry and academia. For instance, companies such as Audi use the trend receivers approach regarding future customers' realities and needs (Hahn, Hofmann, Bilgram, Schwarz, Meinheit, & Füller, 2016). Customer foresight has also become a central element of the Foresight Academy, a novel research and exchange project involving 13 major international companies from 11 different industries, and is also part of Foresight Academy's self-description as "the cross-industry platform for future-oriented work and customer foresight expertise" (www.foresightacademy.com; public part available as of June, 2020).

Lessons Learned

1. Successful companies are not only customer-focused today but center their strategic action on the realities and needs of their future customers.
2. The customer foresight framework points out suitable methods to study future customers, future realities, and their interaction.
3. The customer foresight research journey illustrates how customer foresight is based on business needs and results in business value.

In this article, we presented our view of the customer foresight territory that integrates approaches and methods from related fields. On that basis we provide a customer foresight framework and a customer foresight research journey that offer guidance to practitioners for how to plan, execute, and integrate customer foresight research.

We aimed for an integration and discussion of the methodological territory of customer foresight that will enable customer foresight practitioners to formulate meaningful research questions and to design studies that deliver valuable insights. In our opinion, customer foresight studies must be designed and conducted for business needs such as strategy identification, product development, or production planning. Therefore, internal decision makers should be deeply involved in the research process. Moreover, decision makers should be aware that the iterative study and reflection processes demand highly skilled experts as external partners. In this context, the paradoxical nature of customer foresight projects presents quite a challenge: tapping into fictional stories on future realities, and simultaneously trying to reveal the intangible while designing a structured process to gain insights. With this article, we hope to stimulate the discussion amongst researchers and practitioners on the definition of customer foresight and on the field's integration in related research disciplines. Additionally, we offer practitioners the methodological knowledge to conduct effective customer foresight research. 🚀

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Machine Economicus – Business Forecast 4.0

Methods to Predict Short-, Medium- and Long-term Futures

An ever-increasing amount of information, digitization and interconnectedness makes predictions of the future easier. Conversely, systems have never been as complex, uncertain, ambiguous and ambivalent as they are today, resulting in the interference of prognoses. Therefore, different approaches to projections of futures (forecasting, foresight, future creation) have to be combined to anticipate probable developments, assess weak signals and prepare a company effectively for the unforeseeable. The combination ensures the viability of a company in the short-, medium- and long-term perspective.

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Economy (micro- and macro-perspective), ecology, sociology and technology are characterized by unprecedented complexity, uncertainty, ambiguity, ambivalence and volatility (VUCA; Bennet & Lemoine, 2014a, p. 27; Bennet & Lemoine, 2014b, p. 311 ff.), with exponentially accelerating transformations and disruptions (Hengstschläger & Strugl, 2015, p. 94) making the situation increasingly unmanageable. Unpredictable, complex and dynamic events lead to unforeseeable developments (Lanza, Moser, & Ruhrmann, 2012, p. 200 ff.) caused by, e.g. financial and economic crises, Brexit, the worldwide migratory flows or COVID-19. Which is why “(n)ot long ago, many serious people would dismiss studies of a long-term future.” (Miles, Saritas, & Sokolov, 2016, p. 1) and it has been known since Igor Ansoff 1975 that companies are well-advised to pay attention to ‘so called’ weak signals, or black swans and wild cards (van Rij, 2013, p. 68 ff.).

On the other hand, as a result of digitization and interconnectedness, an ever-increasing amount of information can be accessed, making it easier to analyze, observe and control objects (Hengstschläger & Strugl, 2015, p. 84). This was one reason why foresight approaches have become more respectable (Miles et al., 2016, p. 3). As for example, the globally produced data volume is estimated to grow to 44 trillion gigabytes in 2020 (Hengstschläger & Strugl, 2015, p. 88), and companies like Microsoft, Apple, Google, Facebook or Amazon are able to assemble detailed profiles of customers. These two facts lead to a paradox of dealing with different, only partly, predictable futures. As a consequence, many companies have started dealing with methods of futu-

rology, from forecasting to foresight, with the latter in particular gaining importance in recent years (Leitner & Pinter, 2016, p. 157).

“Although strategic planning methods exist and planning processes are technologically supported, it is difficult to make predictions about the future.” (Menck, Weidig, & Aurich, 2013, p. 133 following Wiendahl, Reichhardt & Hernández, 2001). Consequently, a combination of different methods and approaches has the greatest potential for reducing uncertainties and optimally preparing the company for possible futures. “Therefore, it is necessary to utilize foresight in corporations to encounter difficult future conditions, to forecast future trends, and to identify and interpret weak signals (...)” (Dadkhah, Bayat, Fazli, Tork, & Ebrahimi, 2018, p. 1), so as to realize visions of the future.

Present contribution tries to show promising possibilities of such a combination (On dealing with futures) on basis of primarily literature study and practical examples. Starting from approaches of short-term prognoses (Forecasting – the anticipation of futures), estimations of medium-term developments (Foresight – dealing with uncertainty) up to a normative identity creation of a company for anticipatory future creation (Identity of the company determines futures), essential methods and procedures for the successful handling of different futures are shown and illustrated by means of selected examples. In this context the aim is not to formulate patent remedies, but to show companies of different sizes approaches and possibilities to successfully deal with short-, medium- and long-term developments in order to ensure their viability against the background of different framework conditions.

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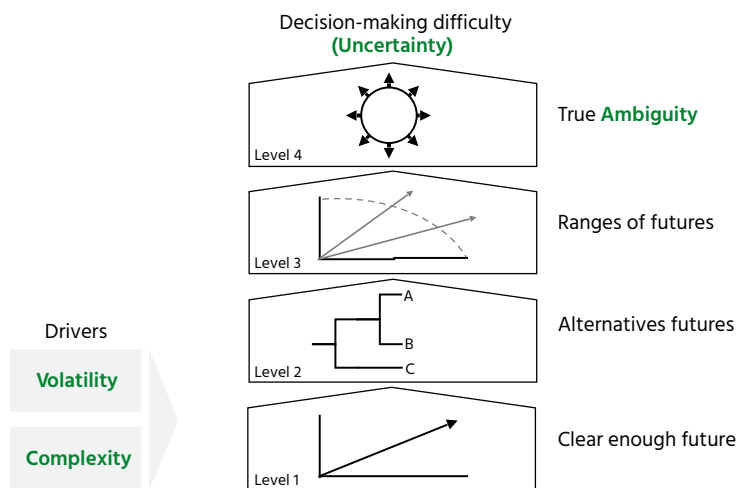
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Fig. 1: Relationships Between the VUCA Factors

Source: Thorén/Vendel 2019, p. 301; slightly modified representation.

On Dealing with Futures

The further into the future decisions are aimed, the higher the level of uncertainty (Gordon, 2009). Volatility, uncertainty, complexity and ambiguity (VUCA) are interrelated with each other and have a direct connection to different futures and possible ways of analyzing them (cf. Fig. 1). Relatively short time horizons foster the acquisition of information and making predictions for the future. “For longer time frames, however, it is more or less futile to try to predict the future. The number of factors and possible interconnections between them simply grows too large (cf. ‘wicked problems’) and the long series of interactions make minimal changes in initial conditions cause very different outcomes (cf. ‘butterfly effect’).” (Thorén & Vendel, 2019, p. 300).

Analyses of already existing data (i.e. of the past) provide probable scenarios for a near future by relying

on methods such as data sciences, big data analyses, market research approaches, trend analyses and customer tracking (forecasting as an operative futurology). The more uncertain and complex future prognoses become, the less it can be referenced to developments in the past and other approaches

as, for example, Delphi studies, Scenario Techniques, Artificial Intelligence are needed to approach possible futures (foresight as strategic future assessments). For very long-term future prognoses the development of clear visions and a corporate identity, as well as an attentional corporate culture – a kind of normative futurology – in combination with backcasting methods, are necessary.

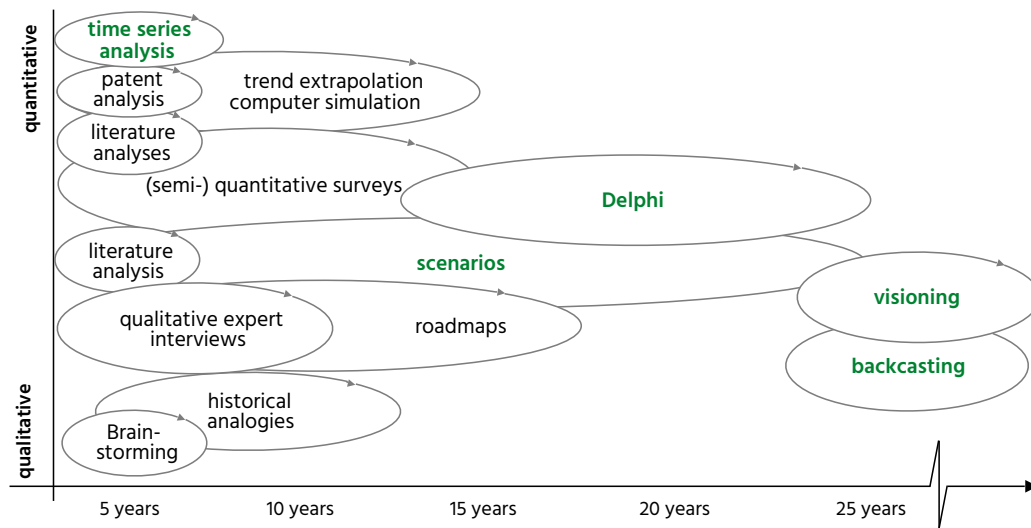
The “purpose (of future research) is not to know the future, but to help us make better decisions today via its methods that force us to anticipate opportunities and threats and consider how to address them – strategically it is better to anticipate, rather than just respond to change. The purpose of future methodology is to systematically explore, create, and test both possible and desirable futures to improve decisions.” (Giaoutzi & Sapio, 2013, p. 4).

Forecasting – The Anticipation of Futures

The origin of Corporate Foresight dates back to the 20th century and is characterized by two antipodes that develop

Management Summary

An ever-increasing amount of information, digitization and interconnectedness makes predictions of the future easier. Conversely, systems have never been as complex, uncertain, ambiguous and ambivalent as they are today, resulting in an interference with prognoses. Therefore, different approaches to projections of futures have to be combined. Analyses of already existing data provide probable scenarios for a near future (forecasting as an operative futurology). For the prognoses of more uncertain, complex, and distant futures, other approaches are more suitable (foresight as strategic future assessments). For very long-term future prognoses the development of clear visions, a corporate identity, and a holistic normative orientation (a kind of normative futurology), in combination with backcasting methods, are promising.

Fig. 2: Methods of Future Sciences

Source: Cuhls 2011, p. 196; slightly modified and extended representation.

ped independently: fantasy-driven utopias and science fiction on the one hand, science-based prediction techniques, often promoted by governmental or economic interests, on the other hand. Already at the end of the 19th century, companies like IBM or Coca-Cola started to use forecasting methods, which gained importance in the course of the two world wars and lead to the discipline of operations research, founded by the British military in 1937, as a multi-discipline field combining optimization and prediction techniques (Leitner & Pinter, 2016, p. 158). In this respect, forecasting methods are, by definition, related to historical data and can be seen as a link between the past and foresight techniques, or even as a part of foresight (Leitner & Pinter, 2016, p. 161). “Foresight (...) should not be confused with forecasting, though it should take into account the results of serious forecasting exercises, and such exercises may be part of a Foresight process. Forecasters often aspi-

“Its core idea is creating a logical path from a depicted future back to the present, to share, to analyze and manage strategic challenges.”

Thorén & Vendel

re for precision in an attempt to predict how the world might look at some point in the future, often using techniques like trend extrapolation, computer modelling, etc.” (Miles et al., 2016, p. 11). More specifically, forecasting as the anticipation of the future often refers to the discussion of time-series data (Karlsen & Karlsen, 2013, p. 37).

Basically, every data series that refers to specific points in time can be

described and analyzed as a **time series**: climate data like the North Atlantic Oscillation (NOA), United Kingdom beer sales, or exchange rates (Mills, 2019, p. 2 ff.). Time series analysis usually focuses on decomposing observed data into cyclic (short to midterm cycles like seasonality, mid-term to long-term cycles like business cycles) and acyclic components (trends). Although often observing non-linear data classical time series analysis is based on linear modelling, nonlinearities are taken account of by technical transformations. ARMA (autoregressive moving average) and ARIMA (autoregressive integrated moving average) models are widely used for stationary and nonstationary models resp., as well as the more general ARMAX models, allowing for exogenous independent variables, or GARCH models, taking into account conditional variances (Mills, 2019, p. 31 ff. and Paoletta, 2018, p. 311). Apart from these univariate appoa-

ches, with multivariate models, ARDL (autoregressive distributed lag) e. g., “an ‘endogenous’ time series is influenced by one or more ‘exogenous’ series. The endogenous/exogenous distinction may be relaxed to allow a group of time series to all be considered endogenous. This leads to the vector autoregressive (VAR) model and the related concept of (Granger) causality.” (Mills, 2019, p. xi).

Apart from the descriptive and predictive aspect of a time series analysis, it is embedded in the context of inferential statistics, testing the model quality and model parameters, as well as yielding confidence intervals for point estimations. In this way, forecasting based on time series analysis also incorporates a component for quality and risk

assessment. Modern concepts like neural networks had until now only limited influence on time series analysis. “(...) (T)he superiority of ML (machine learning) is not apparent when it comes to forecasting. While ML algorithms have been successful (Weron, 2014) in some applications like energy forecasting (Dimoulkas, Mazidi, & Herre, 2019), where the series being extrapolated are often numerous, long, and accompanied by explanatory variables, the performance of ML algorithms in more typical time series forecasting, where the data availability is often limited and regressors are not available, tends to be below expectations (Makridakis, Spiliotis, & Assimakopoulos, 2018b).” (Smyl, 2019, p. 75). However, Smyl (2019), introduces a hybrid method of

exponential smoothing and recurrent neural networks for time series forecasting, which is only one modern approach for deep time series forecasting (Lewis, 2016). The availability of Big Data led to various new statistical and data mining techniques with applications in economics, finance, population dynamics, forensic science, energy, biomedical science, etc. (Hassani & Silva, 2015, p. 10) “Wang (...) uses Support Vector Machines as an auxiliary method, along with Neural Networks, and ‘MapReduce’ technology, for forecasting Big Data originating from China’s electricity consumption” (Hassani & Silva, 2015, p. 14). Further Big Data techniques are bibliometrics, semantic analysis and network analysis (Miles et al., 2016, p. 80 ff.).

The well-known IT giants Amazon, Microsoft, Google and IBM all offer cloud-based ML services with different functionalities, both in the form of standardized, automated or semi-automated versions and platforms for custom modeling (cf. Tab. 1). Further players in the data science as a custom service market include SAP (Leonardo) Amdocs Inc. (Smartbot), N-iX, Infogix, Inc., Analyze Corporation and InData Labs.

Forecasting models may be sophisticated, still they usually remain very sensitive in the case of changes in trends, patterns and relationships. “However, when changes are detected, or if we can know when they are about to occur, human judgment is the only viable alternative for predicting both their extent and their implications on forecasting” (Makridakis, Wheelwright, & Hyndman, 1998, p. 483), which leads to so-called ‘judgmental forecasting’. Still, the core competence of forecasts is predicting the likely near-future, based on knowledge from the past (cf. Fig. 4). In times of discon-

Table 1: Cloud Machine Learning Services Comparison

	Amazon	Microsoft	Google	IBM
	Automated and semi-automated ML services			
	Amazon ML	Microsoft Azure ML Studio	Cloud Auto ML	IBM Watson ML Model Builder
Classification	✓	✓	✓	✓
Regression	✓	✓	✓	✓
Clustering	✓	✓	✗	✗
Anomaly detection	✗	✓	✗	✗
Recommendation	✗	✓	✓	✗
Ranking	✗	✓	✗	✗
	Platforms for custom modeling			
	Amazon SageMaker	Azure ML Services	Google ML Engine	IBM Watson ML Studio
Built-in algorithms	✓	✗	✓	✓
Supported frameworks	TensorFlow, MXNet, Keras, Gluon, Pytorch, Caffe2, Chainer, Torch	TensorFlow, scikit-learn, Microsoft Cognitive Toolkit, Spark ML	TensorFlow, scikit-learn, XGBoost, Keras	TensorFlow, Spark MLlib, scikit-learn, XGBoost, PyTorch, IBM SPSS, PMML

Source: altexsoft, 2020; slightly modified representation.

Main Propositions

1. On the one hand, the data volume has never been so large and ways of analyzing it have never been so easy as today, on the other hand, systems have never been so difficult to understand (VUCA).
2. In order to deal with the resulting different futures (short, medium and long term), a well-thought-out combination of different approaches and related methods of future sciences is recommended.
3. Analyses of already existing data (e.g. of the past) provide probable scenarios for an imminent future by relying on time series analysis (often of Big Data sources) based on linear modelling and augmented by machine learning components.
4. The more uncertain and complex future prognoses become, the less it can be referenced to developments in the past and other approaches, such as, for example, Delphi Studies, Scenario Techniques, Artificial Intelligence, are needed to approach possible futures (foresight as strategic future assessments).
5. For very long-term future prognoses the development of clear visions and a corporate identity, as well as a holistic normative orientation, taking deontological, utilitarian and situational dimensions into account (normative futurology) in combination with backcasting methods, are necessary.

tinuities, black swans and wildcards, it might rather be time for foresight.

Foresight – Dealing with Uncertainty

The more uncertain and complex future prognoses become, the less it can be referenced to developments in the past and other methods, models and tools are needed to approach possible futures. The range varies from methods such as brainstorming, mind-mapping, environmental, horizon scanning (Miles et al., 2016, p. 56 ff.) and road mapping to more complex approaches such as patent analysis (Boller & Gollnhofer, 2018, p. 229 ff.; Niemann 2015, p. 87 ff.), system thinking (Saritas, 2013, p. 90 ff.), prognostic crowdsourcing or, Delphi studies and scenario techniques.

Delphi studies (nowadays commonly using real-time software) are a rather well-known approach for predicting possible futures. They are an “iterative process of data collection and analysis designed to search for consensus among the anonymous experts by means of a series of intensive questionnaires with controlled feedback.” (Kale, Ponnusamy, Sendhil, Meena, & Singh, 2017, p. 68 following Briedenhann & Wickens, 2005). Within such studies, identified relevant developments are presented to experts, the Delphi panel, who assess their relevance and justify it with qualitative statements. Developments are formulated as extreme positions in order to evoke clear rejections or assumptions on the part of the test persons and to obtain a higher degree of justification (Wittmer & Moser, 2015, p. 3). In a next step, experts are confronted with the judgements of other participating experts. Both the projections and the evaluated probabilities

must be viewed critically. On the one hand, the opinions given are snapshots, on the other hand, even experts cannot fully integrate all intervening aspects. The diversity among the experts counteracts this lack. Furthermore, the probability estimates given are not necessarily of primary relevance, but rather the comments and structured debate of the experts with the focus on the future (Wittmer & Moser, 2015, p. 4).

“Although strategic planning methods exist and planning processes are technologically supported, it is difficult to make predictions about the future.”

Menck, Weidig & Aurich

The iteration allows the experts to re-think their positions based on the views and comments of other experts participating (Kale et al., 2017, p. 70). Delphi studies are often referred to as a main tool for foresight intelligence (Miles et al., 2016, p. 95).

The **Scenario Technique**, as a strategic corporate planning method used in various application areas, helps to create multiple future development paths. It offers the possibility to identify and foresee drivers of change (Menck et al., 2013, p. 133 f.). The accompanying foresight process, a so-called ‘explanatory approach’ (Miles et al., 2016, p. 128), consists of the phases of: scenario preparation (setting objectives, decision fields and scenario fields); scenario field analysis (division

of decision field into subsystems, development of key factors); scenario prognostic (formulation of current state of key factors and validation of future projections per factor); scenario development (consistency proof of future projections and development of scenarios) and scenario transfer (interference of scenarios with decision fields, derivation of strategies) (Gausemeier, Fink, & Schalke, 1996, p. 125 ff. and Menck et al., 2013, p. 135 f.). In this context, not only one potential development path but multiple possible future visions are created. Based on these, estimations are developed (Menck et al., 2013, p. 135) and critically assessed by using, for example, cost-benefit or multi-criteria analysis, prioritized and road-mapped (Miles et al., 2016, p. 206 ff.).

