

MARKET DECISIONS 2018/2019 ANNUAL REPORT

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Nürnberg Institut für Marktentscheidungen e.V. Founder and Anchor Shareholder of GfK SE



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STATEMENT

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A YEAR OF CHANGES

Dear Readers,

Comprehensive changes and far-reaching decisions have determined our activities over the last 12 months. Not only have we presented our revised strategy to our members and the public, there are also two new faces, consisting of myself as President and Dr. Andreas Neus as Managing Director, responsible for leading the institute. And last but not least: With the sale and allocation of the GfK brand rights to the commercially oriented GfK SE, we now clearly present ourselves to the public as a non-commercial institute with a new look and a new name – Nuremberg Institute for Market Decisions (NIM).

Building on our strategic research purpose with a focus on market decisions, we have given ourselves a distinct identity and a clear mandate. At the same time, by adding the subline "Founder and Anchor Shareholder of GfK SE" we emphasize our role and responsibility as shareholder. Specifically, it communicates our history and close bond with GfK SE.

The new strategy and name, however, do not in any way represent a break with our past. On the contrary, we see both as a logical development: With our focus on market decisions, we are taking an even closer look at the behavior and decisions of market participants. They include consumers/users on the one hand and manufacturers/suppliers on the other, as well as the resulting actions and reactions that together define the dynamics of the markets. For us, better, faster and more accurate market decisions represent the pivotal added value of market research, which is not affected by digitalization but rather become more essential.

Our future research will therefore explore how market decisions of market participants are changing because of the digital transformation. We want to look at how trends or technologies determine speed of response and reaction in markets, or how relations and the interdependencies of market participants change. Specifically, our focus is to understand market decisions as what they truly are: Detection and evaluations of alternatives. We also want to use these findings to help improve the quality of market decisions.

We aspire to be experts and a most competent partner for everything concerning market decisions. We want to work together with other experts from academia and industry as well as innovators and start-ups, and we want to make our results available to members, interested parties and the public domain of the professional community.

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"Building on our strategic research direction with a focus arket decisions, we have given ourselves a distinct identity and a clear mandate."

> MANFRED SCHESKE PRESIDENT NUREMBERG INSTITUTE FOR MARKET DECISIONS

Disruptive changes, which many industries and companies are confronted with, have – as we know – also affected the market research sector. In our role as anchor shareholder of GfK SE, we are therefore also committed to contributing towards the sustainable transformation of the company. We support the many and sometimes painful decisions made by GfK SE in order to focus on competitive, market- leading areas. Leaner structures, standardized processes and the sale of business segments have made the company much more efficient. The challenge now is to continue to boost the innovative power of GfK SE.

This reorganization has been extremely challenging for the company, employees and shareholders – and will continue to be so over the next years. As anchor shareholder, we still have the important responsibility of helping to make, support and engage in forward-looking decisions.

Amid the significantly reduced financial flexibility, our institute has its hands full: Research and practice, networking with experts, working with members and expert target groups as well as fulfilling our role as majority shareholder of GfK SE. No question about it – all this is only possible thanks to the excellent team at NIM and the high level of commitment in our committees. I therefore want to especially thank the employees at NIM as well as all the members of the Executive Board, the Members' Council and our members, who rightfully challenged us last year while also giving their sincere, wholehearted support. I look forward to the times ahead, the new research projects and their results and, of course, to the successful cooperation and exciting dialogue with everyone connected to NIM.

. Schur Sincerely,

MANFRED SCHESKE

BUILDING ON OUR STRENGTH AS AN INTERDISCIPLINARY INSTITUTE

DR. ANDREAS NEUS HAS BEEN MANAGING DIRECTOR OF THE NUREMBERG INSTITUTE FOR MARKET DECISIONS – FOUNDER AND ANCHOR SHAREHOLDER OF GFK SE - SINCE OCTOBER 1, 2018. IN THIS INTERVIEW, HE TALKS ABOUT THE STRATEGY AND GIVES AN OUTLOOK OF FURTHER RESEARCH.



ANDREAS NEUS MANAGING DIRECTOR NUREMBERG INSTITUTE FOR MARKET DECISIONS

The Nuremberg Institute for Market Decisions (NIM) has put a clear focus on "market decisions." What is so exciting about this topic?

The decisions that market participants make in their own self-interest are the driving force of the market economy. Ever since its beginnings around a century ago, the aim of market research has been to understand the needs and decisions of consumers as well as the factors that influence these decisions. This is how market research helps companies offer the right products with the right added value to the right consumers at the right price. However, the way in which consumers and companies make decisions has changed dramatically – not least because of the greater transparency in markets, the large number of ratings, information in nearly real time and endless new data sources that have to be assessed for quality and relevance.

What has changed as a result of this focus?

Our focus is clearly on market decisions. This means that general market or trend studies not directly related to the decisions of consumers or companies will no longer be the focal point of our activities. There are other sources for this. In addition, we want to invite our members to engage in a direct exchange with our research team. Such an exchange between science and practice is important in order to understand how the decisions of consumers and marketing managers change based on technological, societal and economic trends – and what this means for markets.

