

# NeuroMarketing Technology - In Choosing The Product And Its Benefits

1V. Gayathri, 2K. Sujitha  
1Assistant Professor, 2Final MBA Student  
Adhiparasakthi Engineering College

**Abstract** - This paper deals with the use of neuro-marketing technology in the marketing field. It deals with the history of neuro-marketing i.e., how it arises in the market what are the practical implications of the neuro-marketing, then concept, process, tools and techniques of neuro-marketing. Then some of the examples have been given for the better and deep understanding the concepts of neuro-marketing technology. Then it briefly describes that how consumers show their feelings, emotions from their conscious mind when respond to a particular product or ad. It shows what are all type of tools have been used in this technology. Neuro-marketing technology have been applied in various marketing related field. Then the study found that the neuro-marketing technology n combine with the neuro-marketing technology producing a relevant response to a particular product.

**keywords** - Neuro-marketing- Technologies, FMEG, EEG, MEG – Understanding Consumer behavior – Using neuro-science methodology.

## 1.INTRODUCTION

Neuro-marketing is the branch of neuroscience. It is a new field of marketing which uses medical technologies to study the brain's responses to marketing stimuli. It is the application of neuroscience to marketing. Neuro-marketing includes the direct use of brain imaging, scanning or other brain activity measurement technology to measure a response to specific products, packaging, advertising or other marketing elements.

Researchers uses some of the technologies such as MEG, FMEG, EEG to measure changes in activity in parts of the brain and to learn why consumers make the decision they do, and what part of the brain is telling them to do it. It can show how to engage the consumer, how to surprise him/her and engage him/her emotionally.

### 1.1 OBJECTIVE OF THE STUDY

- The main objective of my research is to study the working of neuro-marketing technology in the marketing field.
- The main objective of my research is to understand the marketing strategy of a particular product.
- And also to create awareness among the people about the technologies involved in the marketing field.

### 1.2 NEED OF THE STUDY

- In this scenario, the need of my research is to understand the clear vision of marketing technology.
- And also it is very much needed to understand the consumers behavior i.e., how they respond to a particular product.
- It is needed to collect the relevant data of about 70-80% from the human's brain.

### 1.3 SCOPE OF THE STUDY

- My project research can be useful not only for the corporate companies but also for many other companies in their marketing field.
- It is very easy for them to collect the data from the people conscious mind with the challenge of another product.

### 1.4 CONCEPT OF THE STUDY

While advertising a new product it is mainly based on to collect information on how the target market would respond to a product in the organization for the very first step. Traditional methods of marketing research include focus groups or sizeable surveys used to evaluate features of the proposed product.

But some of the conventional research techniques used in this type of study are the measurement of cardiac electrical activity (ECG) of the subject. Human decision-making is both a conscious and non-conscious process in the brain.

### OBJECTIVES OF NEUROMARKETING:

The main objective of neuro-marketing is to better understand the consumers through his cognitive processes and explaining consumer's preferences, motivations and expectations, predicting his/her behavior and explaining success or failures of the marketing.

### NEED OF NEUROMARKETING:

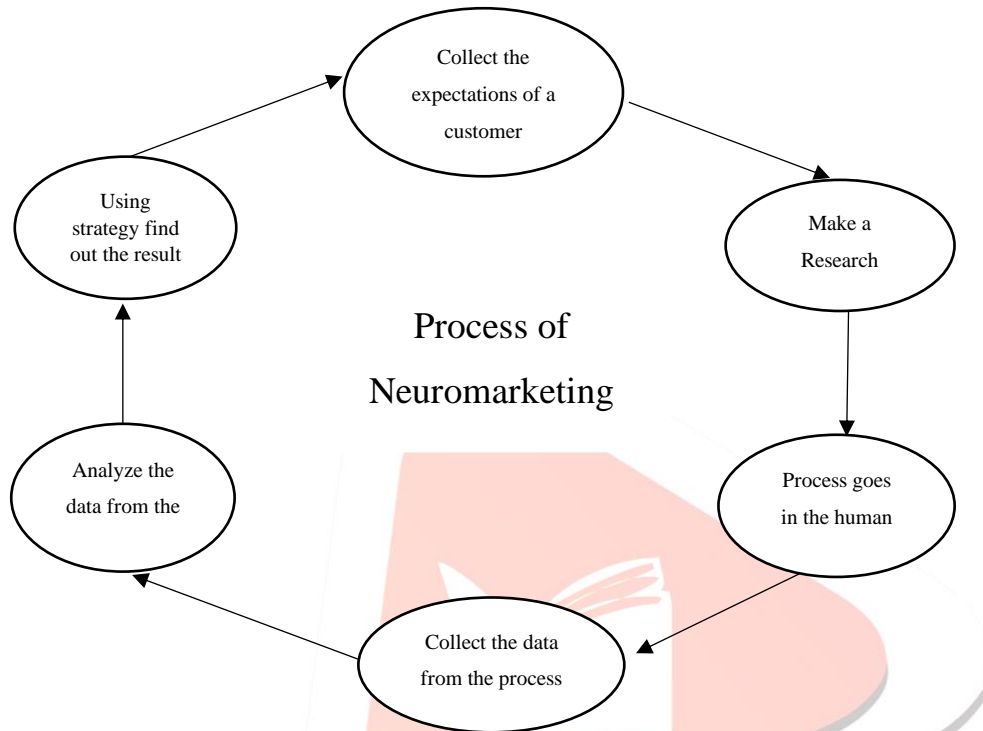
- The neuro-marketing is very much needed to know the customers preference upon seeing a ad/ or a product.

