

Neuro Marketing: A Step towards Future

Dr. Martha Sharma¹ | Dr. Ekta Pal^{2*}

¹Assistant Professor, Faculty of Management, St. John's College, Agra.

²Assistant Professor, Faculty of Commerce, St. John's College, Agra.

*Corresponding Author: ektapal86@gmail.com

Citation: Sharma, M. & Pal, E. (2026). Neuro Marketing: A Step towards Future. *International Journal of Advanced Research in Commerce, Management & Social Science*, 09(01(II)), 210–215. [https://doi.org/10.62823/IJARCMSS/9.1\(II\).8738](https://doi.org/10.62823/IJARCMSS/9.1(II).8738)

ABSTRACT

In recent years, a new tool in marketing research has emerged: neuromarketing. This approach utilizes brain research within a managerial context and has gained significant popularity in both academic literature and the practical world. Neuromarketing, which captured the imagination of advertisers in early 2002, simplifies the process of understanding consumer behavior by delving into the workings of the mind. This paper examines the conceptual role of neuromarketing as an effective tool for marketers in today's evolving market, which is influenced by increasingly sophisticated consumers. The objectives of our study focus on the rise and significance of neuromarketing, as well as the current practices associated with it, including neuroimaging, EEG, fMRI, and eye tracking. The paper also explores the concept of consumer dialectics, highlighting how consumers often contradict themselves by expressing what they want while acting based on their feelings. Nowadays, marketing research has come to focus on four components of consumers: the physical body, mind, heart, and spirit, with the assistance of neuromarketing practices.

Keywords: Neuromarketing, Brain Research, Neuroimaging, Eye Tracking, EEG, FMRI.

Introduction

Meaning of Neuro Marketing

NEUROMARKETING-is the intersection of brain science and marketing, combining medical knowledge, technology, and marketing strategies to study consumer responses to marketing stimuli. This field employs techniques like brain imaging and scanning to measure brain activity in reaction to products, packaging, and advertisements. Interestingly, some brain responses may be unconscious, offering insights that are often more revealing than self-reported data from surveys or focus groups. Neuromarketing thus deepens our understanding of consumer behavior by uncovering hidden reactions. Neuromarketing merges neuroscience, psychology, cognitive science, and marketing to understand and influence consumer behavior.

Concept of Neuromarketing

This concept was developed by psychologists at Harvard University in 1990. The word Neuromarketing was coined by Ale Smidts in 2002. It is an emerging branch of neuro science in which researchers use medical technology to determine consumer reactions to particular brands, choices and decisions within 2.6 seconds. If meme is chosen properly we remember the good, joke or song and would share it. Memes stay in our memory and are affected by marketers.

The languages of consumers change from country to country and culture to culture, however the language of human brain is the same i.e. universal. Thus, Neuromarketing has greatly affected products, brands, packaging, and advertising as well.

Popular Neuro Marketing Practices

- **EEG Analysis:** EEG is the abbreviation for Electroencephalography, which means an electrical reproduction of brain activity (Postma, 2012).
- **HD EEG:** It is an updated form of EEG can gather very accurate brain activity information while the consumer is exposed to a particular stimulus. This EEG system has 256 channels and has a very deep brain signal analysis with regards to source localization.
- **Eye Tracking** Eye tracking technology is used to track the eye positioning as its focus shifts along the surface of a visual trigger. Eye trackers are used in research on product design and software design in the field of neuromarketing. The most popular method of measuring eye movement is through the use of a camera which tracks the movements of the pupil.
- **Positron Emission Tomography (PET)** Functional Magnetic Resonance Imaging (fMRI) Recording Electrical Activities in Brain.

Facial Electromyography

Cognitive Analysis Cognitive Analysis is an analytic digital model that combines the results obtained through EEG, galvanic skin response and eye tracking to give a holistic view of a person's reaction to a particular trigger. This ensures there is no mis-reading in any of the biometric readings taken.

- **Functional magnetic resonance** imaging (fMRI): fMRI The term MRI stands for 'magnetic resonance imaging' and basically describes a tool, which makes an anatomic representation of the brain by making use of magnets (Postma, 2012).
- **Empathic design:** Another method where human beings are being analyzed without making use of any devices is called 'empathic design'. The meaning of the word 'empathic' can be also referred to as sensitive. Within this method, observation is made in the consumer's own environment so that it can take place in the normal course of daily routine (Postma, 2012; Leonard, & Rayport, 1997).