In this context, an increasing automatization of foresights, by means of so-called ‘intelligent decision support machines’, can be observed. These machines are computer-based interactive tools that use decision-theoretic models (consisting of the elements of alternative prospects, state descriptions, relationships and preferences) under uncertainty and machine learning (**artificial intelligence**) with access to structured data bases (Gottinger, 2018, p. 10 ff.). They provide a move towards a ‘machine economicus’ (Parkes & Wellman, 2015, p. 267 ff.).

In addition to these descriptive and method-based components, Corporate Foresight has a normative component too (Leitner & Pinter, 2016, p. 158), that focuses on the identity of the company and its culture and will be treated separately in the following paragraph.

Identity of the Company Determines Futures

Unlike others, the method of **backcasting**, or **retrospection**, (Thorén &

Vendel, 2019, p. 299) first tries to envision a desired future in order to formulate backward-induced steps that have to be taken to achieve the formulated future stage (Robinson, 1982, p. 337 ff.). So, it is an explicit normative approach (Robinson, 1990, p. 820 ff.).

“However, when changes are detected, or if we can know when they are about to occur, human judgment is the only viable alternative for predicting both their extent and their implications on forecasting.”

Makridakis, Wheelwright & Hyndman

“Its core idea is creating a logical path from a depicted future back to the present, to share, to analyze and manage strategic challenges.” (Thorén & Vendel, 2019, p. 298). The vision of the future is worked out in detail regarding relevant aspects describing a desirable stage and, semantically, a state of being. So, the method sets boundaries and constraints in the development of the upcoming time. When a choice has to be made, alternatives are analyzed as to whether they fit into a desirable development, or not. It could be stated that the modelling process is more important than the result (Bagheri & Hjorth, 2007, 83 ff.). The process starts with a strategic problem definition; the development of a future vision; backcasting analysis; the elaboration of a future alternative; the definition of a follow-up agenda; the embedment of the results and an agenda to stimulate follow-up (Quist, Thissen, & Vergragt, 2011, p. 883 ff.). The non-prophesying approach is used for long-term futures and complex challenges and encompasses a wide field of con-

siderations (Robinson, 2003, p. 839 ff.) relying on a multi-systemic concept (cf. Kajikawa, 2008, p. 215 ff.). Moreover, it can involve stakeholders or panels (Miles et al., 2016, p. 49 ff.) in the model-building process (Bagheri & Hjorth, 2007, 83 ff.), which

draws parallels to Delphi studies. A set of possible, but desired different scenarios helps to deal with uncertainty (Quist & Vergrat, 2006, p. 1027 ff. and Thorén & Vendel, 2019, p. 298). The decision-making principles are quite easy to understand, but the concept is definitely not easy to realize in practice.

The starting point of the process is a clear vision that is strongly connected with the identity of the company, setting a clear frame of reference that has normative, strategic and operative implications (Bieger, 2015, p. 33 ff.). On the level of **normative management**, it is, therefore, primarily a matter of giving and conveying meaning, of general goals, principles and the company’s game rules. These are intended to ensure the development and viability of the enterprise system by permanently adapting it to changing context conditions (Ivancic & Huber, 2018, p. 144) and customer, respectively stakeholder, requirements and thus aligning it to a desirable future. A holistic, normative orientation of the enterprise towards the realization of a

vision requires perception and the intended design of deontological, utilitarian and situational dimensions (Schüz, 1999, p. 174 ff.).

A deontological sphere stresses orientation towards the demands of the target, whereby standards, norms, philosophy, visions and missions become central (Schüz, 1999, p. 177 ff.). In this way, orientation, support and a guiding line are conveyed to the inside, identity is strengthened, and a corridor of corporate development is demarcated to the outside, image is built up and stakeholder relationships are stabilized (Ivancic & Huber, 2018, p. 145). Thus, a kind of purpose management institutionalizes the self-obligation of the company and fundamentally aligns behavior and stakeholder relations on the basis of fundamental values and ideas. The structure of formulations of

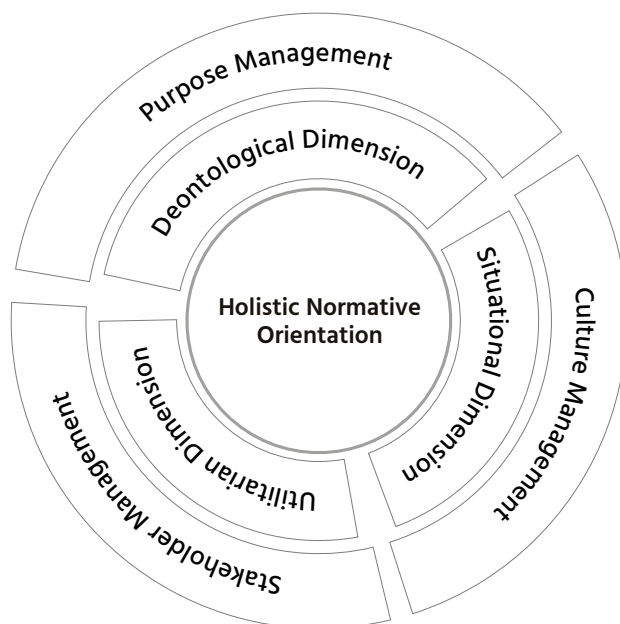
meaning, visions, missions and goals, as a kind of living document that is constantly evolving, sets the path for long-term developments (Ivancic & Huber, 2018, p. 148).

An utilitarian dimension deals with the consequences of actions from an ecological, social, economic, technological and cultural point of view, which must be broken down into individual stakeholder groups in order to map a totality of potential interactions, repercussions and distant effects (Ivancic & Huber, 2018, p. 145). This requires, among other things, the already discussed methods of foresight and forecasting. A prudent stakeholder management, which also takes into account inhuman demands, such as the environment and technology, focusing on a sustainable future (van Leeuwen, Nijkamp, Akgün, & Gheasi, 2013, p.

238 ff.), consists of the following steps: stakeholder exploration; stakeholder relationship analysis; stakeholder interest management and stakeholder integration management. In this way, it ensures a comprehensive balance of diverging interests while observing a quadruple-bottom line of responsible development, i.e. the consideration of ecological, social, technical and economic interests (Ivancic & Huber, 2018, 148 f.).

All these processes take place under situational conditions within, and outside, the complex and dynamic system of the enterprise (Ivancic & Huber, 2018, p. 146), whereby structure and behavior (Giddens, 1984), supplemented by a cultural dimension (Ivancic & Camozzi, 2016, p. 19 ff.) function as the basic tonality of interaction with stakeholder groups. The culture of the enterprise refers to a kind of behavioral dimension of normative management (Bleicher, 1994, p. 487) and can be described as a 'lived structure of convictions' that finds expression in a wide variety of rituals, symbols and actions. An appropriate, sustainable culture understands mistakes as an opportunity for improvement and learning (Hengstschläger & Strugl, 2015, p. 70) and is characterized by openness (Wiener, 2018, p. 3 ff. and 132 ff.). Cultural changes are not directly controllable but can be fostered through the dualism of structures and behavior, as well as context management of design elements (Rieckmann, 2005, p. 74 ff.) and feedback mechanisms. In addition, appropriate recruiting and human resources management are of crucial importance (Ivancic, 2019, p. 22 ff.), taking into account a mixture of a variety of talents (Hengstschläger, 2018). Essentially, the focus is on a future-oriented design of the triad of structure, culture and behavior (Ivancic & Camozzi, 2016, p. 19 ff.).

Fig. 3: Holistic Normative Orientation



Source: Ivancic/Huber 2018, p. 147; slightly modified representation.

Accordingly, the question arises as to whether “(t)he best way to predict the future is to invent it (?)” (Alan Kay cit. after Hengstschläger & Strugl, 2015, p. 94).

Application and Conclusion

Managers must know “how to solve their information acquisition problem under specific uncertainty” (Makadok & Barney, 2001 cited after Moser, Kuklinski, & Srivastava, 2017, p. 235) and how to shape the future. Therefore,

“(T)he best way
to predict the future
is to invent it.”

Alan Kay

a combination of different methods of visioning, foresighting, as well as forecasting, is highly recommended. It should be attempted to merge these wings of possibilities of predicting the future into one system. This integration is often referred to as modelling using qualitative modelling approaches, such as, for example, gaming, system mapping, relevance trees and morphological analysis, cross-impact analysis or quantitative ones, such as computer simulations, limits to growth and global models (Miles et al., 2016, p. 169 ff.), or even combinations of them (Lüdeke, 2013, p. 62 ff.). In this way it would be possible to create a balance of sensing the future, thinking the future and shaping the future (Hengstschläger & Strugl, 2015, p. 2 f.).

The global, Swiss company Bühler, which is busy in the fields of technologies covering needs for food, mobility and more, is an example of this, in that it has given itself the vision:

“Innovation for a better world”. Consequently, they strive for building up a sustainable value chain by reducing waste and energy consumption to 50% and aligning their business to the UN’s 17 Sustainable Development Goals by focusing on seven of them. Therefore, eight global challenges are formulated into business opportunities. All organizational units have to align with the vision and challenges, by backcasting their implications into today’s situations. A small-sized Swiss company based on a strong vision is the vegetarian restaurant tibits. Because of their idea developing a vegetarian fast food restaurant based on pleasure and freshness, seasonality and environment as well as organic products and quality the founders won a business plan competition organized by McKinsey and ETH Zurich. From their recruiting, human resources management, purchasing, marketing and selling, everything is adjusted to these values forming a corridor of intended development, that is based on the strong believe of a more socially, environmentally and economically balanced future.

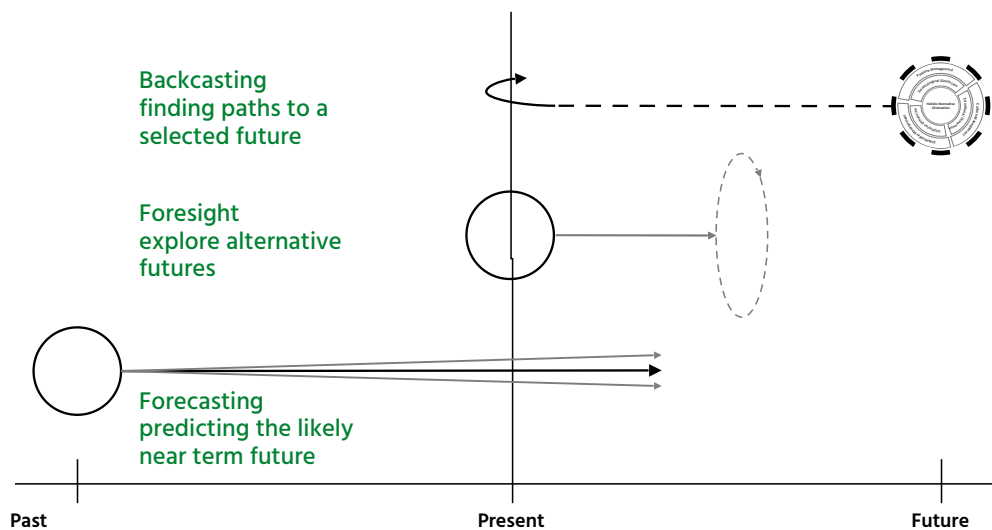
The basic principles of developing a reasonable vision and normatively aligning the company with it, is something every company can implement with the necessary will.

BASF, one of the world’s leading chemical companies, maintains a central unit for futurology called Strategic Planning & Controlling. This division emerged from the market research department in the 1990s and is responsible for what is known as ‘futuring’. In addition to a set of methods, the company uses scenario techniques and

Delphi studies for strategic development, promoting a strategic dialogue involving a broad range of people. Depending on the subject area, the planning horizon, taking a broad range of relevant developments into considerations, is 10 to 15 years (Müller & Müller-Stewens, 2009, p. 103 ff.). As part of a student consulting project with the University of Applied Sciences St. Gallen, Auto AG Truck former Nater AG Nutzfahrzeuge conducted a real-time Delphi Study to test the acceptance of an online platform for the purchase and maintenance of commercial vehicle fleets. A planned implementation of a cyclical execution of such a study was interrupted by the successful sale of the business and withgoing challenges but is part of future discussions.

Scenario Techniques and Delphi Studies can be carried out by companies of any size in regular cycles. A broad and thought-out selection of stakeholder groups must be included in the process.

The retailer Amazon offers a tool called ‘Amazon Forecast’, which is based on the same technology used at Amazon.com. It works with any historical time series data and can be used to forecast business data such as retail product demand (e.g. products selling on a website), supply chain demand, resource requirements (e.g. energy needed), operational metrics (e.g. IoT sensor usage) or business metrics (e.g. cash flow, sales). Amazon Forecast provides a set of forecasting algorithms, from classical ARIMA and Exponential Smoothing to so called DeepAR+, which is a supervised learning algorithm using recurrent neural networks

Fig. 4: Possibilities of Prognosing the Future

Source: DOM Research 2011 cit. after Hengstschläger/Strugl 2015, p. 95 and Thorén/Vendel 2019, p. 300; modified and extended representation.

in a multivariate approach to train a single model jointly over a number of different time series (Amazon Web Services, 2019, p. 54). Prognosix AG is a Swiss-based start-up, which was developed from a collaboration between a University of Applied Sciences (ZHAW) and the business community (Migros and others). By integrating an ML component into the planning cycle, it has been possible to significantly reduce the forecast error, which is associated with an EBIT potential of up to 5% (Kauf, 2018, p. 16 ff.).

Classical and ML-based forecasting techniques are increasingly offered by companies of different sizes and are gradually penetrating all areas of economic reality. Therefore companies of any sizes can relatively easily find a customized and fitting solution.

Concluding, it can be said that a combination of all three approaches increases the probability of being able to act successfully in the future. "Useful foresight tools are challenging tools, decision-making tools, aligning tools, learning tools and the ability (sic!) to combine these management tools in the practices of corporate foresight and management systems." (Kaivo-oja & Lauraeus, 2018, p. 27).

Within this futurology system, artificial intelligence will directly support management decisions by permanently analyzing customer relationships and prognosing their development (Gentsch, 2019). For example, neural networks have already established themselves in fields of real-time data mining (Nitsche, 2016, p. 18 f.) and accordingly, analysis by machine learning algorithms (Gentner, Stelzer, Ramosaj, & Brecht, 2018, p. 5 ff.). Automating forecasting and foresight frees up resources that can be put to


good use in the areas of visioning, identifying and backcasting, strengthening the organizational attention that relies on organizational slack (Schoemaker, 2018, p. 7 ff.).

"(T)he future depends on what you do today."

Mahatma Gandhi

Alongside a focused vision, the development of a peripheral one that helps to recognize unsuspected developments is beneficial too (Schoemaker, 2018, p. 3 and Day & Schoemaker, 2004, p. 117 ff.). Otherness of the employees, the integration of lateral thinkers and rule breakers as well as individuality and flexibility, promote success and, paradoxically, ensure the stability and security of the system

(Hengstschläger & Strugl, 2015, p. 71). In other words, flexicurity (Adriaansens s.a.) – a combination of flexibility and security – and a sophisticated knowledge management (Bootz, Durance, & Monti, 2019, p. 80 ff.) are needed within organizations.

Therefore, responsible leadership, a combination of transformational, servant and authentic leadership is needed (Sarkar, 2016, p. 10). This is also of outstanding relevance due to the role of top management in designing corporate culture (Wiener, 2018, p. 87 f.). “The main focus of responsible leadership is a leader’s exchange with followers, team, organization and society at large” (Sarkar, 2016, p. 11), and the focus of leading a company into the direction of a desired and sustainable future because, “(t)he future depends on what you do today” (Mahatma Gandhi). 

Lessons Learned

In order to remain fit for the future, a company faces the challenges of shaping the triad of structure, culture and behavior accordingly, based on a clear vision and responsible stakeholder management considering both, inhuman demands and a quadruple-bottom line of sustainable development (ecological, social, technical and economical). In addition, regular cycles of foresight based on professional methods and permanent forecasting must be implemented, with learning machines and artificial intelligence increasingly being used for forecasting tasks.

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Looking for Prophets? The Trend Receiver Approach

Customer foresight strives to determine future consumer wants. One method of customer foresight is the so-called trend receiver approach. Experts who are judged as able to anticipate trends at an early stage are interviewed in a targeted and methodically guided manner. This article analyses the ambitions, prospects and restrictions of the trend receiver approach and how it can contribute to foreseeing future developments.

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In general, it is hard to derive reliable predictions about the future from observations in the past. Inevitably, this raises the question of how trustworthy surveys of trend receivers can provide information about future developments? Is this approach looking for prophets – to put it in an exaggerated way? Against this background, this article argues that the approach must deal with certain methodological challenges that require a permanent feedback to the measurable evolution of megatrends and consumer wants. Furthermore, the hypothesis is developed that input from trend receivers can serve as a starting point for exploring future developments.

This article is structured as follows: First, the necessity to look at consumer preferences as well as changes in the environment when predicting the future is illustrated. The second section describes the ambitions, the third section the prospects and the fourth section the restrictions of the trend receiver approach before some suggestions are made on how to avoid biased predictions.

What Customers Want

Predicting what customers will buy is a key task of market research, business development and entrepreneurial planning. This is illustrated by the following example: In the 1910s, the American firm *Autoped Company of Long Island City* and the German company *Krupp Fried. Krupp Motoren- und Kraftwagenfabriken* produced the autoped, an engine-driven scooter meant to provide short-distance travel. But production was shut down in 1922, although even prominent customers such as the early feminist Florence Norman had given the autoped a try – as several sources such as the online discussion platform “reddit” (2019), the Swiss newspaper “Tagesanzeiger” (Müller, 2019) and the German magazine “Der Spiegel” (Iken, 2019) reported last year. Today, the e-scooter is on track again and at the core of new business models. But why? From a purely economic point of view, either the preferences or the restrictions of customers should be responsible (for this kind of reasoning see, e.g., Silberberg & Suen, 2001, pp. 1–23). Applied to this example, two possible explanations can be derived:

1. The firms got the customer preferences wrong, people back then did not need the additional travel possibilities a scooter offered.
2. The economic conditions did not match the requirements since using the scooter did not provide the customers with an additional value.

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The first explanation is insufficient, since the mass production of cars set in only a few years later. Therefore, it seems that customer needs for mobility indeed existed during the first decades of the 20th century.

Does the second explanation lead any further? Logical reasoning might support this explanation: Assuming that streets today are much better than they were in the 1910s this could explain why the age of the automobile and not that of the scooter started. Cars simply might have been better in dealing with these circumstances. If this reasoning holds, it was the restrictions of the infrastructure that directed the customer decisions. Customer preferences alone did not.

This result would be in line with standard economic theory that assumes that preferences evolve very slowly while restrictions or ancillary conditions may change more frequently – as pointed out, e.g., by Silberberg and Suen (2001, p. 6). Changes in behaviour are therefore more likely to be explained by changes in restrictions: When streets are better and cars often get stuck in traffic jams, alternative forms of mobility, such as e-scooters, get a second chance.

Ambitions of the Trend Receiver Approach

The above example shows how crucial it is to understand what customers really want. Modern methods of business development, such as design-thinking as a qualitative method and lean start-up as the quantitative complement, focus on the needs and wishes of today's customers (Mueller & Thoring, 2012). Both methods factor in the consumers' wishes as well as the current conditions under which consumers make their decisions (restrictions). In design-thinking, individuals qualified in a certain field creatively try to understand customers' needs and to develop innovations on that basis (Grots & Pratschke, 2009). Design thinking may include the interviewing of customers, producers, experts or stakeholders. Lean start-up is based on constantly evaluating and improving prototypes of products



Management Summary

This article emphasizes that the individual judgments of so-called trend receivers may contribute to a better understanding of possible future developments. Trend receiver studies bring additional information, creativity and intuition into market research that regular customer surveys or quantitative approaches are lacking. Using the input of trend receivers creates a trade-off between the information density of the resulting hypothesis and its testability with available data so that the predictions derived from trend receiver interviews can serve best not as a result, but as a starting point for exploring the future.

using customer feedback (Ries, 2011). Combined, both methods increase the probability that a new product matches the customers' wants of today – based on their own feedback.

