Project Dissertation Report on

AWARENESS AND PERCEPTION OF THE NEUROMARKETING

Submitted by

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CERTIFICATE

This is to certify that the work titled **'Awareness and Perception of the Neuromarketing field'** as part of the final year Major Research Project submitted by Vasudha Kaul in the 4th Semester of MBA, Delhi School of Management, Delhi Technological University during January-May 2022 is her original work and has not been submitted anywhere else for the award of any credits/ degree whatsoever.

The project is submitted to Delhi School of Management, Delhi Technological University in partial fulfilment of the requirement for the award of the degree of Master of Business Administration.

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DECLARATION

I hereby declare that the work titled **'Awareness and Perception of the Neuromarketing field'** as part of the final year Major Research Project submitted by me in the 4th Semester of MBA, Delhi School of Management, Delhi Technological University, during January-May 2022 under the esteemed guidance of Assistant Professor Dr Vikas Gupta, is my original work and has not been submitted anywhere else.

The report has been drafted by me in my own words and is not copied from elsewhere. Anything that appears in this report which is not my original work has been duly and appropriately referred/ cited/ acknowledged.

Vasudha Kaul

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EXECUTIVE SUMMARY

Market research is undertaken on every consumer or potential customer, but the question is whether or not what he or she says can be trusted, and to what degree. Neuromarketing is a relatively new field of study that allows researchers to examine how the body reacts to stimuli in order to identify consumption triggers without being influenced by self-reporting biases. When a customer interacts with a product or service, they may experience a range of emotions, which might have short- or long-term consequences. Emotional reactions ensuing from this encounter with new things may have an impact on consumers' opinions and, as a result, their buying behaviour.

Neuromarketing is a relatively new concept. It all began in 2002, owing to Ale Smidts' studies at Rotterdam School of Management as a professor of Marketing Research.

It's a branch of neuroeconomics that blends neurology, psychology, and marketing to study how the human brain reacts to a certain location, brand, product, or campaign throughout the shopping experience. The goal is to better marketing methods by going beyond the conscious hemisphere of the brain to capture the customer's unconscious and unspoken wants. What tools does Neuromarketing employ? Electroencephalography (EEG-Biofeedback) and functional electromagnetic-resonance (FMRI, Functional Magnetic Resonance Imaging) are both necessary for detecting cerebral activity, brain imaging, and emotional-cognitive responses. The EGG monitors the movement of electrical impulses between neurons in the cortex, which is the outermost part of the brain. It allows you to track emotions like fury, excitement, and suffering. However, it is not as precise as the FMRI, which uses a magnet to identify the pleasure centre. These tools, together with EyeTracking (which tracks ocular movement) and the analytical capabilities of Psychology and Behavioural Sociology, allow us to understand how our subconscious behaviour frequently takes precedence over our rational and conscious behaviour. The experiment that took place in 2004 between the multinational beverage industry titans Coca-Cola and Pepsi is one of the most well-known case studies involving the use of Neuromarketing methods. The purpose of the experiment was to confront the customer’s perspective and the power of the Brand to discover how the cultural features of the individuals may impact their opinion. The final results have undoubtedly made a substantial contribution to the marketing literature, with noteworthy statements about the impact that brand power has on customer

perceptions. In the scenario when the beverage was evaluated without identifying the brand, the sample examined revealed a clear preference for Pepsi. On the other hand, if the consumers were informed of the brand they were evaluating, 75% of them would say they preferred Coca-Cola, activating brain regions associated with self-esteem and good feelings.

Customer preferences and purchase behaviour were therefore impacted not by the product's real organoleptic features, but by brand experiences and expectations related to the images and ideals that Coca-Cola and Pepsi have built over time through their ads. Essentially, the true playing field for these two behemoths is one of brand awareness, or the perception that they are able to communicate, rather than one of goods.

In a similar fashion this study aimed to study the amount of knowledge consumers have about neuromarketing and how they perceive once we disclose the meaning of neuromarketing to them. But the study was conducted in a quantitative way with a descriptive research design.

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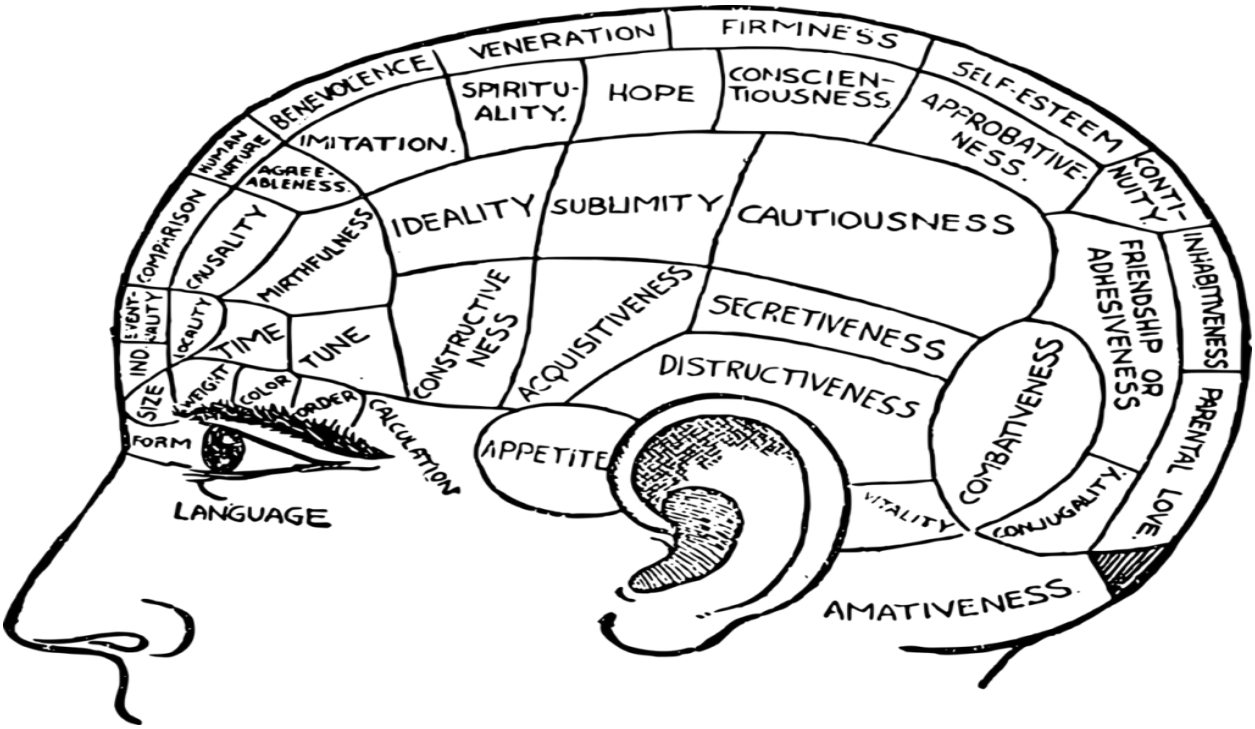
INTRODUCTION:



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Neuromarketing combines cognitive psychology, which studies mental processes, neurology and neurophysiology, which study the functioning and responses of the brain and body physiology to external stimuli, and marketing, which studies valuable exchanges, to explain marketing's effects on customer and consumer behaviour, as well as buying and decision-making processes. It entails a collection of research methods that, by seeing and measuring how the brain and other bodily parts behave, minimises any biases and delivers accurate and objective information about the consumer subconscious. Academic methods utilising techniques such as fMRI, Eye Tracking, or EED are referred to as "consumer neuroscience." The purpose of this item is to demonstrate what neuromarketing is and how it adds value to the study of customer behaviour and purchasing decisions.

With the growth of the Internet after the century, marketing theorists and practitioners were presented with the problem that the requirements of customers, and hence advertising, had changed. Consumers have become more ad-averse, making it much more difficult to reach them with advertiser messages. Brand owners, i.e., advertisers,

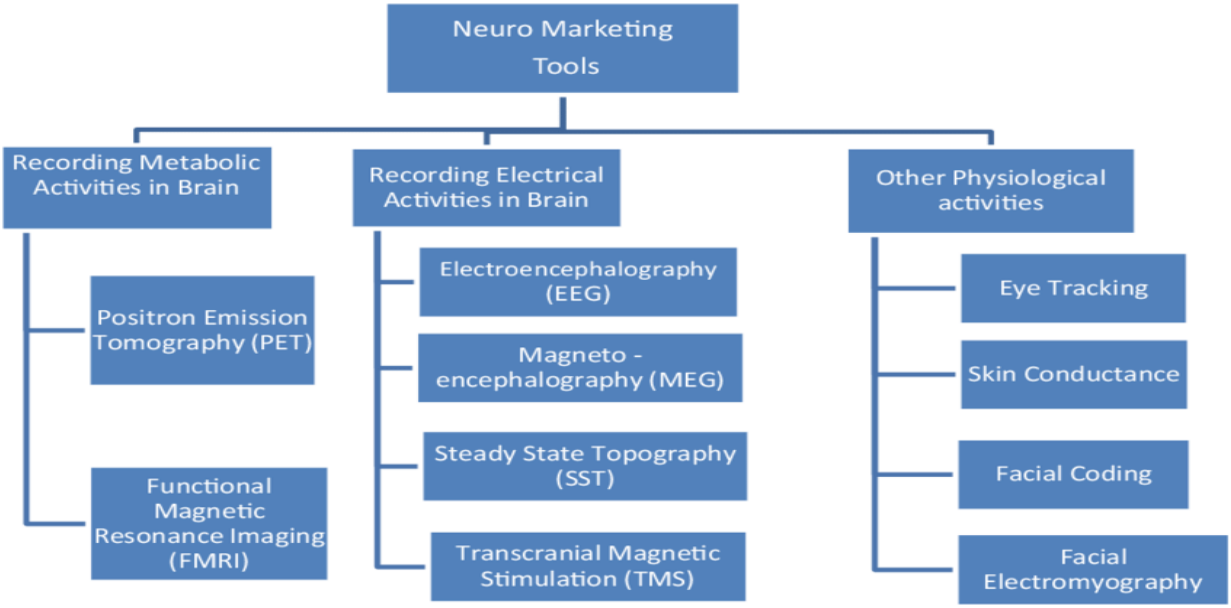
expect more accurate results from market researchers, and consumers have become more ad-averse, making it much more difficult to reach them with advertiser messages. There is a need to comprehend, explain, and, most importantly, anticipate the behaviour of individuals, organisations, and enterprises toward relevant markets, in addition to more precise data. Using existing technology techniques, this form of forecast is getting increasingly accurate.

All of this has had a natural influence on market research practise: as technology has advanced, software and programmes have been more readily available and utilised to better understand customers' demands than ever before. This tendency has resulted in the development of a study approach known as neuromarketing.

Neuromarketing is a commercial or academic research approach focused on the adaptation of neuroscientific techniques to marketing in order to better understand consumers' purchase processes by reaching out to their unconscious and subconscious minds. The knowledge produced by these procedures is extremely useful and, in some cases, impossible to get using more traditional research methods. Despite its clear additional value, neuromarketing's complete adoption by professionals and scholars remains a question.

Neuromarketing is a vivid picture of how market and academic research approaches and methodology are always developing. This new technique has allowed marketing researchers to fully explain questions such as why do you buy a certain product and not another, why do you like one brand more than another, why do you pick up one brand in the retailer's shop and not another, why does a commercial create a more intense emotional response towards a brand than another, and so on—and, in the end, it has allowed understanding the functioning of the consumer's subconscious.

The Tools of Neuromarketing



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"Neuromarketing" refers to the analysis of physiological and brain signals to gain insight into customers' intentions, preferences, and decisions, which may help inspire innovative advertising, product development, pricing, and other marketing areas. Brain scanning, which detects neural activity, and physiological monitoring, which detects The most prevalent techniques of measuring include eye movement and various proxies for that activity.

The most common technologies for scanning the brain are fMRI and EEG. The first (functional magnetic resonance imaging) uses strong magnetic fields to track changes in blood flow throughout the brain as the patient lies in a machine collecting continuous measurements throughout time. An EEG (electroencephalogram) uses sensors on the subject's scalp to monitor brain-cell activity;It can detect activity variations in split seconds but it's lousy at pinpointing where the activity occurs or detecting it in deep, subcortical portions of the brain (where a lot of interesting activity takes place). An fMRI can look deep into the brain, but it's inconvenient, and it only records activity for a few seconds, missing transitory neuronal events. (Moreover, fMRI machines are

significantly more expensive than EEG equipment, costing over $5 million with high overhead compared to roughly $20,000.)

Tools for measuring physiological proxies for brain activity are frequently less expensive and easier to use. Eye tracking (via pupil dilation) may assess attention and arousal; facial expression coding Emotional reactions can be measured through (feeling the minute movement of muscles in the face).; and heart rate, breathing rate, and skin conductivity can all be used to detect arousal.

