

## **NEUROMARKETING - PERSPECTIVE AND FUTURE PROSPECTS IN INDIAN MARKET:A LITERATURE REVIEW**

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### **ABSTRACT**

*A look at the literature on neuro marketing points out to the fact that there is a definite agreement about the potential of neuro marketing as a useful, effective and a viable technique to assist companies in market research. Writers seemed to be delighted and hopeful about the successful application of neuro marketing. But all of them generally regard the concept to be in its primitive stage as of now. They have expressed that the technique is quite new and demands deeper understanding. Application prospects of neuro marketing have been not limited to broad marketing areas alone. Researchers have written that the technique can be pretty handy in specific areas of marketing like advertising and branding. Some companies from the West have already started using the technique and have even hired neuro marketing consultants to provide them research data. In the Indian context too researchers have expressed high optimism about the potential of neuro marketing. But specific applications have not been stated very clearly. It clearly emerges then that the concept is a value proposition but is an early baby for the Indian markets and marketers. There is a concrete need to study the concept in the context of Indian consumers as it is still in its primitive stages of application in India. It would be interesting to study the concept in details with a contextual application of FMCG products because some of the authors have expressed that it can be a penetrating tool for the vast Indian rural markets. This paper presents a literature review on the subject.*

**Keywords:** Literature Review, FMCG Products, Neuro Marketing

### **1. Introduction**

“It's easy for businesses to keep track of what we buy, but harder to figure out why”, says ReshmaGhorpade (2017). She further adds that while we are all making around 500 conscious and unconscious decisions a day, a marketer remains busy with that one important question: “how am I going to induce consumers into buying my product?” The answer to this million dollar question may lie in the new marketing technique of neuroscience, in which different methods can determine consumer experiences without actively asking questions. There is a big gap between conscious and unconscious behavior. People can be seen acting differently than what they say and remember. Vast majority of our choices are made unconsciously. If as a marketer one wants to predict and influence buying-behavior, we need to first understand how the brain works. Every year, billions of dollars are spent on advertising campaigns. Still, conventional and orthodox methods for testing and predicting the effectiveness of those investments largely fail because they tend to rely on consumers' willingness and competency to describe how they feel when they are exposed to an advertisement. Neuro marketing on the other hand offers cutting edge

methods for directly probing minds without requiring demanding cognitive or conscious participation. For a marketer it is extremely important to understand those emotional forces that push a customer towards a buying decision. Perception is a complex phenomenon. Often what a company believes about the consumer perception might be wrong. Such mistakes of judgment can be very costly and a number of product and marketing failures are a result of this mistake on the part of the marketing team. Therefore, if there is a mechanism which can provide a fairly accurate assessment of what is going on in the consumers mind, the company would be highly benefited. Neuro marketing aims at providing this vital and valuable information to the companies. It aims at digging deep into the customers mind and brain to extract specific emotions and feelings that are the real triggers for a buying decision. Same way, responses could be fetched for an advertisement as to what kind of thinking process a viewer is generating in his mind when he or she is looking at the advertisement.

With this background some of the key concepts are explained below:

## Neuro marketing

The term Neuro marketing can be defined as the usage of modern brain science techniques and methods to measure the impact of marketing and advertising on consumers. Its techniques and methods are based on scientific principles about how humans really think and decide which involves brain processes that our conscious minds aren't aware of. Neuro marketing tries to catch hold of human emotions that are relevant in decision making and uses this knowledge to improve marketing's effectiveness. The knowledge is used in product design, enhancing promotions and advertising, pricing, store design and improving the consumer experience as a whole. Neuro marketing can be viewed as a formal and systematic study of the brain's responses to advertising and branding, and the adjustment of those messages based on feedback to elicit even better responses.

Technologies such as functional magnetic resonance imaging (fMRI) and electroencephalography (EEG) are used by researchers to measure specific types of brain activity in response to advertising messages. It is this information on the basis of which companies learn why consumers make the decisions they do, and what parts of the brain are motivating them to do so.