- It is very much needed to know the best possible solution from the customers mind. That is the solution comes from the subconscious mind of the customer. The solution is true. Because neurons don't lie. It gives only the customers preferences.

**SCOPE OF NEUROMARKETING:**

- It can tell us what's going on in consumer's brain while they are experiencing a marketing stimulus.
- It can tell us how brains react to marketing stimuli presented in different situational contexts.

**Process of Neuromarketing**



**Fig: process of neuromarketing**

**Step 1:** At first step the market mainly focus on the customer needs. That is what the customer needs are. Look into specification what type of product did the customer really need. What do they really want?

**Step 2:** Make a research process using the customer expectation.

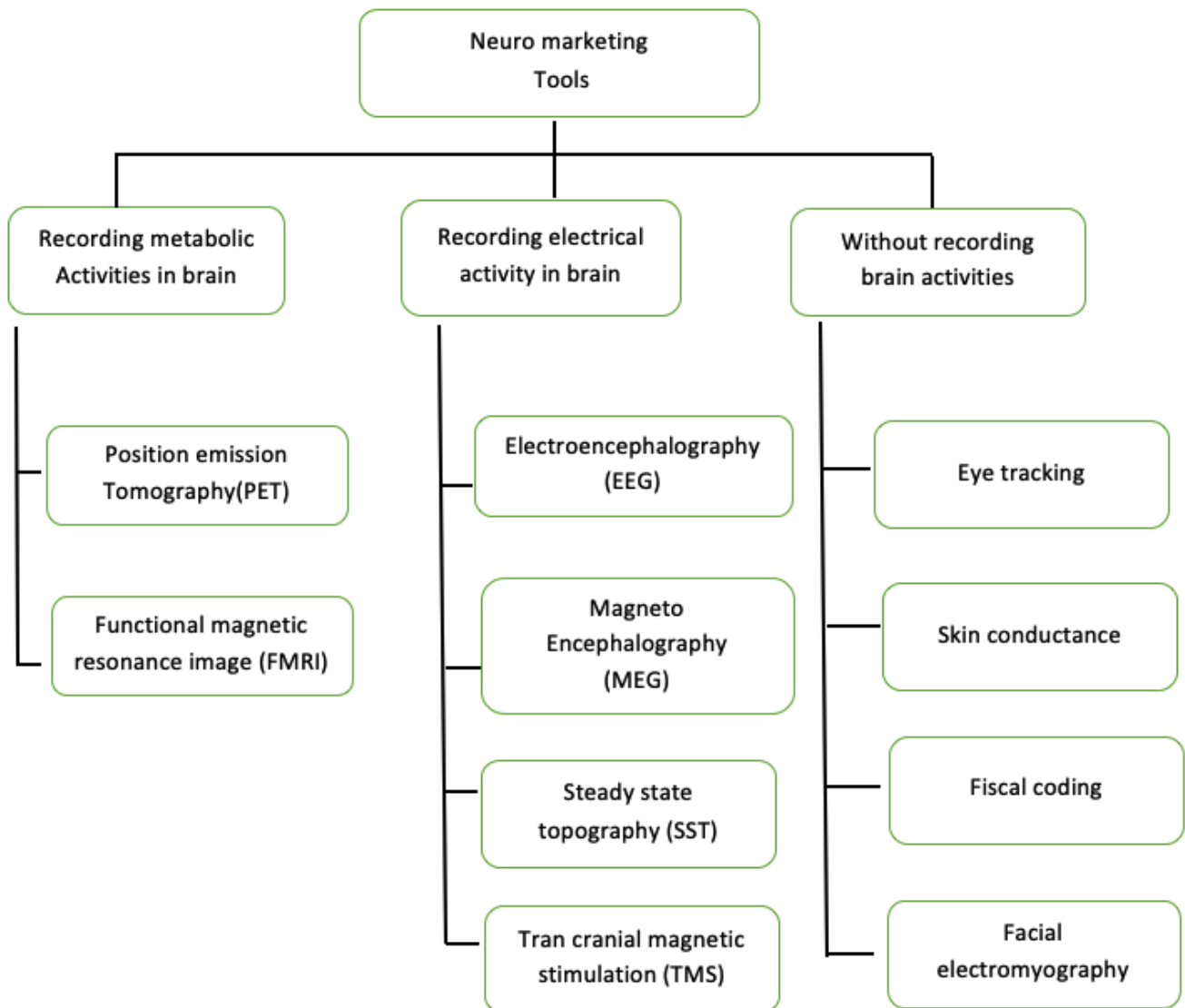
**Step 3:** Make a process in the human brain using the EEG devices in which electrodes measures the pulses and produces the data.

