



Neuromarketing: What is known already? What is yet to explore? -A view from the Practitioner

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Abstract

Neuromarketing is demarcated as Consumer purchase decisions frequently occur at a mental, emotional, and instinctual level; those occur in the subconscious brain, which is below the levels of controlled awareness. However, many crucial concerns still need to be answered about the recent controversies surrounding the involvement of practitioners in neuromarketing that could have significant ramifications for the discipline of psychotherapy. There are conflicting definitions of neuromarketing, and little is known about the actual procedures used by businesses, doctors, and scientists who engage in it. The present research paper is basically exploratory research with limited attainment of research objectives. Subject matter experts and practitioners were approached with basic research questions on what is known about neuromarketing, what is yet to be known, and how consumers perceive neuromarketing in India from a viewpoint of startup companies which are technology core and initiated applying emerging practices from the neuromarketing. Findings show that to boost consumer interest in participating in neuromarketing research, science and practice must concentrate on increasing consumer awareness of it since consumers who believe that neuromarketing research is harmful or dangerous to humans are less eager to participate in studies.

Keywords: Consumer Perception, Neuromarketing, Neuromarketing Techniques. Practitioner Experience.

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1. Introduction

A new field called neuromarketing combines the study of consumer behavior with neuroscience. Although controversial when it initially appeared in 2002, the area is quickly gaining acceptance and credibility among advertising and marketing specialists. Over 400 billion dollars are spent annually on advertising campaigns. But because they rely on consumers' willingness and ability to express how they feel when exposed to an advertisement, conventional methods for

testing and predicting the success of those investments have mostly failed (Morin, 2011). The fusion of two academic disciplines is implied by the combination of neuro and marketing (neuroscience and marketing). The word "neuromarketing" cannot be traced to a specific person because it first appeared in 2002, sort of on its own. Several American businesses, like Brighthouse and SalesBrain, were the first to offer research and consulting services in neuromarketing, which promoted the application of science and information from



the field of cognitive neuroscience. Neuromarketing is essentially what neuropsychology is to psychology for marketing. While neuropsychology investigates the connection between the brain and mental processes in humans, neuromarketing advocates for the benefits of viewing customer behaviour from a neurological standpoint(Morin, 2011).

1.2.Neuromarketing- A science-based approach in Marketing

The advertising industry frequently employs neuromarketing strategies. Wherein NM is a tool used to understand how various marketing stimuli, including exposure to particular commercials, affect purchasing decisions(Venkatraman et al., 2015). For instance, determine the bad aspects of advertising that make a person dislike the products, the visual and acoustic features, and the choice of suitable medium (Fugate, 2007). Additionally, NM can pinpoint the actual consumer needs that aren't being met, which aids in the creation of more beneficial and enjoyable goods, advertisements, and marketing materials. As a result, neuromarketing's contributions are frequently used to create branding strategies and establish a brand's position in the market (Alsharif et al., 2021).

Functional magnetic resonance imaging (fMRI), a noninvasive neuroimaging technique, has seen particularly quick expansion in use. Researchers can separate neural networks linked to certain brain activities using fMRI. For instance, light stimulates part of the 125 million rods and cones in each eye when a person looks at a print advertisement. The midbrain receives nerve signals that focus the pupils and synchronise eye movement over the advertisement. Other rods and cone signals go through the optic nerve fibers, some of which switch over to the other side of the brain, causing the left half of the advertising to be perceived in the right hemisphere and the right half in the left(Wilson et al., 2008).

To better understand how people make decisions and are persuaded, researchers have used fMRI technology and approaches. For instance, (Cooper & Knutson, 2005) discovered the brain activity connected to expected value

calculation. When participants received a hint regarding the likelihood and size of a gain or loss at the start of an experiment, their brain activity was monitored. The activity required pressing a button within a time frame that changed depending on the likelihood of winning the prize (Wilson et al., 2008).

It is clear that the prospect of studying the neurological underpinnings of customer behaviour has sparked a great deal of interest among marketing professionals (Mucha, 2005). According to articles like these and the editorials described above in the neuroscience literature, neuromarketing consists exclusively of using neuroimaging to study consumer behaviour and how consumers react to companies and commercials. The scope of marketing research, however, is much broader than the response to products, brands, and advertising, and even consumer behaviour in general, as can be shown by even a basic review of the academic literature. This range of research must be considered in any definition of neuromarketing(Lee et al., 2007).