The concept is reviewed briefly in terms of outline of its application, techniques and problems as under:

### Application areas

Experts believe the Neuro marketing can be applied in the following areas –

- Segmentation and positioning
- Store Design
- Professional Services
- Advertising
- Branding
- Entertainment effectiveness
- Consultancy

### Popular Neuro marketing techniques

- Functional magnetic resonance imaging (fMRI)
- Electroencephalography (EEG)
- Eye tracking
- Facial Coding

- Galvanic skin response
- Biometrics (Heart rate, skin conductance)
- Implicit association testing (IAT)

### Problem areas

- Ethical Dimensions
- Consumer Consent
- High cost of Techniques

## 2. Review of Literature

The review of literature was divided into two parts:

- a. General review and
- b. Critical review

While general review was done taking a number of research articles together that discussed a similar concept, critical review was done with reference to only one particular literature at a time.

### A. General Review

The first reports of the use of Neuro marketing techniques came out in June 2002. Specifically, an advertising company from Atlanta (USA), Brighthouse, announced the creation of a department for the use of functional magnetic resonance images (fMRI) to conduct marketing research (Fisher, Chin & Klitzman, 2010). Even before the technique received the prefix "Neuro", some companies already used neurophysiologic techniques, such as electroencephalography (EEG), to solve marketing problems (Fisher et al., 2010). However, with advances in technology, Neuro marketing techniques have been used to explore consumers' preferences (Murphy, Illes & Reiner, 2008).

Among the texts analyzed, many conceptions of Neuro marketing were found. Neuro marketing was described as a research field (Murphy et al., 2008), a field of neuroscience (Perrachione & Perrachione, 2008), a field of study (Lee et al., 2007 and Eser, Isin & Tolon, 2011), a part of marketing (Fisher et al., 2010), an interconnection of perception systems (Butler, 2008), a scientific approach (Senior & Lee, 2008), a subarea of neuroeconomics (Hubert & Kenning, 2008) and a distinct discipline (Garcia & Saad, 2008).

Butler (2008), Senior & Lee (2008), Hubert & Kenning (2008) and Morin (2011), associate Neuro marketing with a neuroscience

technique that identifies the cortical regions responsible for consumers' behaviour. Neuro marketing is also described as a research tool that provides direct observations of brain reactions during marketing stimuli (Hubert & Kenning, 2008).

ZinebOuazzaniTouhami et al. (2011) have explained Neuro marketing as a new field where marketing and neuroscience meet. The emergence of brain imaging encourages marketers to use high-tech imaging techniques to resolve marketing issues. Marketers and advertisers have exploited the results of many brain imaging studies to know what could drive consumer's behavior.

Vitor Costa Rozan Fortunato et al. (2014) gave a Review of Studies on Neuro marketing. They surveyed the main Neuro marketing techniques used in the world and the practical results obtained. Unconscious mental processes are major influences in people's deliberation. Among the newest techniques for the measurement of marketing stimuli are neuroimaging techniques, which make an image of the patient's brain using non-invasive means.

Lindstrom (2009) and Dooley (2010), discuss the benefits deriving from the technique to both consumers and organizations. According to these authors, consumers would benefit from the creation of products and campaigns directed to them and would have their decisions facilitated rather than manipulated, while organizations would save large portions of their budgets that are currently used on inefficient and ineffective campaigns, ensuring greater competitiveness and improvements to customers.

According to certain researchers, (Marci, 2008; Javor et al., 2013; Fugate, 2007 and Green & Holbert, 2012) the brain is a black box that hides consumers' emotions and preferences, and Neuro marketing works as a window that unveils and gives access to these emotions.

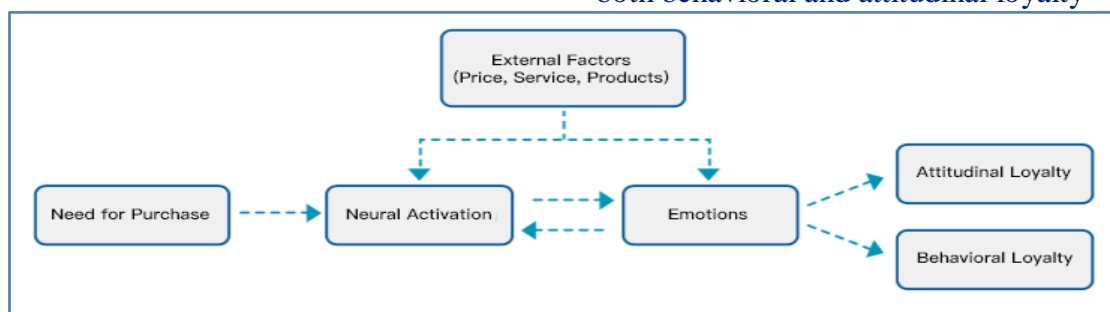
Neuro marketing was also recurrently defined as the neuroscience of consumers (Babiloni, 2012; Ohme&Matukin, 2012). Fisher et al. (2010) classify neuroscience more broadly as a neuroscientific field that studies consumers, whereas Neuro marketing is defined as the simple application of these results to administrative practices. Lee et al. (2007) make clear the distinction between the terms: Neuro marketing can be defined as the application of neuroscientific methods to analyze and understand human behaviour in relation to markets and marketing trades.

