

# Chapter 3

## Comprehensive Analysis of Neuromarketing Advancements and Consumer Neural Pathways

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### **ABSTRACT**

*Over the last two decades, neuromarketing has emerged as a pivotal field, bridging the gap between neuroscience and marketing to unravel the complexities of consumer behavior. This study presents a comprehensive bibliometric analysis of neuromarketing research, spanning from 2007 to 2023, to explore the evolution, key contributions, and dynamic trends within this interdisciplinary domain. Utilizing the Scopus database alongside Biblioshiny software, this analysis analysed a dataset comprising 143 articles from 98 different sources, revealing a significant growth trajectory in neuromarketing publications, particularly noted after 2010. This bibliometric analysis not only maps the historical landscape of neuromarketing but also sheds light on emerging trends and methodological advancements that are shaping the future of marketing practices, offering valuable insights to enhance the understanding of consumer psychology and design effective marketing strategies.*

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## 1. INTRODUCTION

Neuromarketing is an emerging interdisciplinary field that integrates theories of neuroscience, psychology, and marketing to comprehend how consumers make purchase decisions and respond to various marketing stimuli. It goes beyond traditional marketing research methods by capturing the neural responses of consumers that drive their purchase behaviour. Traditional marketing such as surveys and feedback offer valuable insights about purchase behaviour but that is limited to the conscious level of consumers leaving a gap for the marketers in identifying the influences existing at a deeper level that drive purchase decisions (Duque-Hurtado et al., 2020). Neuromarketing tools have the potential to revolutionise how brands connect with their target audiences and create a meaningful impact. The applications of this field have increased tremendously touching several touchpoints ranging from advertising, product designing, branding and packaging (Ariely, (2010); Bhardwaj, Kaushik & Arora (2024). Neuromarketing is not only an active area of research among academicians, but it is also a source of revenue for more than 200 neuromarketing firms across the world (Plassmann et al. 2012).

The concept of neuromarketing developed in the early 2000s when market researchers and firms began to identify the shortcomings of conventional market research methods, for instance, surveys and focus groups which are not equipped to capture the real drivers of consumer behaviour, particularly those settled in subconscious and neural levels (Rabhi et al., 2023). The study of neuromarketing developed with the rapid growth of neuroscience incorporating advanced techniques such as fMRI and EEG which enabled marketers to track the brain activities of the consumers offering more precision in understanding complex consumer behavioural responses to various marketing stimuli (Yeung et al., 2017). This novel field of study has proved to be a boon to marketers for gaining a nuanced understanding of marketing concepts such as advertising effectiveness, brand loyalty and product design (Alsharif & Isa, 2024). Neuromarketing with its advanced technologies aids marketers to enhance the effectiveness of advertising to a large extent. Various components of advertising such as visual imagery, and emotional storytelling that attract the attention of the viewers at a subconscious level can be incorporated into the process of advertising to enhance its effectiveness (Alsharif & Isa (2024); Taneja, Shukla & Arora (2024). Neuromarketing has the potential to influence product design as well as packaging decisions by identifying subconscious tastes and likings of the customers. The domain of neuromarketing with the help of its technoscientific techniques can also reveal the product preferences of the customers in terms of shape, size, colour, texture, and shapes (Morin, 2011).

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