**Step 4:** Collect the data which acquires from the process.

**Step 5:** Analyze the data which acquires from the process.

**Step 6:** After analyzing the data, using the strategies find out the result. ie., which product that the customer really need it.

**2. TOOLS AND TECHNIQUES OF THE STUDY**



## 2.1 Neurological or Neuro-metric measures include the following:

### 1. FMRI (Functional Magnetic Resonance Imaging):

It is used to measure the blood flow. When parts of the brain become active, blood flows to them. It measures the brain activity indirectly. It is a modern method which is used for functional imaging of the brain, respectively mapping brain response to the external or internal stimulus. It has certain delay. It is expensive.

### 2. EEG (Electroencephalography):

It is most popular technology because of its low cost and manageable equipment. It is used to measure the strength at the scalp of very small electrical fields generated by brain activity. It is one of the most widely used methods in neuro-marketing research.

Its principle is based on the electrodes that are placed on the human skin. It can measure the current pulses in the activation of neurons. In the brain there are electromagnetic waves and they are spread. It is affordable compared to other methods and it is easy to use.



**Fig: electroencephalography**

In this picture it is clearly given that how electrodes have been placed in the human head. And therefore the response is taken and measured by electric fields generated by those electrodes.

**3. MEG (Magneto encephalography):**

It is used to measures minute changes in magnetic fields produced by the brain. Its resolution is very accurate because it can identify sources with an accuracy of few millimeters.

Time resolution is same as in the encephalography but it measures in few milliseconds.

It is expensive. So it is in less usage.

**4. ERP (Event Related Potentials):**

It is used to measures very small voltages generated in the brain structures in response to specific events or stimuli.

**2.2 EXAMPLES OF NEUROMARKETING:**

**1. Decision paralysis:**

“Less is More”



**Fig:Eg. for Decision paralysis**

In this picture about 60 sample varieties of jam bottles have been placed in a store. After seeing this 60% of the customers stopped to sample the jams.

Only 3% of the customer made the purchase.



**Fig: Decision paralysis**

The next they display only 6 varieties of jam bottles. After seeing this 60% of the customer made the purchase. From this it is clearly understood that too many choices may actually deterrent for the potential customers. It has been researched and proved and study made by Columbia University.

**2. Anchoring:**

The first piece of information your customer receives is highly important. It can be the basis for any subsequent decision making and set the tone for the purchasing behavior. Neuroscientists have discovered a flaw in the workings of the mind, and how it reaches decisions.



**Fig:Hotel charging Rs: 5000**





**Fig: Hotel charging Rs: 5000 offers free coffee**

If say for example, you are looking at two hotel rooms which are priced similarly but one offers a free coffee in the morning. Obviously, you are much likely to go with the free coffee. You prefer what you will more than likely but not explore the quality of the rooms offered by any detailed features.

As individuals, we are rarely able to evaluate the value of something based on its intrinsic worth, but instead we are comparing it with the surrounding option.

Advertisers often take this has a main advantage to attract most of the customers.

**3. Importance of Eye Gaze:**

Most of the ads include people that is much effective. Particularly, images and videos that include babies tend to attract longer and more focused attention from potential customers

Researchers discovered that when the infant looks face on, viewers will be far focused on the baby's face to the detriment focusing on the ad content. However if the infant is directing its gaze at the product or text then the viewer will in that focus on the advertising content.