Business school researchers began to establish in the mid-2000s that advertising, branding, and other marketing practises may have measurable impacts on the brain, generating a boom in consumer neuroscience interest. Emory University researchers provided Coca-Cola and Pepsi to participants in an fMRI scanner in 2004. When the drinks were not recognised, the researchers saw a similar brain activation. Subjects' limbic structures (brain regions connected with emotions, memories, and unconscious processing) exhibited increased activity when they could see the brand, indicating that knowing the brand influenced how the brain appraised the beverage. Four years later, a study led by INSEAD's Hilke Plassmann scanned test subjects' brains while they drank three wines of differing prices; their brains registered the wines differently, with neural signals indicating a preference for the most expensive wine. In reality, all three wines were similar. According to another academic research, consumers' mental assessments of worth may differ when they see a price. When the price was shown first, the brain data split, suggesting two separate mental calculations: "Is this product worth the price?" and "Is this product worth the price?" "Do I appreciate this product?" when the price was presented initially. When the product was displayed first.Despite these encouraging academic findings, marketers have been reticent to use EEG and fMRI technologies in their marketing campaigns. In a poll, just 31% of people from 64 neuromarketing companies stated they used fMRI equipment. "I know of three or four suppliers that have made fMRI their main service offering, and they've all failed," Carl Marci, the head neuroscientist at Nielsen Consumer Neuroscience, adds.

This anxiety derives in part from a general lack of faith in the technique's ability to deliver useful insights beyond what traditional marketing approaches can provide. "The dominating attitude...can be defined as...'neuroscience either tells me something I

already know, or it teaches me something new that I don't care about," Ming Hsu, a marketing professor at UC Berkeley, wrote in the California Management Review in 2017. Simpler methods, such as brain scanning, can indicate that the same beverage with different price tags can elicit different reactions in test subjects. According to a 2005 behavioural research, people who were given a cheap energy drink performed worse at problem solving than those who were given the same drink at full price. Is it really essential for marketers to learn that people's brains react differently to Coke and Pepsi in order to understand the importance of branding?

The squabbles between cautious scientists and ebullient marketers haven't helped to dispel the fear of brain scans. According to branding expert Martin Lindstrom's editorial in the New York Times, the way iPhone users felt about their phones in 2011 was equivalent to romantic love, according to fMRI study. The editorial was criticised by a group of 44 academics who wrote a letter to the New York Times.

This doubt, though, may soon vanish for two reasons. First, science has advanced greatly in the previous five years, supporting some of Lindstrom's and other early proponents of neuromarketing's bold "mind reading" claims. A research at the University of Pennsylvania, according to Michael Platt, chairman of the Wharton Neuroscience Initiative, is on the verge of proving that people love their smartphones on a cerebral level, exactly as Lindstrom said. As the science matures—and as more neuroscience PhDs leave academic laboratories for industry—brain scans are predicted to become more popular among marketers.

7 benefits of Neuro-marketing:

1. **Discover fresh points:**

   Marketers and creatives thrive on fresh perspectives and ideas. Neuromarketing looks at the lower-level effects of designs (like print advertisements) and videos (like TV and web ads) on people's attention, emotion, and memory responses; it takes a different approach than traditional research. Unlike many designers and creatives, who are concerned with the higher-level meanings of their work, neuromarketing research may concentrate on far more precise suggestions. The

specific design aspects that will promote emotional involvement in a product, service, ad, or package are just a few examples of insights into how to better design visuals to better catch attention, how to better edit an ad to make crucial information more memorable, and how to better design visuals to better catch attention are just a few examples.

2. **Uncover emotional and unconscious responses:**

   The majority of us go through a roller coaster of emotions on a regular basis. Some are brief and transient, while others may persist and go unrecognised. Our feelings and emotions, on the other hand, may impact our purchasing decisions. Neuromarketing methods may often help identify the reasons for these emotional reactions in a way that just asking questions cannot.

3. **Put measurements into common scale:** Even when consumers can actively describe or score their emotional responses or the amount of attention they feel an advertising aroused from them, there will be substantial variation in how they do so. It's tough to discern if some individuals are inadvertently exaggerating and others are downplaying when you collect replies from a diverse group of people in one sample. Although some of this variability is smoothed out by averaging data from a large sample, it is still an unnatural exercise for people to rate their emotions on a scale, and we aren't always capable of doing so correctly. Comparing results across cultures, where differences in expression entail even more variation, confuses the situation even further.

4. **Measure fleeting reactions that people can’t remember:**

   Neuro metrics may track reactions in real time while studying events that change over time, such as watching a television ad. This not only provides vital diagnostic information on how to enhance an ad's editing, but it's also difficult, if not impossible, to collect using normal question-based approaches.

5. **Ask people to think about how they feel about something can change the feeling:**

   Putting our conscious focus on a sensation may modify it in the same way that some chemical reactions occur and change a cell only when a light is shone on it.

When people are asked to offer their opinions on anything, they begin to research, adjust, and rationalise their feelings, and you no longer get the original, unadulterated emotion.

6. **Measure priming effects:**

   When we look at anything, whether it's a poster, a logo, or a piece of packaging, it conjures up a plethora of connected thoughts in our brains. Neuroscientists refer to this phenomenon as priming. Some of these ideas are linked to the emotions and perceptions evoked by a commercial or a brand logo, which neuro techniques may measure. Some of them, often without our knowledge, encourage us to pursue our goals. For example, seeing a luxury brand's banner earlier in the day may have piqued your interest in purchasing something extravagant.

7. **Can be scaled-up:**

   While a professional market researcher can frequently get over some of these roadblocks by asking questions and deciphering what others say between the lines, there is a limit to how many individuals they can interview. Companies may scale up neuromarketing research methodologies globally, using comparable methodology and resulting in comparable results.

LITERATURE REVIEW:

Neuromarketing

How do we decide what to buy? What, amid the plethora of signals that our brain is inundated with, has the most impact on our decisions? Perhaps the answer might be found in a particularly effective advertising campaign? Is it more likely that our purchase decisions take place below the level of our awareness, in our subconscious, where we are rarely aware of them? Such questions are addressed by neuromarketing. Smidts (2002) developed the name "Neuromarketing" to describe a growing interdisciplinary area that combines many disciplines concentrating on consumer behaviour: neurology, psychology, and economics, all of which Neuromarketing could take advantage of. The focus is on how marketing methods impact the human brain and decision-making process in particular.As many facets of this field of knowledge need to be researched, and prospective study areas are so vast and incalculable, it is apparent that it is still in its inception. The goal of Neuromarketing is to use cognitive neurosciences to explore customers' preferences and physiological reactions of the human body. We may remark that there is a significant gap between what we believe and say and what we do, without trying to be exact or delving too far into psychology or sociology topics. According to some researches, the subconscious is responsible for 95% of decisions, but it's unclear how to disclose such a hidden region of the customer's mind that standard marketing tactics have never accessed. Neuroscience tools are supposed to guarantee a look into the black box of the human mind, studying neuronal activities using neuro-imaging tools: brain images technologies are becoming more common in this field because they provide real-time comprehension of customer responses. However, combining the expertise of marketers and neuroscientists has proven challenging, partly due to public scepticism about ethical and privacy problems. In reality, neuromarketing tactics have the potential to read people's brains, making them open books for businesses. Another topic of contention in the ethical discussion is whether it is acceptable to utilise inferred data for commercial reasons.

Origin

Why did marketing give birth to this branch? One of the primary reasons is that the capacity to make a strong imprint and feel in the minds of customers, allowing them to recall a certain brand or experience they had, developing an emotional tie and hence loyalty in the repurchase, is critical to its success. Consumers' reactions to stimuli are mediated by emotions; knowing the nature of these sentiments is a critical step in better targeting marketing campaigns or implementing other viable tactics and activities. Traditional research methods such as surveys and questionnaires have shown to be inadequate to effectively analyse customers' opinions, hence neuromarketing was created to address the requirement to investigate more in depth brain activity associated with responses to marketing stimuli. Indeed, the results are frequently skewed by the procedures used and the subject's inability to speak the truth. This might be owing to the sometimes ambiguous or incorrect manner in which questions are phrased, as well as the unconscious nature of human behaviour. In other words, respondents are thought to be unable to judge themselves and sometimes even unable to recognise their own feelings. Morin (2011) found that just 20% of our brain is used consciously, thus it's pointless to spend a lot of money on market research approaches based on a Q&A framework if judgments aren't sensible.

Evolution and studies

Neuromarketing as a field emerged in the United States of America in 2002, when certain U.S. corporations began offering Neuromarketing advisory services based on collected cognitive neuroscience information. It was just a matter of time before marketers realised the value of using neurologists and scientists to identify customer views. Read Montague, a professor of Neuroscience at Baylor College of Medicine in Houston, Texas, published his work in 2004. He recruited a group of volunteers to drink Pepsi and Coca-Cola under two conditions: knowing which brand they were tasting and without knowing which brand they were tasting. Their brains were scanned, and the results revealed that while consumers favoured Coca Cola in the first scenario, they chose Pepsi in the second. The study found that the Coca-Cola brand was so strong that it was given its own section of the frontal cortex; the frontal lobe is where executive

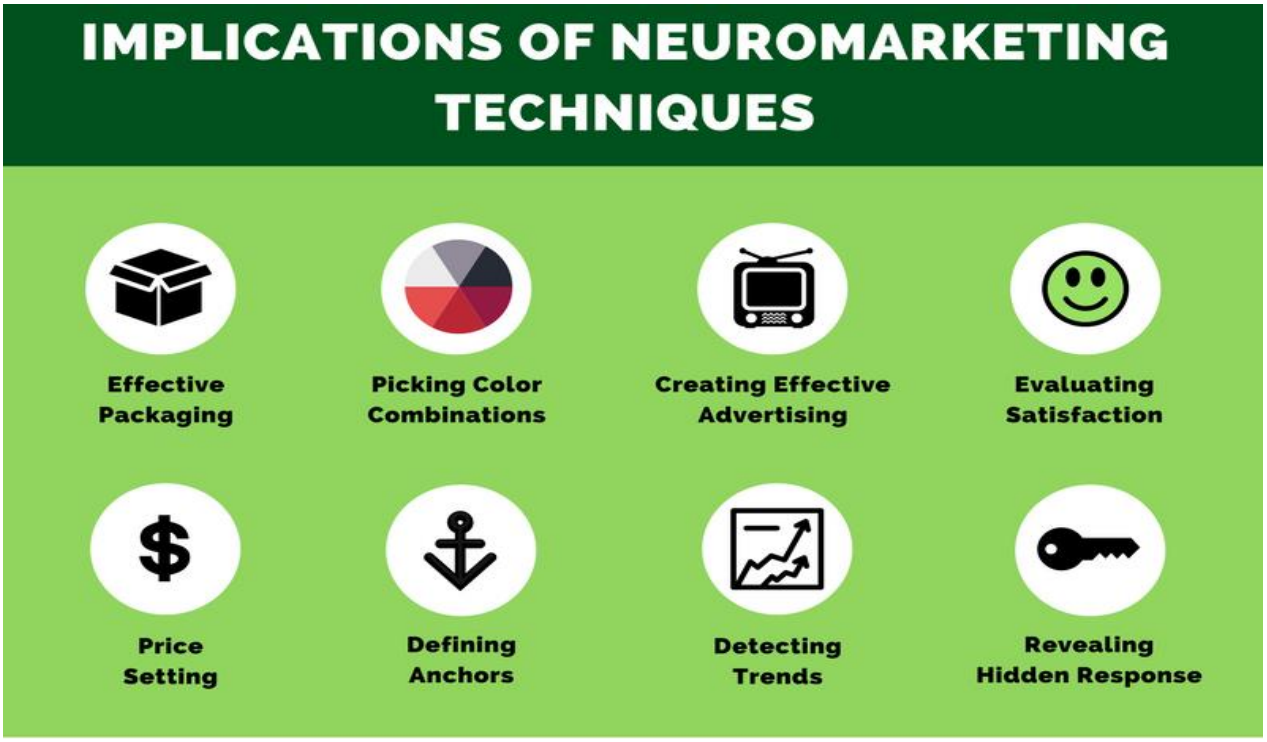
choices are made and where people's attention is managed. When participants who were uninformed of the brand preferred Pepsi over Coca-Cola, the most functional part of the brain was the one in charge of emotional and instinctual behaviour. Since it mined the instruments used to gain consumer insights till then, and presented ethical questions, which have been a major argument since the beginning of Neuromarketing, this study sparked a surge of criticism and media attacks. In fact, the greatest concern was the prospect of discovering a magic formula that might infiltrate people's minds and impair their judgement. Neuromarketing research, on the other hand, did not come to a halt; in fact, it had just begun. Critiques had failed to achieve their goals because marketers had squandered a lot of money on inferior goods and inefficient marketing strategies. Because of this, and because of the economic downturn, executives sought to get the most out of their investments, necessitating the development of innovative and effective ways for getting into customers' heads. This field should be viewed as a tool for better understanding human behaviour in corporate partnerships as well as the brain mechanisms that underpin societal challenges. Indeed, Neuromarketing is quickly becoming a well-known approach, and marketing advisors are becoming increasingly aware of its importance: over 90 Neuromarketing consulting firms have been established in the United States, with even more in Europe; when someone googles the term Neuromarketing, over 480,000 results appear. Many more tests were conducted in the following years, assessing physiological indices in a variety of domains, including TV commercial pleasantness, entertainment playing experience, food (e.g. cookies) or beverage (e.g. coffee) preferences, and many more.