2. Literature Review

A study named "Consumer's Perception Towards Neuromarketing in India with Special Reference to Kano Model" was undertaken by (Kumar et al., 2017) The purpose of this study was to determine how consumers in India view neuromarketing. The method used was the Kano Questionnaire, which included questions about consumer awareness, consent, and understanding of what might be viewed as a breach of privacy rights. The study's findings revealed that consumers in India believe neuromarketing is essential for understanding customer behaviour and purchase decisions as well as for boosting the effectiveness of marketing efforts. Consumer dissonance is created when neuromarketing is applied covertly in India, according to the customers' clear perception of this practice.

The ability to record customers' bio and neuro-signals with wearable, dependable, and pleasant equipment has been made possible by advancements in neuroimaging technology during the past ten years. That inspired academic and professional scientists and researchers to carry out experiments for commercial gain and practical uses. In other

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words, rather of depending solely on the customer's report, it is now possible to capture in-the-moment consumer reactions, including mental and emotional states, in a genuine context. Neurophysiological signals demonstrate a number of additional advantages over behavioural (e.g., performance and reaction times) and subjective measurements (e.g., surveys) when used to evaluate the emotional and mental state of the customer (Alsharif et al., 2021).

Traditional marketing methods evaluate a customer's tendency, which does not necessarily indicate their attitude toward a brand or their desire to make a purchase. The vendor can interpret the buyer's actions incorrectly. Without a question, the primary objective of marketing is to assist businesses in connecting their goals to the requirements and preferences of present and potential customers and to better understand their behaviour. Neuromarketing sheds light on how customers' brains function in the presence of various marketing incentives. The benefit of this assessment method is that the results are unaffected by consumer prejudice and deception-avoidance behaviour (Birknerová et al., 2022)

As scientific methodologies enter the field of market research, conventional methods are becoming obsolete. The most popular contemporary method in the world of market research is called neuro marketing. Neuropsychology is used to do marketing research. Although this kind of research was successful in obtaining the consumers' explicit (or conscious) emotions, the traditional methods were unsuccessful in obtaining the consumers' implicit (or unconscious) emotions. Human decision-making is both a conscious and non-conscious process in the brain. The decision-making process is heavily influenced by non-conscious information (Birknerová et al., 2022; Gogoi & Mochahari, 2021)

3. Objectives of the Study

To study what is Neuromarketing is all about in Indian market perspective.

To study the awareness level of neuromarketing in practitioner perspective.

To understand the consumer perception about neuromarketing practices and its effect on their decision making.

4. Methodology

The study was done among the chosen indigenous companies in southern India and is based on an exploratory research approach. For the purposes of the study, both primary and secondary data have been employed. Since there were no records of the precise number of startups, a purposive sampling technique was adopted. Through a systematic questionnaire with both closed-ended and open-ended questions, the primary data was gathered. Only 18 of the 32 shortlisted startups have responded to the questionnaires that were sent to them via Google Forms. The study's secondary data were based on comparable studies that were published in a variety of journals, publications, reports, and websites. The study was carried out between March and June of 2022.

4.1. Measures (Research Questions)

Startup companies whichever agreed to respond the questionnaire, they were asked to respond the questions as follows

RQ1: What do you know about Neuromarketing?

RQ2: Aware of all most all the practices and methods in Neuromarketing.

RQ3: Willingness to undergo Neuro-Bio Feedback for neuromarketing purposes.

RQ4: Consumers perception about Neuromarketing practices and its effect.

5. Results and Discussion

Table 1 provides the summary statistics like demographic profile of the participants in the survey.

Table No 1
Demographic Profile

Sl. No	Demographic		Frequency (N =18)	Percentage (Out of n=18)
1	Gender	Male	14	77.8
		Female	4	22.2
2	Age	25-30 Years	5	27.8



		30-35 Years	6	33.3
		35-40 Years	4	22.2
		Above 40 years	3	16.7
3	Startup Type	Micro	3	16.7
		Small	10	55.6
		Medium	5	27.8
4	Education	Engineering and Technology	15	83.3
		Non-Engineering and Technology	3	16.7
5	Business Type	Service	15	83.3
		Manufacturing	3	16.7

