Discovering unconscious product preferences using brain scans
NeuroPricing® with EEG
fMRI studies to predict consumer behavior
Typical questions addressed by us
About us
Attachment
Explicit consumer statements often diverge from real behavior

Consumers often do not predict their behavior correctly as their action is strongly influenced by unconscious factors.*

Explicit responses – verbal, on paper, online or in focus groups – are often affected by cognitive biases

Does the interviewed person really do what she says?

Does she really say what she knows?

Does she really know what she thinks and feels?

Experimental psychology* has repeatedly shown that in many cases at least one of those questions is answered with "no".

Outline

The challenge of market research...

... the solution

NeuroPricing® with EEG

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Brain research provides unbiased answers to marketing questions

Instead of asking consumers, we apply brain scans.

We measure exactly where decisions are made.

Introspection and verbalization skills

Social norms and situations

Answers are not influenced by subjective factors

Intentional deception

Rationalization
We analyze and optimize

- **Textile perception**
- **Commercials**
- **Prices**
- **Product design/concept**
- **Car safety and design**
- **Value messages**

9€ 11€ 13€ 16€
We use state-of-the-art technology and innovative analytical methods

- **EEG**
  Electroencephalography

- **Eye Tracking**

- **Biometrics**
  Physiological reactions

- **fMRI**
  Functional Magnetic Resonance Imaging
The challenge of market research...

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NeuroPricing® provides the customers’ unbiased willingness-to-pay based on brain scans

NeuroPricing® is the application of state-of-the-art brain science for pricing. Q&A Neuromarketing Labs has developed and validated an innovative algorithm to measure willingness-to-pay directly from customers’ brain signals, finally solving the problem of biased explicit answers in pricing research.
NeuroPricing® involves a sophisticated paradigm and complex analysis algorithm. Case study: Starbucks coffee pricing

What is the true willingness-to-pay for a small cup of Starbucks coffee, which currently costs 1.80 € in Stuttgart?

These images are presented to the subject one after another. The subject then responds with “yes” or “no” via button press.

The client decides how many and which price points to test.

EEG-measurement

Data analysis and interpretation

Brain response reveals true willingness-to-pay

2.40 €

Expensive?
The perceived value for a cup of Starbucks coffee is 2.40 €

The higher the price-specific brain response, the better the match of price and product.
NeuroPricing® is field validated - Optimizing price architecture for PepsiCo Lay's Chips in Turkey

"We believe, future pricing questions should be answered using NeuroPricing® because the results are significantly more accurate than those of alternative research methods"

Vildan E., Revenue Strategy Manager Turkey, PepsiCo-FritoLay
High profile clients from several industries have already relied on NeuroPricing® to optimize their prices...
Outline

1. The challenge of market research...
2. NeuroPricing® with EEG
3. fMRI studies to predict consumer behavior
4. Typical questions addressed by us
5. About us
6. Attachment
fMRI brain scans are able to predict market success of pop songs above and beyond questionnaires

Brain activity predicts market success much better than questionnaires:
Brain scans of 27 teenagers, who listened to unknown pop songs in the fMRI Scanner in 2006, could predict the success of these songs in the US by May 2010.

*Questionnaire data correlated with $r=0.11$ with real market success, i.e. about 1% explained variance
Nucleus accumbens (brain pleasure center) activity correlated with $r=0.32$ with real market success, i.e. about 10% explained variance.

We have successfully predicted magazine cover sales from brain data

1. Sexy

2. Slim

3. Sterk

The data of the questionnaire predicted that “sexy” will be the most successful cover.
→ The cover “slim” was sold 10% more than “sexy” or “sterk.”

fMRI scans predicted that the most successful cover will be “slim.”
→ fMRI scans provide accurate sales predictions.
Outline

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Typical questions addressed by us

What is the maximum willingness-to-pay for your product X?

What is the ideal logo / tagline?

Which advertisement is the most effective?

Which picture evokes the strongest buying desire?
Benefits at a glance

- Get **unbiased answers** to your market research questions
- Get precise results with **small samples**
- **Predict** your customers’ behavior reliably
- Understand your customers’ **unconscious emotions**
- Make **scientifically based decisions**
- Boost your **marketing ROI**
Outline

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Q&A Neuromarketing Labs at a glance

Quick Facts

• Founded in 2011 by neuroscientists and neuroengineers with marketing and consulting experience
• 12 employees, international offices
• International top-class neuroscientific advisory board

Partners

Exclusive partnership for Germany

Neurensics
neuroeconomic research
An international team of outstanding scientists supports us with their expertise

Prof. Dr. Alexander Maier, PhD, Assistant Professor of Psychology, Vanderbilt University  →  Expert in brain data analysis