But how to tell what consumers will want in the future? This is an especially ambitious task since customers from the future cannot give feedback. Using statistical techniques, market researchers can find out how trends will evolve with a certain likelihood. Quantitative predictive methods are expected to become even more accurate with the rise of artificial intelligence (Agrawal, Gans, & Goldfarb, 2018). Thus, it is possible to know the likely development of trend-related restrictions, at least for the near future.

But quantitative analysis is itself restricted to available data. Algorithms predict very accurately how long a trip will take when performed within the next hours. Predicting how long the same trip will take in 10 years' time is much harder, because the circumstances might change strongly during this time span, making accurate predictions nearly impossible. For example, the algorithm cannot factor in today whether politicians will decide to build new streets in the future that will reduce travel time by a certain amount.

Furthermore, when researchers analyse the effects of changed restrictions on consumer behaviour, they use their present knowledge and apply it to available data generated by events in the past. The results cannot tell how consumers will behave in the future, they only tell how they behaved in the past. Experiments might be able to deliver better results and there are ways to perform market research with experiments (Ryals & Wilson, 2005; Hauser & Luca, 2015). But, assuming that customers need time to adapt, reliable experi-

ments on future customer behaviour would have to take a very long time, would come at high costs and could lead to ethical questions, e.g. if volunteers had to live in the experimental environment for a long time.

So how to predict the future when predictions based on data are difficult? In ancient times, societies relied on prophets enlightened by divine inspiration. Today, we can also find information roles in organizations, e.g. as mavens, connectors, inventors, multipliers or trend observers – as Pollack (2015, pp. 383 f.) sums up. Regarding the latter, the author points to Gladwell (2000) and especially Hofmann (2014) who developed the concept of the already mentioned trend receiver.

The ambition of the trend receiver approach is to contribute to a better understanding of how the future might develop. This distinguishes the trend receiver from other roles in the customer foresight process, such as the "organizational futurist" (Hine & Gold, 2015) who has, in contrast, a more intermediate role as "internal champion and broker to facilitate the integration process" (Hine & Gold, 2015, p. 99) inside an organisation.

Prospects of the Trend Receiver Approach

There are some approaches of customer foresight that use individual judgements (for an overview see Rohrbeck, Battistella, & Huizingh, 2015). In the present article, the trend receiver approach – as one of them – serves as a deputy for all current or future approaches that rely on individual opinions. According to Hofmann (2011a, 2014) a trend receiver is a well-connected expert in his field who can derive visions or at least

specific imaginations about future developments. Hofmann (2014, p. 1) defines a trend receiver as “an individual who perceives and reflects changes and potentials of the new in a specific domain in a highly sensitive and differentiated way”.

The trend receiver approach follows a five-step methodology (Hofmann, 2011b, p. 5). First, research questions are formulated stating the area of interest, the time horizon and the possible changes in the business environment. Second, criteria must be found that define the characteristics and experiences possible trend receivers should possess. They should be able to encounter changes early and develop differentiated views in the area of interest. Third, a search method is set up that helps to find the right people that qualify as trend receivers. Fourth, the study design is developed in order to ensure that the research questions are answered in an optimal way. Fifth, the results must be edited for the relevant stakeholders and transferred to them.

The results are similar to a prophecy: a judgement by individuals about the future others would not be able to make. This has the advantage that the prognosis contains human creativity and intuition of one or more experts in a certain field that goes beyond the conclusions that can be derived from the evaluation of trends and customer surveys. These predictions help to imagine the future and derive ideas about future consumer wants.

Market researchers can then combine the trend receivers' ideas with their own empirical knowledge. The process could start with conducting interviews and deriving hypotheses and end with testing the hypotheses against the empirical data. If the hypotheses are falsified, the process ends or starts again from the beginning. If the hypotheses hold, they form the basis for future market research.

But this approach has to deal with the problem that it is hard to challenge predictions about the future with currently available data. It is likely that trend receivers, as experts in their field, will know how the trends relevant for their branch might evolve. They have already factored in the information contained in the available observations that researchers would use to test the hypotheses. In this case, the data used to challenge the hypotheses have been used by the trend receivers themselves to shape their views.

For example: If a trend receiver has the impression, from various observations, that e-scooters are attractive where the streets are good and inner-city traffic is high, and market researchers afterwards test this hypothesis with the same observations, the hypothesis would always be true.

Thus, another approach could be to focus on creating the most information-dense hypothesis about future develop-

ments – including all the data available. Instead of using information to falsify a hypothesis, it is used in the creation process. It would work like this: Trends are analysed and evaluated quantitatively. Afterwards or in parallel, the described trend receiver process sets in. But before the results are transferred to the stakeholders, market researchers use all the available information to build consistent hypotheses. The empirical information, together with the trend receivers' visions, are used directly to create new hypotheses about the future.

This approach can give an idea on how restrictions may change and how consumers might react to this change, because it uses statistical knowledge, is open to the potential of machine learning and relies on human creativity, intuition and phantasy. The prospects of this approach could be a consistent and creative vision of the future combined with the customer wishes that it will create.

Restrictions of the Trend Receiver Approach

When using the second approach, the real research starts when you think you are done. The derived hypotheses are not a result but the beginning of gaining knowledge about the future. The crucial question is not if, but when, hypotheses about future customer behaviour can be tested empirically.

To challenge these ideas, it is necessary to regularly evaluate the predictions with newly collected data and surveys that might represent changes in restrictions. Hence, continuous market research plays a critical role in performing a plausibility check for the ideas derived from customer foresight. As in business modelling where feedback on already existing products is used to improve them further, feedback on possible future developments is necessary to improve the quality of the prognoses about the future. It is therefore cru-

Main Propositions

1. The perspectives of trend receivers can contribute a valuable source of inspiration and the resulting predictions are a starting point for further market research.
2. Using the input of trend receivers creates a trade-off between the information density of the hypothesis and its testability with available data.
3. The combination of human creativity and statistical empirical research may lead to ideas that go beyond the current horizon and interpretation of the state of the world.

cial that the stakeholders know that the results could and will probably be updated.

A second restriction is represented by the trend receivers themselves. They give market research the opportunity to develop hypotheses about the future. Of course, the value of their ideas depends on their competence to identify trends. But how can researchers know whether any proclaimed trend receiver actually has this capability or just claims to have it?

The answer is: This distinction is not possible. Whether a trend receiver was right or wrong will only be revealed in the future. Unfortunately, in this case the information is useless. If the prediction was wrong, the decisions based on the prognosis have already been made. If the prediction was right, it is not possible to decide whether the trend receiver really anticipated what would happen or whether the events occurred by chance in the way the prediction told. It is impossible to distinguish between real prophecies and lucky guesses.

Therefore, it is important to treat predictions as just one of many inputs for research. Predictions may be used for hypothesis construction and are therefore in themselves a starting point for further permanently ongoing research – neither more, nor less.

How to Avoid Biased Predictions

Still, it may be possible to avoid biased views of trend receivers when some behavioural aspects are considered. The following suggestions are derived from the work of Daniel Kahneman (2011). Given the range of his work in particular and behavioural science in general, a complete list would be beyond the scope of this contribution. The subsequent four examples aim to give the reader an impression of the importance of behavioural aspects rather than a complete overview.

The Anchor Effect

Individual estimations of probabilities rely on the anchor estimating individuals unconsciously have in mind. Kahneman (2011, pp. 152–163) describes how he posed the following question to various groups of students: How many African states are members of the United Nations? Before the students made their estimations, Kahneman operated a wheel of fortune and asked the students to register the number coming up. Afterwards, he analysed whether these numbers had a significant influence on the answers. They had.

Applied to the trend receiver approach, this means that the ideas of each trend receiver will have an influence on the views of other trend receivers. Therefore, it is important to

interview trend receivers isolated from each other. Interviewing them in a field with a lot of social interaction such as a conference about future research (where a lot of anchors are dropped) would probably lead to biased ideas.

The Halo Effect

This is defined as “the tendency for an impression created in one area to influence opinion in another area” (Lexico, n.d.). Persons with a reputation in one field will be credited with knowledge in other fields although this might not be justified. Therefore, a clear methodological approach is necessary and it might be useful to use blinding methods when evaluating trend receiver interviews. If the evaluator is not the same person as the interviewer, chances for an unbiased result will increase since the “blind” evaluator does not know about the trend receiver’s reputation.

The halo effect also plays a role in the evaluation of the interviews. If the evaluation of an interview starts with a view that is fascinating and seems to be very valuable, the evaluator might judge all the following views of the trend receiver in that light. So there is the danger of overrating the quality of all ideas if the evaluator liked the first one. The solution to this problem is to evaluate the interviews not by interviewee but by question or topic. First, all views of all trend receivers relating to the first topic are evaluated, then the second one, and so on. This is an approach Kahneman (2011) suggests as a fair method for correcting student exams, and it can also help avoid an unconscious bias in customer foresight research.

Outliers

It is important to question a fair number of trend receivers to be able to classify an opinion as an outlier. The question, however, is how to treat outliers, because they might be very valu-

Lessons Learned

1. Use interviews with trend receivers as input for the development of future scenarios.
2. Be aware that it is hard to test trend receivers’ views about the future with data from the past or present.
3. Avoid biased interviews by considering relevant behavioural aspects.



able for customer foresight. Views contradicting general assumptions or common sense might be a sign that an expert really has something to say. Therefore, it is worth considering their views as they might be valuable input. But researchers must be aware that the dissenter might not be a genius but just someone who likes to contradict.

Conclusions

Trend receivers' capability of deriving insights about possible future developments and future customer behaviour gives research a new starting point. But using the input of trend receivers creates a trade-off between the information density of the hypothesis and its testability with the available data. Testing hypotheses requires observations that have not been used to form the hypotheses in the first place. But

how relevant can currently available data be in challenging hypotheses making predictions about the future? The observations available today are just a look back into the past, anyway.

The combination of human creativity and statistical empirical research including statistical forecasting may lead to ideas that go beyond the current horizon and interpretation of the state of the world. In this context, perspectives of trend receivers can contribute a valuable source of inspiration. The resulting predictions are a starting point for market research. They might qualify as bold hypotheses – as Karl Popper (2002) put it – that indicate in which directions to conduct future research. Of course, this judgement is itself a hypothesis that needs further testing.

So, is customer foresight looking for prophets? Yes, it is – at least when using the trend receiver approach. But if their input is used as a starting point for further research, the counter question is: So what? 

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Customer Foresight Practice

How to Access Future Markets Through Extraordinary People

What kinds of persons are involved in trends and how to find innovative or visionary customers when developing brands and products for tomorrow's markets? This article systematizes different methods corresponding to the tasks practitioners are confronted with. An exemplary case study illustrates how the trend receiver approach can contribute in international practice situations. The democratization of future competencies and new research potentials due to influencers are also discussed.

Dr. Rupert Hofmann

Identifying trends as early as possible is essential for good corporate management. But whom to consult when long-term decisions need to be made and products and services have to be developed that will only be coming to market in a few years' time? It seems obvious that asking a representative sample is not the best option in this case. Another option is to talk to trend gurus or ask strategy consultants for help. So who can provide credible and trustworthy trend information on the relevant topics of strategy, brand, products, services and communication? Who can help to make future customer expectations more tangible? And how can this information finally be translated into action?

These questions inevitably lead to the paradox that although the future is unpredictable, companies must courageously launch products, services and organizational changes today in order to be prepared for tomorrow's markets. This is mainly because of long development and production times, e.g. in the construction or home appliance industry. Also, new retail networks or technical systems could be involved. But precisely where decisions or strategic plans are more long-term and market conditions and customer expectations are developing with a particular dynamic, the proven methods of customer insight research often come up against their limits: Today's customers are very much anchored in today's world and often lack creative vision, conclusive or surprising association skills, as well as projection and innovation power.

Customer foresight is a concept for strategic customer-based projection or trend research and aims to improve the strategy and decision-making processes of companies. Customer foresight can be conceived as an interaction with projected future markets via selected customers – by understanding their wishes and attitudes, ideas and visions, as well as their perception of signals and drivers of change.

Customer foresight research expands the possibilities of customer insight research. Ideally, studies use and go beyond today's user and customer experience, opening up realistic 'possibility spaces' and drawing pictures of a potential future.

Customer foresight is currently emerging as a new term and research field that holds potential for improving many areas of consumer, innovation and strategy research. This gives rise to some fundamental questions: Which business goals benefit from customer foresight studies? How relevant are personality patterns and people's ways of thinking and perceiving? How to identify suitable persons and how best to engage in the dialogue about wishes and projections towards future everyday life, brands and products?

First of all, this article provides an overview and a practical guideline on how, based on the evolvement of future living and consumption situations, persons that are especially aware of these situations can be clustered and assigned to different research goals. Five different approaches that practitioners may apply are presented along with their characteristics, recruitment criteria and recruitment methods. The trend receiver concept is addressed in particular and exemplified by a case study from the author's practical experience. Finally, the rising importance of influencers for customer foresight is discussed.

Structuring Existing Approaches in the Field of Customer Foresight

Within the field of customer foresight, a variety of terms and concepts are used, but frequently applied with little structure or logic. So how to systematize terms and methods? A simple question is helpful here: What differences are there between life and consumption today and tomorrow, e.g. between 2020 and 2025?

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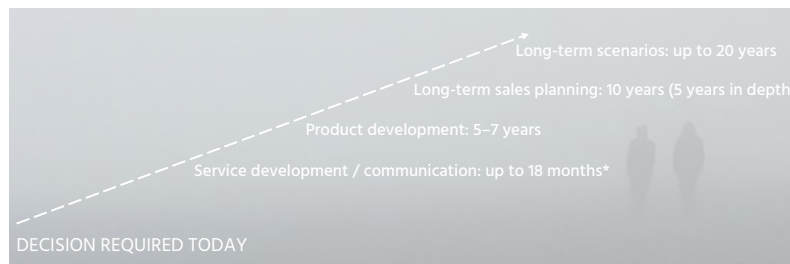
works for Audi Business Innovation GmbH, has developed the trend receiver methodology and is the founder of the cross-industry platform Foresight Academy. In parallel he works as observational drawer of people and modern everyday life.

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Fig. 1: Planning for the Future

How far do we plan?

Companies are confronted with a strategic paradox, especially when **long lead times cause uncertainty about future market and consumption patterns**: Decisions have to be made today although the future is unpredictable. Thus it is about a 'ride into the fog' which demands convincing and encouraging projections, imaginations and visions.



Source: Hofmann, 2014.

Much of what we see today is still likely to be there tomorrow: the majority of buildings and streets, patents and laws, but also values such as democracy, freedom and justice and motives such as appreciation or curiosity. At the same time, a lot of new developments are emerging: innovative technologies, inventions, new products or services,

new behaviors, attitudes or ways of communicating.

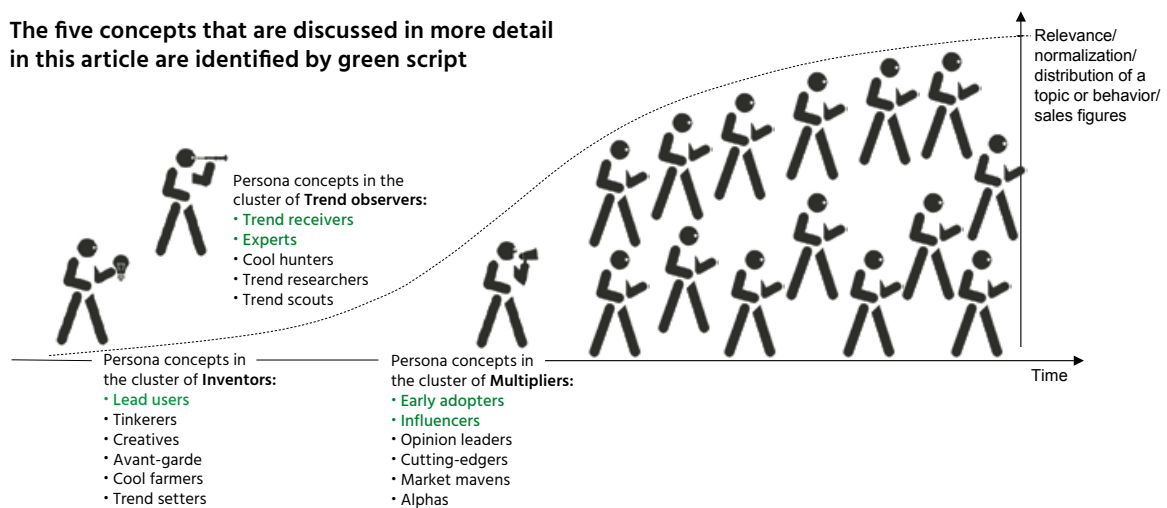
The future is a mixture of continuity and change. For detecting and understanding the change dynamics in customer expectations, it is therefore indispensable to combine trend and innovation theories with research on motives, values, and consumer insights.

Referring to concepts from motivation psychology (Heckhausen & Heckhausen, 2010; Karmasin, 2004; Reiss, 2000) as well as consumer insight and value research (Föll, 2007; Inglehart & Baker, 2000), motive and value sets are conceived as fluid paradigms (Hofmann, 2014). On the one hand, motives and values act as stabilizers in the stream of changes in the technical, economic, social, legal and esthetical world. Some new products and services serve ancient wishes and motives, only in a modified manner. On the other hand, motive and value sets are not fixed; cultural change is manifested in subtle changes in motive and value sets. Therefore, new lifestyles and consumer behaviors are never totally new or completely disruptive, but neither are they just 'new wine in old wineskins'.

In customer foresight practice, it is particularly fascinating to research people who elicit change – because they combine things that were previously separated, thus bringing something new into the world or spreading an invention. Also relevant are people who are

Fig. 2: Typology of "Agents of the New"

The five concepts that are discussed in more detail in this article are identified by green script



Source: Hofmann, 2011.

Fig. 3: Value creation by 'Agents of the New'**Where 'Agents of the New' contribute to value creation**

AGENTS	Vision, Strategy and Planning	Product and Service Development	Communication
LEAD USER 		Lead users have context-specific needs and expertise that help to improve products and services.	
TREND RECEIVER 	By combining own context specific customer experience with imagination, projection and reflection skills, trend receivers help envision future markets and support strategic decisions in different stages of the product development process, including communication strategy and planning.		
EXPERT 	Experts have professional knowledge in a specific field and frequently have a profound understanding of industry developments. Their context-specific knowledge contributes to product, service and communication development and strategy processes.		
EARLY ADOPTER 			Early adopters serve as role models and therefore help with the diffusion of trends and products.
INFLUENCER 		Influencers communicate to their followers and influence opinions and perceptions as well as usage and purchasing behavior among their audience. Some offer their own products or co-create with companies.	

Source: Hofmann, 2020.

aware of change dynamics in an early phase and can assess the changes and potential of the 'new'. Therefore, focusing on the various "agents of the new" (Hofmann, 2011), with persona concepts and procedures to identify relevant persons as discussion partners, forms the basis for valid customer foresight questions and studies.

A closer look at manifold concepts from different academic fields (see, e.g., Barck, 2010; Gladwell, 2002; Gloor & Cooper, 2007; Zandl & Leonard, 1992; for an overview and analysis of 20 noted concepts see Hofmann, 2011) leads to a typology of the 'agents of the new' and distinguishes three overarching categories (see Fig. 2): "inventors" who are thinking up and designing the new, "multipliers" who are early users spreading the new and "trend observers" who are perceiving and reflecting invention, diffusion, and normalization processes.

Among the multitude of persona concepts and identification procedures


of discussion and study participants, five approaches are selected and an overview is presented (Table 1). Criteria for this selection are: covering different areas of business tasks, publication in acknowledged research contexts, application in various practice situations and availability of guidance for practitioners in terms of characteristics and recruitment processes.

This typology (see Table 1) offers practitioners the possibility of using the persona profiles and methods in a tailored manner: Thus, for the enhancement of an existing product lead users are recommended (Eisenberg, 2011; von Hippel, 2006). A lead user in the field of outdoor sports equipment, for example, may already have made changes to their gear that have the potential to become relevant to many customers. In contrast, when diffusion (Rogers, 2003) and communication goals are set, suitable influencers can be involved to place a product in the

right context and to promote and anchor it in the relevant market segments.

