To Succeed With Neuromarketing, What Do You Need to Know?

Much of the classic market research advice applies to consumer neuroscience as well – but the emerging field also features unique challenges.

Companies once viewed neuromarketing as a risky, perhaps overhyped proposition. But scepticism is now retreating in the face of mounting research evidence. **A raft** of **recent studies** **confirm** that, used properly, **brain-scan technology** (e.g. fMRI, EEG, fNRIS) is capable of revealing the reasons for consumers' preferences, capturing their emotional reactions to ads and products, and (in some cases) predicting their behaviour, with greater accuracy than conventional focus groups and surveys.

The further development of the field will depend on marketers and companies adopting sensible internal standards for conducting neuromarketing research. Otherwise, there will be no reliable way to determine causation and therefore know whether and how to apply neuromarketing techniques within specific real-world marketing contexts.

It was encouraging to see, as part of an industry survey that we conducted for our **recently published teaching note**, that this is in fact a high priority for players in this space. We heard from many companies employing much more appropriate methods to verify neurometrics as compared to the past. To aid this evolution, we offer four suggestions for designing effective neuromarketing projects. Some of our advice would also apply to any type of market research project.

Step 1: Know what you want to know

A good neuromarketing study will be aimed at answering a few key questions, at most. More than that will require an excess of statistical comparisons that will bias your results and call for multiple comparison corrections.

The questions you're trying to answer must allow for concrete answers to emerge from neuromarketing analysis. For example: "Do my online customers pay more attention to product photos or prices?" or "Should I use photos of satisfied customers or frolicking puppies on my website, in order to increase emotional engagement?"

Notice that the above questions incorporate both a dependent variable – the desired outcome, e.g. online sales or emotional engagement – and an independent variable, or the thing that you hope will affect the dependent variable (in the above example, visual elements on a website). The questions also assume a hypothesised relationship between the variables, e.g. that diverting attention from prices to product photos will increase sales. Therefore, the purpose of the experiment will be to assess whether this presumed relationship holds true in reality. Results should be closely analysed with this in mind.

Step 2: Know what you want to do

Before you start collecting any data, you'll want to prepare a detailed analysis plan. This will include:

- The key questions you're trying to answer
- How the underlying variables are measured and influenced
- What statistical analyses are planned
- How many participants are included
- Exclusion/inclusion criteria for participants
- Checks to ensure the study was designed properly (e.g. metrics that should remain unaffected)

In some industries, it is common practice to officially register and at least publish partial analysis plans (e.g. clinical trials in the pharmaceutical industry). Pre-registration can help prevent dubious interpretations of the results when they become public. Several online resources are available for this, such as the **Open Science Framework** or Aspredicted.org.

Step 3: Know what you have done

Neuromarketing studies are especially prone to technical glitches and random mischance, such as EEG sensors coming loose or excessive head motion distorting electromagnetic signals. To spot any mutant data before they influence results, it is crucial to visualise distributions before performing any data analysis.

You should also strategically violate study parameters to ensure the mechanisms are working as intended. For example, if you were measuring whether puppy photos or images of happy customers elicit more emotional engagement, you should intersperse some sad faces amidst the smiles. If the switch were not accompanied by a difference in the data, there would likely be something amiss with the collection or pre-processing of the data.

Step 4: Know whether you could do it again

When it comes to the replicability and reliability of your results, don't rely on assumptions. You should have a method for ascertaining the validity of your data-set. For example, one leading internet company splits its neurometric data in half. If the results are truly representative, the two halves should be statistically similar. With statistical software, you can bisect your data at random hundreds of times. Findings should be consistent no matter how you slice the numbers.

Another approach is to cross-validate the same question using several techniques. Confectionary manufacturer Ferrero's Shopper Neuroscience department runs implicit association tests and in-store A/B testing to complement neuromarketing studies.

One more thing…

Before launching their first foray into the field, companies should also familiarise themselves with the **Neuromarketing Science & Business Association** (NMSBA)'s **Code of Ethics** for neuromarketing vendors. All NMSBA members are officially required to abide by the code, which covers, among other things, data privacy, participant consent and protocol transparency. The association's **online directory** lists nearly 80 member companies.

Companies anxious about choosing the right vendor should also heed neuroscience researcher Joe Devlin's **five warning signs** of unscrupulous neuromarketing. In addition to keeping a finely calibrated B.S. detector, Devlin suggests being sceptical of companies making overly simplistic claims about how the human brain works, touting "secret sauce" analytical techniques or offering a single solution for every problem.

For further information, we invite you to download our **recently published teaching note** designed to introduce professionals to the neuromarketing field.

Hilke Plassmann *is the Octapharma Chaired Professor of Decision Neuroscience at INSEAD. She is a principal investigator at the Sorbonne University's Brain and Spine Institute (ICM), as well as the co-director of the* ***Business Foundations Certificate*** *(BFC) programme at INSEAD.*

Aiqing Ling *(INSEAD PhD) is an Assistant Professor of Marketing at University College Dublin.*

Don't miss our latest content. Download the free ***INSEAD Knowledge app*** *today.*

Follow INSEAD Knowledge on ***Twitter*** *and* ***Facebook****.*

Find article at
https://knowledge.insead.edu/marketing/to-succeed-with-neuromarketing-what-do-you-need-to-know-14136

Download the Knowledge app for free