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NUEROMARKETING AND EMOTIONS IMPACT ON FMCG MARKETING

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Abstract:

The marketers promise of their idea is that neurobiology can reduce the uncertainty and conjecture that traditionally hamper efforts to understand consumer behavior. The field of neuromarketing sometimes known as consumer neuroscience studies the brain to predict and potentially even manipulate consumer behavior and decision making. They make decisions based on our emotions. The emotional engagement level is triggered by the emotional excitement level. The more intense an experience is perceived, the greater our emotional engagement level is. This is only one accurate indicator of the way in which we respond to certain marketing stimuli and it can also help predict making the purchase decision. The marketing stimuli encoding level can influence the moment when we decide to buy a certain product. This process has been intensely studied and it can be pointed out by measuring brainwaves while stimuli are being presented. The brainwaves' pattern can indicate the success of memorizing that particular stimulus. A high level of emotional engagement and a high level of encoding process activation can predict the purchase intention. The purchase intention appears as a result of the effectiveness of the marketing stimulus, which proved to be persuasive enough to generate this intention. The innovation level of a marketing stimulus can ensure the success of a commercials campaign. Innovation is capable of increasing the attractiveness of a marketing stimulus, thus contributing to the purchase decision. A clear formulation and a good understanding of the message may predict the success or effectiveness of the commercial.

Keywords: Emotions, Stimulus, Market, Brain Image

Introduction:

Neuromarketing specific technology and methodology are based on some very accurate instruments. The electroencephalography, which is one of the most widespread instruments in use in neuromarketing, was used for the first time in 1920, by Hans Berger.

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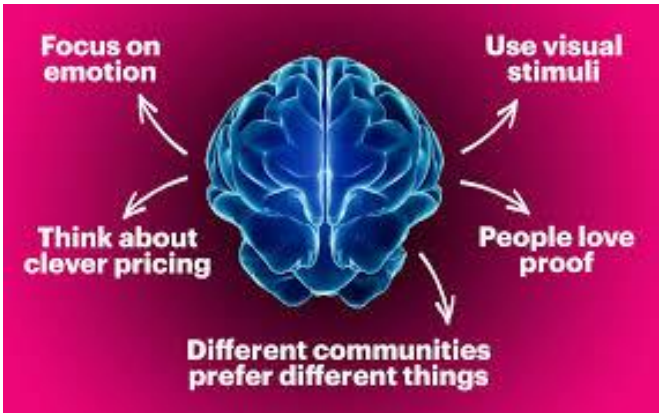
The researcher thus managed to design an instrument capable of recording the electrical signals naturally issued by the brain. By means of this discovery, nowadays we manage to capture brainwaves' activity. The electroencephalography was the first instrument which allowed the researchers to understand and explore the internal functioning of the brain, once with the emergence of the digital era. This discovery essentially contributed to the increase of neurological knowledge. Measuring the whole sphere of activity of brainwaves emerging in various cortical areas is essential in order to understand the way the brain responds to various stimuli. At present, neuromarketing provides information which cannot be retrieved by means of classical marketing. The most obvious advantage neuroimaging techniques provide is related to the fact that these techniques which harvest quantitative data may also be used before launching a new product, thus increasing the chances of success for that particular launching. Classical marketing methods, such as, focus groups, preference questionnaires, simulated choice methods and market tests are methods which harvest qualitative, subjective data, which do not carry the same accuracy degree regarding the decision-making process as neuromarketing does.



Literature:

Linked to persuasion and to the understanding of inner reactions, an interesting study highlights the importance of visual processing in social campaign advertisement (Sharma et al., 2012). According to this study, which highlights the different reactions of the individuals to the different social campaigns, the role of visual processing is crucial, since the majority of information processed in brain is essentially visual. Moreover, visual advertisement seems to be more significant and reliable, and the use of images helps the process of meaning building. In this sense, the possibility to understand the role of the emotional reaction is essential. Advertising the emotion centered can elicit both positive and negative emotions, but the social campaign advertisement usually uses the image to stimulate negative emotional states, such as sadness, fear, anger, or compassion and empathy (Hopkins et al., 2014).

Studies in this area suggest that the majority of marketing campaigns which use emotional content have the best results in terms of gains (Field and Pringle, 2008), also because of the important creation of an emotional link between the product, or the brand, and the consumer. The same emotional dynamics can be replied in the social marketing through the use of emotional contents. In the specific area of donations, the neuroscience applied to

consumer behavior is important since it gives to this field the knowledge of three important elements that can explain the reactions of the individuals to emotional contents.