Different business situations require different ways of integrating "agents of the new" (see also Hoffmann, Kopalle, & Novak, 2010 and Vernet, & Hamdi-Kidar, 2013). So, here are some examples in which visionary competence is needed and trend receivers become the persona profile of choice: if an attractive vision of autonomous driving is to be developed for future everyday life; if it comes to questions of the long-term development of a brand or product of an energy provider, an airline, a real estate company, a bank, a social media platform or a furniture manufacturer; if answers have to be found in the context of how awareness of sustainability might change and impact spending or what effects topics such as data protection or mental health have on individual purchasing behavior. Trend receivers are valuable conversation partners regarding these topics as they combine

Table 1: Focused Persona Concepts and Tools for Identification Processes

CHARACTERISTICS	
<p>Lead User: "LU face needs that will be general in a marketplace – but face them months or years before the bulk of that marketplace encounters them, and Lead Users are positioned to benefit significantly by obtaining a solution to their needs." (von Hippel, 1986)</p> 	<ol style="list-style-type: none"> 1. Extreme dissatisfaction with current products/services 2. High expected benefit from new solution 3. Innovative & trend-leading behavior 4. Created innovative solutions
<p>Trend Receiver: "TRs are individuals who perceive changes and potentials of the new in a specific domain in a highly sensitive and differentiated way." (Hofmann, 2014)</p> 	<ol style="list-style-type: none"> 1. Context experience: TR have a thorough understanding of the given context due to their own consumption and usage experience and thus know the motives and values of consumers first-hand. 2. Self abstraction ability: Using individual preferences and emotions as reference points, TR understand the needs and patterns of other consumer groups. 3. Curiosity and heterogeneity: Interested in consumer habits, lifestyle issues and the differentiation among social backgrounds, TR have a strong curiosity about people from backgrounds to which they do not belong. They are networked in many ways and have access to different ways of thinking and diverse and international sources of information. 4. Selection competence: Having a strong desire to understand causes and correlations, TR have sharpened their competence to filter and perceive which structures, motives and values remain stable and to what extent new behavior patterns can develop. They have the ability to recognize analogies and paradigms. 5. Biographical discontinuities: TR often exhibit biographical discontinuities. They are sensitive to complexity and changes in life. 6. Communication competence: An above-average communication competence enables TR to translate perceptions into a precise and descriptive language and to respond precisely to questions they are asked.
<p>Expert: "Experts have an academic degree and in-depth professional knowledge in a very specific field. They can bring the highest value to the innovation process when the need is clearly defined, but the solution is missing." (Bogner et al., 2002)</p> 	<ol style="list-style-type: none"> 1. Professional in-depth knowledge in the area of interest 2. Paired with own usage experience and regular interaction with customers 3. Exceptional professional skills 4. Ability to envision and pursue solutions for specific problems 5. Innovative mindset 6. Income from the specific field of expertise
<p>Early Adopter: "The EA is among the first to buy a new product. Through conveying a subjective evaluation of the innovation to near-peers by means of interpersonal networks, the early adopter decreases perceived risk around an innovation in the mainstream market." (Rogers, 2003)</p> 	<ol style="list-style-type: none"> 1. Open to new: among the first to try out new products 2. Sociable: sharing time and information with others; well integrated in peer groups 3. Respectable: role model for many members of a social system 4. Well-educated and informed about new technologies and trends
<p>Influencer: Influencers are "the individuals who were likely to influence other persons in their immediate environment." (Katz & Lazarsfeld, 2005)</p> 	<ol style="list-style-type: none"> 1. Active: attends events, is involved in communities, spends a lot of time out, follows the news in the field of interest, reads a lot 2. Connected: interacts with large amounts of people through personal contact or in social networks 3. Impactful: their opinion is important for several people who tend to be affected by this opinion when making decisions

Source: Hofmann, 2020.

RECRUITMENT CRITERIA	RECRUITMENT METHOD & PLACE
<ul style="list-style-type: none"> • Innovative mindset • Product-related knowledge • Dissatisfaction with current solutions • Took action to solve their problems • Willing and able to work in a team 	<ul style="list-style-type: none"> • Screening survey • Pyramiding • Signaling/broadcasting • Netnography • Crowdfunding • Communities • Databases, networks • Screening interview • Lead user conference
<ul style="list-style-type: none"> • Correspondence to TR search profile, which is tailored to given research task, based on 6 general Trend Receiver characteristics (see column left) • Willing to share thoughts 	<ul style="list-style-type: none"> • Desk research and reflection of available networks • Pyramiding • Semi-structured screening interview • Different intermediaries and their personal and professional contacts • Conferences, publications, social media etc. (involving subsequent contact and screening interview)
<ul style="list-style-type: none"> • Professional experience in the relevant field • Innovativeness, out-of-the-box thinking • Solution-oriented mindset • Open to sharing expertise 	<ul style="list-style-type: none"> • Desk research • Personal contacts • Screening interviews • Technology networks • Universities/scientific institutions/publications
<ul style="list-style-type: none"> • Scaling high on EA scale • Favorable attitude towards change and risk • Owner of a relatable product • Passionate about innovations in the relevant industry 	<ul style="list-style-type: none"> • Screening survey • Personal contacts • Interviews • Own customer base • Online communities/product enthusiast communities
<ul style="list-style-type: none"> • High level of extraversion, willingness to share information • Central position in broad social network • Knowledge about social media, industry, innovations, lifestyle, user needs 	<ul style="list-style-type: none"> • Social media research • Personal contacts/invitation • Screening survey • Contests • Customer base • Online communities/product enthusiast communities

everyday experiences with a given product or service with a far above-average skill level in observing, reflecting, associating and projecting.

In order to support practitioners in developing the appropriate study design and identifying the right dialogue partners, the five focused concepts can be systematized by assigning them to different areas of business and research tasks (see figure 3).

The Identification and Involvement of Visionary Customers by the Trend Receiver Approach

How to apply this structure and typology? One case from the author's practical experience illustrates how visionary customers are identified and involved in projects concerning future lifeworlds and markets. The case study focuses on autonomous driving from a market and customer perspective. It concerns the field of "Vision, Strategy and Planning", but the field of "Product and Service Development" is addressed as well as various aspects of desirable future car and mobility situations were discussed.

Before presenting the case in detail, the approach and the general characteristics of trend receivers need to be described. Trend receivers are consumers "who perceive changes and potentials of the new in a specific domain in a highly sensitive and differentiated way" (Hofmann, 2014, p. 98). They are best found by a tailored search profile and pyramiding processes involving suitable intermediaries (Hofmann, 2010; Schweitzer, Hofmann, & Meinheit, 2019; von Hippel, Franke, & Prügl, 2009). The six characteristics (specified in table 1) that proved to be particularly typical of trend receivers across diverse topics and industries are: context experience, self abstraction ability, curiosity and heterogeneity, selection competence, biogra-

phical discontinuities and communication competence. These characteristics enable trend receivers to identify developments much better than ordinary customers from a representative sample and allow them to assess trends in their relevance, identify new things early and provide a coherent description of a possible or desirable everyday life in a few years' time.

Visionary competence is a domain-specific ability. This implies that practitioners can prepare a tailored trend receiver search profile by specifying the mentioned characteristics with further aspects that correspond to the project and research task. Thus, requiring personal user experience ensures that the projections are based on everyday experience (see characteristic "context experience"). Or, as a further example, esthetic competencies need to be integrated in the search profile if topics of design and impression are researched. Also, in the following case study a specifically developed search profile was applied for the identification of the trend receivers.

"Easy Rider" Study – Autonomous Driving From the Market and Customer Perspectives

Few topics hold so much disruptive power for automobile manufacturers, mobility providers and related industries as the topic of 'autonomous driving'. Since 2013, in particular, Audi's market and trend research has aimed to understand potentials and concerns from the customer's point of view. Not an easy task, since everyday mobility with semi-autonomous or fully autonomous cars would differ significantly from that of today. While various quantitative broad-based surveys primarily revealed great fears and strong rejection, we sought more reflected ideas of future driving and mobility situations.

The intention was to gather clues and answers to the question of what an attractive car and mobility environment could look like when considering expanded technical possibilities. First and basically, it was discussed how customers would benefit most from semi-autonomous cars. But the question which kind of offers would be attractive under conditions of fully autonomous driving was also considered. This included new aspects with regard to interior and exterior design, looking at the car as a mobile space and media interface and thus gaining valid insights for brand management. Different drivers of change were reflected, factors that

might slow down or accelerate the evolvement of autonomous driving were identified, and a possible roadmap on the basis of projected lifeworlds and mobility scenarios was developed.

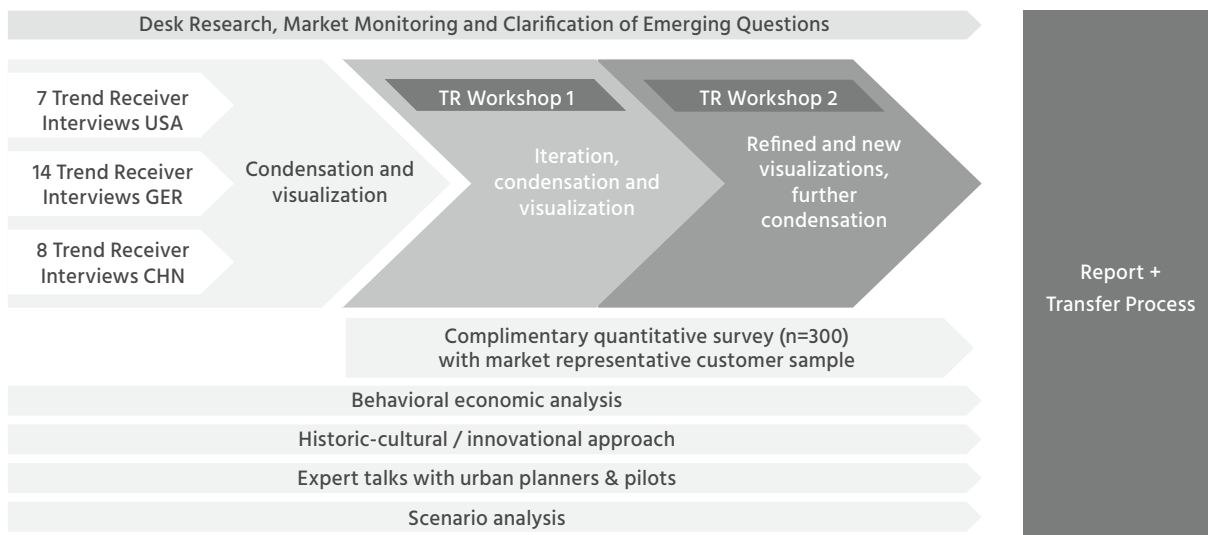
The full scope of this comprehensive research involved multiple studies and components that are all interconnected and lead to a single resulting picture of the future. The trend receiver method is central in this research process and delivers substantial and guiding results for the other research components as well.

Figure 4 shows the iterative study design of the 'Easy Rider' research project in which, parallel to wide-ranging desk research, a behavioral economic analysis and a cultural and innovation history analysis were included. Furthermore, expert interviews were conducted with city planners and pilots. And a scenario analysis was carried out with 29 trend receivers in the USA, Germany and China (for a detailed, yet anonymous list of the professional profiles of the 29 trend receivers see Schweitzer et al., 2019). The findings and impulses arising from the various research strands were continuously interwoven; hypotheses on user behavior arising in discussions with trend receivers were quantified in the second part of the study in cooperation with the research institute of a partner university (see also Hahn, Hofmann, Bilgram, Schwarz, Meinheit, & Füller, 2016).

The trend receivers were identified by means of a tailor-made search profile and various intermediaries. Initially, individual in-depth interviews were conducted; between these individual interviews, the content and structure of the interview guideline were continuously adapted. Hypotheses on, and descriptions of, desirable future mobility situations and vehicle characteristics evolved along this iterative process. The condensed interim results were fi-

Management Summary

Markets and customer expectations are subject to changes and companies need to sense and shape upcoming potentials. This article examines the possible applications of customer foresight and shows its potential for finding a vision and developing strategies, brands and products. It provides guidance for practical application by systematizing concepts and characteristics of persons involved in the emergence and evolvement of trends and by assigning different customer foresight approaches to distinct business tasks. How this contributes in international business practice is exemplified by a trend receiver case study. Lastly, the democratization of future competencies and new potentials due to influencers are discussed.

Fig. 4: Iterative Study Design of the ‘Easy Rider’ Research Project

Source: Hahn, Hofmann, Bilgram, Schwarz, Meinheit, & Füller, 2016.

nally converted into twelve use cases and were visualized. In workshops with individual and group formats (see figure 4) these representations were then questioned, discarded, enriched and refined. Thus, for example, it was established how customers might use the time gained in the car if they no longer had to drive and, ultimately, even the steering wheel would disappear, and which qualities new mobile devices and future space and screen designs would have to bring to life.

The results in the form of a presentation with professionally visualized future projections were used at various levels from specialized departments to the Board of Management and in various areas such as Audi design, pre-development, brand strategy and product marketing. It influenced, amongst others, the concept car AICON (see figure 5) as well as the further examination of the future topic of autonomous driving.

This case study shows how trend receivers may be identified and involved in practice. This allows the integ-

ration of visionary customers into vision finding and strategy, brand, product and service development processes. This method is especially recommendable if the research topic involves mid-term and long-term market developments and if market conditions are likely to change substantially.

Customer Foresight in the Age of Influencers

While not all of the five mentioned customer foresight methods can be examined here in the same detail, I will add some thoughts on the role of influencers. Influencers can be suitable collaboration partners for companies especially in the case of short-term business tasks and when newly emerging customer preferences and lifestyles are to be used for communication processes. But the growing impact of influencers also evokes new dynamics and potentials for customer foresight in general.

In recent years, influencers have gained considerable attention and sig-

nificance, more than any other trend-sensitive group, first and foremost because they have turned the advertising industry upside down. By integrating products into their living environments, taking photos and videos of them, posting them in social media – especially Instagram and YouTube – in their feeds and stories and thus actively promoting them, they signal what they consider cool, trendy, good or powerful. Their followers can thus gain a differentiated assessment of the developments regarding various industries and brands.

There are very large differences between individual influencers. While many are rather superficially oriented and only showcase what companies send to them, not demonstrating any specific trend expertise of their own, others act out of a real conviction and precise market knowledge. Unlike conventional trend experts, they also actively contribute with their work to implementing what they themselves see as particularly



Fig. 5: 'Easy Rider' workshop (Source (left): Gravity GmbH, <https://www.audi.com/de/company/research/audi-innovation-research/trend-receiver.html>) and concept model Audi AICON (Source (right): <https://www.audi.com/de/experience-audi/models-and-technology/concept-cars/audi-aicon.html>)

promising for the future. Using their influence on followers they combine trend diagnosis and trend development, causing the dynamics of 'self-fulfilling prophecies'.

One can thus speak of both democratizing the examination of the future and democratizing the influence on the future. The boundaries between influencers who are reflective and knowledgeable and consumers who pay increased attention to what might be gaining relevance are blurred. This provides new opportunities for customer foresight research. The pool of reflective influencers is interesting for the identification of relevant and suitable trend receivers as they sometimes fulfil the relevant characteristics identified above. In fact, experience with social media and familiarity with the mechanisms of influence has become part of many trend receiver search profiles – depending on the given questions.

Projecting these developments, it can be stated: The more democratized future competence becomes, the more self-evident and influential customer foresight will be. Thus, the method and the underlying mind-set may be applied to strategic questions and vision finding as well as the refined development and communication of products and services.

Discussion

When lead times are long and market conditions are likely to change dynamically, classical customer insight research has its limitations. When assumptions on the incalculable and less tangible changes in customer expecta-

tions and behavior are needed, customer foresight creates a valid basis for an informed look at the future by offering companies tools for broadening and objectifying their vision-finding and development processes of strategy, brand, product and communication.

In specific business situations practitioners have to reflect on some basic questions: What is the given business task and what are the precise research questions the company needs to get answers to? This leads to a methodical differentiation: Are topic and time horizon likely to involve significant changes in customer expectations? If the answer is "no", customer insight research with a representative sample is probably a good choice. If the answer is "yes", it is a case for customer foresight research.

For this mandate, the present article examines the emergence and evolution of trends and clusters existing persona concepts by a typology of agents of the new: the extraordinary people that are, more than the average consumer, involved in understanding and forming tomorrow's markets. Assigning different 'agents of the new' to different business tasks is supported by systematizing existing approaches. This allows to give guidance for method selection and for the identification of suitable dialogue partners. How custo-

Main Propositions


1. Customer foresight helps companies to sense and shape upcoming potentials through interaction with extraordinary customers.
2. Different types of 'agents of the new' are involved in understanding and forming tomorrow's markets.
3. These persona concepts and corresponding methods can be clustered and assigned to various strategic business tasks.
4. Companies can significantly benefit from customer foresight research when developing their vision, strategy, products and communication.

mer foresight may contribute in practice is exemplarily shown by a trend receiver case study.

This illustrates that practitioners should accept the challenge of pursuing their own conceptual and reflective process: Whom do we need to consult and how can we find these people? How should we organize and perform the dialogue? How can we involve internal stakeholders and decision makers? How do we need to visualize the resulting statements and projections towards future lifeworlds and products? How can we transfer the results into the company and its different value creation processes?

And lastly, the requirements, potentials and tools of customer foresight presented here obviously need to be further reflected on by practitioners and researchers alike. Questions that should be considered: the relation of customer fo-

resight and other ways of foresight and trend research; the boundaries between customer insight and customer foresight research; how various methods of customer foresight differ; comparison of tailored search profiles and standardized scales in terms of quality and efficiency; and transfer tools for customer foresight results. Topics like 'reflective influencers', 'democratization of future competence' or the potential of customer foresight for governments, institutions and NGOs also provide much food for thought and research.

Customer foresight has a good chance of gaining further momentum. Naturally, the interaction with drivers of change and projected future everyday life and markets remains uncharted territory. So it is all the more important that companies boldly and skillfully access people from outside when sensing and shaping upcoming potentials. 

Lessons Learned

1. Practitioners consideration is needed if Customer Insight or Customer foresight approaches are the appropriate tool of choice. The latter is the case, if the dynamic of change is high and the expected time to market is long. In that case special skills are required.
2. Practitioners need to define the research goals precisely and select the corresponding method carefully.
3. Depending on the research targets, customers with innovative competence (e.g. lead users), visionary competence (e.g. trend receivers) or communicative competence (e.g. influencers) have to be integrated into processes of product and brand development.
4. Practitioners reflect and tailor the complete research process. Internal stakeholders have to be involved and the transfer and anchoring of the outcomes in the organization has to be ensured.

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Applied Strategic Foresight – Learnings from Trend Transfer at SIX

How to translate trends into action? Trend research yields important insights into the future development of markets. Translating possible trends into implementable use cases at different levels of the organization is, however, far from trivial. Based on a case study of SIX, one of the biggest financial service providers in Switzerland, we propose a scenario building method that we called “Pictures of the Future” to start the trend translation process.

Birte Karoline Manke, Dr. Tobias Lehmann, Michael Katz

As the financial sector is increasingly confronted with profound changes, uncertainty, and instability, it is no wonder that a desire for a better understanding of the future arises. Scenario planning is one strategic response to this desire (Amer, Daim, & Jetter, 2013; Malaska, Malmivirta, Meristö, & Hansén, 1984; Rigby & Bilodeau, 2007). In recent years, scenario planning approaches have gained significance (Bradfield, Wright, Burt, Cairns, & Van Der Heijden, 2005; Varum & Melo, 2010), mostly due to increasing uncertainty (Oliver & Parrett, 2018; Walton, O’Kane, & Ruwhiu, 2019). A relevant precondition for scenario planning is scenario building. Scenario building entails envisioning possible futures and future outcomes under different circumstances (Schwartz, 1996). The scenarios which are created “(...) resemble a set of stories built around carefully constructed plots. Such stories can express multiple perspectives on complex events, with the scenarios themselves giving meaning to these events” (Mietzner & Reger, 2005). The visions developed in the scenarios are then used for strategic decision making.

As such, scenarios are a crucial foundation for foresight. How to develop scenarios that help gain a better understanding of potential futures? We will try to answer this question with a case study provided by SIX.