Applications

Neuromarketing has spawned a slew of breakthroughs that are now being used in everyday sales tactics. For example, we can see if the appearance of VIP or handsome individuals in a commercial helps to increase a brand's trustworthiness since they activate reward and happy feelings in the brain, much as puppies and toddlers do. Two experiments, both involving the activation of the reward region, should be mentioned. First, in terms of automobile model preferences, those associated with a sense of well-being, social position, and reputation are the most popular. Second, when it comes to

wine quality, there is a positive correlation between price and perceived excellence. Last but not least, various brands or categories of items can stimulate distinct brain areas: researchers can anticipate which brand or product the person is most likely to acquire simply by looking at the activated zones. Regrettably, there are some drawbacks as well. Because the vast majority of published studies include corporate consulting projects, their trustworthiness is restricted. Furthermore, the scientific approach adopted has been criticised: research results might vary depending on the statistical methodologies used, therefore only a few things can be stated and suggested with certainty. Furthermore, the experimental setting might have a distinct influence on such investigations; for example, the location of the laboratory can be more stressful or relaxing (depending on the kind of environment) than the real-life scenario to which participants are exposed. High costs can also be viewed as a constraint, both in terms of purchasing cutting-edge technology and dealing with regulatory difficulties affecting businesses and government agencies.

There are a plethora of neuromarketing application sectors. Neuromarketing specialists' skills may be required by any firm or corporation that needs a thorough knowledge of its consumers in order to interpret preferences, predict reactions, find insights, or determine whether or not customers would enjoy a new product or service. Neuromarketing has come a long way in the previous decade, but it still hasn't realised its full potential. Actually, few marketers have a thorough understanding of neurocognitive sciences, and they have long worried public opinion's ethical concerns. However, the situation is rapidly changing: an increasing number of studies are being conducted in order to explore all of the discipline's potential. Neuromarketing might pave the door for an entirely new way of doing marketing research and determining the best ways to give consumer insights.



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Neuromarketing for the study of product responses

- **Emotions and attitude**

In terms of the impact of emotions on attitude development and purchase behaviour, marketing literature proposes a variety of models and hypotheses. The intention to buy precedes the purchasing process, which is in turn influenced by the customer's attitude. Attitudes are formed in reaction to several stimuli.

Voss, Spangenberg, and Grohmann (2003), for example, claim that attitude, particularly toward a brand, influences purchase intent and is influenced by both emotional and cognitive participation. "Affective reactions have a major and profound impact on individuals with affect-based attitudes, and the attitude is first acquired with limited cognitive analysis. When it comes to cognition-based attitudes, domain-relevant knowledge comes first, while emotional components come into play only after extensive cognitive evaluation. Although emotional processes are common in cognition-based attitudes, they play a minor role in attitude formation." In other words, affect is an individual's most emotive aspect, whereas cognition is the collection of all rational reactions that the consumer is aware of.

They are made up of diverse constructs when both emotional and cognitive reactions are considered as the key components that influence attitude. Kempf (1999) proposes that affect is represented by pleasure and arousal: the former is defined as "bodily change following directly the perception of an existing fact," while the latter is defined as "bodily change following directly the perception of an existing fact." On the other hand, cognition is represented by expectancy value from brand attributes, as a result of brand beliefs, belief confidence, and attribute evaluation. Many investigations revealed that only emotional reactions (such as pleasure and arousal) are outcomes of consumption and are linked to satisfaction. Another widely held belief is that various types of products require varying levels of emotive and cognitive participation. The former is thought to have an influence on hedonic, while the latter on the utilitarian extent of a consumer's attitude, as modelled by Voss, Spangenberg, and Grohmann (2003)..

- **Intention Formation**

Instead, according to Kempf's (1999) research, cognitive structure has a greater influence solely on functional outputs. However, according to numerous recent studies by Bodur and colleagues (2000) and Chaudhuri and coworkers (2002), affect is far more important in the development of attitudes. Researchers such as Zajonc and Markus (1982) and Petty, DeSteno, and Ruker (2001) discovered that in order to create an effective message and marketing plan, not only cognitive structure and affective reactions are important, but also behavioural factors must be considered. Other theories claim that the context influences the attitude: Chamberlain and Broderick (2007) argue that emotions are inextricably linked to the situation in which they are felt.

Finally, product testing may be a crucial phase in the building of a consumer's opinion. It is one of the most often utilised hands-on a priori marketing methods for simulating actual product consumption. Through this, customers' attitudes regarding the product begin to be formed, owing to freshly acquired information that would otherwise be unavailable to marketers and the use of the five senses by consumers.

In light of this, Kim and Morris (2007) propose an intriguing model, to better understand how product trial attitudes develop. According to the paradigm, product attitude, or a person's proclivity for a certain product, is impacted by trial attitude, which is always caused by both affect and cognition.

Despite these researches, the function of emotions in attitude building in marketing literature has yet to be extensively studied. More research is required, and it is hoped that these early-stage hypotheses will be enriched and clarified as a result. Indeed, doing an attitude study is the first step in determining each potential customer's intent and behaviour.

Many human reactions are researched in the field of Neuromarketing, in the form of feelings and emotions, and their usefulness for marketing research is quantified. But why are such replies so important in marketing? It is critical to be able to predict client reactions and comprehend the types of emotions that will be elicited in order to create a strong marketing proposal. When it comes to emotions, they are highly intense since they are tied to a certain moment when the state of readiness is high; nevertheless, when it comes to moods and attitudes, they are less intense but more anchored in the customer's conscience (Bagozzi 1999).

Furthermore, emotions differ from moods and attitudes in that the former are produced in reaction to assessments, whilst the latter are developed more slowly and in response to several stimuli (Bagozzi 1999). It is critical to emphasise that people's reactions to the same event may differ in terms of emotions, moods, and attitudes, thus it is also necessary to define a specific goal for marketing research. Arousal and pleasure, which describe the level of physical and mental ratification and may be quantified using Neuromarketing methods such as Electrocardiographic or Galvanometer, are the most relevant emotions for marketing research. Other types of variables, such as attention and memory, are also valuable in determining the relevance of a marketing message since they demonstrate the message's capacity to capture the customer's mind and the customer's openness to accept inputs.

As previously stated, several types of factors may be considered depending on the marketing research purpose. We shall define some of the human reactions that may be measured in the following lines.

• Affect is “the set of more specific mental processes such as emotions, mood, attitude. It can be considered as a general category for mental feeling processes, rather than a particular psychological process per se”.

• Emotion is "a mental state of readiness that arises from appraisals of events or one's own thoughts"; "it is essentially bodily arousal plus a cognitive label one provides to diagnose his/her felt arousal" ; "it is essentially bodily arousal plus a cognitive label one provides to diagnose his .

• Arousal is defined as "a physical change that occurs as a direct result of the observation of an existent reality" .

• Pleasure is a component of our brain's reward system that causes subjective experiences and adds to good emotions, resulting in addiction.

• A mood is "akin to an emotion, but lasts longer and is less intense".

• There is no single definition for attitude; there are many different perspectives on this concept. Some writers feel it is an evaluative judgement rather than a measurement of specific emotional states, such as good-bad responses. Others provide an alternative perspective, in which attitude is divided into two parts: emotive and cognitive.

Products

The literature frequently distinguishes between hedonic and utilitarian goods, as well as hedonic and utilitarian attitude components. Hedonic items are eaten primarily for emotional or sensory fulfilment, whereas functional products are consumed based on the predicted advantages. Instead, when it comes to consumer attitudes, the hedonic component is linked to a sensory and experience approach, whereas the utilitarian component is linked to a more instrumental and functional approach. Beyond these broad definitions, these two notions can be combined; the effect component has a greater impact on customers' attitudes toward hedonic items, whereas cognition has a substantial impact solely on functional products. In reality, this distinction is not always clear: a product might be seen as both hedonistic and utilitarian.

Blue jeans, for example, are mentioned by Voss and colleagues (2003) as utilitarian items, because having clothing is a requirement, yet individuals spend a lot of money and effort picking them as a trendy piece of fashion. The role of exemplars in the

formation of attitudes toward a category is a different level of analysis. According to Loken and colleagues (2002), evaluating single goods can predict consumer views in a certain class.

Neuromarketing Techniques: An Overview

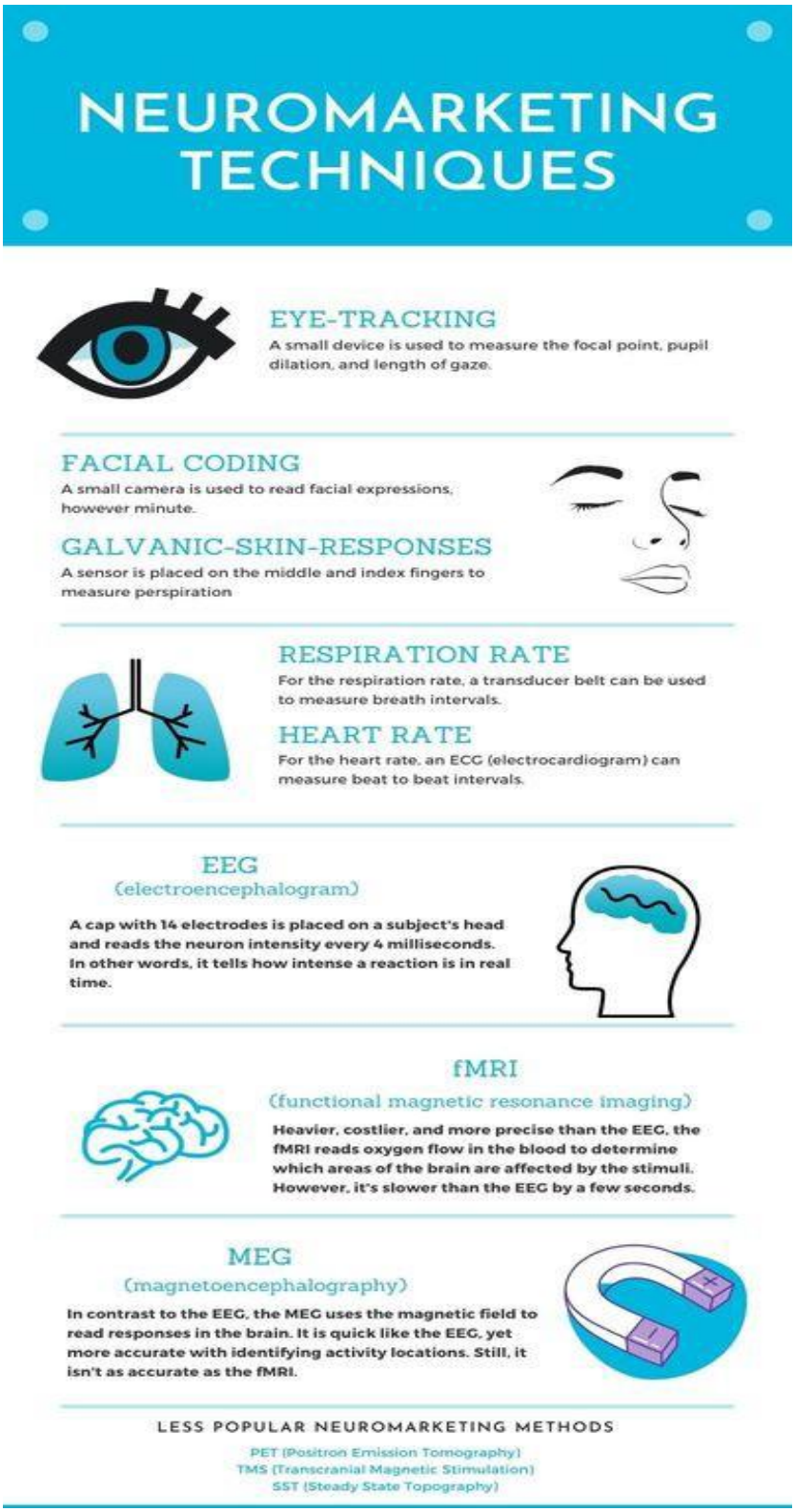
Neuromarketing demands high-tech equipment and talents that are out of reach for most companies. When executives are looking to select one of the many neuromarketing service providers, they must be aware of the most important traits and differentiating features of the numerous methodologies available.