## B. Critical Review

### Research Articles

Peter T. Bürgi (2018) in his article has concluded that in the field of B2B part of the marketplace, lot of work is yet to be done – development of models of emotion and decision-making is to happen and they need a discussion. Further studies pointing out exact elements of behavior and relevant data should be collated and analyzed. While all this is to be done the fact remains however that just like any other consumer purchasing decision a B2B buying decision is emotional as well.

Ceri-Ann Hughes (2018) in the article "Rely on NPS? Look through the lens of neuro marketing" have given the following model to depict neural activations and emotions mediate both behavioral and attitudinal loyalty -



**Figure 1: Model to depict neural activations and emotions mediate both behavioral and attitudinal loyalty**

(Source: Ceri-Ann Hughes 2018)

The writer has argued that if we use neuro marketing for assessing loyalty it will reveal

the finer levels of true loyalty as against and the shallow nature of using NPS by itself.

Harit Kumar et al. (2017) have concluded in the context of Indian consumers that their perception of neuro marketing as an application in market research is positive. They believe that an important role can be played by neuro marketing in gauging the buyology of customer's and their decisions to purchase and it can also help in enhancing the effectiveness of activities of marketing. At the same time the consumers showed indifferent perception towards use of neuroscientific techniques for the study of their unconscious mind. Finally the Indian customers are very clear about their ethical concerns on use of neuro marketing and demand disclosure of its usage.

SiliHacihanefioglu (2017) conducted a research study using both eye-tracking and EEG to test sign language in TV advertisements and found that the use of sign language in TV advertisement does not lead to distraction of viewer or any kind of misunderstanding. On the other hand, it enhances the likeability of the brand and positively impacts the attributes of the brand image.

Hedda Martina Sola (2017) in her paper "Neuro marketing – Science and Practice" has concluded that neuro marketing as a branch of study is definitely a value addition to marketing research, that helps in analyzing the data in such a manner so that companies can use it to market their products in line with preferences of consumers.

Prof. (Dr.) Manish Madan, Ankita Popli (2016) in their article "A study on Neuro marketing as Emerging Innovative Market Research Strategy: An Interpretive Structural Model Approach" have stated that neuro marketing is relatively a new concept in the India and warrants for a firm platform of both academics and experiential. They have suggested a structural framework and believe that provides the same can provide insight into the factors that will assist a smooth entry of neuro marketing in the Indian marketing domain.

Harit Kumar and, Priyanka Singh, 2015, in their article "Neuro marketing: An Emerging Tool of Market Research" have stated that organizations like BBC, Coca Cola, Ford, Heinz, Intel and L'Oreal, P&G, Hundai, Microsoft, Yahoo, Ebay have already adopted

the neuromarketing as a technique for researching the markets. They have further stated that to get improved outcomes Companies are taking the help of outsourcing organizations like NeuroFocus, Neuro-Insight, Neurosense and Brighthouse.

Dr. Rath S. P. (2014) in his article "Future Indian brand power (A three decades Neuro marketing change trend study)" has opined that brands from Indian by and large have inclination towards English. However in recent times particularly in the last decade brands that Indianised are the one that are proving to be market strongholds. The future branding strategy of India's is shifting towards "Indigenous Branding" that is Indianisation in simple words and the same can be technically called as "Neuro marketing".