Background on SIX Case Study

SIX is a provider and developer of infrastructural services for the financial market in Switzerland. SIX operates the Swiss stock exchange and provides payment services and financial information. To respond to the market’s volatility, SIX put a special emphasis on innovation and digitalization by building a new business unit in 2018. Within this business unit, a scenario building technique was used that will be described in the following. Scenarios may impact an organization’s understanding of future challenges, inform their decision-making (Van der Duin & Den Hartigh, 2009), and benefit the organization’s communication. The present article describes how all this was played out at SIX.

Although the development of scenarios requires a lot of creativity, the process follows identifiable structures. Thus, the team started by defining a scope and building a database; it went on to project the factors collected in the database into the future, forming scenarios by combining these projections; and finally, it proposed possible strategic options (Mietzner & Reger, 2005; Phelps, Chan, & Kapsalis, 2001). Figure 1 illustrates the various steps, which will be described in detail below.

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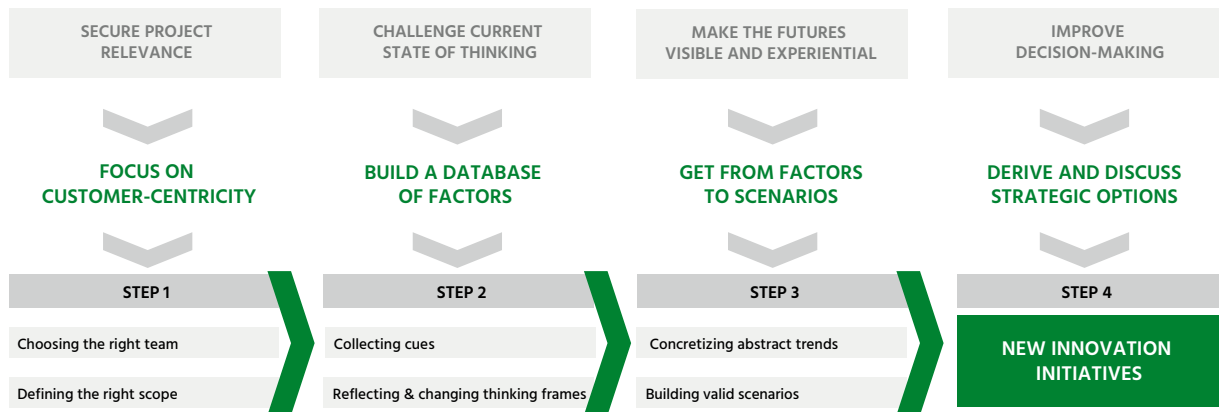
Step 1: Focusing On Customer Centricity

Choosing the Right Team

Scenario planning requires the participation of a variety of people – experts, strategists, managers – to develop alternative representations of the future (Roubelat, 2000). The “Pictures of the Future” (PoF) team of the newly created innovation business unit consisted partly of experts and specialists from the specific business unit the future scenarios were to be developed for. The other half of the team members were recruited for their particular mindset: being comfortable to work with ideas on a very abstract level, being able to cope with ambiguity and uncertainty, and having a holistic approach towards innovation. These individuals brought in a broader perspective and the ability to quickly gain an understanding of a foreign field. In environments that are very complex and challenging, like the foresight field, generalists, in particular, can unfold their unique skillset (Epstein, 2019).

Defining a Scope

Involving experts from the respective business units was central. When the trend scouting process at SIX started, the business units they approached were sceptical about the PoF team’s ability to understand their fields. Therefore, a big part of the trend transfer initiative was the integration of stakeholders as a way to build trust in the method and the results it might produce. To ensure relevance of the insights, the team started by approaching key decision-makers (those with a

Fig. 1: Benefits and Relevant Project Steps of SIX's Scenario Building Approach

Source: Own illustration.

strong influence on SIX's strategy) with one question: "Assume there exists an actual oracle who can tell the future. Which three questions about the future of the system under analysis (scope) in 10 years' time would you ask him/her?" The team then clustered the questions and selected 10–15 focal questions which the future scenarios would have to answer at the very least in order to be customer-centric. Additionally, these in-depth interviews with key decision-makers gave the team an indication of possible blind spots – developments decision-makers may be disregarding (e.g. due to confirmation bias) – which the team would also need to address in their future scenarios.

After identifying these focal questions, the team made an effort to define the value that the respective business unit (or, more generally, the 'scope under analysis') creates for their customers at an abstract level. Reflecting on a value proposition within today's structures, concepts and vocabulary may hinder innovative thinking. Therefore, the team adapted the mental model of "jobs to be done" proposed by Clayton Christensen as an approach for the field of innovation (Christensen, 2016). SIX's approach focused on the high-level jobs that customers or society hires a business to do when they opt for a particular product.

In the most recent white paper of SIX (2019a), they applied this approach, for example, to understand the value propositions of "money" and the "money infrastructure" at an abstract level. They identified three distinct ways in which money creates value for people and society, i.e. by serving as a store of value, a medium of exchange, and a unit of account, while the money infrastructure facilitates the exchange of value and protects and secures money.

Step 2: Building a Database of Factors

Collecting Cues

The scenario building process started with brainstorming on cues or "factors". Cues are reference points or markers used to link ideas to them, base decisions on, and assess plausibility (Colville, Brown, & Pye, 2012; Walton et al., 2019; Weick, 1995). The team defined factors as real-world elements whose variability is responsible for (part of) the variability of the

Management Summary

1. SIX established and developed a scenario building method called "Pictures of the Future". They have so far written several white papers exploring the future regarding different facets of the financial service industry.
2. As part of the scenario building process, they first defined the scope of analysis at an abstract level using 'jobs to be done'. Then they identified relevant factors that may impact the future of the abstractly defined scope, projected potential developments of the factors, and derived future scenarios with different likelihoods.
3. Despite being very time consuming, this method may help being prepared for future developments, opening up the discussion about strategic directions and strategic decisions.

scope. The team strived to include a broad set of factors from social and cultural trends to technological advancements or changes in the economic, environmental and political sphere. The team collected factors for future developments, potential catalysts, drivers of change, developments, and trends overall (SIX, 2019a, 2019b). Based on their collection of cues, they decided which of the factors were likely to have the most significant impact on the scope of their analysis.

This first step in the scenario building process allows to consciously and critically reflect on assumptions about the fu-

“We do not claim to foresee the future. We look at trends and developments and want to create, in the first step, problem consciousness instead of solutions.”

MICHAEL KATZ, Senior Innovation Developer & Innovation Field Lead at SIX

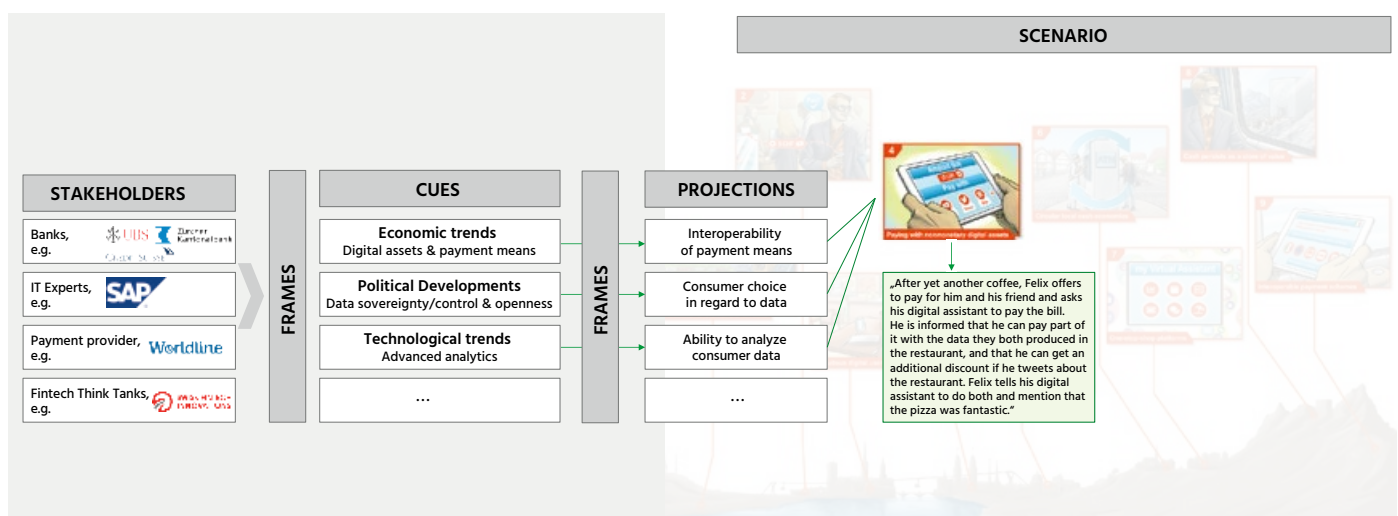
ture (Ratcliffe, 2002). Being aware of underlying assumptions will increase the transparency and objectivity in the decision-making process (SIX, 2019b). Also, this process minimizes the risk of surprises as organizations can more easily identify signals of change (Fahey & Randall, 1997; Mietzner & Reger, 2005). Later on, cues will be more easily detected and accepted

once they occur in reality. In sum, the creation of a plausible scenario through a sensemaking process requires the extraction of ‘cues’ from the environment and their interpretation based on salient ‘frames’ (Maitlis & Sonenshein, 2010).

Reflecting and Changing Thinking Frames

In ambiguous or confusing situations, people try to gain understanding through systematic processes often referred to as ‘sensemaking’ (Chermack, 2004; Colville et al., 2012; Maitlis & Sonenshein, 2010; Ramírez & Selin, 2014; Tapinos & Pyper, 2018; Walton, et al., 2019; Weick, 1995). The sensemaking process in the foresight field can be summarized as “the creation of meaningful connections through the combination of extracted cues with frames of reference in order to enable interpretation and sense attribution” (Schwarz, Kroehl, & von der Gracht, 2014, p. 68). Based on their frames of reference that entail a collection of tacit knowledge, individuals extract, interpret, and use cues from their environment (Brown, Colville, & Pye, 2015; Day & Schoemaker, 2004; Gioia, 1986; Ilmola & Kuusi, 2006; Weick, 1995). Participants often frame and make sense of a new scenario based on their past experiences (Colville et al., 2012; Czarniawska, 2006; Gephart, Topal, & Zhang, 2011). This strong referral to the past needs to be overcome for people to be open for innovative and new ideas. To challenge existing frames and to identify relevant cues that may not be obvious, the team aimed for maximum heterogeneity of the information they obtained through desk research but also by including third

Fig. 2: Exemplary Sensemaking in the Scenario Building Process Regarding the “Future of Money”



Source: Own representation partly based on SIX (2019). Picture of the Future – Future of Money, p. 19/20.

party inputs from trend scouting firms (CB Insights, Gartner). Previous research provides evidence that integrating distant knowledge from different domains may result in more novel and innovative outcomes than purely focusing on the own domain (Fleming & Sorenson, 2004; Hacklin & Wallin, 2013; Katila & Ahuja, 2002; Rodan & Galunic, 2004).

Figure 2 illustrates the sensemaking process in the “Future of Money” team’s scenario building process.

Step 3: Getting From Factors to Scenarios

Concretizing Abstract Trends

While building the database, it was important to start at a broad level and include many different perspectives but then to narrow the focus and become very concrete on what certain developments might mean for the scope under analysis and, in the end, the business unit. The various levels of abstractions relevant for each project stage are illustrated in figure 3. Regarding, for example, the “Future of Money” (SIX, 2019a), the team asked what it would mean for the ‘money infrastructure’ if the number of ‘digitally represented rights to assets’ exploded. In the most likely scenario, they projected that this would result in a growth of ‘payments with nonmonetary (digital) assets’, possibly displacing money as the ‘medium of exchange’. For this scope of analysis, the team aimed at developing future scenarios with a horizon of 5–7 years. In the end, the team selected up to six scenarios based on what they believed to be scenarios “most helpful for strategic decision-makers

setting the strategic direction for the future” (SIX, 2019a, p. 7). The selection was based on empirically informed beliefs (SIX, 2019b). Taking into consideration the plausibility of a specific scenario (Bradfield et al., 2005; Burt, 2007; De Brabandere & Iny, 2010; Godet, 2000; Schoemaker, 1993; Wilson, 1998), four types of scenarios were distinguished: the most likely scenario, the medium-likelihood scenarios, the low and medium-likelihood scenarios, and the low-likelihood, high-impact scenarios.

Building Valid Scenarios

The team selected scenarios that challenged existing, strongly held (unconscious) beliefs or wisdoms about the future (Wilson, 1998) or required a completely new mental framework by giving a new outlook and original perspective on issues (Van der Heijden, 1996). At times, more extreme scenarios (e.g. ‘Bitcoin is the dominant payment method’) were chosen because they entailed several, less extreme scenarios (e.g. ‘a large majority has switched to Bitcoin’).

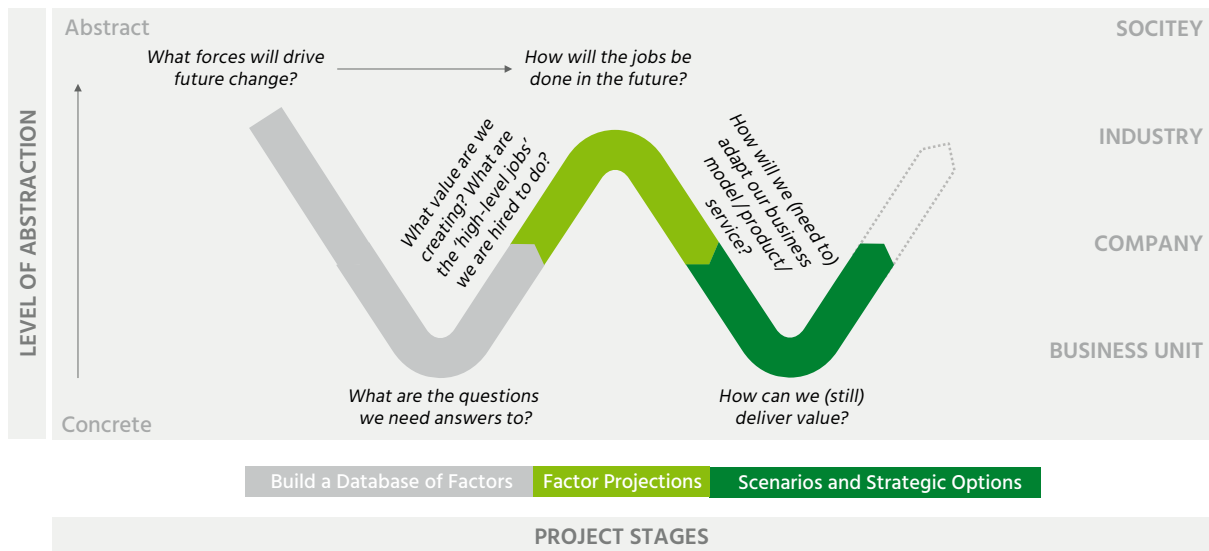
While building the scenarios, the team wanted to make sure that the underlying assumptions of each scenario were internally consistent (Bradfield et al., 2005; Burt, 2007; Foster, 1993; Schoemaker, 1993; Van der Heijden, 1996; Wilson, 1998) and had a sound logical underpinning (Bradfield et al., 2005; De Brabandere & Iny, 2010). To spot potential inconsistencies, the scenarios were fleshed out, describing their internal functioning and underlying assumptions in detail. Each scenario is written in the present perfect tense to help readers immerse themselves by conveying the feeling that the scenario has actually occurred. The most likely scenario is descri-

Main Propositions

1. The goal of this foresight method is to map the future problem space on a particular topic.
2. Remaining customer centric in the B2B sector with regard to foresight means identifying the most pressing questions of your customers (e.g. target group of the insights), then producing relevant insights around their customers and communicating the insights effectively.
3. One of the key challenges of the process is the ability to holistically understand the field under study, to take key insights to a meta-level and play them back for strategic decision making.
4. Foresight work is never “finished”. Using an iterative approach and encouraging feedback on the formulated scenarios enhances their quality.

Lessons Learned

1. If you plan on implementing this foresight approach, assemble a diverse team consisting of experts in the field and generalists with very fluid thinking abilities.
2. Make sure to allocate enough resources and do not underestimate the commitment needed for the project (especially regarding personnel and time).
3. Involvement and support of senior management is key for the success and acceptance of the foresight approach.
4. Effective and understandable communication of the foresight approach’s outcomes is a crucial factor for deriving actionable insights.

Figure 3: Abstraction Within the Project Process

Source: Own illustration.

bed in a lot of detail, while the other scenarios are only described insofar as they diverge from the most likely scenario. This approach prevents duplication and allows readers to see the key characteristics and distinctions of alternative scenarios but requires the alternative scenarios to be read together with the most likely scenario. Putting elements together in a coherent, comprehensive, and plausible manner makes them easier to comprehend (Mietzner & Reger, 2005) and also allows them to be challenged by other key players from the financial and adjacent industries (i.e., banks, insurance companies, payment providers, IT experts and Fintech Think Tanks).

Publishing the scenarios opens up the discussion and encourages readers to provide (divergent) feedback. But this was not the only strategy employed to further validate the scenarios (Chermack, Lynham, & Ruona, 2001): The team also applied war gaming (e.g., “How would you destroy incumbent players in the industry?”), greenfield designing (e.g., “If you could design the perfect infrastructure/product/service, what would it look like?” “What would Steve Jobs have done?”), tipping-point crossing and what-if questioning (e.g., “What if a long-term development finally accelerates? E.g., quantum computing has been talked about for 30 years, but what if ...”), 30-year-horizon backward thinking (e.g., “What will it look like in 30 years?” “What cues will exist in 5–10 years’ time?”), and black-swan scouting (e.g., “What are very low-probability events that everyone is underestimating? That no one is tal-

“The prime challenge in working with possible trends is that insights often remain too generic, general, and isolated. The insights are not ‘workable’ at that level. The real added value of our foresight process lies in combining and concretizing these possible developments in order to help people immerse themselves into possible futures.”

DR. TOBIAS LEHMANN, Future Scenarios Lead, SIX

king about, or simply disregarding?” For some people a ‘dominance of permissionless distributed ledgers’ is such a black swan, a ‘virus going pandemic’ may be the most recent one).

Step 4: Deriving and Discussing Customer-Centric Strategic Options

By building scenarios, organizations develop a joint understanding and vocabulary for talking about potential futures (Ratcliffe, 2002; Van der Heijden, 1996). Opening up the field for discussion was indeed one of the main goals in establishing and developing the PoF concept within SIX (Lehmann, 2019). Portraying these otherwise very complex ideas in the

PoF format breaks down change into understandable narratives (Pennington & Hastie, 1992; Schoemaker, 1993). Easier understanding allows an integration of different groups into the discussion. For their latest paper, the PoF team also presented their results in the format of human-centric stories to make the changes even more tangible (SIX, 2019a).

Scenarios can inform decision-makers and influence their decision-making (Vecchiato, 2012) by adding new aspects, reframing existing decisions or offering more or new context for a decision as well as offering a testing ground for new ideas (Fahey & Randall, 1997). In line with that, a direct link has been found between scenario planning approaches and innovation (Sarpong & Maclean, 2011; Worthington, Collins, & Hitt, 2009). A reason for that may be that scenario planning prepares decision-makers for new developments. Discontinuities and surprises can be anticipated, and their effects can be thoroughly considered. Decision-makers are challenged to think the unthinkable and be open to signals that may hint at their worst dreams becoming reality (Mietzner & Reger, 2005).

The Limits of Working With Scenarios

Despite offering many benefits, there are downsides to the method. The practice of building scenarios is overall time consuming (Mietzner & Reger, 2005). From their experience, the SIX team plans 6–9 months for one full iteration process depending on how many people are working full-time on the project. During that period one white paper is worked out. It is important to have at least one person working full-time on the scenarios, while the others are responsible for sharing the insights.

The scenarios are only as good as the inputs they are based on. Hence, there has to be a strong focus on selecting suitable participants and experts (Mietzner & Reger, 2005). Moreover, the experts need to share workable knowledge and exclude answers that may be too creative and lack grounding in (organizational) reality (MacKay & McKiernan, 2010). Additionally, once the work has started, reading (and undisturbed writing) time will become scarce. This is also a big

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struggle the SIX team faced. They benefited from the fact that most of the intensive reading had been done prior to the project start. Therefore, assembling a new team (or exchanging at least part of the existing team) for each iteration or PoF project may prove helpful when it comes to gaining new perspectives and insights.