According to Zurawicki (2010) the fMRI concept was based on the traditional tomograph. In order to understand how the fMRI works, it is imperative to mention that our blood contains iron. This is part of the haemoglobin which transports the oxygen throughout the bloodstream. Iron atoms are capable of generating changes in the magnetic field around them. Beyond this, we should also mention that once the area is activated, the vasodilation occurs. This allows the blood to accumulate in the activated area and also allows, by entering the structure of the active cells, the decrease of the amount of oxygen- less haemoglobin. As a result of this mechanism, the fMRI detects the active cortical regions. The signal provided by the fMRI on the computer screen is shaped like a stain and is called BOLD (Blood Oxygen Level Dependent); it is to be analyzed using 3D technology.

The MEG (magnetoencephalography), has the same temporal resolution as the EEG (a few milliseconds), but it has better spatial resolution. By magnetoencephalography, the magnetic fields generated by the electromagnetic fields are being measured. Just like the electroencephalography, the Magnetoencephalography does not cover subcortical brain activity. The Transcranial Magnetic Stimulation (TMS) is based on applying short electromagnetic impulses at the scalp level. By means of this instrument, a particular cortical area can be stimulated or inhibited. This type of instrument may be unpleasant and sometimes inappropriate to the neuromarketing specific research (Du Plessis,2011).

In what follows, we consider useful comparing two costly neuromarketing specific instruments (fMRI and MEG). We deem this comparison very useful. By identifying the strong and the weak points of each piece of equipment, we will be able to make the right decision regarding what is is that we can research with the help of a fMRI and a MEG. Although the agnetoencephalography is more sensitive to deep cortical structures such as the tonsil, unlike the fMRI, this instrument is not capable of accurately locating cortical activity. Unlike the fMRI, however, the MEG can track brain activity in time(Lee, Senior, Butler & Fuchs, 2009).

Although the neuromarketing is assigned the best instruments available in order to assess consumers' responses to mar keting stimuli, this method does not guarantee success. Only by further knowing the decision-making mechanisms we can make various campaigns and products more efficient. It should be mentioned that our purchase decisions are most of the time influenced by the reptilian, primitive brain. While the neocortex processes rational, complex, information and the middle brain processes emotions and instincts, the reptilian brain is in charge of making decisions (Renvoisé, 2010).

Methodology:

Objectives:

1) To Study link between emotions and Nuero activities on buying behavior.

2) To Know various emotions impact on brain to analyze buying pattern.

3) To analyze enthusiasm and sad feelings impact on marketing campaign.

Hypothesis:

H_{01}: There is no significant relation between age of the respondents and their emotions impact on purchase.

H_{02}: There is no significant association between sad emotions and purchase behavior with particular products in FMCG.

Sample:

The regular consumers of super markets visitors' in Hyderabad city is considered as valid sample for the study.

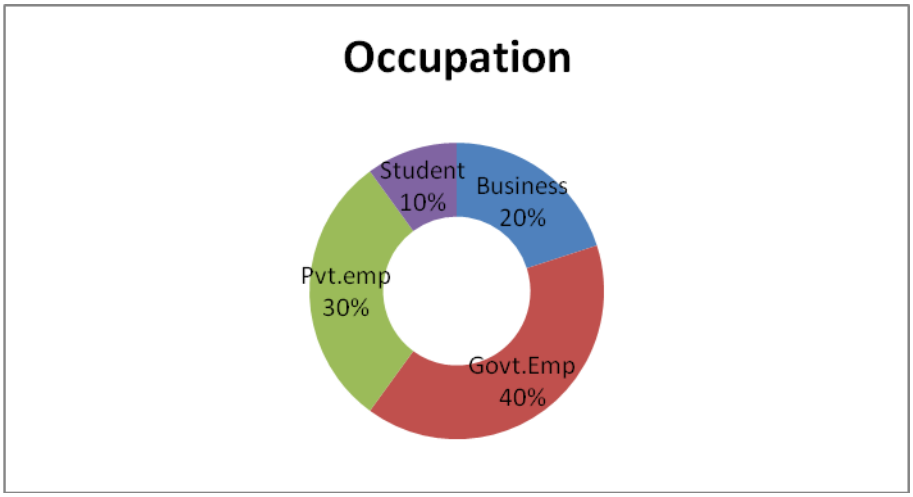
Sample Size:

A sample of 50 consumer's opinion was considered with the help of small survey questionnaire to measure for this study.

Data Analysis:

Occupation

Options		Frequency	Percent
	Business	10	20.0
	Govt.Emp	20	40.0
	Pvt.emp	15	30.0
	Student	5	10.0
	Total	50	100.0



Inference: The age wise respondent's data indicating that, 40 % are government employees and 30 % are private employees and finally 20% are business people.

H_{01}: There is no significant relation between age of the respondents and their emotions impact on purchase.