How will future research at NIM be with regard to "interdisciplinarity"?

Our researchers are organized into three research groups: Behavioral Science, Data Science and Future & Trends. What's new is that all of our researchers are part of two of these groups. All of our new research projects are supported by two of the research groups, which allows us to apply the interdisciplinarity that has always distinguished our institute in every single research project.

For example, the question of how the interaction with voice assistants changes purchasing behavior can only be answered using expertise from the disciplines of data science and behavioral science – specifically, the interaction, speech synthesis and measurement of different variables in combination with studies in our behavioral labs. Or the question of how to better support decisions using dashboards and better avoid typical decision errors can only be addressed with comprehensive knowledge in behavioral science as well as data science. Similarly, the automatic analysis and clustering of trend reports, i.e., detecting trends that can change decision-making behavior, is only possible by combining future and trends research with data science. These three examples of concrete research projects show how we work across traditional disciplinary boundaries.

At the General Assembly, you spoke about "open innovation" and "open research." What does this mean for NIM's research activities?

Over the past two decades, it has been shown that in most fields open innovation methods are superior to the traditional approach of "secret research laboratories." On the one hand, we are expanding our network to include partners who bring unique perspectives to the topic of market decisions. At the same time, we are also focusing on open innovation in research. Otherwise, it would be impossible to keep up with the fast pace at which algorithms, data, sensors, tools and knowledge are evolving. We therefore use open source in all three research groups: In the area of Data Science with algorithms, frameworks and neural networks, in Behavioral Science with the experimental platform (oTree) and sensors and in the area of Future & Trends with the analysis of signals and trends that point to changes in market decisions. We also carry out research in shorter cycles - a maximum of 90 days until the next milestone result - in order to take into account the very rapid development in the area of market decisions.

What does the new positioning mean for NIM members?

The way in which decisions are made (i.e., consumers' decision-making behavior) is changing in the digital transformation – and this has far-reaching effects on the entire value chain. Whether manufacturers, retailers, service providers or consumers – the digital transformation and greater availability of information as well as competing platforms and technical standards are changing how decisions are made in markets. We want to invite our members to join us in this research as well as to support and challenge us by asking critical questions.

The Nuremberg Institute for Market Decisions is the majority shareholder of GfK SE. Have the new focus and the new name changed anything?

We are now also more clearly positioning the focus of our research on the market decisions of consumers and companies. However, that is and always has been the real core and added value of market research. No one seeks for data just for the sake of data – it's always about making better decisions. Even though we are now positioning ourselves more independently with a new name – in order to make the necessary clear distinction between a commercial company and non-commercial research institute – we are much more involved as a shareholder today than just a few years ago. As a founder and responsible anchor shareholder, it is of course NIM's aim to be a sparring partner for GfK SE in a constructive and sustainable manner. We also engage in professional exchange with research and future topics.

"Lessons learned" in the first nine months as managing director?

First of all, it is a great privilege to be part of the development of such an exciting research institute, which is supported by its members and committees and is one of a kind in the world. The history and objective methodological research approach and especially the excellent colleagues make the Nuremberg Institute for Market Decisions a very special place. I would like to thank my predecessor Raimund Wildner in particular for the support, especially during the transitional period. He has certainly shaped the GfK Verein and Nuremberg Institute for Market Decisions like no other and built a wonderful team. As for the future, I am really looking forward to the cooperation and exchange with 6

"How "free" can a decision really be if the information is not objective or the mental model does not match the reality".

> ANDREAS NEUS MANAGING DIRECTOR NUREMBERG INSTITUTE FOR MARKET DECISIONS

Research topics at the interface of science and practice

Decision support systems and new information sources

The number of "decision-making tools" is growing. Marketing managers now have access to many decision-making tools through dashboards with market data, interactive data analyses and their own data sources. However, consumers today also have highly developed "decision support systems" at their disposal: Besides "official" decision support helpers like traffic light systems on products, "unofficial" helpers such as price comparisons, user ratings and comments in social media are only a click away. Since the interests of consumers are different from those of manufacturers to some extent (e.g., when it comes to price), one could call this a technological "arms race." However, it is not clear whether these decision helpers are objective and really lead to better decisions or only a false sense of security.

Rational vs. non-rational factors in decision-making

We like to see ourselves as rational beings, however, decision research shows that non-rational factors predominate in many decisions and are only "rationalized" post hoc, if necessary. This is also true for companies: Marketing, product and innovation managers also make decisions that are based on their personal strengths and weaknesses. Good market research therefore not only provides data but also supports decision makers in drawing the right conclusions from it. In a study we investigate what actually happens when voice assistants like Alexa have a say about certain purchases and also get to decide what gets on the shortlist?

Voice assistants as shopping helpers

New product launch decisions under uncertainty

The introduction of new products is always accompanied by uncertainty. For companies, there is the risk of assessing demand and finding the right price. Consumers, especially the "early adopters," are concerned about making a bad choice if the product fails to deliver what it has promised.