Second, a number of academic studies have found that brain data can predict product success more accurately than traditional market research tools like surveys and focus groups. Emory University researchers, for example, reported in 2012 that activity in a specific brain area measured using fMRI while people listened to music was strongly linked to a song's future popularity as measured by sales data three years later.

The participants' responses to the question of how much they loved the music they heard, however, did not predict purchases. Standard judgments of ad efficacy did not predict the number of calls to smoking-cessation hotlines, but brain scans done while participants watched anti-smoking advertising did. Functional magnetic resonance imaging (fMRI) was used by a Stanford University team to predict the success of microloan and crowdfunding requests over the internet better than normal surveys. A team lead by Moran Cerf, a neuroscience and business professor at Northwestern, used the synchronisation of audience members' EEG readings as they watched movie trailers to predict the success of films with more than 20% greater accuracy than earlier methods.

These studies show how neuromarketing outperforms traditional marketing tactics, which have several flaws: Respondents, for example, aren't always forthcoming about their thoughts, feelings, and preferences. People have bad memories; they lie to please others or avoid humiliation; and their opinions can be changed by the wording of a question. "What we say isn't always a good reflection of what's going on in our brains," says Platt. Market testing can compensate for these weaknesses, but it's expensive, risks competitors discovering new items, and can only be done late in the development

process, when production and distribution infrastructure are already in place. Simulated markets and conjoint research are examples of compromise methodologies that feature a cost-quality trade-off. The ability of brain data to anticipate outcomes, termed "neuro forecasting" by Stanford neuroscientist Brian Knutson, appears to overcome these problems. Eye tracking and facial coding help to improve the effect of creative material. However, because these methods are pricey and technically difficult to use, they have yet to find their way into standard marketing toolkits. Nonetheless, Uma Karmarkar, a neuroeconomist at UC San Diego, believes that the added benefit of brain scans above traditional ways makes them valuable in some high-stakes situations, such as a big product launch by a large consumer goods company. "What should thrill marketers," she previously stated, "is the possibility that a small group of people may [accurately] estimate how a large client base would act." "When all the time, effort, cost, and quality issues of traditional techniques of getting to the individual's opinions are taken into consideration, neuro forecasting is genuinely a credible competitor," says Cerf.



Source: Medium.com

Measuring Physiological Signals

Despite these developments, neuromarketers have embraced less costly technologies like eye tracking and facial coding more quickly. Nielsen, for example, promises to utilise eye tracking to guarantee that customers' attention is focused at the correct times and on the proper items (a logo when it appears, for example), as well as facial coding to ensure that an ad elicits the response intended.

Neuromarketers have embraced less costly approaches like as eye tracking and facial coding fastly. Nielsen, for example, promises to utilise eye tracking to guarantee that customers' attention is focused at the correct times and on the proper items (such as a brand when it appears), as well as facial coding to ensure that an ad gets the response it was supposed to evoke (though Nielsen rarely uses any of its tools in isolation). Indeed, the insights that physiological techniques frequently provide—whether someone is experiencing a strong emotion, paying attention, and retaining the content in reaction to a specific stimulus, such as an ad—are quite useful for commercial production. According to Horst Stipp of the Advertising Research Foundation, "good originality is more important than anything else for advertising effectiveness." "There's also persuasive evidence that neuroscience-based marketing research methodologies might boost advertising effectiveness." Many academicians, on the other hand, prefer brain scanning over physiological proxies while doing research. "In general, the more away you get from the real brain, the worse your measurements will be," Knutson argues. Physiological measuring techniques, on the other hand, are likely to remain popular in industry because they have been around for longer, are less expensive, require less technical expertise to administer, and can easily be combined with more traditional marketing research tools such as surveys, focus groups, and so-called implicit association measures (for example, the time it takes to respond after being asked a question).

The Neuro Sell

Should companies invest in neuromarketing, whether through pricey brain scans or less costly methods? Some have already taken this step: Neuromarketing departments have existed for years at NBC and TimeWarner; more recently, Microsoft, Google, and Facebook have developed units. According to Karmarkar, most organisations cannot afford in-house neurocapability because of the expense, but smaller businesses can work with specialised consulting services. However, she and other industry experts are concerned that firms are exaggerating the benefits of neuromarketing. "There's still a lot of snake oil out there," Cerf says, adding that he's been approached by more than 50 companies looking for his help with a "neuroscience service." "I only identified six that meet a basic threshold I would consider relevant for managers," he continues.

The goal of industry groups is to help marketers assess the value of various neuromarketing strategies. For example, in 2017, the Advertising Research Foundation performed a large-scale academic research to examine if neuroscientific technology might predict market-level behaviour better than traditional approaches like focus groups and implicit association assessments: Researchers from Temple University and NYU compared traditional marketing studies against a variety of "neuro" techniques, such as eye tracking, heart rate, skin conductance, EEG, and fMRI. Further researches revealed that, while fMRI provided the biggest increase in predictive power above traditional methods, other methods were equally useful in improving ad originality and efficacy.

Consumers are already being influenced by neurological manipulation, which can be upsetting. Companies that wish to work with specialists to take advantage of new technologies should handle their collaborations properly. Karmarkar suggests hiring in-house neuroscientists to oversee the initiative and guarantee that neuromarketing professionals provide great input. A checklist, according to Cerf, can aid in getting excellent quality: Is the research carried out by real neuroscientists? Are the methodologies, data, or tools used by the firm published in any peer-reviewed journals?

Is the topic pool representative (a question that is especially important for global brands)? Do the consultants have marketing experience in addition to scientific knowledge? Do they have a track record of success? Is it possible for them to show that they will supply information that isn't available through usual channels?

Changing Minds

Marketers have always been concerned with more than just gauging client preferences; they've also tried to change them. Neuroscientists are beginning to investigate whether the brain may be used to influence purchasing decisions, a field of study that is both intriguing and laden with ethical issues. Here are some instances of how neuroscience might be used in the future to influence consumer behaviour:

- *Better segmentation:* Marketers want to know which groups of the population are the most responsive to their advertising and branding efforts. This segmentation has traditionally been done using demographics (such as age and wealth) or psychographics (impulsivity). It could be more useful to divide clients into groups based on their cognitive differences: In a study, INSEAD neuroscientists uncovered anomalies in the brains of those who are easily misled by marketing cues.
- *Sleep nudging:* We are susceptible to influence during sleep windows, according to neuroscientists. A 2015 study found that exposing smokers to the aroma of cigarettes mixed with rotten eggs during "phase 2" (the body's preparation for deep sleep) resulted in a several-day reduction in smoking. Since then, similar studies have shown that it is possible to increase product liking or encourage certain behaviours.
- *Hormone manipulation:* Brain activity is influenced by neuromodulators, which are hormones (such as testosterone, cortisol, and oxytocin) and neurotransmitters (chemical messengers) that allow brain cells to communicate with one another. Researchers are now investigating the impact of altered neuromodulators on consumer behaviour. In 2015, they observed that injecting testosterone into consumers increased their demand for luxury products; the researchers

hypothesised that luxury goods act as social identifiers, and that testosterone makes individuals more sensitive to status.

- *Temporary neural inhibition:* TMS devices use magnetic fields to stimulate or depress nerve cells in the brain, thereby "knocking out" certain regions, much like a brain injury does. In 2011, neuroscientists revealed that suppressing activity in the posterior medial prefrontal cortex using transcranial magnetic stimulation (TMS) reduced the amount of socially conforming behaviour. Moran Cerf has worked with people who have had their fear and disgust suppressed or amplified to see if they react differently to things that are normally frightening (insects, for example, or long-term disasters), and to figure out how to make people more susceptible to messages encouraging them to engage with those things..

While some may find brain manipulation disconcerting, if not downright terrifying, proponents contend that marketers already use tactics to influence clients without their knowledge. "Even if he doesn't understand it, a guy will be influenced by the superfluous model if he sees an advertisement for a truck with an attractive lady standing in front of it," says Michael Platt, whose organisation recently organised a symposium on neuroethics. "In order to conduct these discussions, we should enlist the help of specialists in the fields of law and consumer protection." But for now, I'm not too concerned." He and others contend that employing neuroscientific approaches to physically alter people's brains without their permission is now extremely difficult.

Manipulation of other kinds, on the other hand, is more delicate. Cerf's major complaint is a lack of transparency about what happens in neuroscience labs at large firms, particularly internet behemoths like Facebook, Google, and Amazon. Some companies have been chastised in the past for conducting tests without user consent, such as when Facebook altered the newsfeeds of almost 700,000 users without their knowledge in 2012. "My fear is if these corporations go rogue," Cerf says. "They've already started hiring neuroscientists from my and other labs, but neither I nor anybody else in academia has any clue what they're working on."

Even as marketers grapple with ethical uncertainty, some Silicon Valley start-ups are seeking to make brain imaging, for example, more nimble and less expensive. Cerf says,

"A portable, low-cost fMRI would be a game changer." Meanwhile, he and others say that the race to understand customers' ideas is accelerating, and marketers should at the very least stay up with basic science. Brian Knutson adds, "I'm astounded at how far science has progressed in the previous 15 years." "In such a short period, we've come a long way. And I feel we've merely scratched the surface."

Neuromarketing tools in detail

	fMRI	**EEG**	**GAZE TRACKING**	**PUPILLOMETRY**	**BIOMETRIC**	**FACIAL CODING**
Working	detects increased neuronal activity and increased blood flow in the brain	On the scalp are recorded electrical impulses from neurons within the brain.	identifies the direction in which people's attention is focused	determines whether or not the pupils of the subjects are dilated	measures heart rate, respiration and conductance of the skin. respiration	detects emotions on the face
What it says about the buying habits of people	emotional reactions in depth the degree of participation	the level of involvement how much can one remember	what intrigues them quickness of recognition	the level of involvement	the level of involvement if they have a good or bad response	delight, surprise, fear, and so on are common emotional responses

Usage	set a price enhance your brand	boost advertising and branding	enhance the look and feel of the website, advertisements, and packaging improve website design, ads, and packaging	increase the substance of advertisements improve ad content	
Advantages & disadvantages	the most costly and invasive approach Although less comprehensive than EEG, it is often regarded as the gold standard for detecting certain emotions. Lab based	many alternative procedures are more costly and intrusive Although not as exact as fMRI, it can detect changes in short time intervals.	It's a pretty low-cost and simple-to-implement method. When used in conjunction with biometrics, it's the most effective. does not take into account emotion	When used in combination with other techniques, such as eye tracking, it is most effective.	low-cost

COLOUR IS THE KEY

Colour has been scientifically demonstrated to have a significant impact on the purchasing of items. According to the report, 80 percent of purchasers feel that colour has an impact on a brand's attractiveness. If customers don't like the visual components, 52 percent will not return to the store. Certain physical sensations can be induced by the colour perceived by the eye. For the most part, orange will "smell" like orange, and red will "sound" louder than purple. We all know that colours are split into warm and cool hues since kindergarten. Synesthesia is the phenomena of one sense organ being stimulated by the stimulation of another. White, yellow, and blue are "light" colours; red, purple, blue, brown, and black are "heavy" hues.“Yellow, orange, red, and brown are "warm" colours; blue is "cold," while green is "cool." "Dry" colours are yellow, orange, red, and black; "wet" colours are blue, green, blue, and brown.

So, how do colours affect purchase decisions?

The red hue focuses attention to the advertising issue fast, inciting bold, hasty, impulsive behaviours, such as a spontaneous purchase. Do not, however, exaggerate the color's efficacy by «filling» it with all advertisements. Excessive red promotes rejection and, even worse, antagonism in the majority of customers. It would be more appropriate to highlight one of the most important parts of the commercial in red. The colour orange boosts vitality, instils optimism, and promotes spiritual harmony and inner equilibrium. As a result, it is recommended to submit an advertisement for health services and education, as well as an advertisement for children's items, under the «orange sauce».

The items are endowed with intellect by the soothing yellow colour (in the mind of the consumer, of course). As a result, yellow is the greatest colour to use for advertising computers, tape recorders, and other examples of "artificial intelligence." This option is also appropriate for marketing travel companies, as well as advertising and public relations firms.

Experts claim that the colour green has a soothing and relaxing impact. As a result of its utilisation, advertising for the health sector will be more effective: drugs, pharmacies, private clinics, veterinary facilities, and so on.

The colour blue represents international peace. Blue is the colour that can assist you persuade a possible partner of a positive business outcome and "unleash" for long-term deposits or investments. As a result, blue is an excellent hue to use when advertising financial services.

The colour blue draws attention to the message's most vital features. The consumer will remember your «trademark» rather than the name of the goods on the box if you highlight the blue slogan or brand typeface.

The text in the blue frame stands out among the general stream of adverts (for example, in a newspaper column): the reader will undoubtedly remember it.