Overall, building scenarios is a very complex and demanding process. It is essential that the team gains a deep understanding of the field they are working in (Mietzner & Reger, 2005). This requires a lot of time spent acquainting oneself with the field, and support from senior management is a prerequisite for any such project. It may be difficult, however, to criticize and challenge core beliefs held by senior management while at the same time trying to ensure their acceptance. This may lead to situations in which important aspects of the organization's current thinking and decision-making mode are not evaluated (MacKay & McKiernan, 2010).

Another challenge is the employees' willingness to dedicate resources to their engagement with the final scenarios

and in particular scenarios of low probability. But experience shows that even low-probability scenarios may quickly become relevant. For example, the SIX team explored, as one low-probability future scenario, a world without cash, only months before the corona crisis caused the use of cash to decline dramatically.

Previously, the distinct thinking style necessary for scenario building has been portrayed as beneficial for an organization. But employees who start to like this kind of creative work may become dissatisfied with their previous, usually less creative jobs, leading to lower performance, frustration and stress after their return. Or employees may perceive the developed scenarios as too distant, too creative and too far in the future. They may even end up rejecting the methodology and its results (MacKay & McKiernan, 2010).

Despite its downsides, however, the "Pictures of the Future" method has great potential as a foresight methodology since it not only helps companies gain valuable insights but also to start a broader discussion about potential futures. 🚩

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Customer Foresight – The Good, The Bad, The Ugly

The Good, The Bad and The Ugly (1966) is an Italian western about three outlaws on a treasure hunt during the American civil war. While they dislike each other, they are forced into cooperation. They all have some foresight on the treasure location. Only together they finally find the exact location of the treasure, ending in a classic standoff. Fast-forward to the 21st century and once again the world is confronted with three American outlaws. All applying customer foresight to win the ultimate treasure – the customer. In this article we will look at 3 of the most successful companies of our time – Tesla, Amazon and Apple – and the customer foresight they apply.

Samuel van Deth



Strategic customer foresight strives to capture how the future needs and behaviors of customers might change. As well as subsequently develop an organizational strategy on those insights. Both quantitative and qualitative methods can be applied. By for example interviewing Trend Receivers – those who have a thorough user experience in the field, as well as grasp consumer lifestyles perspectives. The concept of customer foresight is differentiated vs consumer centric strategies. It does not look at the present behavior of consumers, but at their potential future behavior (Schweitzer et al, 2019).

Experience Economy

Why is the concept of customer foresight of such crucial importance? Customer experience is the key challenge facing businesses today. With the prize for the most successful brands: an increase in revenue, profitability and market capitalization that significantly surpasses their competition. The Experience Economy is fast-paced and frenetic. Consumers have more choice than ever and they choose to interact with a brand only when they feel that the relationship is valuable. They expect answers in milliseconds; taxi's in minutes and packages in hours. They expect businesses to be there in those micro-moments of need. Which means being able to deliver contextually relevant experiences in real-time. However, in a recent CMO research by Oracle in cooperation with Econsultancy only 8% of 500 companies felt equipped to “adapt to changes in the marketplace”.

Data is Key

In that same CMO research we found that most companies rate their data integration, quality and technology as “poor” or “fair”. All while the key to delivering on these

high expectations is the enormous proliferation of data generated on an ever-increasing number of connected devices. The companies that do well are those that get from data to insights to action, in real-time. A great example is Disneyland Paris. They optimized acquisition costs with 250% while doubling bookings and improving customer experience by a smart combination of audience data (who they target) with contextual data (next to what content they target). Looking at customer foresight; customer data of every sort will be a huge differentiator. Companies will need to understand that there is a certain maturity curve they need to master. To get from hindsight to insight and finally to foresight. See figure 1: Need for Data Maturity: from Hindsight, to Insight to Foresight.

The Heart, the Brain and the Genitals

If we study some of the most successful companies from our times, we see they have specific assets in leveraging customer foresight. In his book “the Four – the hidden DNA of Amazon, Apple, Google & Facebook” – Scott Galloway argues all successful business appeal to at least one of three areas of the body from an evolutionary perspective: the heart, the brain or the genitals (...). While debatable, let's consider this interesting point of view for a moment; and plot it on the way customer foresight is used at Apple, Amazon & Tesla.

Apple, Amazon & Tesla: Three Different Founders, the Evolution of Customer Foresight

Late Steve Jobs – a Stanford dropout, noteworthy hippy – is quoting Henry Ford on customer foresight in his biography: “Some people say, ‘Give the customers what they want’. But that's not my approach. Our job is to figure out what they're going to want before they do. I

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think Henry Ford once said, 'If I'd asked customers what they wanted, they would have told me, 'A faster horse!' People don't know what they want until you show it to them. That's why I never rely on market research. Our task is to read things that are not yet on the page.' (Steve Jobs by Walter Isaacson, 2011)

"Some people say, 'Give the customers what they want.' But that's not my approach. Our job is to figure out what they're going to want before they do. I think Henry Ford once said, 'If I'd asked customers what they wanted, they would have told me, *A faster horse!*' People don't know what they want until you show it to them. That's why I never rely on market research. Our task is to read things that are not yet on the page."

STEVE JOBS

Steve Jobs advocated customer foresight. However, not by trusting what the customer declares as a source for foresight. Most of Apple's success has come from the customer foresight that people don't buy electronics just from the brain. People buy Apple because it is perceived different. Every little detail has received so much attention that the whole experience is taken to a different esthetic level. Apple lifts you from a 'regular Joe' to a celebrity. From the inside of their products, to their branding, to the support experience in an Apple store. And people are willing to pay. In Galloway's wording: "Apple masters the customer foresight focused on the genitals."

Now let's look at another widely successful company. Amazon led by Jeff Bezos – a summa cum laude Princeton graduate in computer science & mathematics with early working experience at a hedge fund in mathematical models. The whole Amazon model is focused on building volume and capturing data. Based on which Amazon takes away as much friction (costs,

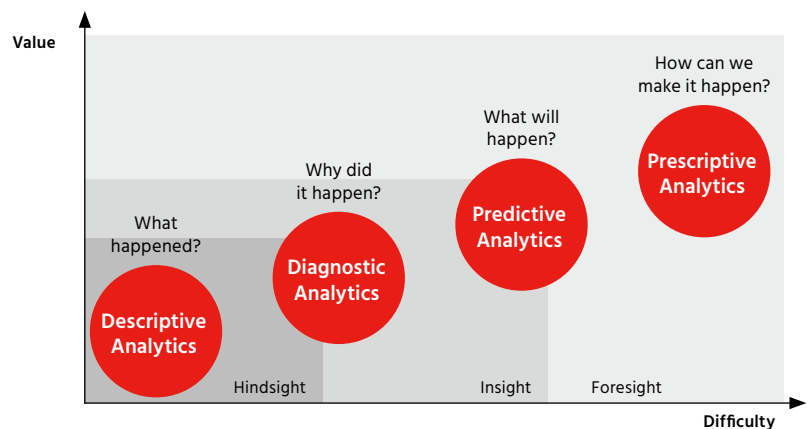
time) as possible for the consumer. While taking away friction is part of the success of Apple too (easy to use, Genius bar), Amazon takes it into convenience, completeness and costs. To do so Amazon is a master at gathering and analyzing consumer data. Including sales data: what is bought, when,

at what price. But also experience data: how they buy it. These insights deliver Amazon the ultimate customer foresight focused on the brain.

Elon Musk – a whizzkid at the age of 12, graduated in Economics & Physics, dropout at Stanford – is rapidly

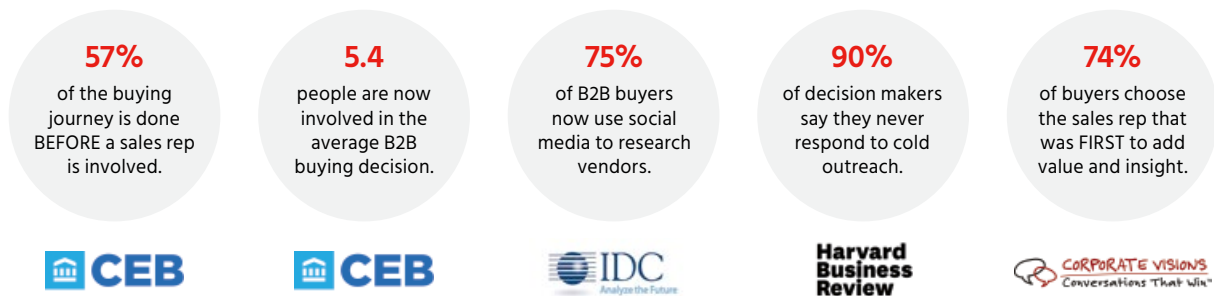
emerging with Tesla, SpaceX and his other projects as the next big entrepreneurial talent. Tesla is leveraging the same highly aspirational brand focus from Apple – launching a product the market didn't know it wanted, in a premium segment, with high end design, owning the retail experience. But then also takes to heart the power of behavioral data at scale as applied by Amazon. The largest fleet of semi-autonomous, camera rich cars on the planet is from Tesla. The amount of data these cars are creating delivers huge amounts of customer foresight. How are people driving, but also how are people using a car (entertainment, workplace, etc)? What Musk is adding is the customer foresight that people want more than 'just' an exciting brand with a product and experience that is optimized over time. The need for a strong purpose. By positioning Tesla as the change agent in the energy transition, and as such to saving the planet and humankind – he is providing an additional reason to choose Tesla. And gets the best talent out of

Fig. 1: Need for Data Maturity: From Hindsight, to Insight to Foresight



Source: Gartner, <https://blogs.gartner.com/jason-mcnellis/2019/11/05/youre-likely-investing-lot-marketing-analytics-getting-right-insights/>.

Fig. 2: Reality For The New Buyer



Sources: Gartner, IDC, Harvard Business Review & Corporate Visions.

the market to work from him. As such not only appealing the genitals and the brain, but also the heart.

Customer Foresight Not Just a B2C Approach – a Practical B2B Example

While the three examples might lead to believe that customer foresight is a B2C thing, it clearly is not. Almost any B2B sales market is changing rapidly to become like B2C experiences. The new B2B buyer is better educated before talking to sales – 57% of the journey is done before a sales rep is involved. Also, it is harder for sales to get early at the table – 90% of decision makers say they never respond to cold outreach. While the premium of being earlier is stronger than ever – 74% of buyers choose the sales rep that was first to add value and insight.

Acknowledging these facts within Oracle's CX EMEA business we are now actively using a set of predictive intelligence data on accounts in our territory. Key elements are: buying history, engagement data and external insights. All of this is modelled to create insights on what appropriate moments are to reach out to contacts and have a timely and relevant conversation on the topic at hand. While still in its early

days we have been able to show strong effects between the predictive intelligence signals and created sales pipe. Anecdotal evidence tells us that some sales got into already running RFP's after the intelligence signal informed them on a potential interest in a certain topic at an account. While the commercial impacts are clear, we also believe this will help our sales teams to be better informed, more relevant and therefore overall offer a better experience to our customers.

Oracle is in a unique position since all technologies used here are Oracle build from the ground up. Using these technologies ourselves helps our product teams shape future direction. As an example, Oracle is currently launching Oracle CX Unity which we position as a part of our Customer Intelligence Platform – the natural evolution from Customer Data Platforms. It provides real-time customer intelligence both for B2C as B2B business by connected data from both front and back office and applies Artificial Intelligence to derive insights that can immediately be actioned. Next to having built a prototype from the ground up ourselves; we are currently testing the product with multiple early customers to derive customer foresight and determine future roadmap.

There are very big differences on how customer foresight is applied across the mentioned examples. All move away from traditional methods where purely is looked at how people are behaving today or what they say they will do in the future. For truly impactful customer foresight the traditional methods are mixed with a wide availability of insight coming from all kind of data. To do so data skills and data maturity is crucial. Becoming successful in the future means winning over not only the brain, but also the genitals and the heart. Not always the best friends, but through cooperation comes the biggest treasure. 🚩

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Premiumization as a Profit Growth Strategy

A Framework of Strategic Options

Premiumization is an attractive growth strategy in competitive markets as it allows firms to achieve higher price levels by adding value to a brand or a brand portfolio. This article provides a conceptual framework of strategic options for premiumization and derives managerial guidelines on how to choose and successfully implement the right option.

Anna-Karina Schmitz, Prof. Dr. Martin Fassnacht

Due to technological progress, an increased availability of information, the reduction of commercial obstacles, and the continuous development of emerging markets, brands in today's markets are facing high competitive pressure. Simultaneously, urbanization and the growth of the middle class lead to rising consumer prosperity and increasingly heterogeneous consumer needs. Consumers adjust their purchasing habits accordingly: while trading up to higher-priced product alternatives in specific categories, they are deliberately paying less and trading down in others (Silverstein & Fiske, 2008).

Because it is difficult for brands to react to resulting demand shifts and to remain relevant and profitable, many firms have reduced the number of brands substantially to focus on the core brands in their portfolio (Bauer, Exler, & Schwerdtle, 2007). In the last ten years, *Nestlé*, for instance, has decreased the number of brands from 8,000 to 2,000 (Joseph, 2013), just as *Henkel* thinned out its brand portfolio from 1,000 to 300 brands (Bielefeld, 2019). In 2014, *Procter & Gamble (P&G)* announced to focus on just 70 to 80 core brands in future because these brands are responsible for 90% of sales and 95% of profits (Saal, 2015). Consequently, even large and well-known brands like *Duracell*, *Braun*, and *Wella* were sold (Saal, 2015).

The focus on a considerably lower number of core brands implies that firms have to compensate for lost sales due to eliminated brands and realize growth by alternative means. As today's markets are rather saturated, most categories do no longer grow with regard to sales volume (Kapferer, 2012). Therefore, instead of trying to increase sales volumes with low prices, firms have to focus on value. Adding value to a brand by means of *premiumization* can help firms to realize higher prices, attract new consumers with a higher willingness to pay, and to escape downward price spirals. In this way, firms cannot just increase profits but also enhance brand image and realize persistent growth. There are two major options for firms to engage in *premiumization*: (1) Firms can either try to sell higher-priced products under their remaining brands or (2) add new brands positioned at a higher price/value level than the existing brands in their portfolio.

However, irrespective of the chosen option, *premiumization* is a difficult process that requires a strategic and systematic approach. Its potential benefits have to be balanced against high costs and risks. In general, targeting a higher price/value level involves a realignment of many functions (e.g., R&D, quality, design, and sales) and of the corporate culture. This is very time-consuming as corresponding competencies have to be established or acquired. Furthermore, the risk of eliciting potentially negative feedback effects on

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existing brands and the whole brand portfolio has to be managed continuously throughout the process.

In view of these challenges and the importance of premiumization, it is surprising that scant research has addressed questions of premiumization. In particular, a comprehensive framework and a comparison of different premiumization strategies are missing. Consequently, there is little guidance for practitioners on how to successfully apply different premiumization strategies.

Therefore, this article aims to provide a conceptual framework of strategic options for premiumization. Insights on price positioning and consumer value are combined to characterize and evaluate the options using various practical examples. Finally, managers are provided with guidelines for basic premiumization decisions.

Conceptual Foundations of Premiumization

Premiumization as a (Re)Positioning Strategy

Since premiumization is about adding value to a brand or a brand portfolio along with achieving a higher price level, price/value (re)positioning is at the heart of any premiumization strategy. Price/value (re)positioning of a brand can be defined as the (re)arrangement of current value and price elements in such a way that the brand achieves a desired new or changed perception in the mind of consumers (Simon & Fassnacht, 2019). Thus, the (re)positioning of a brand (portfolio) should never be based solely on price but should rather reflect the underlying value as perceived by the consumer (Simon & Fassnacht, 2019).

Perceived value can be derived from different components that are capable of fulfilling consumer needs: functional value relates to the basic performance of a product, emotional value stimulates emotions such as pleasure or excitement, symbolic value fulfills the need for social recognition, and ethical value fosters the positive feeling that one has done something altruistic (Simon & Fassnacht, 2019). Each of these components is able to add value to a brand and differentiate it from competing brands. In the end, consumers will usually buy a product only if the perceived value derived from all components corresponds to, or exceeds, the price.

When perceived value and price are in balance with each other, several typical price positions will arise, with the luxury price position at the upper end of the price/value scale followed by the premium, medium, and low price position down to the ultra-low price position at the lower end (Simon & Fassnacht, 2019). These price positions differ in terms of the composition of perceived value. The relative contribution of functional value decreases with higher price/value levels while the relative contribution of emotional, symbolic, and ethical value increases (Wiegner, 2010).

For premiumization, the current price/value position serves as a starting point for an upward repositioning to a higher price/value level. The higher the targeted price/value level, the more important emotional, symbolic, and ethical value components will become.

Scope and Focus of Premiumization

Strategic Options for Premiumization Differ in Terms of Their Scope and Focus

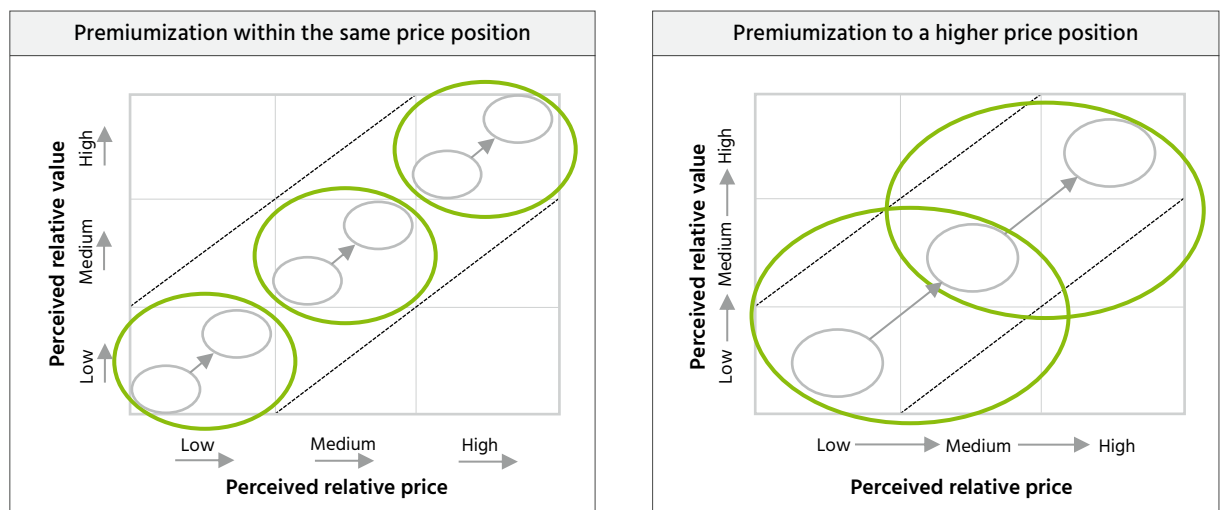
Figure 1 shows different **scopes** of premiumization. Firms can choose to move up within their current price position (e.g., from the lower to the higher end of the medium price position) or try to move to a higher price position (e.g., from the medium to the premium price position). This means that premiumization is not restricted to specific price positions; it can be used in the low price position just as well as in the medium or premium price position. The upward steps can differ in size (i.e., they can be smaller or larger).

Firms can also choose to raise price and value in small steps over time. Premiumization within a price position may then be considered as a first step towards a higher price position.

According to the objectives pursued, the **focus** of premiumization strategies varies. Firms can either premiumize a single brand (by trading up an existing brand to a higher price/value level) or raise the average price/value level of their entire brand portfolio (by introducing a new brand above the current price/value level of the brand portfolio).