Decision quality and decision errors

Theoretically, high data quality should lead to high decision quality. But the reality is different. Many poor – and sometimes very expensive – decisions are still being made. Good data is essential but that is only one factor in making a good decision. Having the right mental model of the market and customers, assessing the added value of one's own product correctly and the discipline to make a necessary decision quickly are just as important. Many companies have begun to measure the quality and error rate in their production and logistics processes. At the same time, they are also giving thought to the quality of their decisions and decision-making. the members on new research topics. We want to invite interested members to become "contributors" and "co-researchers."

What do you personally find fascinating about market decisions?

Human decision making and the question of how free from influence it is has always been somewhat of mystery. Especially the attempt to influence decisions in markets raises the question of how objective or rational we actually are when making decisions ... and who controls these decisions through targeted (mis)information. How "free" can a decision really be if the information is not objective or the mental model does not match reality. We find ourselves at a very interesting as well as thought-provoking time, which some are already calling "post-factual." I wouldn't go that far. However, the handling of information and the ability to assess its quality and credibility as well as its source will undoubtedly become more important. Three Questions

1.

Head or gut?

Both! And often, the head tries to justify a gut decision.

2.

Online oder offline?

Preferably offline. I like to browse around and let myself be inspired.

3.

Cash oder card?

More and more card, even for small amounts.

"No one looks for data just for the sake of data – It's always about better decisions."

> ANDREAS NEUS MANAGING DIRECTOR NUREMBERG INSTITUTE FOR MARKET DECISIONS

NUREMBERG INSTITUTE FOR MARKET DECISIONS – FOUNDER AND ANCHOR SHAREHOLDER OF GFK SE

NEW NAME AND POSITIONING: THE GFK VEREIN BECOMES THE NUREMBERG INSTITUTE FOR MARKET DECISIONS (NIM)

The past 12 months have been very important and exciting for us: At an extraordinary meeting of the General Assembly, held in Nuremberg at the beginning of December 2018, it was agreed by a large majority that the GfK Verein would be named the Nuremberg Institute for Market Decisions. At the same time, it was also decided to add the subline "Founder and Anchor Shareholder of GfK SE" in order to emphasize our tradition and close relationship with GfK SE.

RESEARCH STRATEGY WITH A NEW FOCUS

With regard to global digitalization – also in the area of market research – greater emphasis is being placed on research in the area of "market decisions." Understanding the purchasing decisions of consumers and improving the marketing decisions of companies are the core added value of market research, which will not become less relevant as a result of technological developments.

COMMITTED INVESTOR

Despite the many changes – the identity of the Nuremberg Institute for Market Decisions remains unchanged, with a strong commitment to GfK SE as majority shareholder and – where it is of mutual interest – as research partner.

NEW CONCEPT FOR MEMBERS, INTERESTED PARTIES AND SPONSORS

In the future, being a member of the Nuremberg Institute for Market Decisions will mean being a part of a community in the sense of a sustainable network through which knowledge is shared and membership is redefined together. At the center of this is the dialogue on our research topic of "market decisions."

NEW LOOK

As part of the new positioning and name change, the Nuremberg Institute for Market Decisions also received a new corporate identity and logo in 2019: As a word and design mark with innovative symbols and modern characters in red, the logo communicates the topic of "market decisions" – both textually and symbolically – and supports NIM's identity as a non-commercial and interdisciplinary research institute.

& PRACTISE

RES

"What is interesting is that people have the tendency to rationalize their decisions after the fact, even though they were done unconsciously."

SCIENCE-BITE

THE FOCUS OF OUR RESEARCH: UNDERSTANDING MARKET DECISIONS BETTER

THE RESEARCH GROUPS OF THE NUREMBERG INSTITUTE FOR MARKET DECISIONS (NIM) INVESTIGATE RESEARCH QUESTIONS FROM THREE DISCIPLINARY PERSPECTIVES: BEHAVIORAL SCIENCE, DATA SCIENCE AND FUTURE & TRENDS.

BEHAVIORAL SCIENCE RESEARCH GROUP

Markets consist of numerous individual decision makers and are shaped by their behavior. The goal of the Behavioral Science Research Group is to develop a better understanding of the behavior and decisions of market participants both from the consumer perspective as well as in companies. Of course, we also aim to investigate how people actually behave under realistic conditions and make decisions with limited time and cognitive resources. We are interested in potential decision biases and decision deficiencies as well as in the adaptability of the human mind and the intelligent use of available information.

In our research, we use a variety of methods such as surveys, laboratory, online and field experiments, observation methods (e.g., facial expression and voice analysis), and analysis of existing data, sometimes even to the point of developing prototypes.

DATA SCIENCE RESEARCH GROUP

A data revolution is changing our world: Analyses, decisions and actions have to happen faster and often also more cost effectively. Markets and market participants – customers, retailers, platforms and providers of goods and services – all have new needs and new possibilities for how to behave and make their decisions. Products can be developed or released in nearly real time or created in collaboration with customers. This requires the use of new data analysis and interpretation methods.

The Data Science Research Group is working on these methods. Data science encompasses data generation, knowing where to find data, data quality evaluation, data collection and visualization by means of modeling, and the prediction and assessment of relevance and significance. The combination of artificial intelligence technologies with big data sets allows new data sources to be harnessed in order to better understand needs, preferences and decisions.