Violet is a hue that might help you separate yourself from outward vanities and focus on what matters most. It contributes to the production of amazing ideas by improving brain function. As a result, when marketing services to creative people, the message of the items' amazing originality must be conveyed in purple.

Pink is ideal for promoting marriage agencies, women's and children's items, and perfumes because it increases a person's receptivity by activating in him everything that is lovely, delicate, and romantic.

Purple and black both aid concentration. Unlike the "creative" purple, though, the dark colour frequently evokes feelings of yearning and loneliness. As a result, it is not suggested for use in advertising, yet the presence of black is justified in specific instances (for example, when it is necessary to focus on danger or mystery).

White is the hue symbolises purity and openness, as well as a desire for new experiences. The colour white is frequently used in "neutral" advertising, in which the buyer is merely given the facts they need about a product – with no subjective judgements or accents.

Source: The Marketing Sage

Source: World of marketing

DECISION PARALYSIS

Do you prefer organic or normal orange juice, with or without calcium, and with little or maximum pulp? Is the quality of your toothpaste up to par? Is it the fluoride-added herbal type, the baking soda-based cavity-buster, or the original flavour crystals formula?

Perhaps the prospect of having to choose between any of those alternatives makes you avoid going to the store entirely, preferring to make do with what you have. According to a new line of research by psychologists critically examining today's marketing climate, while an explosion of consumer options can sometimes mean we get exactly what we want, too many options can also overwhelm us to the point where we choose nothing at all, and in the worst-case scenarios, may even erode our well-being.

"The premise is that self-determination is a good thing, and that choice is required for self-determination," says Barry Schwartz, PhD, a psychologist at Swarthmore College and author of "The Paradox of Choice: Why More is Less" (Ecco, 2004). "However, there comes a point when all of this choosing is not only ineffectual, but also counterproductive, resulting in sorrow, regret, anxiety of wasted opportunities, and unrealistic expectations."

Having too many alternatives, according to some research, encourages people to take less positive risks when making judgments and to rely on simplifying strategies rather than making more meaningful selections.

Psychologists, on the other hand, are investigating strategies to help individuals make better judgments so that their excursion to the commodities jungle is well-informed and increases rather than reduces self-determination.

When less is more:

Sheena Iyengar, PhD, a Columbia University Business School management professor, and Mark Lepper, PhD, a Stanford University psychology professor, were the first to experimentally establish the negative effects of having too many options. Customers prefer bigger jam assortments when offered an option between smaller and larger jam

assortments, according to a study published in the Journal of Personality and Social Psychology in 2000. When it comes to picking a single jam flavour, they're ten times more likely to pick from a list of six options rather than a list of 24 options.

Iyengar then looked at consumer decisions with bigger stakes to see if people would make different or better judgments if the outcome was more important to them. She and Wei Jiang, PhD, a finance professor at Columbia Business School, looked at retirement fund selections among 800,000 employees at 647 businesses in a study that is presently being examined at JPSP.

"People are given great incentives to join 401(k)s through tax shelters and business matching," Iyengar says. "In other words, you're simply wasting free money if you don't engage." More possibilities, on the other hand, prompted people to act like jam buyers: 75% engaged when given two options, but just 60% engaged when offered 59 options. Furthermore, the study discovered that the more alternatives available, the more cautious people were with their investment methods.

According to social psychologist Alexander Chernev, PhD, of Northwestern University's Kellogg School of Management, too much choice can lead to customers making hasty selections to avoid the trouble of combing through a profusion of options—which, regrettably, might disrupt a company's marketing campaign. When consumers were given varieties of the same brand of toothpaste—for example, cavity-prevention, tartar-control, and teeth-whitening types—they preferred to switch to a brand that only provided one option, according to a study published in the Journal of Consumer Research.

"If you release a product just for the purpose of launching a new product," Chernev says, "you can end up with many commodities that target the same buyer." Because the buyer is confused about how to make a choice, he or she may choose a brand that does not need any concessions."

Choosy choosers:

Fortunately, research has shown a number of coping mechanisms for the mega-choice world in which we currently live. In a 2003 JPSP research, Chernev reports on four investigations that found that the wider the assortment, the more difficult it is for individuals to pick, except in one case: when they arrive with a stated preference.

In that situation, people typically pick "satisficing," as coined by Nobel Laureate Herb Simon, PhD: the first plausible choice that fulfils their preferences rather than meticulously scanning all possibilities until they locate the best, or "maximising" one.

According to Schwartz, satisficing appears to be a viable overall decision-making strategy. Persons who aim for perfection are more prone to melancholy and perfectionism, are more inclined to compare oneself adversely to others, and are more prone to regret than people who employ satisficing methods, according to a research published in JPSP in 2002.

Optimizers should learn from satisficers, according to Schwartz: Don't compare your purchases to those of others, and don't wallow in regret—people, according to Cornell University social psychologist Tom Gilovich, PhD, feel worse about inaction in the long run than they do about action. Examine the options and pick something you like, even if it's not ideal; delegate the choice to experts like Consumer Reports; Don't compare your purchases to others' or dwell on your regrets—in the end, inaction makes people feel worse than action.

What is the final outcome?

"You'll be happy with the outcomes even if you perform a little worse objectively," Schwartz says. "All of the time you would have spent selecting out morning cereal, trousers, toothbrush, and dental floss can then be spent fostering the things that actually make you happy," he adds.

LOSS AVERSION AS A TECHNIQUE

Loss aversion is a psychological notion developed by psychologists David Kahneman and Amos Tversky as a result of their research. They discovered that when making

decisions, people value what we stand to lose more than what we stand to gain. According to his theory, we are harmed 2.5 times more by a loss than we are by a profit.

It's about the fear of losing, and it's a decision or option based on feelings rather than rationality. This loss aversion has become one of the most researched cognitive biases in fields as broad as economics and marketing. In terms of neuromarketing, it's fascinating to learn that consumers prioritise avoiding any loss in decision-making, even if the loss may not actually exist.

Loss aversion is completely emotional as a neuromarketing method, and copywriting is the most potent analysis tool. The words we use, how we write, the hook we use, and how we tackle a problem can all be used to reframe those feelings and turn them into a winning strategy.

Source: Decision Lab

How is loss aversion applied in a marketing strategy?

Words that elicit a sense of urgency. Language can be used to generate a sense that influences time, emphasising the importance of the current moment while also implying the risk of loss if you do not act promptly. "The offer expires in 3 hours," "Last units available," "Limited stock"...

Discounts are available. When prices fluctuate over time, it gives the impression that "now or never." As a result, the user sees a potential loss of a lower price for the same item.

Fear is a driving force. We sometimes do things out of dread of something bad happening or something spoiling.

We buy antivirus software not because it is a good tool that provides protection, but because we are afraid that a virus would infiltrate our computer and bring us harm.

FOMO (fear of missing out) is a term that refers to the fear of being left out This translates to a dread of losing out on something on social media or of being shut out of an online event, group, or scenario. For instance, a group discount coupon or a paragliding flight. We may not feel like flying but are terrified of being left out of a group activity.

The existence of emotions like dread contributes to the success of this cognitive bias. Because loss aversion is founded on the dread of losing, businesses can develop tactics to strengthen or re-convert that emotion in order to better connect with their customers.

GREATEST TV ADs:

1. **Apple – "1984" (1984):**

   People all throughout the country in the U.S. started buzzing when this Apple commercial aired in 1984. The company was marketing the launch of the first Macintosh computer. The advertisement, filmed by Ridley Scott (who previously helmed Alien and Gladiator) and based on George Orwell's renowned dystopian novel "1984", depicted a scantily dressed lady battling a brainwashing machine. In the futuristic civilization represented, a group of drones were sentenced to a life centred on the "Unification of Thoughts."

   This commercial hit all the right notes with its pop cultural relevance, intellect, innovation, and bravery. Surprisingly, Apple's marketing department first dismissed the ad as one of the least effective advertisements ever tested. They were totally mistaken! Customers raced to electronics stores the day after the commercial aired, buying $155 million worth of Macintosh computers three months later, cementing the campaign's legacy. Not to mention the fact that this one advertisement only aired once, yet it served as the inspiration for every future Super Bowl commercial.

2. **Wendy's – "Where's the Beef?" (1984):**

When one of the lines becomes a common term, you know you've got a classic commercial worthy of a slow clap. With their legendary "Where's the Beef?" commercial from 1984, Wendy's achieved this distinction. Individuals nowadays repeat this remark if they want more substance, whether it's a professor grading an essay or a company executive asking additional detail in a presentation.

Wendy's "Where's the Beef?" advertisements influenced fast food advertising for a long time. Never before in the history of fast food burger joints had a fast food burger establishment achieved such cultural power. David Lynch, Wendy's VP of Communications, called the commercial a "grand slam in the bottom of the ninth inning in the World Series." Despite the fact that Wendy's was on the edge of bankruptcy, the campaign brought in a record $76.2 million in sales only a year after it began.

3. **Tootsie Pop – "How Many Licks?" (1968):**

A small child asks nature's best, such as a cow, fox, turtle, and owl, how many licks it takes to get to the core of a Tootsie Pop. Of course, the wise old bird is the only one who knows the "correct" answer, which is three. Even yet, it's possible that the rest of the world will never know. They may never find out why the little girl was nude while speaking with the woodland creatures.

Tootsie Pop revolutionised the power of a good commercial with this classic campaign. The wise old owl was voiced by Paul Winchell, and the original concept was conceived by ad firm Doner (better known as Tigger in Winnie the Pooh). With products depicting the renowned figures being sold, the commercial became a valuable aspect of their company. Mr. Owl and the little boy may now be found on lunch boxes, t-shirts, and other merchandise.

4. **Coca-Cola – "Meet Joe Greene" (1979):**

Through creative co-branding, Coca-Cola and the NFL worked forces to put Mean Joe Greene into the hearts of Americans. This commercial went on to become one of the most famous in Super Bowl history. It has also received several advertising awards, including a Clio and a Cannes Gold Lion for its work.

The former Pittsburgh Steelers defensive tackle's tough-guy image was entirely softened by the Coca-Cola Mean Joe Greene commercial. A little child in the commercial selflessly gives his Coke bottle with Joe, who seems to be exhausted after a tough game. "Hey child, catch!" Joe exclaims as he tosses his jersey to his #1 fan, touched by the gesture. At this point, Coca-Cola was already the market leader in soft drinks, but the well-known television advertisement did more to improve professional football's image. The heartwarming sensation of meeting your personal hero is depicted in this film.

5. **Budweiser – "Whassup?!" (1999):**

This commercial has become a classic for all generations, and it was even imitated in the first Scary Movie. Budweiser's ad is based on Charles Stone III's short film "True," which featured him and his friends exchanging their distinctive greeting. You'll strike a chord with your target group if you include it while they're relaxing and watching a football game.

The Budweiser advertisement "Whassup?" has stood the test of time and is still a prominent ad in pop culture. Comedians, DJs, and talk show presenters like Howard Stern have all utilised the term in their acts. As a result of the ad, people in other nations who didn't even have Budweiser on their shelves were yelling "whassup" to each other. Without a question, this is one of the greatest commercials of all time and a worldwide phenomenon.

6. **McDonald's – "The Showdown" (1993):**

Regardless of their cholesterol levels, two of the NBA's finest players went toe-to-toe for a juicy Big Mac on the court. Larry Bird and Michael Jordan battle in the ultimate HORSE game, which starts off easy and gets increasingly tough as the game progresses. Finally, they shoot a basket off a building with ease and make the shot. After all, they didn't appear to be able to acquire the Big Mac. Maybe it's a message that after eating a Big Mac, you shouldn't expect to be a great athlete.

In a McDonald's advertisement, Michael Jordan and Larry Bird did a lot more than just promote the fast food giant. Advertising agency Leo Burnett came up with the original concept, which premiered at Super Bowl XXVII. The slogan

"nothing but net" was popularised by this entertaining campaign from one of the finest Super Bowl advertisements ever. Almost a decade later, it was redone with LeBron James and Dwight Howard playing for the Big Mac.

7. **Energizer – "Escape of the Bunny" (1989):**

While batteries aren't the most appealing of items, one of the industry's behemoths has harnessed the power of positive branding. Energizer has a catchy slogan ("It Keeps Going, and Going, and Going"), a trustworthy product, and one of the cutest intrusive mascots ever.

This funny, self-aware, sardonic, and meta Energizer ad from 1989 is hilarious, self-aware, sardonic, and meta. Long before Christopher Nolan pondered producing Inception, it's a commercial inside a commercial within a commercial. The enormous pink bunny (which was a direct shot at Duracell's pink bunnies in a previous campaign) is seen disturbing other people's ads as a homage to how Energizer outlasts the competition. It's one of the most well-known commercials of all time, and it's pure genius! The pink rabbit has taken on a life of its own since then, and it was inducted into the Madison Avenue Walk of Fame in 2017.

