


# Chapter 2

## Ethical Implications of Invasive Methods in Neuromarketing Research

**Gaganjot Kaur**

*Chandigarh University, India*

**Shalini Sharma**

 <https://orcid.org/0000-0002-1710-1540>

*Chandigarh University, India*

**Reepu**

 <https://orcid.org/0000-0002-5607-9825>

*Chandigarh University, India*

### **ABSTRACT**

*The essence of marketing lies in establishing a connection between products and consumers to drive sales. Effective marketing not only informs but also engages and sustains the targeted audience. Traditional marketing research methods, while valuable, are limited by time constraints and potential inaccuracies in data collection. As consumer preferences evolve rapidly, businesses increasingly use innovative techniques like Neuromarketing. Neuromarketing employs neuroscience and marketing principles to tap into consumers' cognitive and emotional responses, using fMRI, EEG, and physiological measurements to understand preferences and decision-making processes more accurately. While Neuromarketing offers profound insights into consumer behavior and enhances marketing strategies, it raises ethical concerns regarding consumer privacy, autonomy, and vulnerability. This chapter oversees Neuromarketing's emergence, applications, benefits, and moral implications in contemporary marketing practices.*

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## INTRODUCTION

The terms below are outlined by the NMSBA Code of Ethics (NMSBA,n.d.):

Neuromarketing investigation involves methodically gathering and analysing neurology and neurophysiological data regarding people through different techniques. This allows investigators to examine linguistic and physiological reactions to diverse stimuli. A neural marketing investigator is a person or organisation that studies Neuromarketing or serves as an expert consultant on neural marketing research projects. This includes individuals employed by companies that purchase services offered by psychological marketing research firms. A neuromarketing client inquires about, purchases, or sponsors a neural marketing investigation. Research on Neuromarketing involves anyone who provides insights utilising neuroscientific approaches for market study goals. A psychological marketing study is a participant-led session wherein neuromarketing findings are gathered. Neural marketing insights are deduced by analysing the degree of cerebral conduct elicited by stimuli related to marketing (commercials, web pages, presentations, etc.). Any method that allows us to see the breakdown of activity within the brain in vivo is known as functional brain imaging.

The primary purpose of marketing is to connect the product and consumers to prompt a sale. Marketing is adequate if it informs, engages, and sustains the targeted audience. Marketing research is used as a marketing tool to collect information to understand the target customers' met and unmet needs better (Hill & Hill, 2024). The traditional marketing research methods have been observations, personal interviews, field trials, surveys, and focus group discussions (10 Essential Methods for Effective Consumer and Market Research, n.d.). As consumer preferences are changing and evolving more rapidly than before, it has become essential for businesses to go beyond traditional marketing research methods (Bhardwaj, Kaushik, & Arora (2024); Arora (2023). These methods have constraints like time requirements and inaccurate or unreliable data collection. Next was the capturing of spoken word on the internet. For example, by analysing trending social media data, Unilever used Google's Cloud Vision API to resonate their campaign with a culturally diverse target audience. Natural Language API monitors online comments and optimises real-time marketing messages (Sheth, 2019). The Unilever team could fine-tune the message delivery of ads on Instagram, Facebook, and YouTube and create culturally relevant content for higher acceptance.

Neuroimaging techniques, in contrast, are the most modern research techniques that record customers' psychological and intellectual reactions to various marketing incitements (Taneja, Shukla & Arora (2024). The noninvasive brain signals, though unspoken, are direct responses to stimuli. These signals have shown better accuracy in forecasting consumers' purchase decisions (Rawnaque et al., 2020). Neuroscience

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