FUTURE & TRENDS RESEARCH GROUP

The Future & Trends Research Group investigates technological, economic and societal trends, which can lead to (disruptive) changes in the decision-making of consumers or companies in markets. For this, we specifically look for initial signs that signal trends, but also for tipping points, at which changes in costs or performance reach a threshold value that produces an extreme qualitative or systemic change. In order to gain a deeper understanding of developments, we use a variety of approaches in an interdisciplinary team, such as those from futures research, data science, social sciences and innovation research. Our goal is to help companies and consumers adapt better to current challenges and future changes and improve their decisionmaking processes.

THE NIM WORKING PAPER SERIES

Our working papers reflect current research projects and are published in order to support the rapid evolution of knowledge about market decisions and promote the discussion between science and practice. The working paper series includes findings from our own researchers as well as cooperation partners.

COLLABORATION

In order to cover a broad spectrum of topics with the necessary research depth, our projects frequently collaborate with renowned academic institutes and think tanks. The aim is to gain relevant and useful insights into decisions and decision-making behavior.

RESEARCH PROJECTS

TREND RADAR FOR RELEVANT FUTURE ISSUES INFLUENCING MARKET DECISIONS

Recognizing and assessing trends early is a key factor in asking/identifying the right research questions and understanding changes in markets. Although there are now many published trend reports, the effort required to read and analyze them all would be prohibitively high. New insights and algorithms in the area of machine learning and text mining will enable us to extract trends from over 100 selected trend reports. We want to use the findings to develop our own trend radar for tracking developments in technology and society that can change market decisions.

IMPACT OF VOICE USER INTERFACES ON THE PURCHASING DECISIONS OF CONSUMERS

The growing use of voice user interfaces will impact the decision-making behavior of consumers in several ways, such as having less control in creating a shopping shortlist. Even the communication and search for information before making a purchasing decision will change. In this project, we are therefore first looking at how peripheral information in the voice of voice user interfaces can influence the reactions and decisions of consumers (and also of managers in the future). In other words, we are investigating whether a neutral voice would be more likely to lead to a rational decision and a positive voice to an emotional decision.

CONFUSION IN DECISION-MAKING: AUTOMATIC RECOGNITION USING FACIAL EXPRESSION ANALYSIS SOFTWARE

Most of us struggle with making decisions because it is always about an "either/or" or "right or wrong" choice and sometimes even about something final. That is why people try to gather as much reliable information as possible for their decision-making. Complex information can cause cognitive overload, which can lead to detrimental effects such as decision paralysis or serious errors in judgment. In some cases, however, confusion can also have positive consequences for decisions because it increases attention and cognitive effort. A visible sign of confusion is drawing the eyebrows together - we are able to detect this automatically by means of our facial expression analysis software. We have recently started to empirically investigate how valid this sign is for the detection of confusion. In the next step, we will try to find out the effect that confusion has on the performance and quality of decisions and how confusion detection can be used to support decision-making.

QUANTUM PROBABILITY AND DECISIONS: PREDICTIVE QUALITY FOR THE PREDICTION OF "NON-RATIONAL" DECISION-MAKING BEHAVIOR

"Quantum probability" involves mathematical models that were actually developed for quantum physics. These models have been developed further in recent years in order to model "irrational" behavior in decisions better than traditional decision theory approaches have been able to do. As part of our evaluation research, quantum probability will be tested based on a benchmark data set for predicting decisions.

The Focus of Our Research / 2018/2019 ANNUAL REPORT 13

"It is our choices that show what we truly are, far more than our abilities."

JOANNE K. ROWLING

CAUSALITY IN DATA AND MENTAL MODELS OF DECISION MAKERS

The question of whether a correlation identified in data is also based on a causal interaction – and, if so, in which direction – is a well-known problem in the interpretation of market data and finding suitable activities for market cultivation. We use empirical causal modeling in our research in order to show such causal relationships in data. This is done through machine learning techniques to learn relational patterns in data sets in which the causal relationship is known. We then use these patterns to determine the type and direction of causality in new data sets of interest and thus identify actual cause-effect relationships in market data.

DIGITAL FUTURE WORKSHOPS

The workshop and interview series Digital Future Workshops was launched in 2016. The participants are external experts from important digital areas of knowledge such as machine learning, data visualization, cybersecurity, marketing, start-ups and the digital platform economy. For the Digital Future Workshops, these experts gather signals and trends, which could impact decision-making, help to recognize developments at an early stage and interpret them correctly in order to develop alternative future scenarios and identify strategic challenges. Together with other participants, especially those from the market insights sector, we discuss these potential trends, changes and challenges for decision-making in markets and companies and develop approaches for strategic options for action. The results from the Digital Future Workshops provide useful information for assessing new developments in the area of market decisions as well as valuable input for NIM both in the selection of research topics and its role as shareholder. In the future, we also plan to have our members play a greater role in the results of the Digital Future Workshops.