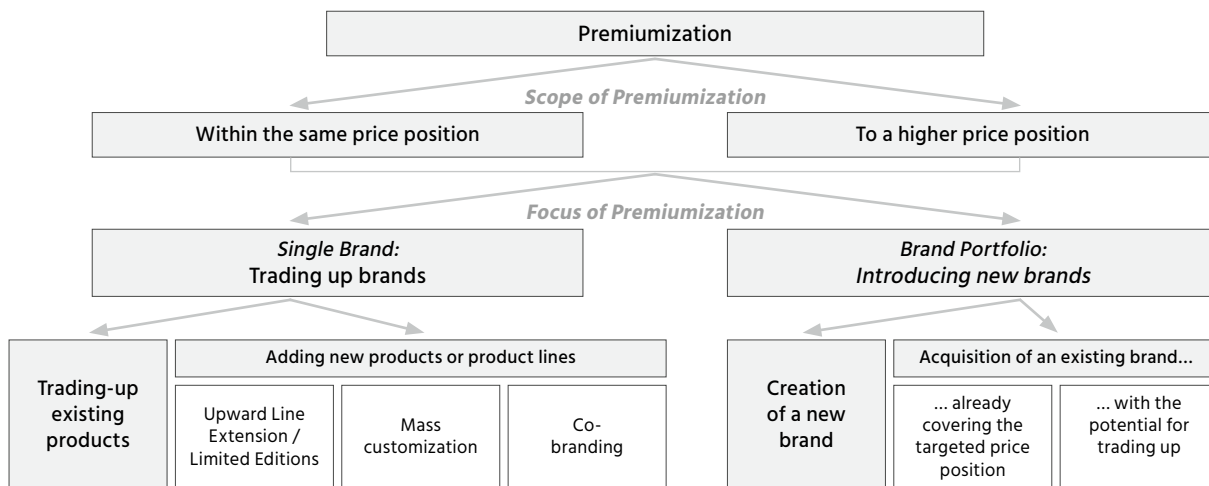
Figure 2 classifies the different strategic options according to their scope and focus. All options will be discussed and evaluated below.

Fig. 1: Different Scopes of Premiumization



Source: Own illustration.

Fig. 2: Strategic Options of Premiumization



Source: Own illustration.

Trading up Brands

There are two alternatives for trading up a brand to a higher price level: trading up existing products of a brand or adding new products or product lines to a brand.

Trading Up Existing Products

Trading up existing products is a rather fast way to premiumize a brand, because it typically involves only small changes in product design and/or packaging. Labels, add-on features, smaller-sized packaging, and shape changes are frequently used to upgrade a product in the mind of consumers and to justify a price increase. Because other marketing mix instruments are often neglected, the value added is restricted and premiumization is only feasible within the same price position.

Evian's premiumization strategy for bottled water shows that the value added has to be clear to the consumer to avoid negative reactions. The design of the bottle was changed to a cleaner look and reduced in size. The water itself remained unchanged but prices were increased by about 50 percent. Upon request from consumer protection groups, *Evian* justified the price increase with higher costs due to efforts to protect the environment (FAZ, 2017). This, however, had not been proactively communicated to the consumers. The intended premiumization scope was too high and *Evian* missed the opportunity to create positive feedback by enhancing the ethical value component.

Changes in price and product or packaging may be sufficient if the value added is clear to the consumer. Because of the small premiumization scope, complexity and costs are manageable and there is a low risk of losing existing consumers. However, chances of winning new consumers are also low. If the value added is not self-explanatory, intensive communication is necessary.

Adding New Products or Product Lines

In order to trade up a brand, firms can also add new products or product lines by means of upward line extension, limited editions, co-branding, or mass customization.

Upward line extension involves introducing a new product (line) under an existing brand in the same product category, but at a higher price point (Kim, Lavack, & Smith, 2001). Upward extensions can signal parent brand expertise and prestige and thereby shift the whole brand to a higher price/value level (Kirmeni, Sood, & Bridges, 1999). There is a risk, however, of losing existing consumers and damaging the brand if consumers feel the brand stretches beyond its competence (Aaker, 1997). Therefore, firms have to carefully design and implement upward extensions and make sure the entire marketing mix is consistently focused on delivering added value to consumers.

Ritter Sport did that successfully with its subline *Nut Selection*. All nut chocolates were updated with a recipe containing more nuts and a new packaging design. The introduction of the new line was accompanied by a special shelf layout and

promotions at the POS. A comprehensive communication campaign focused solely on *Nut Selection*. The transparent communication of changes and added benefits enabled *Ritter Sport* to realize a markup of about 30 percent. After the successful launch of the *Nut Selection* line, the subline *Cacao Selection* followed with a similar concept. With this strategy, *Ritter Sport* manages to slowly shift the brand from the lower to the upper end of the medium price position.

Limited editions – like *Ritter Sport's Unicorn* chocolate – are similar to upward extensions except that they are limited in quantity (Balachander & Stock, 2009). They have a positive effect on a brand's profits because consumers typically show an increased willingness to pay for limited editions (Balachander & Stock, 2009). Again, consistent changes in all marketing mix elements are critical to success. In case of the *Unicorn* chocolate, the product combined different flavors in a special packaging. Communication was based on social media and word-of-mouth. That enabled *Ritter Sport* to charge a price premium of about 80 percent.

Limited editions alone may not be sufficient for successfully premiumizing a brand because of their short-term character. However, they are well suited for supporting premiumization strategies because they allow brands to leverage current trends, generate attention, and deliver emotional and symbolic value to consumers. Furthermore, limited editions build on providing a feeling of scarcity to the consumer that leads to a higher perceived exclusivity (Brown, 2001).

Co-branding can be used to premiumize a brand by leveraging the higher price/value level of a collaborating brand. In signaling its higher price/value level, the collaborating

brand may enhance value components a brand currently does not (or not adequately) cover (Himme & Zuhorn, 2012). *Edeka*, for example, enhances the ethical value of its brand by collaborating with *WWF* in its private label products.

It may, however, be difficult to find a brand with a higher price/value level that is willing to cooperate. That is why such co-branding activities are often implemented as short-term projects, like the co-branding partnership between *ALDI* and *Jette Joop* in a joint fashion collection. This collaboration was part of *ALDI's* long-term trading-up strategy with the aim of attracting new consumers by adding emotional and symbolic value to the brand. Because of its success the concept has since been copied quite often.

For long-term partnerships, the fit between the two brands and the right scope of premiumization are even more important. Coming from a medium price position, *Schwarzkopf*, for example, collaborated with *Claudia Schiffer* in the hair care line *Ultimate Essence* in an effort to enter the lower premium price position. However, the product line suffered significant price erosions because the German consumers may not have seen the long-term fit and value added by *Claudia Schiffer*. Against this background, the envisaged move to a higher price position seems to have been too ambitious. Additionally, co-branding always involves the risk of damaging the brand due to negative things happening to the cooperating brand (Koschate-Fischer, Hoyer, & Wolframm, 2019).

Mass customization can be used to trade up a brand by enhancing its emotional and symbolic value because customizing a product is fun and original and allows consumers to show off that they are creative and individual. Consumers are willing

Management Summary

1. Because premiumization allows firms to achieve higher price levels by adding value to a brand or a brand portfolio it is considered an attractive growth strategy in competitive markets.
2. This article provides a conceptual framework of strategic options for premiumization. Insights on price positioning and consumer value are combined to characterize and evaluate the options using various practical examples.
3. Managers are provided with basic guidelines on how to choose and successfully implement the right strategic option of premiumization.

Main Propositions

1. There are different strategic options of premiumization. Firms can either focus on a single brand by trading up existing products or adding new products to the product line or they can focus on the whole brand portfolio by creating or acquiring new brands.
2. Firms can choose to move up within their current price position (e.g., from the lower to the higher end) or try to move to a higher price position (e.g., from the medium to the premium position).
3. While different strategic options of premiumization entail specific opportunities and challenges, a consistent price-value relationship is a prerequisite of every premiumization strategy.

to pay considerable markups for customized products. *Nike*, for example, realizes a price premium of about 20 percent on its *NikeiD* customized shoes. That helps *Nike* to constantly increase its price/value level within the upper premium price position.

However, successful mass customization requires extensive adaptations of the entire value chain and advanced information and manufacturing technologies (Fogliatto, da Silveira, & Borenstein, 2012). Therefore, technological advancements like 3D-printers will make mass customization an even more attractive premiumization option in future.

Introducing New Brands

Adding a brand that is priced above the average price level of the portfolio can be used to premiumize a brand portfolio (i.e., increase the average price/value level of the portfolio). There are two options for adding a new brand to a portfolio: creation of a new brand or acquisition of an existing brand.

Creation of a New Brand

Brand creation involves the introduction of a brand that is new to the firm and the market. It is a costly and time-consuming activity as a unique brand image has to be created from scratch (Aaker, 2004), and can substantially increase the complexity of an organization (Damoiseau, Black, & Raggio, 2011). However, with a new brand the firm is not confined to the initial image, target group, and price/value position of its existing brands but free to create value components in a way that best fit the targeted price position (Damoiseau et al., 2011).

Dr. Wolff, for example, could extend its brand portfolio within the premium price position by creating the new anti-hair-loss hair care brand *Plantur*. With its original brand *Alpecin*, *Dr. Wolff* was restricted to men. The new brand gave *Dr. Wolff* the freedom to create value by focusing on women as a new target group and extract that value with a high markup. The example of *Activ Dr. Hoting* by *Schwarzkopf* in the same category shows, however, that new brands may fail if consumers do not perceive a consistent price–value relationship. Compared to *Plantur*, consumers felt that *Activ Dr. Hoting* was too expensive and did not deliver sufficient value.

Acquisition of an Existing Brand

Instead of creating a new brand, firms can also acquire existing brands to premiumize their brand portfolio. Acquiring an existing brand that already covers a targeted higher price position is less complex and expensive than creating a new brand (Himme & Zuhorn, 2012). Additionally, the other brands in the port-

folio might benefit from synergies such as reduced costs and increased competences (Capron & Hulland, 1999). *Unilever*, for example, expanded its presence in the premium segment of the ice cream market with the acquisition of *Ben & Jerry's*. Starting from a medium price position, *Campari*, *Beiersdorf*, and *P&G* entered the premium or even luxury price categories with their acquisitions of *Wild Turkey*, *La Prairie*, and *Aussie*, respectively. To be successful, the value provided by the acquired brand has to be preserved in the integration process.

Firms can also choose to acquire brands with a potential for trading up. After the acquisition of *Johnnie Walker*, *Diageo* managed to revitalize and continuously trade up the brand within the premium price position. *MINI* is another example for premiumization by revitalizing an acquired old brand. Originally created as a car for people with lower incomes, *BMW* traded *MINI* up to the premium price position after its acquisition.

Table 1 summarizes and evaluates all strategic options of premiumization discussed above.

Managerial Guidelines

Depending on their objectives and their specific situation (e.g., existing brand portfolio, competitive situation, consumer needs), firms have to decide on the scope and focus of their premiumization plans to choose the best strategic option. Figure 3 provides basic guidelines for premiumization decisions.

First of all, managers have to figure out whether they have the need and resources to engage in premiumization. Subsequently, they have to determine the scope of premiumization. In general, moving to a higher price position is associated with considerably higher efforts, costs, and risks than moving up within a current price position. To be successful, a realignment of many functions (R&D, quality, design, sales) to a higher level is necessary. This is very time-consuming as corresponding competencies have to be established or acquired. However, a higher price position comes with advantages that might outweigh these costs and risks. In general, in the higher price positions price elasticities are comparatively low, which allows higher markups. Because of the growing importance of emotional, symbolic, and ethical value components, more opportunities for differentiation arise. Additionally, the frequency and the risks of price wars are lower in higher price positions than in lower ones (Simon & Fassnacht, 2019).

Therefore, the scope of premiumization depends on the long-term strategic objectives of a firm. When consumers associate a brand/firm with a specific price position and it is successful in this position, constant premiumization within this price position can be used to enhance profitability and preserve the current price/value level in the long run. If a firm,

however, wants to profit from the advantages of a higher price position and change its positioning strategically, moving to a higher price position is without alternative. Furthermore, changes in the competitive situation, in consumer needs, and in technologies may impair the competitive situation and profitability and make it necessary to update the current positioning (Keller, 2013) and tap into a higher price position.

To figure out which strategic option of premiumization best fits the specific context and objectives of a firm, managers have to decide whether to focus their premiumization efforts on a

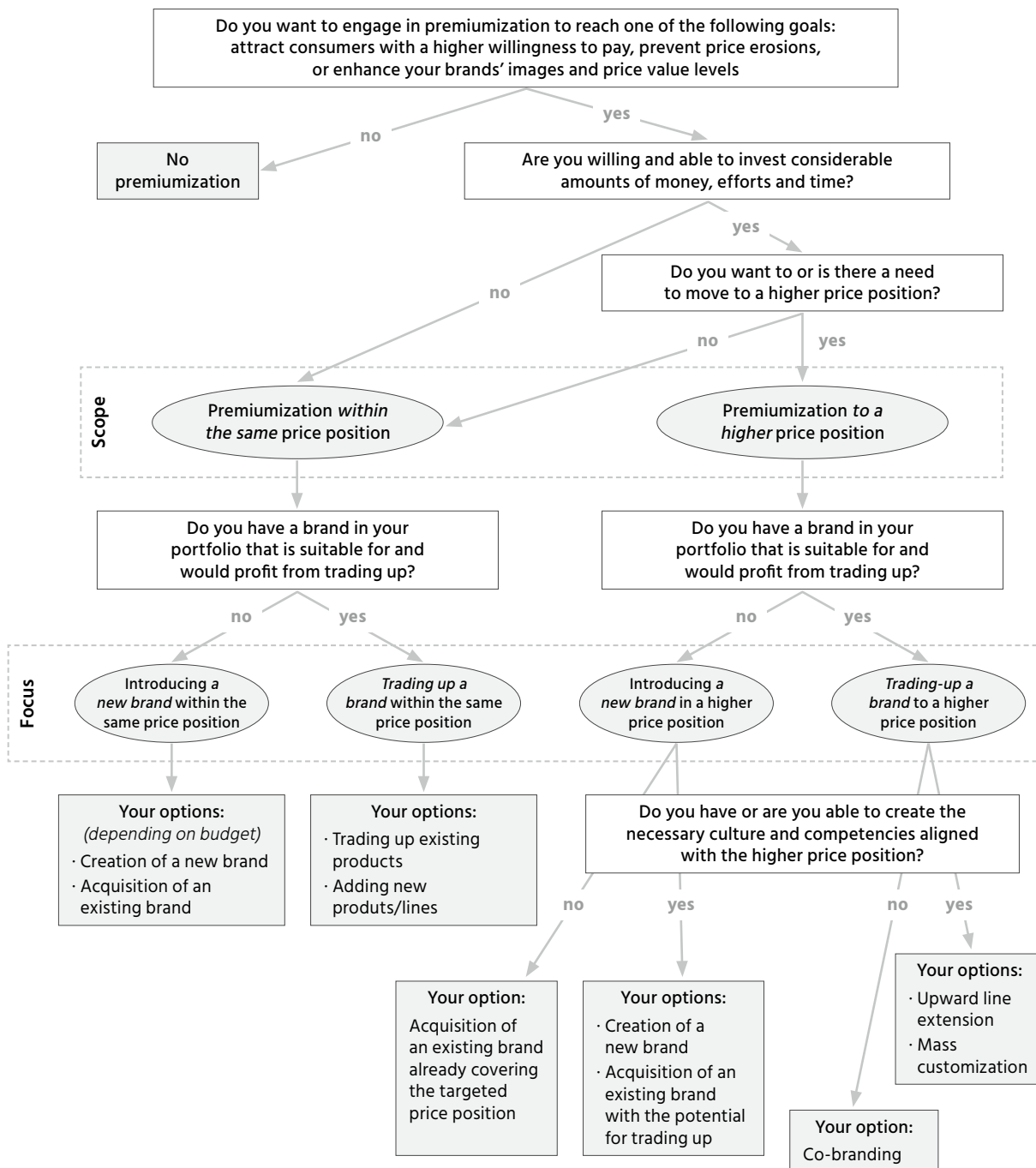
single brand or on the entire brand portfolio. When firms strive for a higher price/value level and an enhancement of the image of one of their brands (e.g., to increase its profitability and prevent price erosions), premiumization of that brand should be considered. As a positive side effect, premiumization of a single brand will also affect the average position of the entire brand portfolio. However, premiumization of a single brand comes with high risks. Existing consumers may be confused, because premiumization strategies may be perceived as inconsistent with the brand (Milberg, Park, & McCarthy, 1997).

Table 1: Evaluation of the Strategic Options of Premiumization

		Trading up Brands		Introducing New Brands	
	Upward Line Extension	Co-Branding	Mass Customization	Creation of a New Brand	Acquisition of an Existing Brand
Time Span	Medium- to long-term activity.	Short- to medium-term activity. Often for a limited period of time.	Medium- to long-term activity.	Long-term activity as visibility has to be built from scratch.	Short-term activity if the brand already has the targeted price/value position. Otherwise, medium- to long-term activity.
Intensity of Marketing Activities	Marketing mix has to be adapted to enhance consumer perception of the extension. More complex when trading up to a higher price position. Innovation and communication are crucial.	A greater scope of premiumization requires more intensive adaptations of the marketing mix. When moving to a higher price position, efforts can only partly be shared with the partner.	Entire marketing mix has to be adapted to the new concept.	Entire marketing mix has to be set up for the new brand. Possibility of using synergies only if the new brand is within an already targeted price position.	Current activities can be continued for the time being. (Trading up an acquired brand requires adaptations depending on the strategic option used, see columns 1–3.)
Costs	High complexity within the brand portfolio. Medium to high costs.	High coordination effort causes medium to high costs.	High complexity and costs as all procedures have to be adapted to customization.	Very high complexity and costs, especially when there is no prior experience in a new price position.	Apart from the costs of acquisition low complexity and costs. (Trading up an acquired brand comes with additional costs, see columns 1–3.)
Risks	The smaller the scope of premiumization, the lower the risk of damaging the brand and losing existing consumers. A greater scope increases the chances of winning new consumers.	Lower flexibility and limited strategic power pose the risk that the brand image may be damaged.	High risk of failure, especially when there is no prior experience, because the entire organization is affected. Great chance of attracting new consumers.	Depending on the competences and culture for the targeted price position in the firm, medium to very high risk as consumers have to accept the new brand.	Medium risk as there are existing consumers and an established brand image. Cultural differences in the integration process pose an additional risk. (Trading up an acquired brand comes with specific risks, see columns 1–3.)
Main Success Factors	Adding value to the extension. Adapting the whole marketing mix to a higher price/value level. Awareness of the brand's credibility and expertise (it should not be stretched too far).	Creating a story that builds on emotional and symbolic value components. Using the entire marketing mix to support the line extension and create premiumization effects for the brand.	Adapting the whole value chain. Building on technology. Focusing on products that are customizable. Creating knowledge on consumer needs (e.g., individualization).	Acquiring or building up competences in a higher price/value position. Focusing on a consistent management of the entire marketing mix.	Finding the right balance between integration and independence of the acquired brand. Making use of synergies. Managing the change process and cultural adaptations.

Source: Own illustration.

Fig. 3: Managerial Guidelines for Premiumization Strategies



Source: Own illustration.

Lessons Learned

1. Managers have to figure out whether they have the need and resources to engage in premiumization and then decide on the scope and focus of their premiumization plans to choose the best strategic option.
2. Moving to a higher price position is generally associated with considerably higher efforts, costs, and risks than moving up within a current price position.
3. To figure out which strategic option of premiumization best fits the specific context and objectives of a firm, managers have to decide whether to focus their premiumization efforts on a single brand or on the entire brand portfolio.
4. Premiumization is hard to achieve because high costs and risks need to be balanced. The additional revenues realized through premiumization need to be higher than the costs.

If firms want to benefit from premiumization without jeopardizing their existing brands, they should focus on brand portfolio premiumization with the help of a new brand. This is also appropriate when there is no brand in the portfolio that is suitable for premiumization.

Conclusion

Premiumization can be a powerful strategy for realizing growth in competitive and saturated markets. It can enhance long-term profitability by achieving higher price levels, attracting consumers with a higher willingness to pay, and increasing brand attractiveness. It is hard to achieve, however, and high costs and risks need to be balanced. While the different strategic options of premiumization entail specific opportunities and challenges, a consistent price–value relationship is a prerequisite of every premiumization strategy. Higher prices need to be justified by an increase in perceived value. Simultaneously, firms have to consider potential feedback effects on their brands. Finally, the additional revenues realized through premiumization need to be higher than the costs.