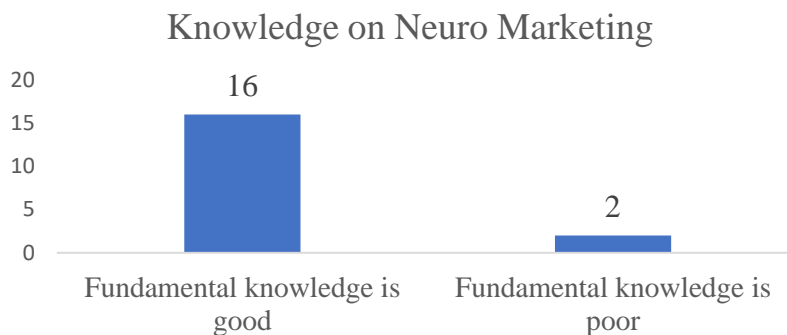
Male participants were more (n= 14/ 18) than the female participants in the study whose age almost in the range of 25 to 40 years majorly (Age 25-30 Years = 28%; Age 30-35 Years = 33%; Age 35-40 Years = 22%). Further, these participants educational qualification is engineering and

technology (Education Engineering and Technology = 83%). When it comes to startup type, nearby 56 % were small scale startup companies established in service as business type (Business Type service =83 %).

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5.1. Fundamental Knowledge on Neuromarketing.

Chart No 1
Knowledge on Neuromarketing



Respondents were asked to share their knowledge about neuromarketing in the form of description. The question was “What do you know about neuromarketing”. It was open ended question requested to brief out not more than 250 words. Further, all these response were sent to the subject matter experts in the field of neuromarketing and wished their rating about all these descriptions anonymously. Based on their rating, it was found that majority of the respondents (16 participant’s have good knowledge about neuromarketing whereas only 2 participants have poor knowledge about neuromarketing) (See Chart No 1)

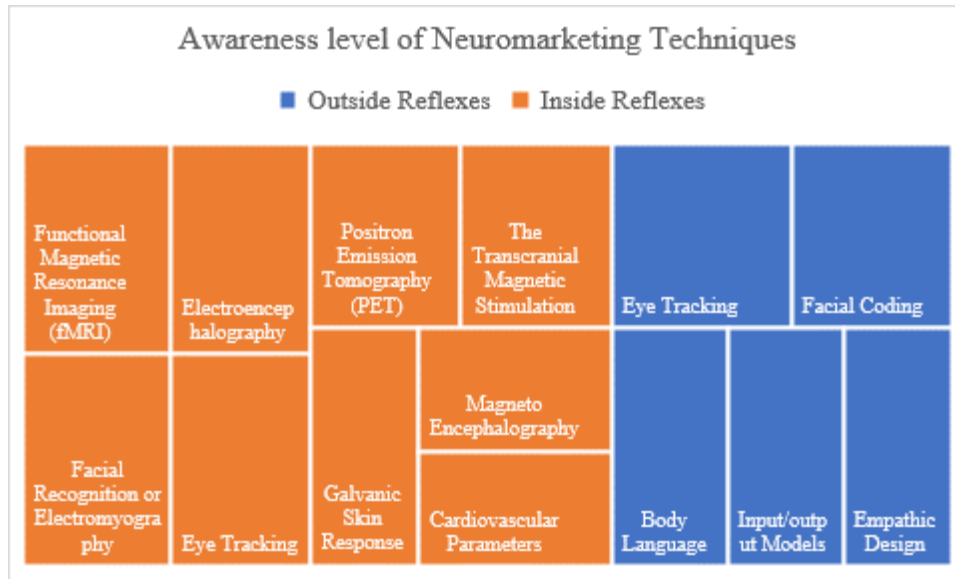
represents data values as the areas of rectangles. It is evident from this treemap Functional Magnetic Resonance Imaging (fMRI), Facial Recognition or Electromyography, Electroencephalography, Eye Tracking were the most awareness techniques among the available techniques listed in outside reflexes as 94% of participants know about all these techniques. Whereas Eye Tracking, Facial Coding, Body Language were the most awareness techniques among the available techniques listed in outside reflexes as 80% of participants know about all these techniques.