LITERATURE REVIEW

It is the attempt to find where and how our brain reacts when exposed to advertisements and marketing stimuli. Generally, neuroscientific methods are used to study consumer behaviour, the decision-making process and emotions in purchase process (Javor et al. 2013, p.2).

Marketing has traditionally concentrated on the value and competitive advantages of a product or service.

However, a more holistic approach to marketing, including the emotional component of the decision-making process is gaining considerable ground in contemporary marketing (Suomala et al. 2012, p. 12).

This line of research corresponds very well with Kotler's latest notion of marketing, Marketing 3.0, in which he argues for a need of companies to address consumers as whole human beings, which he defines as consisting of four components: physical body, mind, heart and spirit (Kotler et al. 2010, p. 34). Neuromarketing emerged in the early 2000s and quickly gained great popularity, both within academic and business fields (Fischer et al. 2010, p. 231). The first studies using neuroscientific tools to link affect and electrical patterns in the brain date back to 1979 (Morin 2011, p. 133)

In the book "The Hidden Persuaders" published in 1957, the author explores the "(...) possibilities of using the insights of psychiatry and the social sciences to influence our choices and our behaviour" (Packard 1957, p. 1).

Objectives

The study is planned with the following objectives:

- To study the various types of neuro marketing practices and various ways through which neuro marketing is done.
- Understanding the impact of neuro marketing with the help of real life examples.
- To find the challenges involved during neuro marketing practices.

Hypothesis

Ho: There is no significance difference between the traditional marketing strategies.

H₁: There is a significance difference between the traditional marketing strategies.

Research Methodology

Study determines the need for the exploratory research to understand the conceptualization of Nueromarketing in the minds of the consumer and marketer. An exploratory research is also attempt to lay the groundwork that will lead to future studies, or to determine if what is being observed might be explained by and examine in the light of the existing literature. Thus qualitative research is conducted with the help of secondary data, previously existing literature review, facts sheet journals and magazines.

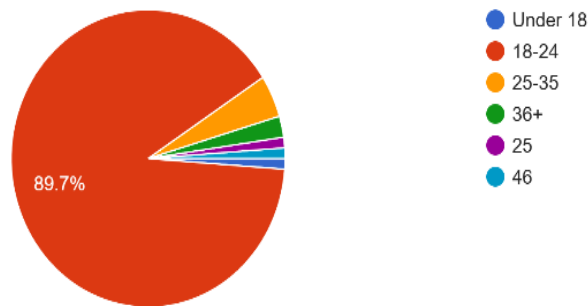
Secondary Data

- The secondary data is collected from different books, magazines, newspaper, journals related websites etc.
- 5 years data since Year 2020-2025 till date will be included.
- Statistical tools: Frequency &Percentage.

Findings, Analysis and Recommendations

Age

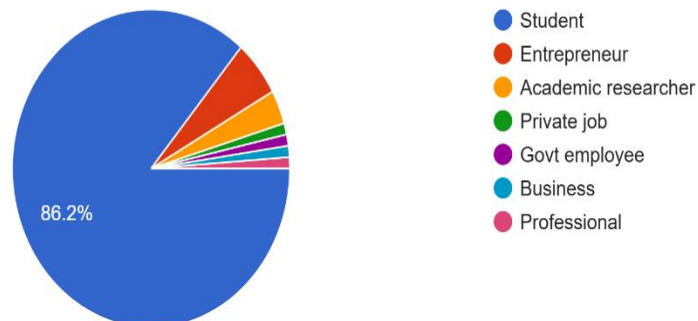
87 responses



Interpretation: A vast majority (89.7%) of respondents fall within the 18–24 age group, indicating a young demographic. Other age groups are minimally represented.

Occupation

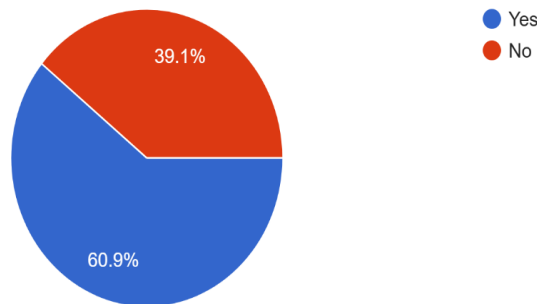
87 responses



Interpretation : Most respondents (86.2%) are students, suggesting the data reflects opinions primarily from the academic or learning community. Other occupations have very low participation.