UNDERSTANDING MARKET DECISIONS BETTER THROUGH EXPERIMENTS

IN THREE COMPUTER-AIDED EXPERIMENTAL LABS ("MARKET DECISION LABS"), THE NUREMBERG INSTITUTE FOR MARKET DECISIONS (NIM) WORKS WITH PARTNERS FROM RESEARCH AND PRACTICE TO INVESTIGATE HOW PEOPLE MAKE DECISIONS IN ECONOMIC CONTEXTS AND COME TO MARKET DECISIONS. THE LABS FORM THE DECISION LAB NETWORK. THIS NETWORK ENABLES INTERACTION BETWEEN SUBJECTS AT DIFFERENT LOCATIONS IN ORDER TO GET A BETTER INTERCULTURAL UNDERSTANDING OF THE BEHAVIOR AND DECISIONS OF MARKET PARTICIPANTS.

General conditions, social norms and emotions are all things that influence our decisions – sometimes more than we are aware. In order to better understand the decision-making behavior of people, it is therefore necessary to observe real decisions. The market decision labs of the Nuremberg Institute for Market Decisions provide this opportunity.



CONTROLLED EXPERIMENTS

Empirical economic research traditionally investigates the behavior of market decision makers using existing or specially collected survey data. The disadvantage of this data, however, is that there is often a discrepancy between expressed and actual behavior. In contrast, experimental economic research directly observes the behavior of test persons in controlled decision-making situations in order to better investigate causal relationships.

In addition, experimental software allows interaction between the participants. This laboratory setup therefore lends itself to behavioral and decision experiments with strategic interaction, for example, between consumers and suppliers.

INTERCULTURAL RESEARCH

While the lab in Nuremberg can be used as a mobile unit, the two other market decision labs of the Nuremberg Institute for Market Decisions were set up at renowned universities abroad. The decision lab at the University of Pretoria in South Africa as well as the lab at the Business School of the Central University of Finance and Economics in Beijing, China, are both part of the NIM Decision Lab Network. This global networking also allows cultural aspects in decisions and decision-making processes to be explored. For example, the role of trust when making economic decisions in an intercultural context was investigated in cooperation with the University of Pretoria and the Karlsruhe Institute of Technology (KIT).

AVERAGE POINTS RETURNED

RECIPROCITY

(RELATIVE TO AMOUNT RECEIVED):



AVERAGE POINTS SENT:

TRUST

Fig.: Participants from both countries were randomly divided into senders and recipients. Senders could send between 0 and 80 points (later converted into euros) to the recipients. The points were tripled at the transfer and the recipients could send back between 0 and this amount. Left: Average number of points sent. Neither German nor South African senders differentiated significantly between the nationality of the recipients. Right: Average number of points returned relative to number of points received. Germans send significantly more to Germans than to South Africans. South Africans do not differentiate between nationality.

One of the current key research topics of the Decision Lab Network is how the affective state of a person -e.g., the degree of emotional excitement, measured by heart rate influences the decision-making process and the decision itself. Another question is whether there is a connection between confusion or cognitive overload - captured through facial expressions - and attention or cognitive performance in later decisions.

The experimental setup also allows the systems for measuring confusion or emotional excitement to be used for providing feedback or decision-making support. This is because concrete feedback on one's own state during the decision-making process can be used to regulate emotions in some circumstances or clear up confusion and therefore to also make better market decisions.

In order to expand the possibilities, work is currently being done to integrate biometric sensors, e.g., to measure heart rate, skin conductance or brain waves, in the labs. This allows emotional/affective decision influencing factors to be investigated even more precisely.

"The unique combination of controlled experiments with a global network of decision-making labs creates the perfect basis: for intercultural decision research. By establishing the labs at top universities and business schools, the decision-making behavior of both consumers and managers can be examined."

> DR. MATTHIAS UNFRIED SENIOR RESEARCHER/ RESEARCH PROGRAM MANAGER DECISION LABS

2018/2019 STUDY RESULTS

NUREMBERG INSTITUTE FOR MARKET DECISIONS (NIM) CONDUCTS RESEARCH AT THE INTERFACE OF SCIENCE AND PRACTICE. OUR STUDIES CONTRIBUTE TO A BETTER UNDERSTANDING OF THE DECISIONS OF CONSUMERS AND MARKETING MANAGERS. A SELECTION NIM STUDIES CAN BE FOUND HERE.

PURPOSE BEYOND PROFIT - VOICES OF THE LEADERS OF TOMORROW 2019 A STUDY IN COOPERATION WITH THE ST. GALLEN SYMPOSIUM

The study gives a voice to a group of around 1,000 top talents: the "Leaders of Tomorrow" from the St. Gallen Symposium network. For these young top talents, the question concerning the purpose of a company beyond profit is a key aspect of their professional identity. In their view, nonfinancial factors also play a role in business decisions. Over 50 percent of the young top talents – whether entrepreneurs or employees in a company – say that nonfinancial factors are important in their company for strategic decision-making – but the necessary tools and methods are still lacking or only now being developed. They also see a discrepancy between start-ups and established companies. From their perspective, the latter are too preoccupied with financial considerations in their decision-making.