Awareness level of all the neuromarketing techniques shown in the below treemap

Chart No 2



Treemap represents data values as the areas of rectangles



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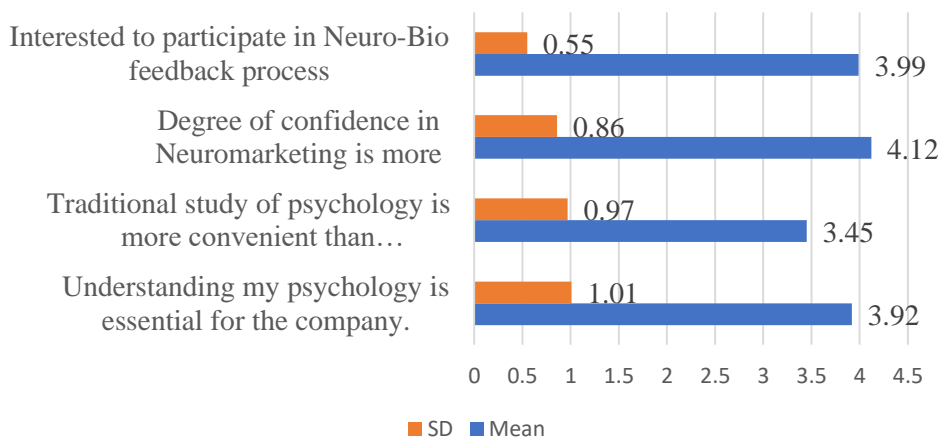
Practitioners were asked to share their experiences about willingness of consumers to undergo neuro-bio feedback for neuromarketing purposes. The particulars of mean responses of each measurement item were shown in the above table no 3.

Table No 2
Mean Score of Willingness to undergo Neuro-Bio Feedback for neuromarketing purposes

Sl. No	Measurement Items	Mean	SD
1	Understanding my psychology is essential for the company.	3.92	1.01
2	Traditional study of psychology is more convenient than Neuromarketing.	3.45	0.97
3	Degree of confidence in Neuromarketing is more	4.12	0.86
4	Interested to participate in Neuro-Bio feedback process	3.99	0.55

Chart No 3

Consumer Opinion experienced by Practitioners in Neuromarketing



When practitioners approached consumers with a request of what is their perception about Neuromarketing practices and its effect, they shared an opinion of flipped. These details are shown in



below table

Table No 3
perception about Neuromarketing practices and its effect

Sl. No	Perception about Neuromarketing and its effect	Mean	SD
1	Perception of neuromarketing research influence on the consumer.	3.67	0.42
2	Perception of financial reward for participants	3.45	0.76

It is evident from the table no 4, subject practitioners of neuromarketing received the average opinion about consumer perception about neuromarketing research was neutral (Mean = 3.67 ; standard deviation = 0.42) and it is also same for the opinion of perception of financial reward for participants (Mean = 3.45 ; standard deviation = 0.76)

6. Discussions

According to perception research on neuromarketing, the majority of respondents are highly unfamiliar with neuromarketing. Based on the practitioner opinion on neuromarketing research and its effect, respondents do not trust this strategy and generally view neuromarketing as risky and unethical. It is necessary to look further into participants' willingness to take part in studies that track physiologic shifts in humans for neuromarketing objectives. To boost consumer interest in participating in neuromarketing research, science and practice must concentrate on increasing consumer awareness of it. Examining the notable variations between desire to participate in medical research and neuromarketing in the context of enhancing medical procedures for the treatment of life-threatening disorders is also important. Consumers who believe that neuromarketing research is harmful or dangerous to humans are less eager to participate in studies. In the framework of the genuine dissemination of information about the research in issue, its benefits, hazards, and its application for the benefit of society, it is vital to increase consumer awareness while keeping the ethical nature of neuromarketing research. India has recently made significant advancements in the field of neuromarketing. According to the Boston consultancy group, between 2016 and 2025, the percentage of rich and elite people in India's five household income groups will

increase from 8% to 16%, while the percentage of people in the poor class will decrease from 31% to 16%. The percentage of wealthy and privileged people will rise from 27% to 40% of the total population. India, which has a population of more than 130 billion, is anticipated to surpass China soon in terms of global consumption (Prima Frederick, 2022).

7. Conclusion

The concept of neuromarketing offers intriguing potential as well as fresh avenues for further research and analysis in the realm of marketing. The idea is still in its early stages, but it has a promising future. Additionally, specialists in this sector concur that the notion has significant marketing benefits but also faces numerous difficulties that require further study. If a marketer uses the neuromarketing concept to comprehend the consumer's mindset in this cutthroat environment, he or she will have a high chance of success. Because of the advancements in science and technology, neuromarketing has a bright future.

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