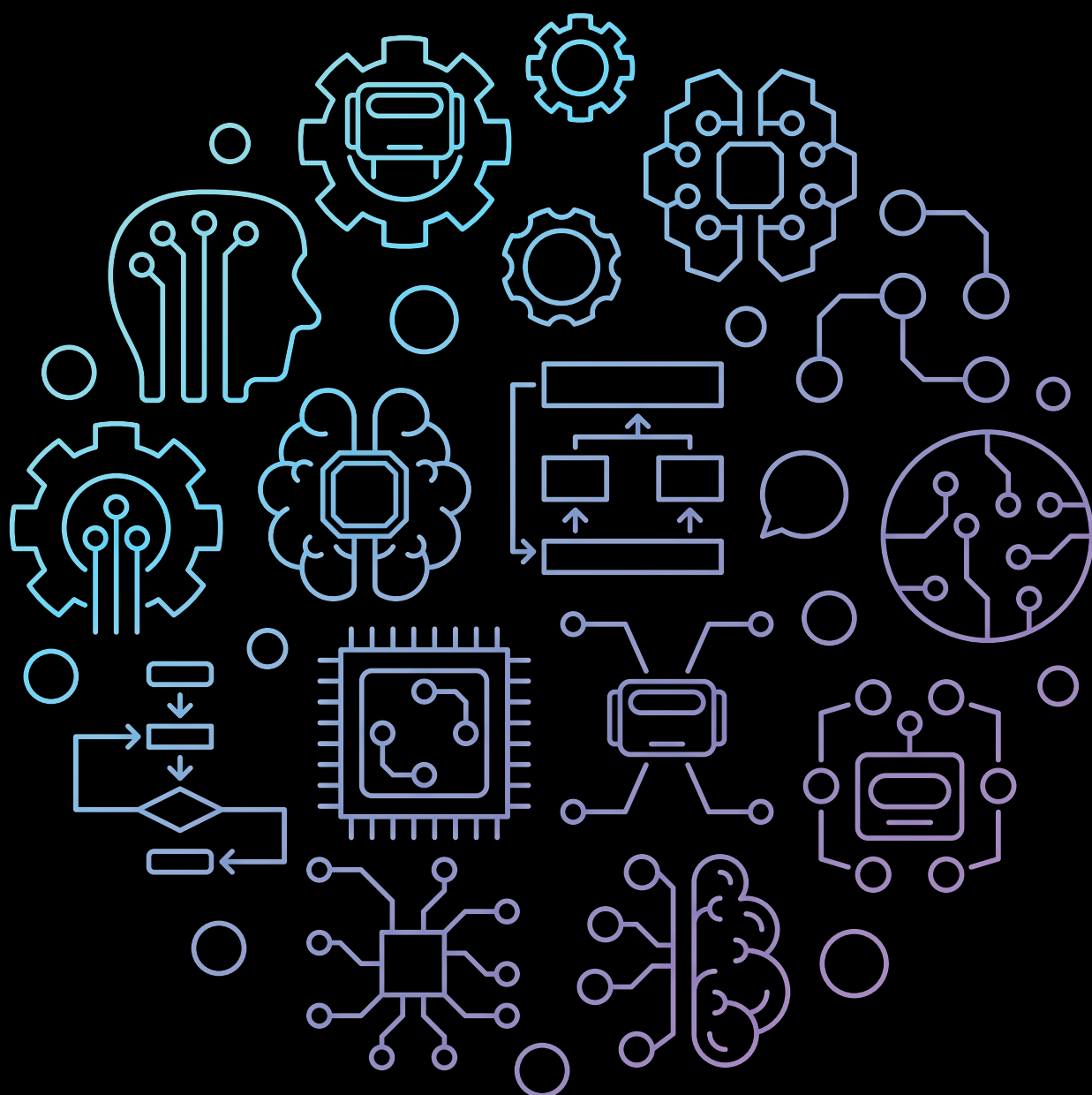




Customer-centric shopping experience through neuroscience

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Exploratory neuroscience for next generation customer research

Customer perception and decision-making are huge success factors in the retail industry. A customer-centric approach is indispensable for sustainable revenue growth. Unfortunately, traditional market researchers rely on a retroactive, often biased approach. To address the drawbacks of this traditional approach, marketers have to do more than simply interview customers about their opinions and desires. Today, more than ever, it is vital to tread new paths and add new value by targeting the subconscious mind.