Have you ever heard of neuro marketing?

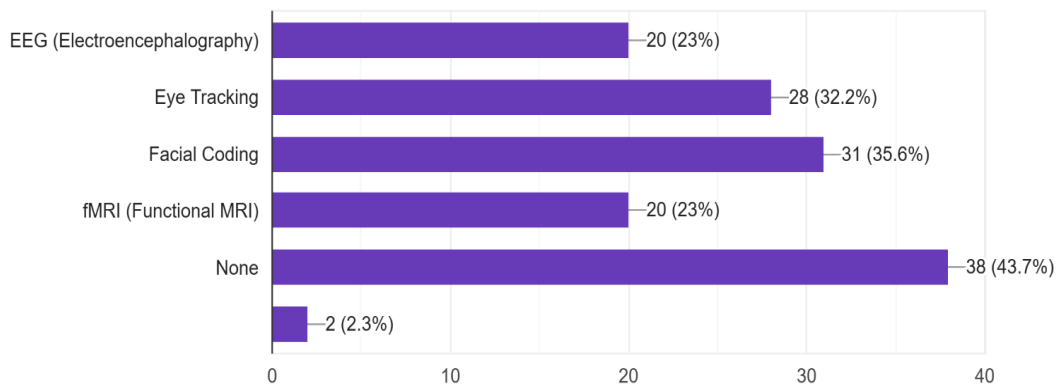
87 responses



Interpretation : About 61% of respondents have heard of neuromarketing, while 39% have not. This shows a moderate level of awareness among participants.

Which of the following neuromarketing techniques are you aware of? (You can tick multiple)

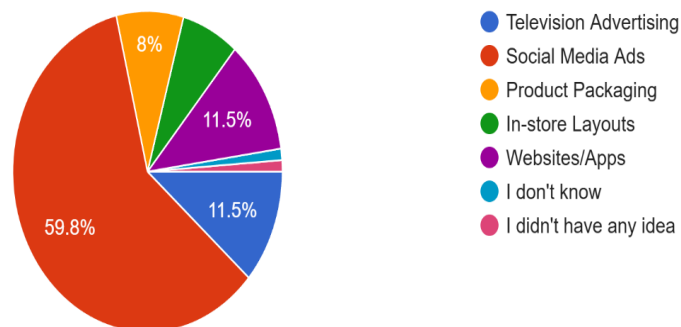
87 responses



Interpretation: Facial coding (35.6%) and eye tracking (32.2%) are the most recognized techniques. However, 43.7% are not aware of any neuromarketing methods, indicating a knowledge gap.

In your opinion, which medium uses neuromarketing the most?

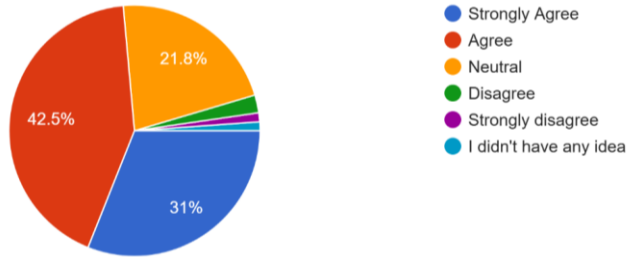
87 responses



Interpretation : A majority (59.8%) believe social media ads use neuromarketing the most. Other media like TV ads and websites/apps are considered significantly less influential.

Do you think neuromarketing techniques help companies understand customer behavior better?

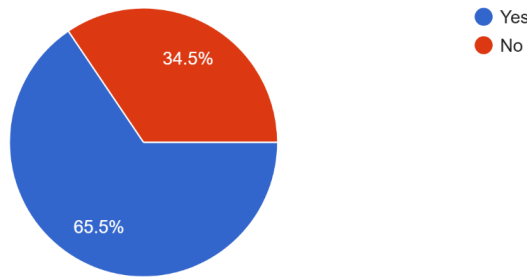
87 responses



Interpretation: Most respondents either agree (42.5%) or strongly agree (31%) that neuromarketing helps companies understand customer behavior better, indicating strong confidence in its usefulness.

Have you ever been influenced by marketing that appealed to your emotions or senses?