The full results can be found here:



USE OF VOICE ASSISTANTS

The study "How smart are Smart Speakers really?" is part of our research topic "Adaptation of new technologies with an impact on (purchasing) decisions." The aim of the study is to understand the effect that living with Alexa and similar products (i.e., smart speakers with voice assistants) has on households. Where are there disappointments and room for improvement lurking for users? How thrilled are owners with their smart speakers? What do they consider to be the effects and future of voice assistants - with a strong focus on the relationship to purchasing? In May 2019, 1,000 owners and users of smart speakers were surveyed in Germany. Although 59 percent of these users have the impression that their voice assistants are not (yet) mature, 81 percent generally see a big future for them and 64 percent think it is likely to certain that shopping via voice assistants will be completely normal five years from now. The results of the study will be available at the end of the third quarter of 2019.

THE RELENTLESS MARCH OF DIGITALIZATION

Using digital measurement – the so-called social media listening – the study "The relentless march of digitalization" provides an update to the question of what are (potential) customers interested in within the context of digitalization and technical consumer goods. The study looks at what is picked up and actively discussed on social media. The results of the study show that about half of the discus-

SCIENCE-BITE BY HENNING BECK NEUROSCIENTIST

sions of the last three years revolved around five topics: digitalization, robotics, bitcoin, blockchain and AI (artificial intelligence).

CHALLENGES OF NATIONS 2018

The Challenges of Nations is an international study. In 2018, it covered nine European countries including Germany, three South American countries, five representing Asia and the Pacific and two from Africa. The study surveyed citizens of these countries about the most pressing challenges they believe need to be solved in their countries. In Germany, the issue of "immigration and integration" still occupied the top spot in the 2018 study, but with a downward trend.

The full results can be found here:



THE END OF FAST FASHION

Fashionable clothing, new styles multiple times per season and if possible always at cheap prices – that is "fast fashion." Young fashion suppliers and discounters have encouraged a throwaway mentality in consumers. Fast replacement at the lowest price – that's the motto. However, a rethink has been underway since 2013. Consumers are increasingly focusing on quality – slowly but surely.



MEMBERSHIP AND PARTICIPATION

Membership in the Nuremberg Institute for Market Decisions above all stands for dialogue related to our research in the area of "market decisions." Our aim is to exchange knowledge with our members and – wherever possible and appropriate - to do research together on a project basis. As a community, this means having sustainable networks, through which knowledge is shared and membership is redefined collaboratively. Therefore, as an association we will also create a differentiated offering for interested parties, members and sponsors.

As a member, you will also have access to our studies, research results, regional and thematic workshops, "NIM Marketing Intelligence Review" marketing journal and annual NIM Market Decisions Day conference. The particular focus of the conference is on questions for marketing and market research related to "market decisions."

Do you deal with the topic of "market decisions," want to take part in the professional dialogue and think you would like to become a member?

Then, we look forward to welcoming you!

Further information on membership can be found on our homepage:



F BEZOS

"The great thing about fact-based decisions is that they overrule

the hierarchy."

PLAYGROUND FOR CREATIVITY: THIS IS THE FUTURE OF RETAIL

TAKE ON THE NEW ERA IN RETAIL WITH POSITIVE VIBES! ADMITTEDLY, THIS CALLING STATEMENT FROM THE EDITORIAL OF THE CURRENT ISSUE OF THE NIM MARKETING INTELLIGENCE REVIEW MAY SOUND AMBITIOUS IN VIEW OF AMAZON, SHOPPING APPS AND DECREASING CUSTOMER LOYALTY. HOWEVER, THOSE WHO MAKE IT A POINT OF READING THE ISSUE ON "THE FUTURE OF RETAILING" SEE THE MANY OPPORTUNITIES THAT CAN COME FROM BIG DATA, CO-CREATION AND DIGITALIZED LOYALTY PROGRAMS.

Retail is evolving into a dynamic arena with dying but also newly emerging business models with powerful newcomers as well as many opportunities for new value chains. Only those retailers who are also able to translate their core services – assuring logistics, building assortments, providing information and the exchange of goods and money – into meaningful and positive shopping experiences – will survive. That is what Dr. Werner Reinartz, Professor for Marketing at the University of Cologne and Editor of "The Future of Retailing" writes in his opening article.

In this issue spanning 64 pages, 13 renowned marketing researchers from German, European and U.S. universities and research institutions explain how these meaningful and positive shopping experiences can be developed. The

insights range from the opportunities of co-created shopping experiences and the possibilities of customer loyalty programs in the digital age to smart retailing solutions with big data and the use of artificial intelligence (AI).

Additional insights for better market decisions in retail are provided in an interesting interview with the vice president of eBay Germany, an analysis of the potential applications of e-commerce in physical stores, and the article about gathering valuable customer data in traditional retail.

"Not only must you have more more ideas than others, you also need the ability to know which of them are good."

LINUS CARL PAULING

NIM MARKETING INTELLIGENCE REVIEW: MARKETING RESEARCH FOR PRACTICAL USE

The GfK Marketing Intelligence Review will be renamed "NIM Marketing Intelligence Review" starting with the 1/2019 issue. The layout was adapted to the new look of the Nuremberg Institute for Market Decisions; however, the thematic concept remains the same. Each issue combines relevant and new insights from renowned international researchers on a current topic in the field of market research. The aim of the NIM Marketing Intelligence Review is to provide managers and decision makers with relevant insights for better market decisions without having to read multiple complex scientific articles.