Mobile neuroscience methodologies offer novel opportunities to better understand customer behavior and become a truly customer-centric business. One major advantage of neuroscience is that it allows marketers to perform explorative customer research in a mobile scenario. This innovative approach augments traditional market research by asking open questions that go beyond typical hypothesis-driven research, e.g.

- How should my store concept capture customer attention?
- How do I identify distracting elements in my store?
- How can I turn a visiting customer into a paying customer?
- How do customers perceive promotion placements?
- How credible are promotion prices?
- How does the customer differentiate between private label and branded products?

In responding to these questions, neuroscience can be an important lever to increase customer satisfaction and loyalty. Of course, the ultimate goal is not only to improve brand perception but to also increase revenue.

The Deloitte Neuroscience Institute (DNI) conducted multiple studies in which retail clients answered these types of open questions, with the aim of driving value in retail through a better understanding of customer behavior. This publication is designed to provide insights and examples gained in these collaborations of customer behavior. This publication provides insights and examples generated from these previous collaborations.

Neuroscience can be used to measure the implicit perception of shop design, product presentation and price promotions.

Shopping concept of the future

Explorative research in retail is all about evaluating the decision-making journey from generating desire to the final purchase decision.

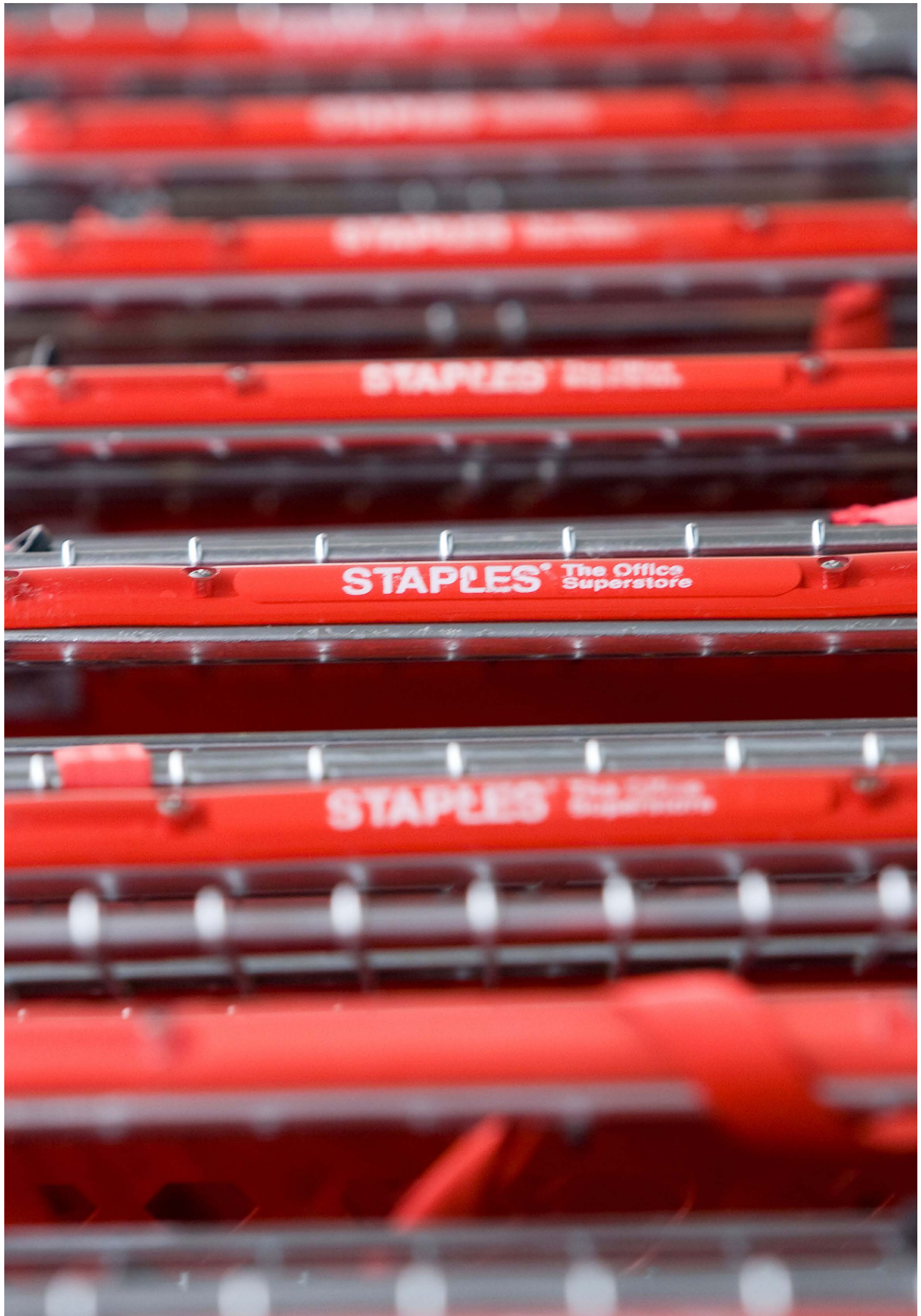
We can measure cognitive processes that predict decision-making and identify key drivers that are not factored into the original hypothesis. In comparison to traditional A/B testing or a trial-and-error approach, explorative neuroscience offers a leaner, more cost-effective and reliable customer research strategy.