87 responses



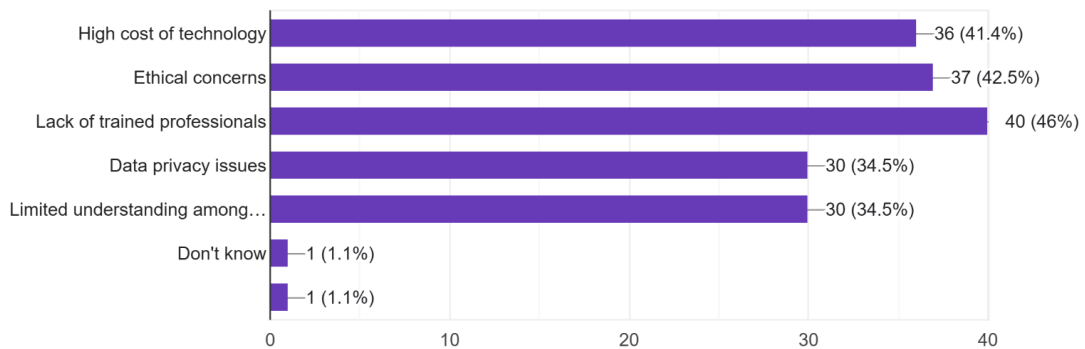
Interpretation: About 65.5% of respondents admit being influenced by emotionally-driven marketing. This reflects neuromarketing's effectiveness in shaping consumer behavior.

Q. Can you recall a real-life example where an ad or brand influenced your decision at a subconscious level?

Interpretation: Many respondents shared real-life examples where ads influenced them subconsciously, especially through emotional branding, personalization, visuals, and storytelling. Brands like Coca-Cola, Nike, Apple, and McDonald's were frequently mentioned, showing strong subconscious brand associations.

What challenges do you think companies face while using neuromarketing? (Tick all that apply)

87 responses



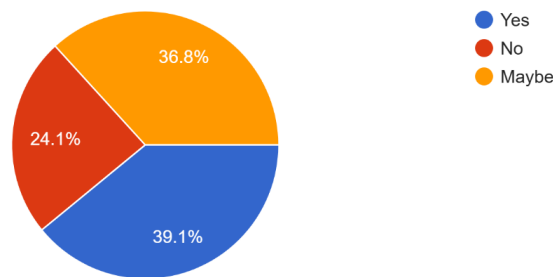
Interpretation: The most cited challenge in using neuromarketing is the lack of trained professionals (46%), followed closely by ethical concerns (42.5%) and high technology costs (41.4%). Data privacy issues and limited understanding among stakeholders also pose significant concerns, each noted by 34.5% of respondents.

Q. What measures should be taken to make neuromarketing more ethical and transparent?

Interpretation: Many respondents lacked clarity about ethical neuromarketing, indicating a need for greater awareness. However, key suggestions emphasized informed consent, data privacy, and transparency to ensure responsible practices.

Do you believe that neuromarketing violates consumer privacy?

87 responses



Interpretation: The majority of respondents (39.1%) believe that neuromarketing violates consumer privacy, while 36.8% are uncertain. Only 24.1% disagreed, indicating widespread concern or ambiguity regarding privacy issues.

Recommendations

- Include a framework: Classify neuromarketing tools by cost, invasiveness, and effectiveness.
- Ethics section: Address privacy concerns and ethical implications of brain-data usage.
- Real-life impact analysis: Analyze successful neuromarketing campaigns and their business results (e.g., how Frito-Lay used fMRI to redesign packaging).

Focus on Challenges

- High costs of technology
- Ethical concerns
- Misinterpretation of data
- Limited accessibility in smaller businesses

References

1. ARIELY DAN AND BERNS GREGORY S., Neuromarketing: the hope and hype of neuroimaging in business april 2010 volume 11 Pers Pectives © 20 Macmillan Publishers Limited.
2. BRAEUTIGAM, S., 2005. Neuroeconomics—From neural systems to economic behaviour. Brain Research Bulletin, vol. 67, no. 5, pp. 355-360.
3. BRAEUTIGAM, S., STINS, J.F., ROSE, S.P.R., SWITHENBY, S.J. and AMBLER, T., 2001.
4. 'Brain Scam?' 2004. Nature Neuroscience, 7 (7): 683.
5. BRAT, I., 2010. The Emotional Quotient of Soup Shopping; Campbell's Taps 'Neuromarketing'
6. BURKITT, L., 2009. Neuromarketing: Companies use Neuroscience for Consumer Insights. Forbes. 29.10.2009, [viewed 21.01.2014].