Prof. Dr. Dino Levy, PhD, Assistant Professor of Neuromarketing and Neuroeconomics, Tel-Aviv University  →  Expert in neuroeconomics and fMRI

Prof. Dr. Victor Lamme, MD, Professor of Cognitive Neuroscience, Amsterdam University  →  Expert in neuromarketing, neuroeconomics, fMRI and EEG

Prof. Dr. Steven Scholte, PhD, Associate Professor of Cognitive Neuroscience, Amsterdam University  →  Expert in neuroeconomics and fMRI

Prof. Dr. Konrad Zerr, PhD, Professor of Marketing Research, Pforzheim University  →  Expert in market research

Prof. Dr. Christoph Braun, PhD, Professor of Behavioral Neurobiology, University of Tuebingen  →  Expert in brain data analysis

Prof. Dr. Uwe Ilg, PhD, Professor of Neuroscience, University of Tuebingen  →  Expert in brain data analysis and eye movements

Prof. Dr. Stefan Hencke, DEng, Professor of Marketing, Trier University of Applied Sciences  →  Expert in marketing and business applications

Prof. Dr. Leon Zurawicki, PhD, Professor of Marketing, University of Massachusetts Boston  →  Expert in neuromarketing

Prof. Dr. Dirk Hoefer, PhD, Director, Hohenstein Institute  →  Expert for physiology and textile research

Prof. Dr. Thomas Bäumer, Professor of Business Psychology, HFT Stuttgart University of Applied Sciences  →  Expert for psychological market research
Top companies, brands, and institutes trust our expertise – a selected list

“Thanks to NeuroPricing® we understand the feel-good price for our apartments and the willingness-to-pay of our customers better. The insights into the brains of our customers are very important to us. Now we can price our apartments in agreement with the value perception of our guests. We plan to adjust our prices for the next season according to the recommendations of Q&A Neuromarketing Labs.”

David Depenau, CEO, Weissenhäuser Strand
Daily media and trade press regularly refer to Q&A Neuromarketing Labs – a selected list

Süddeutsche Zeitung
Badische Zeitung
Wiener Zeitung
SWR Fernsehen
BusinessWeek
DER SPIEGEL
Der Handel
manager magazin
Nürnberger Zeitung
millionaire.it
BLICKPUNKT.FILM
heute.de
SWR2
cquisa
n-tv
SPIEGEL ONLINE
markenartikel
la Repubblica
NDR Fernsehen
Forbes
absatzwirtschaft.de
internet
WORLD BUSINESS
Our international network gives us access to fMRI brain scanning facilities worldwide.
Your contacts

Uğur Develi
ugur.develi@qamarketresearch.com
mobile +90 532 255 19 80

Emre Gündüz
emre@qamarketresearch.com
mobile +90 543 798 20 50

Follow us and stay up-to-date with the latest in Neuromarketing!

Q&A Market Research
Istanbul | Detroit | Stuttgart | Vienna

Bağdat Caddesi Tangüner Apt.
No:356/7 Kadıköy, İstanbul
TURKEY

www.qamarketresearch.com
Phone +90 216 355 34 01
info@qamarketresearch.com
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- ... the solution
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Case 1: Fashion predictor – commercial success for the fashion industry

30 tested shoes
15 successful
15 unsuccessful

40 evaluations via questionnaire

40 brain scans

EEG study

Questionnaire
Case 1: Brain scans predict success of fashion items above and beyond self-reports

<table>
<thead>
<tr>
<th>Questionnaire</th>
<th>EEG study</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Success</strong></td>
<td><strong>Success</strong></td>
</tr>
<tr>
<td><strong>Failure</strong></td>
<td><strong>Failure</strong></td>
</tr>
<tr>
<td>Classified as success</td>
<td>Classified as success</td>
</tr>
<tr>
<td>Success</td>
<td>8</td>
</tr>
<tr>
<td>Failure</td>
<td>5</td>
</tr>
</tbody>
</table>

Accuracy of prediction: 60%  
Accuracy of prediction: 77%
Case 2: A PR study for FOX International Channels – how does the brain of TV series “addicts” work?

“In cooperation with Q&A Neuromarketing Labs, we conducted a study on the behavior of self-proclaimed TV-series addicts. For this TV study, a number of different methods, such as fMRI, EEG, eye tracking, physiological measurements and hormone level measurements were applied. The numerous results gave deep insights into physiological and emotional processes during the consumption of the beloved or most hated series.”

Tobias Tringali, spokesperson, FOX International Channels
Case 2: Great media responses for FOX in national and international newspapers and further media outlets
Case studies from other industries can be confidentially disclosed upon request.