Optimize usability and navigation of online shops to maximize conversion rate

- Analyze and streamline information finding processes in online shops
- Improve usability by identifying pitfalls on the website
- Optimize attractiveness and perception of both website and individual design elements

Create an attractive and effective shopping experience preferred by customers

- Understand customer decision-making from product search to purchase
- Identify effectiveness of marketing promotions to optimize shop design
- Enhance perception of in-store touchpoints and shopping experience
- Recognize sales triggers and remove hurdles for the buying decision
- Improve overall in-store customer experience and loyalty
- Retrace and sharpen effectiveness of sales drivers



Impact of website design on customer behavior

It is impossible to imagine a world today without online retailers. Around two-thirds of German consumers use online shopping portals (IfD Allensbach, 2016), giving marketers a vested interest in making their online shop more attractive and their online marketing measures more effective.

Neuroscience allows companies to gain insight into customer perceptions of their websites. This can be done by identifying intuitive attention flow and frustrations within online shops. Once the identified hurdles have been removed, a more streamlined and intuitive shopping experience will lead to increased online shopping revenue.

Conversion Rate

Instead of simply increasing visits to a website, today's challenge is to convert visitors into paying customers. The success of this challenge is revealed by the so-called conversion rate. An understanding of the touchpoints along the decision-making journey will allow retailers to develop a more enjoyable user experience and add value by increasing the conversion rate.

Touchpoints

Companies should focus on key elements of online shops that influence the customer experience. Typical customer touchpoints in online retail are the landing page, product search, product presentation, marketing communications and promotions, payment, check-out and delivery. Retailers need to carefully evaluate and optimize all of these elements, and neuroscience can play an important role in this process.



Case Study

DNI collaborated with a leading German online retailer to optimize their online store concept and increase their conversion rates. A number of representative consumers were selected to perform general shopping tasks within the clients' online store. As they shopped, we used an eye-tracking device to record their eye movements. We also took Electroencephalographic (EEG) brain recordings (see box 2) to provide insight into their emotional responses towards certain elements of the website.

In contrast to traditional behavioral tests, this study focused not solely on how the customer navigated through the shop. Instead, we took direct measurements of how customers perceived certain elements of the website to gain information about their relevance or potential redundancy. Neuroscientific measurements allowed us understand the following issues:

- What information was taken into account to drive decisions?
- Which shop elements worked well as sales drivers?
- Which aspects of the shopping experience had a confusing or discouraging influence?

Neuroscientific Measurements

Wearable Electroencephalography (EEG)

Wearable EEG is a non-invasive method of directly measuring brain activity with a device placed on the participant's head. EEG data enables us to understand unconscious emotions and cognitive processes. They can be used to measure attractiveness of customer stimuli.