8. **Dos Equis – "Most Interesting Man in the World" (2007):**

It's a widely circulated social media and text messaging meme. He was a cultural force to be reckoned with when Dos Equis' most intriguing guy in the world made his appearance. After all, it takes a certain sort of man to have the world's strongest beard and blood that smells like cologne.

The Most Interesting Man in the World by Dos Equis is a dead ringer for the beer's prior mediocrity. Dos Equis quickly became one of the fastest-growing beers after the commercial aired, with sales increasing by over 22%. Young boys who desired to be just like the Dos Equis guy when they grew up were the target demographic. It just takes a few sips of their beverage to pique your curiosity. Of course, you risk being interesting for all the wrong reasons, but that's all part of the fun.

9. **Old Spice – "The Man Your Man Could Smell Like" (2010):**

Perhaps no other advertising has surpassed Old Spice's 2010 campaign in terms of viral success. The commercial features an arrogant, very attractive man who

urges women to compare their current boyfriends to him. According to the argument, he is the better choice, especially considering he smells great with Old Spice. He can also get you tickets to your favourite sporting event and turn an oyster into diamonds.

Throughout, the commercial is self-aware and amusing. The iconic final phrase, "I'm on a horse," was a particular favourite for many individuals when it initially aired. The ad firm Wieden+Kennedy designed the campaign, which became an instant phenomenon and was mentioned by many renowned fans. Not to add, once the advertisement aired, sales jumped by an incredible 11 percent. It's clear that smelling like the man your partner could smell like has a lot of influence.

10. **Always – "Like a Girl" (2015):**

    There is a lot of debate among this age about what it means to be a female vs a guy. According to tiresome old clichés like "you toss like a girl" and "stop crying like a woman," women are not as powerful or emotionally secure as men. Something always has to change, in his opinion.

    Always premiered their groundbreaking "Like a Girl" commercial at Super Bowl XLIX. "What does it mean to do X like a girl?" asks a group of individuals in the commercial. The younger ladies were taken aback by the question, whereas the older girls and lads responded with something demeaning and self-deprecating. It was a strong statement for a company, and it made viewers question their own values and perspectives. The feminine care company also took the risk of airing during a predominantly male-dominated event.

COMPANIES USING NEUROMARKETING:

These companies have a proven track record of using neuromarketing to increase sales:

1. **Yahoo:**

    In order to attract more visits to the search engine, Yahoo made an advertisement depicting people dancing all around the world just before launching their new branding campaign. They put this optimistic 60-second television commercial to the test using EEG (or electroencephalogram), a technique that uses sensors on

the subject's scalp to monitor brain-cell activity in fractions of a second. They were confident in this commercial before releasing it online or on TV since it performed well in brain testing, scoring well in the emotional and memory sections.

2. **Frito-Lay:**

   Even the best-laid plans can be changed on the fly because to neuro testing. Frito-Lay found this before launching a potato chip product, saving millions of dollars in the process. According to the study, subjects reacted unfavourably to the brand's glistening bags with chip images. The firm quickly switched to matte packaging, typography, and graphics, all of which performed well in the testing. The Frito-gleaming Lay's snack boxes vanished from the market, but the company's sales skyrocketed.

3. **HP:**

   In an HP ad for the HP Sprocket, a portable smart phone image printer, a father attempts unsuccessfully to get his teenage daughter's attention, or so he believes. When he sees the photographs he's been printing out of them over the years displayed in her room at the end of the ad, he's taken aback. According to neuromarketing, those who saw the commercial responded empathetically, and their emotions were gauged even before they could tell the marketers they were impacted by the spot. Oxytocin is a hormone that helps us empathise with people, and if your creative activates it, it may assist your audience interact and care about your company. The creative team at HP performed a fantastic job.

4. **Hyundai:**

   Knowing the importance of neuromarketing, the carmaker encouraged consumers to try out early prototypes and utilised EEG brain signal testing to learn more about their preferences and the sort of stimulation that eventually drew them to purchase. This information was utilised by Hyundai to modify the external design of its automobiles in order to boost sales.

5. **PayPal:**

Neuromarketing was proven to be highly efficient in convincing people to use Ebay's online payment service. One of the most beneficial discoveries was focusing on USPs for simplicity and speed, which scored high on the brain reaction, rather than hitting components like security and safety. Knowing this, they tailored their advertisements to entice users to the site, indicating that neuromarketing may once again be used to promote sales.

6. **Cheetos:**

Frito-Lay employed neuromarketing with the iconic Cheetos brand, evaluating the impact of an ad in which a lady perpetrated a prank on a friend by placing orange chips in a dryer with white garments. Despite the fact that focus group members claimed they loathed both the commercial and the prank, an EEG study of the same people revealed the exact reverse. They enjoyed the advertisement but were hesitant to say so in front of their peers for fear of being labelled as harsh.

A 2018 research on Superbowl advertising matched the Cheetos scenario. The neurochemical reactions of a group of participants in a focus group to over a dozen advertisements that played during the big game were measured using technology. Then they compared it to the Ad Metre's ranking of the advertisements. Surprisingly, the Ad Metre findings were at odds with the group results. USA Today rated the commercial that provoked the greatest emotional response as the least popular.

Why? While the brain cannot hide how an advertising affects a viewer, focus group members are more likely to hide their genuine sentiments about the commercial owing to groupthink and a desire to please the study's organisers. Neuromarketing isn't dishonest, and it can help you increase sales.

Source: Cleverism

Source: Cleverism

What is Group Influence?

Group Influence, sometimes known as "Social Proof," refers to the impact of other people's decisions on our own. The impact of group persuasion is especially potent in situations when our preferences are not well defined. Even when we have a preconceived notion, knowledge regarding the majority opinion might cause us to change our minds.

Our impressionability is explained in a variety of ways. Solomon Asch exhibited three possible reactions in instances when individuals' predetermined (clearly accurate) judgments contrasted with (obviously erroneous) collective judgments in his 1956 group studies:

- At no point did the participant comply (only 25 percent)
- Fear of rejection drove the individual to comply (the majority)
- The person was successfully convinced of a clearly erroneous decision.

Consumer offers are frequently given legitimacy through the use of group influence and social proof. Restaurants, for example, frequently have an excessive waiting list, and venues profit from lines that extend beyond the premises. To emphasise the appeal of a newly baked cake, wait staff may periodically take a slice.

Group Influence in Marketing

Marketers frequently exploit favourable testimonials or large user numbers as part of their strategy. Promotional offers that imply a strong demand for a product combine the effects of Group Influence and Scarcity.

The need of displaying popularity and utilising group influence is especially important in eCommerce since, unlike in physical businesses, online shoppers are unaware of former and current customers. Platforms such as Amazon utilise complex ways to collect user evaluations and demonstrate their trustworthiness. They've also created a powerful set of visual cues to comfort and convince customers.

The desire to fit in is a powerful motivator that provides a powerful sense of safety and security. It works best when a buyer has to choose amongst several comparable solutions. However, proving the popularity of a given choice might influence even more significant decisions

ETHICAL DEBATE

"The concern that neuromarketing would render customers' decisions fully predictable" is the most widely recognised ethical problem. This is owing to the neuroscientific methodologies of fMRI and EEG, which have proven to be the most effective in forecasting people's choices and ultimate buying decisions. For example, Knutson et al. (2007) revealed that, in addition to self-reported preferences, brain activity might predict a consumer's decision (for food products). As a result, it is stated that neuromarketing gives a tool that can recognise customer decisions even before they are made if neuroscientific tools can see into consumers' thoughts and extract information that the consumers themselves do not consciously know. Another ethical worry is that, while participants in previous neuromarketing studies have given their agreement to participate in research, the majority of these customers have not given their consent to have a subconscious "purchase button" that may be used to control their free will. According to Madan (2010), neuromarketing is still far from allowing researchers to create a marketing campaign that is so addictive that it entirely overcomes an individual's free will. However, even a modest amount of possible consumer manipulation remains a source of worry.

AUTOMATIC PERCEPTUAL CHANNEL

The automatic perceptual channel, as defined by James Potter in On Media Violence, refers to aspects that are received and processed in an unconscious manner - a concept that is closely tied to the objective of conducting neuromarketing research. Above the threshold of human sensory experience but beyond the threshold of conscious consciousness, this channel exists (Potter, 1999). Perceptual flow continues in this channel until the exposure is interrupted or the person's perceptual processing is "bumped" into the next higher channel of attention (Potter, 1999).

The goal of neuromarketing research is to influence customers' automatic perceptual channels, causing them to make unconscious decisions without being "bumped" into conscious consciousness. While there has been a lot of study done in the subject of

neuromarketing, there have been no studies that directly ask consumers about the core assumption of neuromarketing, which is that it makes judgments for them unconsciously, so hindering their freedom of choice. This study will reveal how ordinary customers feel about being marketed to on a neuro-level.

RESEARCH OBJECTIVE:

I. The goal of this study is to determine how well-informed Indian consumers are about neuromarketing.

Research Questions

This study is being done to understand and evaluate people's understanding of neuromarketing, consumers' comfort level with the execution of this research, and the perceived ethicality of instilling a "purchase button" in the unconscious brains of nonconsenting people.

Ques1: Extent to which consumers are aware of neuromarketing?

Ques2: How do customers perceive neuromarketing once they know it?

Ques3: How comfortable are customers with neuromarketing being used by companies to influence their buying decisions?

This study will teach both consumers and marketers about the benefits of conducting more complex market research. While previous research has shown that consumer knowledge is advantageous to marketing goals, consumer awareness may have the reverse impact, pushing customers away from firms that use these tactics. In addition, the findings of this study might have consequences for future marketing policy and advanced market research implementation.

METHODOLOGY:

This study assesses consumer knowledge of neuromarketing in India by conducting a quantitative survey on consumer awareness of developing neuromarketing practice in Indian and international markets.

The researcher performed a survey that comprised multiple-choice questions as well as some open-ended questions with a likert scale. The researcher devised the questions based on what he had learned from past study. The survey was kept short to promote completion, asking only the most important questions to address the study questions. The poll was prepared with Google Forms and circulated over social media, and it was considered a convenience sample. Participants were informed that their responses would be kept personal and anonymous, and that they might leave the survey at any time. Participants then electronically consented to the survey and completed it. The poll was open for a four-day window and received 60 responses. Participants' sole identifying information was their age, which was chosen from the following ranges: 18-22, 23-30, 31-39, and 40+ age groups. This was done to see whether there were any differences in answer themes for any of the questions between the different age groups. Participants were quizzed on their knowledge of neuromarketing, their familiarity with this form of market research, and their views on the ethics and free will involved in implementing neuromarketing study findings. Participants who didn't know what the word "neuromarketing" meant were told before continuing with the rest of the poll.

These were asked in a yes/no format or on a 5-point Likert scale. The comfort level with this market research method was measured on a scale that varied from highly uncomfortable to highly comfortable, with a neutral option also available. For discussion purposes, quantitative data was analysed using Google forms and converted to percentages.

Research Design

- **Quantitative Research:** Quantitative research seeks to determine the number of individuals who believe, behave, or feel a certain way. Quantitative research uses large sample sizes and is more concerned with the quantity of responses

collected than with the more focused or emotional understanding sought by qualitative research.

- **Descriptive Research:** A descriptive research design is a study that aims to collect data in a methodical way to characterise a phenomena, situation, or population. It mostly assists with the what, when, where, and how of the study challenge, rather than the why.

Data source

Primary and secondary sources of data are used.