**Fig: Eye gazing**

**4. Ad efficiency:**

One such example how neuromarketing has made use of FMRI is to compare advertising campaigns before releasing them to the general public. In one particular study, three different ads for the National Cancer Institute's telephone hotline were viewed by participants.

The ad campaign that elicited the highest amount of brain activity in a particular region, led to significantly higher calls to the hotline. By this clearly understood that it will genuinely reach the public.

**5. Revealing Hidden Responses:**

When testing a new advertisement, Cheetos used focus groups and EEG to evaluate consumer response.

In this particular ad, a woman played a prank on her friend by filing her white load of laundry with orange Cheetos. Focus groups reported a dislike for the ad. However when an EEG study was ran with the same participants it revealed that they really liked it. Participants in the focus group were afraid to voice the fact they found the ad humorous in case other members thought they were unkind. In this manner, neuro-marketing can reveal hidden thoughts and preferences.



**Fig: Hidden response**

**6. Memorable Headlines:**

Headlines are one of the first things the viewer sees to obviously they need to stand out and be noticed.

As a result they have been heavily researched, with a new neuro-marketing technique called “Hippocampal Headlines”. Researchers at University College London found that when a familiar phrase is slightly altered, our hippocampus is activated and our attention is made quickly.



**Fig: Memorable headlines**

### 3. FINDINGS OF THE STUDY

- Neuro-marketing technology in increasingly smaller devices are EEG headsets and “Galvanic Skin Response” devices. And also they measure the emotional arousal and stress when we wear around the wrist.
- Furthermore, military and athletic fields are working with wearables and other portable devices that measure all kinds of physiological parameters.
- Other companies and Universities are working on remote monitoring and assisting patients in order to reduce hospitalization.
- Eventhough, neuro-marketing works a lot in the marketing field. It has few limitations. So to overcome these limitations, entering into a new technology called nanomarketing technology.
- The reliability and validity of findings will greatly increase.
- The devices can be easily portable.
- Laboratory experiments can be combined with daily life miniaturized device’s tests.
- A deeper understanding of emotional states and their relation to consumer behavior can be gained.

### 4. SUGGESTIONS OF THE STUDY

- It is a handy tool for marketers in the research process.
- No matter which industry you are in, you can incorporate neuro-marketing.
- Helps to examine cultural influences on brand perceptions.
- Marketing researchers has never been so concrete and precise since the consumer cannot always honestly and accurately respond to the questions asked.
- Therefore neuroscience opens the door to the unknown world. It is about our unconsciousness.
- Eventhough many professionals talk about the increasing dangers and abuse from the usage of neuroscience.
- But it provides us with a unique and accurate feedback from the customer about the effectiveness and efficiency of the marketing communication.
- It is much more efficient than neuro-marketing.
- It has many advantages.
- In simple we can say neuro-marketing can be both good and bad.

### 5. CONCLUSION

From this project it is concluded that the research work of neuro-marketing technology has brought a tremendous changes in the world when compared it with the traditional marketing.

Neuro-marketing research has produced so many results like how a person respond to a product or ad. Eventhough it has produced a good research and also good results. It has some of the limitations. So that, It’s limitation can be overcome by using neuro-marketing with nanomarketing technology.

### REFERENCES

- [1] Ali Surn Yulmaz, Atilla Yiicel, Fatma Cubuk “Coffee tasting experiment from the neuromarketing perspective” 2015, WEI International Academic Conference Proceedings.

- [2] Jessica Boaretto Rocha, “Eye Tracking in Neuromarketing” 2015, International Journal of psychological studies. Vol. 7, No.1.
- [3] Silvia Klinckova, “Neuromarketing research and prediction of the future” in the year 2016 International Journal of Management science and business administration, Volume 2, Issue 2, pages 53-57.
- [4] Lina Pileliene and Viktorija Grifaliunaite, “The effect of female celebrity spokesperson in FMGC advertising”, in the year 2017 published in Journal of Consumer Marketing vol. 34 No. 3, PP. 202- 213.

**Websites:**

- [5] [www.edthinkingdigital.com](http://www.edthinkingdigital.com)
- [6] [www.imotions.com](http://www.imotions.com)
- [7] [www.cmo.com](http://www.cmo.com)
- [8] [www.researchleap.com](http://www.researchleap.com)
- [9] [www.newneuromarketig.com](http://www.newneuromarketig.com)
- [10] [www.neuroscience.com](http://www.neuroscience.com)