The Marketing Intelligence Review has been published in German and English since 2014. Previous editions are only available in English. An overview of the previous issues can be found on our homepage:



The current issue, "The Future of Retailing," can be found here:



CONTACT:

Dr. Christine Kittinger-Rosanelli Managing Editor, NIM Marketing Intelligence Review

MEET US: NIM MARKET DECISIONS DAY

AT THE NIM MARKET DECISIONS DAY ON JUNE 26, 2019, HIGH-LEVEL SPEAKERS FROM SCIENCE AND PRACTICE EXPLORED THE TOPIC OF "MARKET DECISIONS" FROM DIFFERENT PERSPECTIVES

- > How are the market decisions of consumers and companies changing in an increasingly digital world?
- > How do consumers use voice assistants to look for or buy products?
- > What assumptions can lead to poor decisions when handling markets?

THE SPEAKERS:

> Erich Harsch, CEO, dm-drogerie markt – the successful manager shared his views on digital transparency and consumer decisions.

- > Peter Brandl, former professional pilot, management consultant and author, talked about head vs. gut decisions and how to learn from mistakes.
- Denis Burghardt, CEO/Founder, KERNenergie the startup founder showed the path and decisions leading to the success of his company.
- > Markus Giesler, professor of marketing at the Schulich School of Business in Toronto and expert in high-tech consumer behavior addressed the topic of "market decisions" from the perspective of how artificial intelligence can change the behavior and decisions of consumers.

NIM LIVE

Where else can you meet us? At external conferences, lectures and expert talks. Exciting events with the Nuremberg Institute for Market Decisions (NIM) and its members can be found on our homepage

nim.org and Twitter channel @MarketDecision

MARKET DECISIONS. UNDERSTANDING, ANTICIPATING AND IMPROVING

> NIM Nuremberg Institute for Market Decisions

NIM Market Decisions Day poster

KNOWLEDGE THROUGH COLLABORATION

COLLABORATION WITH SCIENCE AND RESEARCH IS AN IMPORTANT CORNERSTONE OF OUR WORK AT THE NUREMBERG INSTITUTE FOR MARKET DECISIONS (NIM). THE INSTITUTE ADVANCES DIALOGUE AND COOPERATION WITH EXPERTS FROM SCIENCE AND PRACTICE, INNOVATORS, THINK TANKS AND START-UPS.

We engage in exchange with a number of collaborative partners in Germany and throughout the world. They include the following:

INSTITUTE FOR THE FUTURE

The Institute for the Future (IFTF) is a non-profit think tank based in Palo Alto, California, USA. It was founded in 1968 as a spin-off of the RAND Corporation in order to help companies with long-term future planning, which is also known as futures studies. Today, IFTF is the world's leading organization for future-oriented thinking. NIM has been a global partner of IFTF since 2017.

BERLIN INSTITUTE FOR POPULATION AND DEVELOPMENT

The Berlin Institute for Population and Development is an independent think tank that deals with questions related to regional and global demographic changes. The task of the institute is to raise awareness about demographic change and develop concepts for solutions to demographic and development policy issues. NIM is a patron of the Berlin Institute and has already supported a number of joint studies, most recently the 2019 study, "The demographic situation of the nation – how future-proof are Germany's regions."

KARLSRUHE INSTITUTE OF TECHNOLOGY

As a large scientific institution, the Karlsruhe Institute of Technology (KIT) occupies a top position in Europe in the international competition. In partnership with KIT, CITEC (Bielefeld) and the University of Southern Denmark, NIM investigated the use of virtual reality (VR) technologies in virtual supermarkets. These "virtual" markets would be able to combine the advantages of "24/7" online shopping with the feeling of being in a physical store. The experimental study investigated the differences in behavior between shopping in an online store and a VR environment.

In another study conducted at the KD2 lab, NIM investigated the effects that emotional excitement has on the voice and the need to communicate. Test subjects selected film trailers and rated them verbally by speaking into a microphone. Half of the people became emotionally excited. In this group, not only was it possible to detect emotional arousal in the voice, but more people also decided to share the discussed trailer with others. Emotional arousal seems to increase the need for social communication.

ST. GALLEN SYMPOSIUM

The St. Gallen Symposium is the world's leading initiative for intergenerational debates on economic, political and social developments. NIM and the St. Gallen Symposium have been cooperating since 2014 on the study "Voices of the Leaders of Tomorrow." Each year, over 1,000 top talents from more than 80 countries are surveyed on economic and social issues. The current study "Purpose beyond Profit – Voices of the Leaders of Tomorrow 2019" focuses on the necessity for companies to face the discussion about their sense of purpose.

THEORY AND PRACTICE BROUGHT TOGETHER

The GfK Chair for Marketing Intelligence at FAU Erlangen-Nuremberg was established in January 2007 by the GfK Verein. The holder of the chair is Prof. Dr. Nicole Koschate-Fischer, who has also been an ordinary member of the Bavarian Academy of Sciences and Humanities since 2017.