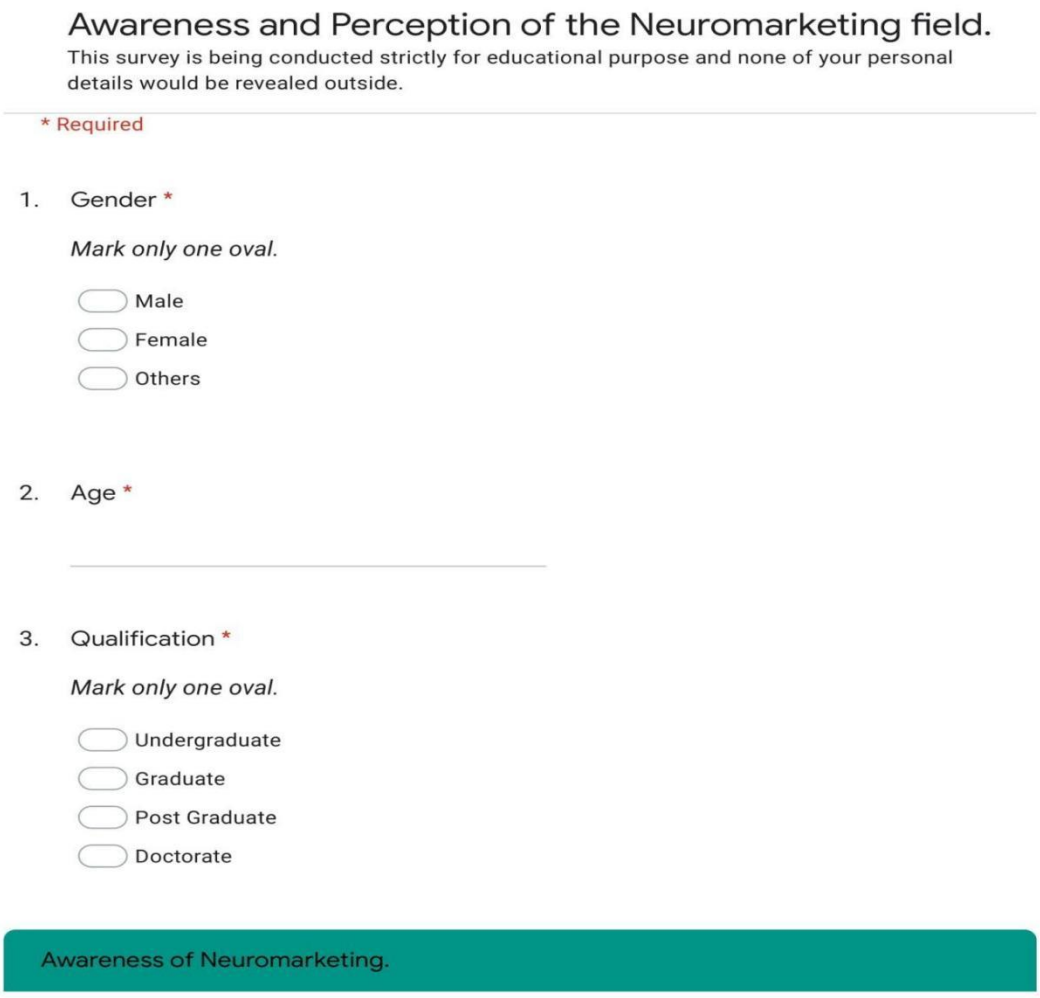
Research Instrument

Survey form/ questionnaire (yes/no questions and likert scale)

Sample Size

The study uses both primary and secondary data, with a sample size of 60 people.

SURVEY:



Awareness and Perception of the Neuromarketing field.

This survey is being conducted strictly for educational purpose and none of your personal details would be revealed outside.

* Required

1. Gender *

Mark only one oval.

- Male
- Female
- Others

2. Age *

3. Qualification *

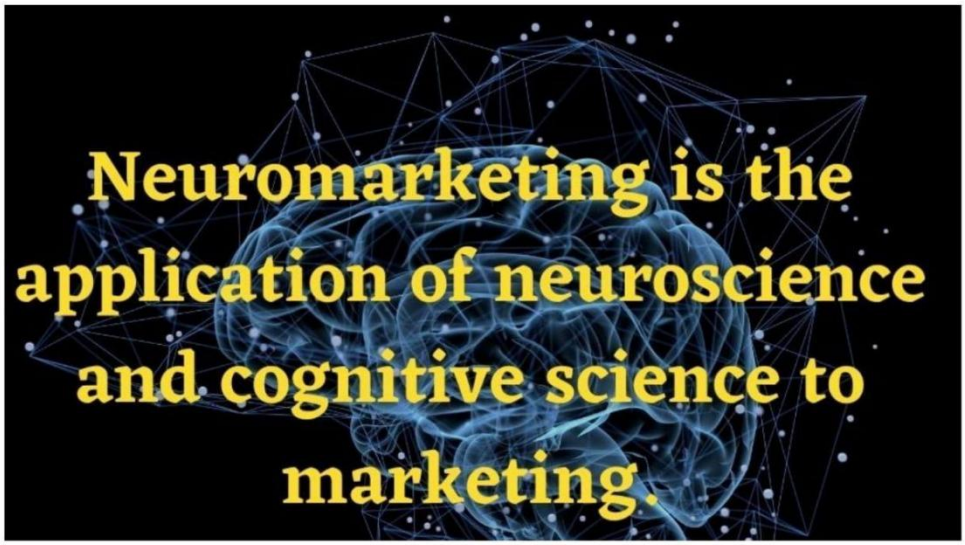
Mark only one oval.

- Undergraduate
- Graduate
- Post Graduate
- Doctorate

Awareness of Neuromarketing.

Definition of Neuromarketing.

Definition of Neuromarketing



4. Neuromarketing is a field of.. *

Mark only one oval.

- ◯ Science
- ◯ Management
- ◯ Both

5. On a scale of 1-5 how relevant does COLOUR seem to neuromarketing. *

Mark only one oval.

	1	2	3	4	5	
Highly Irrelevant	◯	◯	◯	◯	◯	Highly relevant

6. On a scale of 1-5 how relevant does LANGUAGE seem to neuromarketing. *

Mark only one oval.

	1	2	3	4	5	
Highly irrelevant	◯	◯	◯	◯	◯	Highly relevant

Popularity of Neuromarketing

7. Tick mark the companies you feel use neuromarketing *

Check all that apply.

- ☐ HP
- ☐ Hyundai
- ☐ Google
- ☐ Cheetos
- ☐ Walt disney

8. Is neuromarketing available as a subject in India? *

Mark only one oval.

- ◯ Yes
- ◯ No
- ◯ Not sure

Perception about Neuromarketing

9. I am comfortable undergoing a psychoanalytic test in return of some reward. *

Mark only one oval.

	1	2	3	4	5	
Strongly disagree	◯	◯	◯	◯	◯	Strongly agree

10. I am comfortable with companies influencing my buying behaviour. *

Mark only one oval.

	1	2	3	4	5	
Strongly disagree	◯	◯	◯	◯	◯	Strongly agree

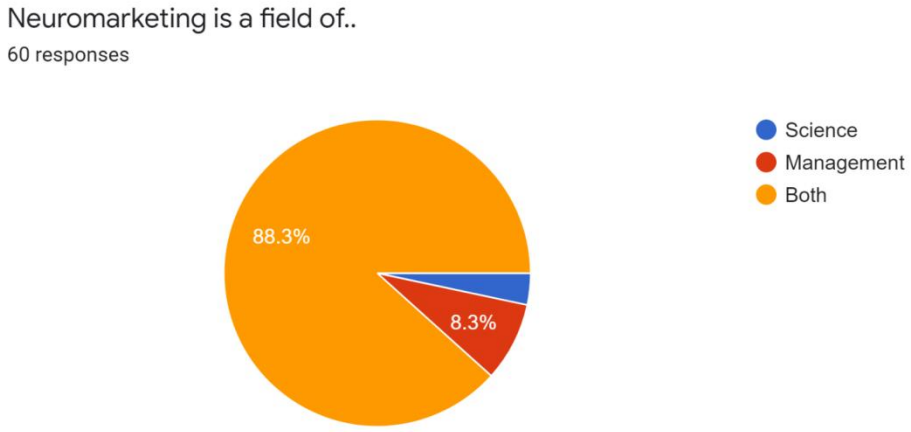
11. I am comfortable with Google knowing what and when I want. *

Mark only one oval.

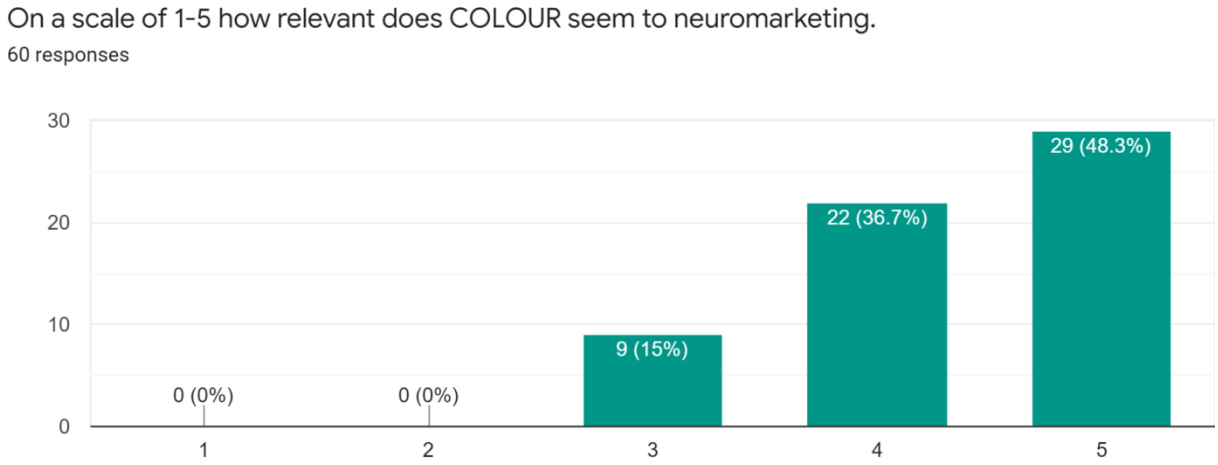
	1	2	3	4	5	
Strongly disagree	◯	◯	◯	◯	◯	Strongly agree

ANALYSIS:

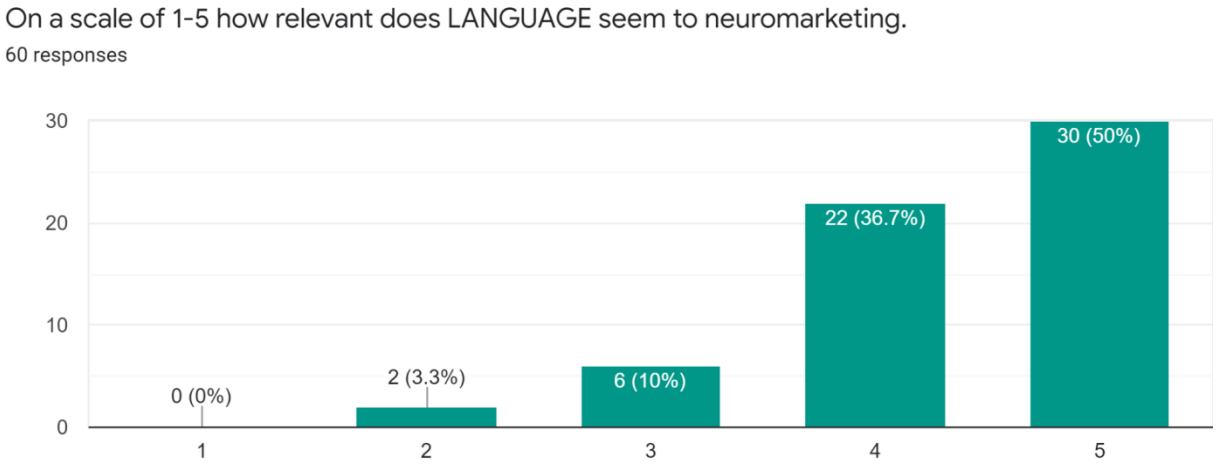
1. Awareness of Neuromarketing.



After being introduced to the definition of Neuromarketing out of the 60 respondents, 53 were sure that neuromarketing would be a field encompassing both science (neurosciences) and management/marketing.

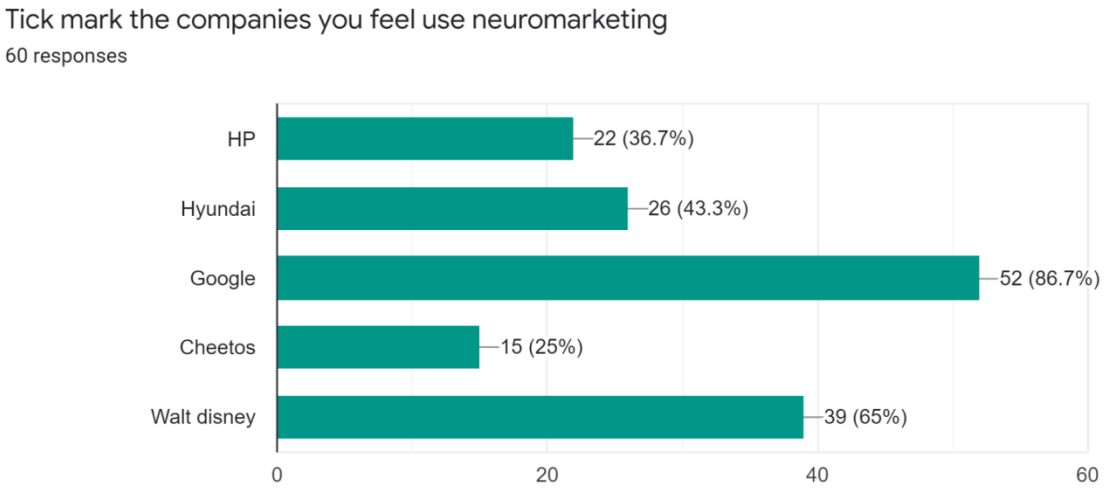


While most participants felt that colour was a very relevant or relevant aspect of neuromarketing, a minority of respondents were still not sure about its impact on the subject.