Eye Tracking

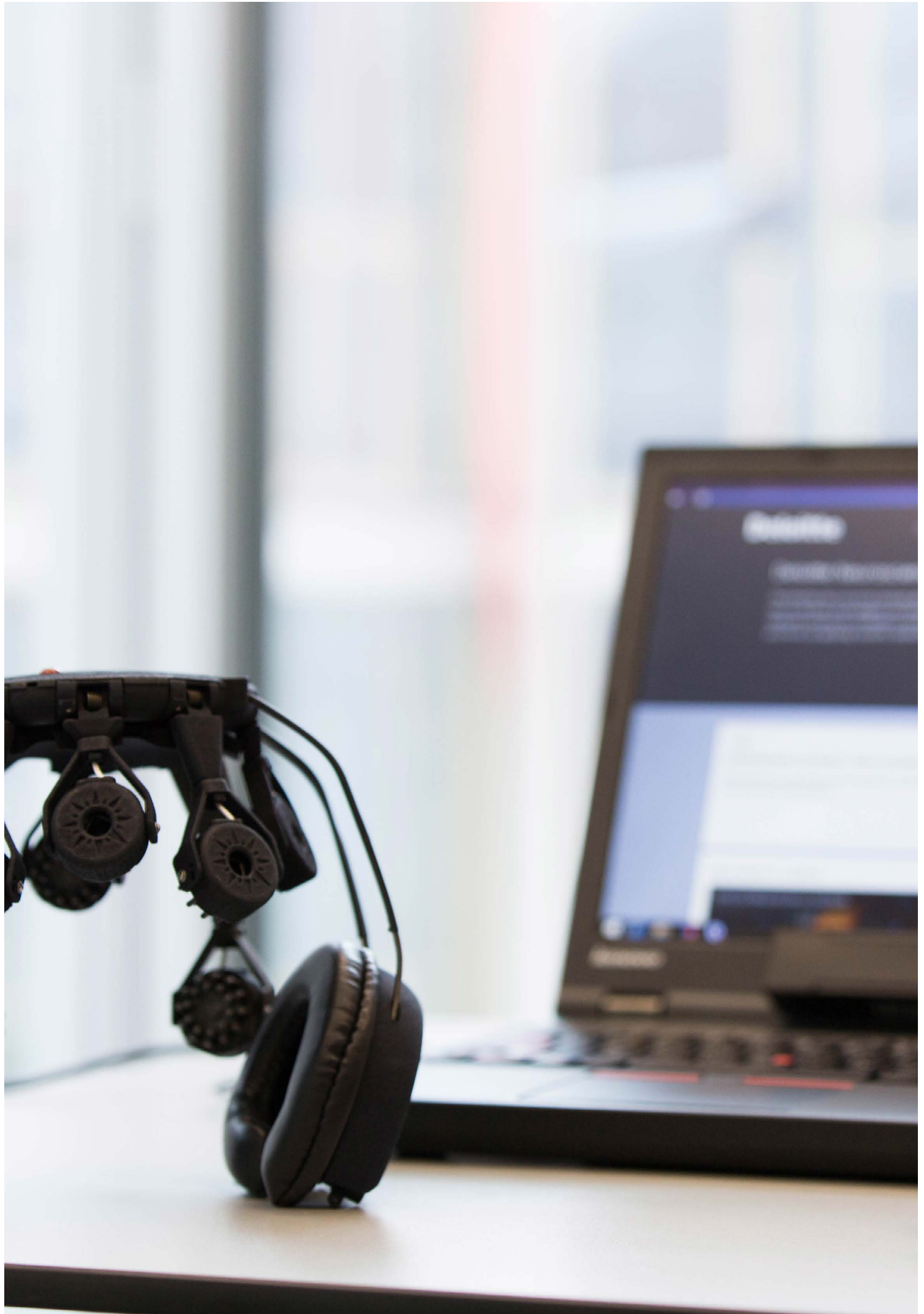
Eye Tracking measures eye movements and focus points to identify a customer's gaze paths and areas of interest. In stationary eye tracking, an optical sensor is usually installed beneath a computer monitor. While customers research on online shops, the system tracks eye and mouse movements in conjunction to provide more extensive insights into customer decision-making. Eye-tracking can also gather data where mouse-tracking is not feasible (e.g., touchscreens on smartphones and tablets).

Key Findings

We performed an in-depth analysis of the customers' intuitive gaze paths, which revealed initial problems with the product search. Particularly on the landing page, participants appeared to be distracted by too many disruptive factors. Moreover, customized commercial banners interrupted the vital decision-making process along the journey to conversion. Although the marketers had hoped to drive sales by providing customer-specific information, the neuroscientific data revealed confusion and rejection among users, which brought the conversion rate down.

- Avoid redundant or disruptive elements on the landing page to create an enjoyable customer experience
- Identify new design elements to use as influential visual guides and better lead customers through your website

Neuroscientific studies can be used to identify motivating elements that increase customer motivation-to-buy in addition to removing distractions in the online shop and thus improving the overall customer experience.



Designing the perfect physical in-store experience

Real-life customer data from physical stores can provide valuable insights and valid recommendations on how to optimize shopping concepts. By measuring emotional processes and cognitive reactions to in-store marketing and promotions, neuroscientific data helps optimize retail concepts.



Paint Points

It is essential to identify the aspects of shop and marketing design that actually influence customer satisfaction and drive buying behavior. The typical pain points we have identified in physical stores are factors such as price communications, product displays, shop branding and anchoring.