Vitor Costa Rozan Fortunato et al. (2014) in their research articles "A Review of Studies on Neuro marketing: Practical Results, Techniques, Contributions and Limitations", have presented an exhaustive review of research on neuro marketing. They have presented their results under seven different headings as under:

- a. Definition of Neuro marketing
- b. Importance of neuro marketing to marketing studies
- c. Neuro marketing and Traditional Research Methods
- d. Ethical Issues in Neuro marketing
- e. Neuro marketing Techniques
- f. Practical Applications
- g. Limitations of Neuro marketing

Based on the review they have pointed out the following gaps in research –

The exact domain of neuro marketing is not very clear. Quite a few results of neuro marketing experiments experimental suffer from inaccuracy and bias. Finally, neuro marketing efforts can facilitate understanding of different kinds of buying behavior which inherently is quite complex.

Benny Godwin et al. (2012) have stated that since the neuroimaging stimulus is generated even before the product is established in the market, it can be an amazing prospect for a next generation use in marketing. Findings of their study demonstrated that neuro marketing can be used to explain consumer behavior

towards the advertising campaigns of shopping malls.

Jayakrishnan S Nair (2011) in his article "Neuro marketing: Its Potential Role in Indian Rural Markets", has concluded that Neuro marketing is an extension of Neuroscience and Marketing and is an emerging concepts in the Indian markets. Neuro marketing assists the marketers in understanding the human mind and the way the brain impacts the purchase intention. Consumers from rural areas are not that simple and are diverse in nature. Hence neuro marketing can provide good insights about their intentions of purchasing.

#### Books reviewed:

Roger Dooley (2012) in his book *Brainfluence* has explained how to practically use neuroscience and behavior research for better marketing to consumers by developing an understanding of their patterns of decision. The tool, named neuro marketing, studies the way in which the brain responds to various sensory and cognitive stimuli for marketing. Analysts can use this to assess preference of a consumer, his reactions and the rationale behind their decisions.

Patrick Renvoise and Christophe Morin (2007) in their book *Neuro marketing: Understanding the Buy Buttons in Your Customer's Brain* have unleashed an amazing combination of the latest brain research and revolutionary marketing practices. The authors have described techniques that are highly effective in building and delivering powerful, unique, and memorable communication that will have major, lasting influence on the audience.

Dr. Thomas Zoëga Ramsoy (2015) provides a great insight into the way the brain and mind works, and how this knowledge can generate useful information for understanding of consumption behavior by marketers. The book also contains up to date and finer details about the application of the tools of neuroscience for assessment of consumer cognition and emotions.

Douglas Van Praet (2017) has made a very beautiful observation – "Before marketers develop strategies, they need to recognize that consumers have strategies too . . . human strategies, not consumer strategies." The author has urged marketers to move beyond asking

why, and start to ask how, changes in behavior happens. The author has cited few famous cases like that of Nike's "Just Do It" campaign; "Got Milk?".

Lindstrom (2010) in his famous book *Buyology* has raised some pertinent questions – "How much do we know about why we buy? What truly influences our decisions in today's message-cluttered world? An eye-grabbing advertisement, a catchy slogan, an infectious jingle? Or do our buying decisions take place below the surface, so deep within our subconscious minds, we're barely aware of them?" The author has questioned age-old marketing beliefs like "sex sells." With the help of examples of famous brands the authors have tried to pierce in the minds of the consumers to understand why they actually buy.

### 3. Conclusions and Research Gap

Based on the critical review of the literature following observations can be deduced:

- a. There is an overwhelming agreement about the prospects of neuro marketing as a promising, powerful and a potentially rich tool to help marketers in researching markets. Authors and experts are quite optimistic about the successful application of neuro marketing.
- b. At the same time a consensus is clearly seen about the newness of the concept. Authors have by and large commonly echoed that the technique is in its early days yet and demand further research.
- c. Apart from general application, the concept neuro marketing seems to be have attracted attention of experts in specific areas like branding & advertising also.
- d. Use of neuro marketing by industry in the West has been pointed out by some authors. They have even mentioned roping in of consultants to get highly specialized knowledge on use of neuro marketing techniques.
- e. In the Indian context, while authors have expressed optimism about the potential of neuro marketing, specific applications have not been stated clearly. Thus, it is quite clear that definitely the concept is an early baby for the Indian markets and marketers.

Based on the observations and the review following gap clearly emerges:

- a. There is a definite need to study the concept in the context of Indian consumers as it is still in its primitive stages of application in India and
- b. Since some of the authors have expressed

their thinking that it can be a good tool for penetrating rural markets, a product like FMCG can be a good testing ground for the study.

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