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Product Category Priming – A Case Study on Chocolate

Any supermarket visit involves a series of consecutive product choices. These various product categories can prime memory associations. This paper studies how exposure to higher (pralines) vs. lower quality (chocolate bars) product categories drives interest and demand for a target chocolate product (duplo, Giotto).

Dr. Enrique Strelow, Prof. Dr. Mark Heitmann, Prof. Dr. Simone Kühn

Due to the decreasing impact of traditional advertising media, consumer-packaged goods firms have shifted resources from advertising to shopper marketing and the presence at the point of sale (Gilbride, Inman, & Stilley, 2015). For example, Procter and Gamble optimizes the “First Moment of Truth”, i.e., the first three to seven seconds when consumers encounter a product in the store (Hui et al., 2013). At the same time, the growing amount of brands and individual product innovations make shelf positioning an increasingly contested issue between manufacturers and retailers (Valenzuela, Raghubir, & Mitakakis, 2013). Most prominently, central shelf positions are considered particularly advantageous because they attract attention (Atalay, Bodur, & Rasolofoarison, 2012) but also suggest a high level of product popularity to consumers (Valenzuela & Raghubir, 2009). Other exposed locations such as end-cap displays or special island placements are desirable for similar reasons (e.g., Larson, Bradlow, & Fader, 2005; Garrido-Morgado & Gonzalez-Benito, 2015).

These considerations center around demand for products in such advantageous positions. While these products may be considered first, research on consumer decision making suggests each product consideration can also influence subsequent decisions on products in close proximity (e.g., Dhar, Huber, & Khan, 2007; Vohs & Faber, 2007; Gilbride, Inman, & Stilley, 2015). This happens because each purchase decision results in memory activations, i.e., attitudes and emotional consumption experiences (Weber & Johnson, 2006). In consecutive product choices, the memory activations caused by each product encounter make related information more salient in

the consumer’s mind. This is important because heterogeneous consumption experiences are often difficult to evaluate ex ante, making assessments prone to arbitrary influences (Ariely & Carmon, 2003).

In an online experiment, Mandel and Johnson (2002) observed that the landing pages of online shopping sites activate memory associations that affect subsequent choices. Initial landing pages with coins primed thrift-related thoughts. Clouds were associated with softness and comfort. This mattered for subsequent choices of couches. Individuals exposed to coins chose cheaper and less comfortable sofas while the opposite pattern (more comfortable, more expensive sofas) emerged for individuals who saw clouds. While the actual product selection screen did not include any background image, differences in the initially viewed landing page had a profound impact on subsequent demand. This so-called feature priming has been widely observed and replicated in field settings.

Category priming is similar to feature priming. Specifically, whenever the classification of target objects is ambiguous, classifications and consequential responses are influenced by previous category encounters. Higgins, Rholes, and Jones (1977) confronted subjects with words describing either positive or negative traits. In an ostensibly unrelated experiment, subjects were more likely to classify a target person as more positive and formed more positive opinions when primed by positive trait adjectives. Implicit (subconscious and automatic) memory processes are believed to be the basis for these effects (Arkes, 2001). According to Herr (1989), these effects only emerge when category priming is unobtrusive, i.e., non-obvious

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to individuals and characterized by automatic processing as opposed to conscious reflection. Primes that are consciously perceived as a persuasion tactic can produce reverse priming (Laran, Dalton, & Andrade, 2011) and contrast effects (Herr, Sherman, & Fazio, 1983; Martin, 1986), i.e., evaluations opposite to the prime (Mandel & Johnson, 2002).

Similar effects of category priming are likely to play a role when consumers sequentially evaluate products. This is relevant to marketers interested in optimizing the retail presence of their products. For example, consider a car buyer who is confronted with expensive car models and subsequently evaluates a target car. Primes of expensive cars are likely to shift inferences about value upward while less expensive car primes will shift inferences in the opposite direction (Herr, 1989). In a supermarket context, product category priming depends on which products are in close proximity. For example, placing

Management Summary

Surrounding product categories matter when choosing retail positions. These have strong impact on sales, product value attributed by consumers (price expectations) and expected consumption pleasure. Taking product context into account can improve sales performance.

Crémant in the vicinity of regular sparkling wine is likely to result in lower quality inferences than the same Crémant located near champagne. Thus, pricing and positioning products at the point of sale requires careful consideration of the types of product category priming caused by the context of surrounding products. This makes it important for marketers

to understand the impact of category priming in more detail.

This paper illustrates how product category priming can be implemented in a supermarket context for an exemplary chocolate product. To investigate the effect of category priming, we ran a field experiment, a more controlled online survey experiment and a functional magnetic resonance imaging (fMRI) experiment using visual cues.

Anecdotal Evidence on Chocolate Demand

Many consumer goods manufacturers struggle with optimizing their retail presence. Ferrero, for example, faces the decision of where to position special chocolate product displays within supermarkets. Obviously, seeking an exposed position is desirable. It is less clear which context of surrounding product categories is most desirable. Similar to sparkling wines, confectionary items have different levels of value and, accordingly different expecta-

tions of consumption experience. While pralines are higher-priced, presumably more sophisticated and higher-quality products, regular chocolate bars represent the other end of the spectrum in terms of both price and anticipated consumption pleasure. Consequently, these product category primes will result in very different memory activations.

Ferrero considered capitalizing on product category priming by positioning its duplo chocolate bar in a dedicated in-store display next to either other chocolate bars or pralines. To find the best strategy, Ferrero conducted an A/B test for both locations using special end cap displays located at the end of different shelves. Four weeks were selected that were not influenced by festive periods, holiday seasons or special promotions of the target product. Across the four weeks, duplo was presented either in the proximity of chocolate bars or near pralines every alternate week. Ferrero counted each customer purchasing at least one confectionary item in the proximity of the duplo display as a potential duplo customer. This resulted in 3,190 potential customers with duplo next to chocolate bars, and 3,352 with duplo next to pralines. When duplo was located next to chocolate, .88% of these customers purchased at least one pack of duplo. When the display was relocated to the pralines category, sales increased to 1.07%. While this difference is not statistically significant at conventional alpha levels due to the low levels of purchase incidence, it is in the expected direction of product category priming. If conducted nationwide, a 21.5% increase in sales has important implications for Ferrero, in particular when considering that the costs for the alternative display locations are about equal.

Impact of Product Category Priming in a Controlled Online Experiment

Field experiments provide important indications on actual effect sizes but come with several limitations. Specifically, the field settings in the above experiment prohibited full control over potential confounding factors. For example, the different locations in store may have differed in other factors (e.g., different walking paths). It is also not clear whether both pairs of weeks were fully comparable and whether individuals who bought or did not buy in the chocolate position weeks might have modified their behavior in the praline weeks. In addition, the chocolate position is closer to the traditional shelf space of duplo, while the praline position is more unusual and may thus have attracted additional buyers. Prior research has demonstrated that price comparisons are critically impacted by different aspects of shelf layout (e.g., Choi & Coulter, 2012). Since pricing of duplo is closer to regular chocolate than pralines, the relatively low price of duplo compared to pralines may also have attracted additional customers. Finally, Ferrero cho-

se duplo for the A/B test because advertising had positioned duplo as a chocolate bar akin to pralines. It was therefore not clear whether it would be possible to replicate the effect in a more controlled setting for other products with different advertising.

Experimental Design

Since the necessary levels of control are challenging if not impossible to implement in the field, a more controlled online experiment is an efficient way to gain more insights. Data on a sample of 261 participants representative of the German population were the basis for this. Respondents were randomly assigned to a presentation of either a plain chocolate bar (127 participants) or a single praline (134 participants) image without any price information, each displayed for 10 seconds. Subsequent to these image displays, participants indicated their willingness to pay (WTP) for two target products: Giotto (another non-chocolate bar confectionary item of Ferrero, which comes in a bundle of 4 packages, each containing 9 Giotto balls) and a bundle of 10 bars of duplo. WTP measurement for Giotto always preceded

Main Propositions

1. Many marketers face the challenge of finding optimal retail positions for their products.
2. Products in close proximity activate consumer memory associations and drive product perceptions and price potential (category priming).
3. Special placements among high-value product categories can improve value perceptions and demand.
4. Product category priming effects are stronger when primes are unobtrusive and products are perceptually similar.

duplo on a separate page, so the potential recall of the duplo advertising could not drive results for Giotto. WTP for both products was measured on 11-point scales ranging from 0.00 € to 2.00 € (in steps of 20 cents). To investigate whether WTP would translate into sales when consumers can make choices within and across product categories, the survey also asked participants to distribute 100 points between four products to indicate their purchase likelihood. The four products consisted of the two Ferrero products (Giotto and duplo) and two products from other categories (blueberry jam, mate flavored ice tea). Measurement and analysis of WTP and purchase likelihood was carried out with the quantile agile insights software.

Results

Results were consistent with the field evidence for both Giotto and duplo in terms of WTP. Average WTP for duplo was the equivalent of € .87 (5.27 on the 11-point scale) in the chocolate prime condition and € 1.00 (6.04 on the scale) after the praline prime. This represents an increase of 15% in price potential due to the praline vs. the chocolate product category prime ($p < .01$). The effect for duplo is similar in relative terms with a WTP of € .47 (3.33 on the scale) vs. € .53 (3.74 on the scale) as a function of the chocolate vs. praline prime, i.e., a 13% increase in price potential ($p < .05$).

In terms of purchase likelihood, demand for Giotto increased from 23.87% for the chocolate category prime to 28.33% for the praline category prime ($p < .10$). However, demand for duplo decreased by a similar amount (42.25% vs. 35.56%, $p < .10$). Note that Giotto is sold in balls, i.e., the product form resembles pralines more closely,

while the product form of duplo is more akin to chocolate bars. Presumably, within-category demand was shifted towards the product perceptually closer to the prime. This suggests that product category primes can drive product value perceptions but the actual impact depends on the visual similarity between the primed category and the promoted product.

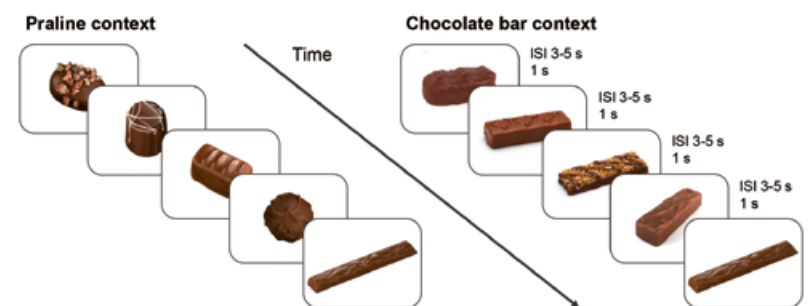
Impact of Product Category Priming on Expected Reward and Pleasure

The concept of product category priming rests on the assumption of predicted consumption reward. What goes on in consumers' minds is difficult to assess in field and survey settings. However, two brain regions have been established as relating to reward and pleasure: the nucleus accumbens (NAcc) and the medial orbitofrontal cortex (mOFC) / ventromedial prefrontal cortex (vmPFC) (see Liu et al., 2011; Kühn & Gallinat, 2012; Brown et al., 2011). Related brain activation has been demonstrated to correlate with actual market demand (Kühn, Strelow, & Gallinat, 2016). These activations can be triggered by

simple brand cues. For example, McClure et al. (2004) demonstrated that identical coke mixtures resulted in different brain activations in the vmPFC depending on whether or not the brand Coca Cola was displayed. Later replications with similar setups found direct evidence also for NAcc activation due to branding (Kühn & Gallinat, 2013). Similarly, fair trade labelling impacted activity in the NAcc and willingness to pay as correlated with the mOFC (Enax et al., 2015). Product category priming goes beyond these effects by linking the encounter with a related product category with activations of expected reward and pleasure.

To investigate the impact of product category priming on reward processing, eighteen healthy subjects with a mean age of 40.4 years (SD = 9.9, range: 29–58 years) participated in an fMRI experiment on the basis of informed consent. All subjects had normal or corrected-to-normal vision and normal hearing. No subject had a history of neurological, major medical, or psychiatric disorders. During the fMRI experiment, participants were presented with pictures of chocolate bars and pralines. Each trial started with a fixation

Fig. 1: Design of the fMRI Experiment



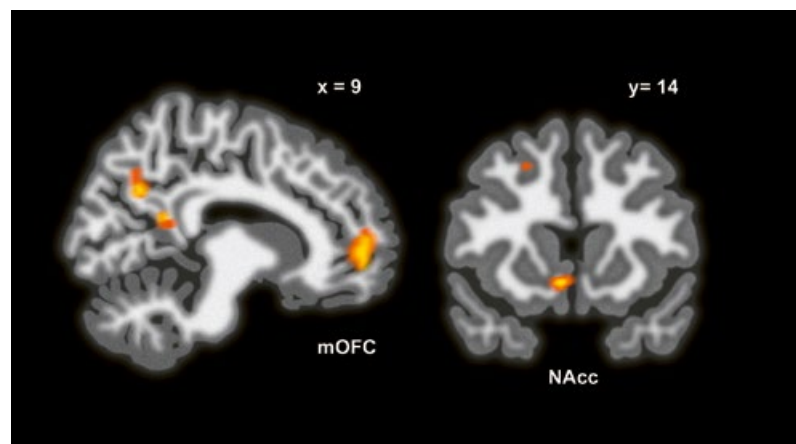
Source: Strelow, Heitmann, & Kühn, 2020.



cross presented for a jittered duration of 3–5 s; then, depending on the within-subject manipulation, a picture of a chocolate bar or a praline was shown for 1 s. This fixation and picture presentation were repeated four times with different pictures from the same category (chocolate bar or praline). The fifth picture shown was the chocolate bar duplo. In all, each trial had an average length of 25 s. The paradigm consisted of 20 trials (see figure 1). From the participant point of view, the entire paradigm consisted of a continuous stream of pictures depicting sweets. The participants were instructed to view all picture presentations passively. To compare this manipulation with an explicit persuasion attempt, another set of trials was performed with the same subjects. This trial had the same setup except that an instruction screen was presented for 2 s with the German word for chocolate bar (Schokoriegel) or praline (Praline) before the duplo chocolate bar was shown. Participants were instructed to consider duplo as belonging to the chocolate or praline category displayed on screen. Each trial had an average length of 15 s. The paradigm consisted of 32 trials. The sequence of stimuli was randomized.

Brain images were collected on a 1.5 T Avanto MRI scanner system (Sie-

Fig. 2: Differences in the Reward- and Pleasure-related Brain Regions mOFC and NAcc as a Function of Product Category Priming



Source: Strelow, Heitmann, & Kühn, 2020.

mens 156 Medical Systems, Erlangen, Germany) using a 20-channel head coil. Data was analyzed using SPM8 software (Wellcome Department of Cognitive Neurology, London, UK). We extracted percent signal change values in anatomically pre-defined regions of interest, namely in the bilateral nucleus accumbens (NAcc) (Harvard-Oxford subcortical atlas) and the bilateral medial orbitofrontal cortex (mOFC) (AAL atlas: frontal middle

orbital and gyrus rectus), for which we had a-priori hypotheses. To analyze the resulting data, we extracted blood-oxygen-level dependent (BOLD) signals from the bilateral NAcc and mOFC. We determined BOLD signals during “duplo” presentations where participants were instructed to view the product as a praline as compared with a chocolate bar and found no significant differences, neither in the NAcc ($t(17) = 0.503$, $p = 0.622$), nor in the

mOFC ($t(17) = 0.627, p = 0.539$). However, in the image product category prime condition it made a significant difference whether the product was presented in the context of pralines or other chocolate bars. In the NAcc and mOFC the signal was significantly higher in the praline context (NAcc: $t(17) = 2.719, p < .05$; mOFC: $t(17) = 2.216, p < .05$). To test whether the image display interacted with the written text instruction, we computed interaction effects in a repeated-measures ANOVA and found a significant interaction for the NAcc ($F(1,17) = 5.531, p < .05$). At the same time, we observed a main effect of context with the praline eliciting higher BOLD responses ($F(1,17) = 6.762, p = 0.019$). In the mOFC, this interaction effect was not significant ($F(1,17) = 2.048, p = 0.171$) but exhibited a similar pattern. Figure 2 displays the clusters of differential activation for the two regions mOFC and left NAcc.

Discussion

The case of chocolate products illustrates that product category priming is a potentially important topic to consider in shopper marketing. Shelf placement is not only about exposed positions (e.g., eye-level shelf positions, dedica-



ted displays) but also about the context of surrounding products. Every product encounter activates product category associations of consumers and impacts subsequent buying behavior. We observed that high value categories can prime value expectations that transfer to a target product. This resulted in increased sales in the field, increased WTP and purchase likelihood in a controlled online experiment, and increased reward-related brain activation. The effects we observed were large (13–15% increase in WTP, 21.5% increase in demand) and highly persistent across products and types of research.

These findings have implications for all small to large companies interested in optimal product display at the

point of sale. We investigated purely hedonic chocolate products, since hedonic elements play an important role across the FMCG industry (Gilbride, Inman, & Stilley, 2015). We therefore expect similar effects for many other supermarket items with hedonic or taste-based value propositions. In addition, many durables (e.g., home entertainment, furniture), services (e.g., hotels, recreational activities) or media products (e.g., music, movies) are characterized by hedonic elements. In online shopping, products can also be featured in close proximity to other related high- or low-value products. For example, the same flatscreen TV promoted in the context of low-quality stereo equipment is likely to be perceived very differently from a promotion in the context of high-end audio devices. Since memory contains both emotional experiences and cognitive deliberations, there is no theoretical reason why the effects we observed would not translate to less hedonic and more utilitarian items (e.g., cleaning products, home appliances).


Marketers interested in leveraging product category priming must keep in mind that the effects are nuanced. For example, the results of the online experiment suggest visual similarity amplifies the effect of category priming.

Lessons Learned

1. The optimal retail location depends on the surrounding product category context.
2. Among other things, value perceptions of the surrounding products are transferred when consumers evaluate products sequentially. This results in strong and systematic effects on demand.
3. Optimal retail requires thorough empirical assessments. Cost-efficient means include simulated choices in online surveys. Field experiments and functional magnetic resonance imaging (fMRI) provide additional insights.

Also, priming must not appear as a persuasion attempt. Thus, the effects vanished when we used explicit words. In practical applications, simply hanging a sign “pralines” over a duplo placement is less promising than positioning duplo next to praline assortments. Since many other factors may play a role, we recommend empirical investigations. Valid inferences can be drawn even without the costly in-store

field experiments or fMRI studies we conducted. When resources are scarce, simple experimentation in online surveys has proven an effective means to better understand category priming for the product of interest. For products sold online, A/B tests in online shopping environments are readily available. Insights from survey research will provide valuable guidance for constructing promising tests. For products

such as chocolate where traditional retail channels play an important role, simulated online decisions as we have employed provide both efficient and effective means for a thorough understanding of category priming. Considering the size of the effects and the efficient means of research available, there are few reasons not to investigate the topic more closely when choosing retail placements. 

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Thema der nächsten Ausgabe: Purpose-Driven Marketing

Das vorherrschende Bild zum Zweck von Marketing begrenzt sich häufig auf „Verkaufsmaximierung“ und „Werbung“. Forscher und Praktiker aus diesem Bereich wissen, dass diese Schlagworte nicht umfassend sind. Jedoch ist die Grundprämisse, dass Marketing, zumindest in gewinnorientierten Unternehmen, verkaufsfördernd wirken muss. Gleichzeitig steigern viele Unternehmen die Effizienz ihrer Marketingaktivitäten, indem sie ihr Zielfportfolio ausweiten: Investitionen in soziale/ökologische Projekte, aber auch selbstreflektierte Transformationsprozesse im eigenen Haus wirken. Ein erfolgreiches Beispiel

ist die Kooperation Adidas & „Parley“-Initiative. Marken müssen heute mehr repräsentieren als ihr Kernprodukt: Das Auftreten muss konsistent in die übergeordnete Mission eingebettet sein, dem „Purpose“. Es ist eine Herausforderung, soziale/nachhaltige Motivationen authentisch zu kommunizieren und für innovative Produkte Märkte zu finden. Daher werden in den Beiträgen dieser Ausgabe Marketingstrategien & Marktpotenziale für nachhaltige Produkte diskutiert sowie Incentivierung und Markenpositionierung unter dem Aspekt des Purpose-Driven Marketing neu betrachtet.

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