Orientation

When planning physical stores, designers aim for a structured store overview based on their accumulated experience. Neuroscience can augment their existing knowledge by quantifying the subconscious reasoning and intuition of the target customer group. In their heads, customers shape mental models of stores based on their previous shopping experience and expectations. When the reality doesn't match, they react with confusion and reject the buying decision. Neuroscience can bridge this gap by measuring and predicting both real-life, in-store experience and customer expectations. This considerably reduces risk by enabling retailers to methodically test novel store concepts prior to launch.

Choice Overload

Further pain points relate to the way that products are displayed on a shelf and to the volume of products to choose from. For example, experts have shown that people buy less marmalade when there are too many different types to choose from (Tugend, 2010). Neuroscience can reliably detect and modify irritating or stressful store areas and create a more enjoyable customer experience. This will relieve frustration among customers who are then more likely to make buying decisions.

Price Communication

Pricing is regarded as one of the most important factors influencing both buying behavior and business success. However, it is often not simply the price itself that influences a buying decision, but the customer's perception of the price. Questions arise as to whether a price is justified or how it compares to products from other competitors or settings. If customers perceive prices for a specific product as justified, they are more willing to pay it. Measuring perception and unconscious reactions to pricing displays therefore provides valuable insights for the pricing strategy. To create an ideal in-store experience where customers intend to buy products, retailers must identify the most effective strategy of communicating prices to their customers.

Case Study

For one client project, we recruited real customers of a supermarket to participate in a study. The instructions they were given were modeled as close to reality as possible (e.g., to collect information on a certain product, to buy a pre-selected list of items). Customers were equipped with a mobile eye tracking device and a wearable EEG recorder. Taken together, the data from both devices enabled us to analyze the shopping experience by tracking eye movements within the store, while also measuring brain signals affiliated with preference, stress and implicit attractiveness.

Neuroscientific Measurements

Wearable Electroencephalography (EEG)

Wearable EEG is a non-invasive method of directly measuring brain activity with a device placed on the participant's head. EEG data enables us to understand unconscious emotions and cognitive processes. They can be used to measure attractiveness of customer stimuli.

Wearable Eye Tracking

This wearable device allows real-life eye-tracking while freely navigating through a store. A front camera simultaneously captures the participant's visual field to create a coherent record of the customer's gaze paths, areas of interest, etc. Eye tracking data provides insight into focus points and points that attract visual attention.

Using neuroscientific insights to optimize both shop design and price communication, we were able to increase overall customer satisfaction.

Key Findings

In exploratory research, neuroscience can be used to analyze all aspects of a physical store. The results can be used to improve the customer experience and increase overall business performance. In this particular study, customer perception of the surroundings and guidance were analyzed within different store areas (e.g. entrance, cashier area, promotion areas) to gain insight on how the retailer could optimize store design.

It became apparent that customers were overwhelmed by the sheer volume of information and marketing material that was displayed in certain sales areas. Additionally, the client was surprised to learn that, up to a point, the way the price was presented had a stronger influence on buying decisions than the price itself.

- Optimize customer orientation and support to increase satisfaction and reduce stress levels
- Use insights into customer perceptions to re-evaluate store concepts and provide a consistently positive customer experience
- Effectively communicate prices and price promotions based on observations of customer behavior



Sale-T-Shirts

1 Stück	15€
3 Stück	40€

Sale-Jacken

ab **50€**

Sale-Longsleeve

20€

Maximize retail performance by creating an intuitive shopping experience

A genuine understanding of customer behavior and expectations is the most important factor driving revenue growth. Neuroscience allows us to analyze and optimize the entire customer journey from the moment desire is activated to the ultimate purchase of product.

In online shopping, marketers have to present a comprehensive range of products and data. Neuroscience helps to clear the overload jungle and create an intuitive shopping experience that guides customers along the way to making a purchase.

- Create an enjoyable and intuitive experience that helps customers to arrive at their desired purchase
- Identify and eliminate distracting elements along the journey to optimize customer satisfaction and increase motivation to buy
- Streamline information finding processes in online shops

When it comes to creating an enjoyable real-world shopping experience, neuroscience can deliver substantial value in the areas of store design, product display and price communication.

- Evaluate and optimize both existing and potential store concepts
- Identify confusing product displays. Guide customers to make purchase decisions by identifying and cleaning up distractions in product presentation
- Identify the most effective price communication strategy and allow customers to pay the price they perceive as justified

The Deloitte Neuroscience Institute helps clients to build a future-proof, customer-centric business. In this process, neuroscience can add value to customer strategies and provide powerful insight.

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