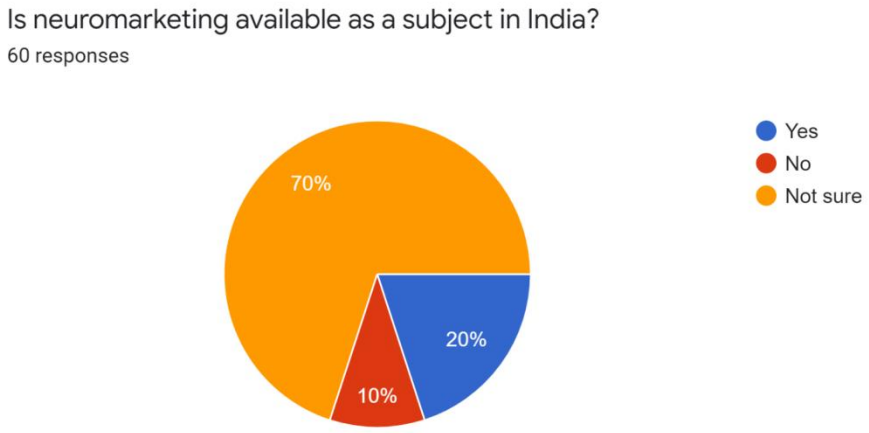
Majority of respondents thought that language is an important factor while some were unsure about its usability and a small percentage thought that it was not of use at all in the subject matter.

2. Popularity of Neuromarketing



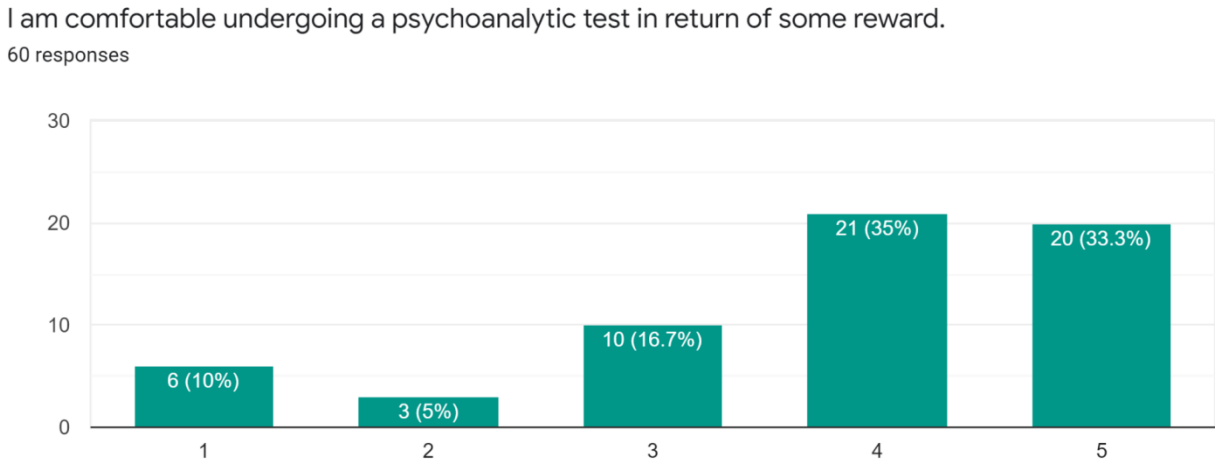
Surprisingly, the majority of the respondents thought that Google has been using neuromarketing but very few knew that Cheetos was a pioneering member of this field.

None of the respondents knew that all these companies have been actively using different tools and techniques of neuromarketing over the years.

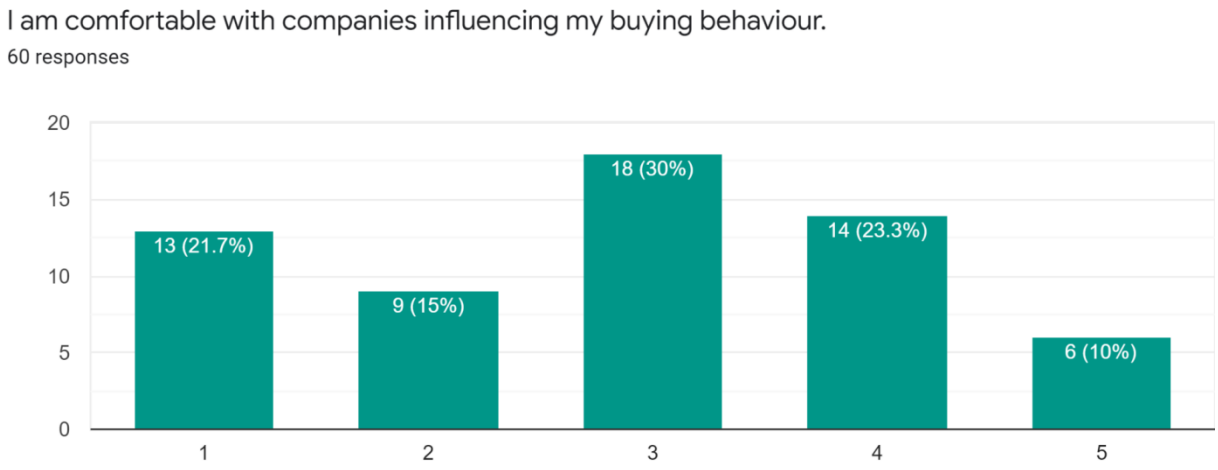


This was a tricky question since neuromarketing is only being taught as an elective course at IIM-Ahmedabad and nowhere else in India as an offline course. Most of the respondents were unsure on the topic while 20% of the respondents were still knowledgeable on the same.

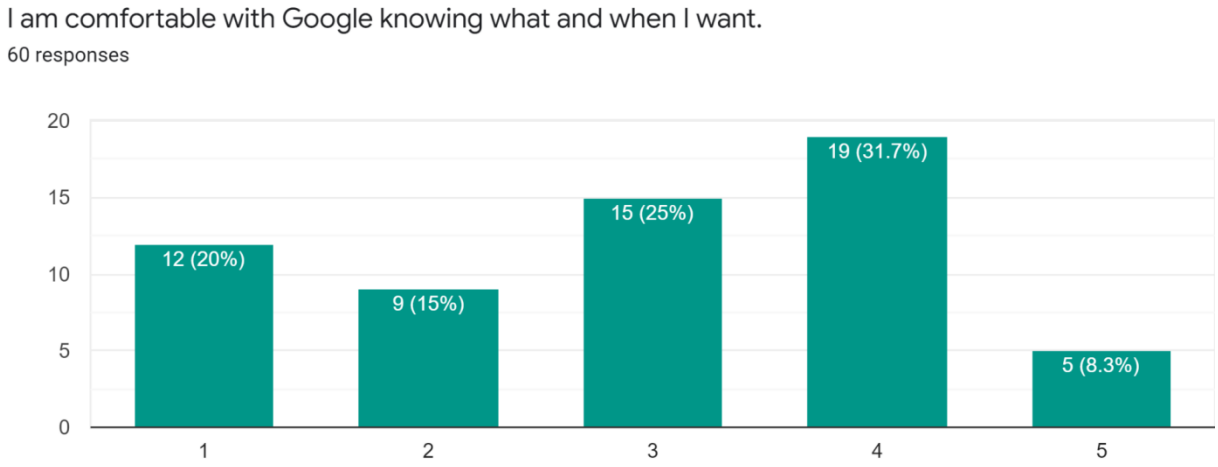
3. Perception of Neuromarketing



41 out of 60 respondents were ready to undergo any psychoanalytic test by companies in return for a reward, meanwhile 31.7% of the respondents were either unsure or disapproved of any such process being held upon them in return of any kind of reward.



Only a small number of respondents were ready to be influenced by companies for getting products of their choice or better products. Meanwhile, the majority of them were neutral about the topic, the suspected reason could be their lack of knowledge on the subject and terminology, and the rest 36.7% were very clear on not wanting anything related to this being done on them.



Majority of participants were comfortable with Google knowing details for better services, while a good number of people were either unsure or disapproved of Google being intrusive in their lives for any purpose.

FINDINGS & CONCLUSION:

The purpose of this study was to raise consumer awareness of the developing integration of neuromarketing in marketing research, with a focus on India. This research was carried out with the aid of secondary data analysis and primary data assessment. The awareness of Indian buyers regarding neuromarketing was assessed in this study.

- The principal conclusions of the study are based on the replies collected from respondents and the data analysis.
- The percentage of males and females in the sample was about equal in the survey conducted for this study (males 54.8 percent and females 45.2 percent).
- The age group 22-25 years has the highest percentage of responses (74.3%) in the sample, followed by 19.2 percent from the age group 26 years+,, and just 3.2% from the age group 16-19 years.
- The majority of the respondents in the sample (67.7%) were post graduates, followed by 21 percent as graduates, 11.3 percent graduates, and no or zero percent doctorates.
- Respondents aren't entirely unaware about neuromarketing, but they also don't know everything there is to know about it.
- The definition of neuromarketing is not entirely unknown to the respondents, but they are also not fully acquainted with the concept
- Respondents are not very comfortable with the techniques of neuromarketing being applied to them while they are still okay with Google knowing their details for better services.

According to the findings of this study, customers in India are somewhat aware of the term neuromarketing and are also not completely unaware of the emerging integration of neuroscientific application in the market. It is also concluded that if customers are made aware of the benefits of neuroscientific applications, they might be more willing to participate.

LIMITATIONS & FUTURE RESEARCH:

The fact that respondents were allowed to judge ethics based on their own personal concept of ethics was a drawback of this study. The subjective nature of one's own concept of ethics leads to some variation in replies. While this was taken into account while designing the poll, it was difficult to come up with a comprehensive definition of ethics because the subject has been hotly discussed. Finally, the research was limited by the quantity of participants. A bigger sample size would have resulted in a more evenly distributed age range, allowing the study to be more broadly applied.

Examining the perils of expansion within the neuromarketing sector, such as nanomarketing, and the implications this can have on businesses from customers who are aware of these tactics, might be one future study opportunity. According to Mileti et al. (2016), nanotechnologies have succeeded in miniaturising complicated instruments into nanodevices, allowing for real-time results rather than laboratory outcomes. This has enormous potential for expansion in the field of marketing, as it allows researchers to perform noninvasive and nonintrusive tests, monitor consumer brain processes in real time, and circumvent a number of other neuromarketing research obstacles. Conducting a poll of only college students is another possibility for additional investigation. As previously said, the majority of individuals over the age of 22 were more certain that they are not influenced by this form of marketing, which might be due to their brand loyalty resulting from years of purchases. While college students are more inclined to buy the same brands they see at home, they are also more open to trying new items than earlier generations, providing for more objective findings. Neuromarketing was unfamiliar to the majority of individuals questioned. When people were made aware of the practice, they had diverse reactions in terms of how they felt about it and how comfortable they were with it. While the majority of respondents stated that they were at ease, a substantial percentage stated that they were indifferent or uneasy. The study's most surprising conclusion was that, despite the fact that neuromarketing is frequently viewed as a barrier to one's capacity to exercise free will, the majority of respondents considered the approach ethical.

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ANNEXURE:

1. Gender
    - Male
    - Female
    - Others
2. Age

   (Short answer)
3. Qualification
    - Undergraduate
    - Graduate
    - Post Graduate
    - Doctorate
4. Neuromarketing is a field of..
    - Science
    - Management
    - Both
5. On a scale of 1-5 how relevant does COLOUR seem to neuromarketing.
    - 1 (Highly irrelevant)
    - 2 (Irrelevant)
    - 3 (Neutral)
    - 4 (Relevant)
    - 5 (Highly relevant)
6. On a scale of 1-5 how relevant does LANGUAGE seem to neuromarketing.
    - 1(Highly irrelevant)
    - 2 (Irrelevant)
    - 3 (Neutral)
    - 4 (Relevant)
    - 5 (Highly relevant)

7. Tick mark the companies you feel use neuromarketing.
    - HP
    - Hyundai
    - Google
    - Cheetos
    - Walt Disney
8. Is neuromarketing available as a subject in India?
    - Yes
    - No
    - Not sure
9. I am comfortable undergoing a psychoanalytic test in return of some reward.
    - 1 (Strongly disagree)
    - 2 (Disagree)
    - 3 (Neutral)
    - 4 (Agree)
    - 5 (Strongly agree)
10. I am comfortable with companies influencing my buying behaviour.
    - 1 (Strongly disagree)
    - 2 (Disagree)
    - 3 (Neutral)
    - 4 (Agree)
    - 5 (Strongly agree)
11. I am comfortable with Google knowing what and when I want.
    - 1 (Strongly disagree)
    - 2 (Disagree)
    - 3 (Neutral)
    - 4 (Agree)
    - 5 (Strongly agree)