Age in Years			5 Services obtained from Citizen Service Center are without mistake or Error.				Total
			Strongly disagree	Disagree	Uncertain	Agree	
	Below 25	Count	1	3	3	1	8
		% within Age	12.5%	37.5%	37.5%	12.5%	100.0%
	25-35	Count	5	6	5	1	17
			29.4%	35.3%	29.4%	5.9%	100.0%
	35-45	Count	4	7	5	1	17
			23.5%	41.2%	29.4%	5.9%	100.0%
	Above 45	Count	0	4	3	1	8
			0.0%	50.0%	37.5%	12.5%	100.0%
Total		Count	10	20	16	4	50
			20.0%	40.0%	32.0%	8.0%	100.0%

The above cross tab table values indicating that, most of the respondents are disagree with the above argument and they claim that, age will decide emotional on purchase.

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	3.814[a]	9	**.023**
Likelihood Ratio	5.290	9	.808
Linear-by-Linear Association	.116	1	.734
N of Valid Cases	50		

a. 12 cells (75.0%) have expected count less than 5. The minimum expected count is .64.

The above Chi squre table value is indicating that, **0.023** (less than 0.05) **Reject the null Hypothesis, i**.e irrespective the age of the respondents every one unanimously agreed that , different age wise respondents have various types of emotions and same will respect with reference to purchase behavior.

H_{02}: There is no significant association between sad emotions and purchase behavior with particular products in FMCG.

Gender * 4 Operators at Citizen Service Center are friendly and amicable. Crosstabulation							
			4 Operators at Citizen Service Center are friendly and amicable.				
Gender			Strongly Agree	Agree	Uncertain	Disagree	Total
	Male	Count	5	8	10	7	30
		% within Gender	16.7%	26.7%	33.3%	23.3%	100.0%
	Female	Count	3	8	4	5	20
			15.0%	40.0%	20.0%	25.0%	100.0%
Total		Count	8	16	14	12	50
			16.0%	32.0%	28.0%	24.0%	100.0%

Most of the respondents are agreed and strongly agreed that, gender wise good and sad emotions certainly show the impact on purchase behavior.

Chi-Square Tests			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	1.463[a]	3	**.691**
Likelihood Ratio	1.483	3	.686
Linear-by-Linear Association	.079	1	.779
N of Valid Cases	50		
a. 3 cells (37.5%) have expected count less than 5. The minimum expected count is 3.20.			

The above Chi squre table value is indicating that, **0.691** (greater than 0.05**) Accept the null Hypothesis, i**.e irrespective the Gender of the respondents every one opined that there is no such line between gender and bad emotions to decide FMCG consumers products , most of the time price and quality will decide this.

Discussion of Results:

Tools for measuring the physiological proxies for brain activity tend to be more affordable and easier to use. Eye tracking can measure attention (via the eyes' fixation points) and arousal (via pupil dilation); facial-expression coding (reading the minute movement of muscles in the face) can measure emotional responses; and heart rate, respiration rate, and skin conductivity measure arousal. The crucial role of donor identification is also highlighted by the eye-tracker analysis on the two Unicef flyers. As reported in the section "Statistical Analyses and Results," the face of the donor contained in the photograph is the first element to be displayed. Inside the Flyer A, where the face of the donor is more visible, we noted a higher rate of CTA display both for those who have children and those who do not have children. On the contrary, in Flyer B where the face of the donor is partially hidden by the Unicef

logo, the CTA display rates drop dramatically, especially for the target group of the childless . According to the study by Ambrogetti (2019) one of the barriers to the testamentary actions is the fact that participants remember that they will die. Therefore, James (2013) suggested that the main theme of the bequest is unconsciously rejected by the brain, and it is necessary to change this vision by using more attractive and encouraging topics. The strength of this communication is that, instead of using negative implications, such as death, which can activate the form of avoidance, it reinforces the idea of life after death that is carried out in the memory of those receiving the donation. To underline this concept, the advertising made use of a picture of a donator along all the duration of the video, facilitating the identification of the donator by the target audience. Moreover, at a subconscious level, minds do not differentiate between the reality and the visual information that we can receive from computer or phone screens, newspaper, or other (Sharma et al., 2012), maybe facilitating the identification. In this framework, there is another important point that this social campaign deals and it is related to another barrier that has to be considered, that is, the research of a symbolic immortality when a participant decides to do a bequest. According to the study by James (2013), heredity should be linked to the concept of permanence of something that lasts over time. This sense of permanence is seen as a form of autobiographical heroism, which implies that some part of one's self (name, family, community, and values) will persist also after death, increasing the desire for fame (Greenberg et al., 2010), the need to give significance to the past, and the history of an individual (Landau et al., 2009). The use of a picture that can permit the identification of the donator meets studies on older adults who identified that when they were shown photographs from across their life; the brain regions related to precuneus (involved in the episodic memory, visual–spatial processing, reflection on oneself, and aspects of consciousness) and to the lingual gyrus (involved in processing visual stimuli) were activated when people were able to relieve events in the pictures (Gilboa et al., 2004).

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