The key research areas of the department are price and product management, customer behavior, market analytics and the effects of the digital transformation on marketing. In addition, a "data science" module, which deals with the acquisition, preparation, description and visualization of data, is also offered as part of the master's program.



https://www.nim.org/en/research/studies/voices-leaderstomorrow/2019

CENTRAL UNIVERSITY OF FINANCE AND ECONOMICS (CUFE)

The Central University of Finance and Economics (CUFE) is a very prestigious university in Beijing. It is one of China's top universities listed under the "Double First Class" initiative and Project 211 and considered the leading innovation platform for academic programs. CUFE's high standards attract some of the best students in China. The university has collaborative relationships with 170 institutions all over the world. NIM has been cooperating with the CUFE Business School since 2014 within the scope of a summer school and internship program. The collaboration was also recently expanded in the direction of research with the establishment of a joint decision lab (see page 14).

UNIVERSITY OF PRETORIA (UP)

The University of Pretoria (UP) is one of the largest research universities in South Africa and ranks among the top 2 % worldwide. The vision of the university is to encourage students to think innovatively. NIM and the Department of Marketing Management are linked by a long-standing partnership. In addition to co-developed teaching formats, in 2018 NIM started to focus cooperation on research with the joint market decision lab, and has already carried out interactive, intercultural decision experiments between students in Germany and South Africa (see page 14).

THE NIM TEAM



DR. ANDREAS NEUS MANAGING DIRECTOR AND VICE PRESIDENT



PETRA GELSEN PERSONAL ASSISTANT

"Whenever you see a successful business, someone once made a courageous decision." PETER F. DRUCKER



CLAUDIA GASPAR HEAD OF SURVEYS



DR. CHRISTINE KITTINGER-ROSANELLI MANAGING EDITOR -NIM MARKETING INTELLIGENCE REVIEW



DR. FABIAN BUDER HEAD OF FUTURE & TRENDS RESEARCH



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DR. VLADIMIR MANEWITSCH SENIOR RESEARCHER



RENÉ SCHALLNER SENIOR RESEARCHER/ TECHNOLOGY LAB MANAGER



BIRGIT STOLTENBERG SENIOR RESEARCHER



DR. MATTHIAS UNFRIED SENIOR RESEARCHER/ RESEARCH PROGRAM MANAGER DECISION LABS



SANDRA LADES HEAD OF COMMUNICATION AND EVENTS



HELEN STREILEIN PERSONAL ASSISTANT

BALANCE SHEET AS OF DECEMBER 31, 2018

in € thousand (rounding differences possible)	12/31/2017	12/31/2018
ASSETS		
NON-CURRENT ASSETS		
Property, plant and equipment		
Land and buildings	132	130
Other equipment, business and office equipment	258	267
	390	397
-inancial assets		
nvestments	39,201	39,201
	39,590	39,598
CURRENT ASSETS		
Receivables and other assets		
Trade receivables	4	3,001
Other assets	13,787	1
	13,791	3,002
Bank balances	38	15,634
	13,829	18,637
PREPAID EXPENSES	3	1
	53,423	58,236
EQUITY AND LIABILITIES		
EQUITY		
Other retained earnings	52,005	57,588
PROVISIONS		
Other provisions	811	499
	811	499
LIABILITIES		
Bank borrowings	1	1
rade payables	539	56
Dther	68	92
	608	149
	53,423	58,236

2018 INCOME STATEMENT

in € thousand (rounding differences possible)	2017	2018
Sales	172	111
Membership dues	208	199
Other operating income	30	13,015
	409	13,325
Expenses for services procured	- 4,543	- 1,794
Personnel expenses	- 2,217	- 2,410
Amortization and depreciation on intangible assets and property, plant and equipment	-21	- 42
Other operating expenses	- 3,053	- 2,618
	- 9,834	- 6,864
Income from investments	0	0
Other interest and similar income	10	2
Interest and similar expenses	-1	- 175
Income taxes	0	0
Net income	- 9,416	6,288
Taxes	- 936	- 705
Net profit/loss	- 10,352	5,583

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NUREMBERG INSTITUTE FOR MARKET DECISIONS AND GFK SE

NUREMBERG INSTITUTE FOR MARKET DECISIONS

Founder and Anchor Shareholder of GfK SE

In addition to its research work, the Nuremberg Institute for Market Decisions focuses on its role as anchor holder of GfK SE. With its 56.46 percent stake, the Nuremberg Institute for Market Decisions is GfK SE's majority shareholder.



SHAREHOLDER STRUCTURE (as of June 2019)

Committees / 2018/2019 ANNUAL REPORT

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THE COMMITTEES OF THE NUREMBERG INSTITUTE FOR MARKET DECISIONS



Version: June 2019

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DR. HUBERTINE UNDERBERG-RUDER Advisory Board President, Underberg AG

*As of June 2019

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P U B L I S H E R

Nürnberg Institut für Marktentscheidungen e.V. Founder and Anchor Shareholder of GfK SE

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