

## **A STUDY ON THE IMPACT OF NEUROMARKETING ON CUSTOMER PURCHASING BEHAVIOUR WITH SPECIAL REFERENCE TO BANGALORE**

**BIJIN PHILIP\***

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### **ABSTRACT**

Neuromarketing is the study of people's emotional and cognitive response to media or marketing stimuli. With the help of neuromarketing, the marketers and researchers can find out the customer needs, taste and preferences and it increase the understanding regarding customer behavior and actions. These new techniques provide answers related to those consumer-decisions and -actions that are unconscious, and not taken into account by other, more traditional, market research methodologies. Due to this, neuromarketing does not substitute traditional market research; it is specially an addition to it with the objective to better understand consumer behavior based on brain motion. The paper seeks to identify the impact of neuromarketing on consumer purchase decision and identify the different factors that influence the customer purchasing behavior. This study is based on both primary and secondary data and Factor analysis, ANOVA and Regression analysis used by the researcher for the data interpretation. The extensive analysis identified that there is a huge impact of neuromarketing on customer buying behavior and neuromarketing strategies playing a very vital role to understand the customer taste and preferences.

**KEYWORD Neuromarketing, Neuroscience, Consumer behaviour**

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\* **Assistant Professor, KRISTU JAYANTI COLLEGE BANGALORE**

## **1.1 INTRODUCTION**

Neuromarketing is the study of people's emotional and cognitive response to media or marketing stimuli. The term “neuromarketing” refers to the use of latest advances in brain and physiological sensor technology to understand more about the customer mental process while taking the purchase decision. With the help of neuromarketing, the marketers and researchers can find out the customer needs, taste and preferences and it increase the understanding regarding customer behavior and actions. These new techniques provide answers related to those consumer-decisions and -actions that are unconscious, and not taken into account by other, more traditional, market research methodologies. However, neuromarketing does not substitute traditional market research; it is solely an addition to it with the goal to better understand consumer behaviour based on brain activity.

### **There are six major fields in which neuromarketing is being used today:**

1. **Branding:** The process of creating a unique name and image for a product or service in the mind of consumers, with the goal of establishing a significant and differentiated position in the market. This position is supposed to both attract and retain loyal customers. Neuromarketing provides meaningful techniques for measuring the brand associations
2. **Product design and innovation:** Neuromarketing can measure consumer responses to product- and service ideas, packaging, and design. These responses are essentially automatic, emotional, and unconsciously made. Which is why it is important to be able to measure them.
3. **Advertising and commercial effectiveness:** Many campaigns impact us in unconscious ways, even though we do not always think they do. Neuromarketing explains how some campaigns leave an impression on us and why others do not
4. **Entertainment effectiveness:** Entertainment creates a bond and experiences in our minds that influence our attitudes, preferences, and actions. Neuromarketing illustrates what happens when entertainment transfers us into an imaginary world
5. **(Online) experiences:** The (online) world constantly provides new challenges to our brains, and thus brain science is important to comprehend the many ways we are influenced in our (online) activities
6. **Decision-making:** Neuromarketing demonstrates how store environments are able to directly influence our shopping behaviour and decision-making

## **1.2 LITERATURE REVIEW**

**Zara I.A. and Tu\_a M:** - “**Neuromarketing Research – A Classification and Literature Review**” –This study is focused on the theoretical and classification aspect of neuromarketing. This study revealed that neuromarketing techniques played in illuminating aspects on consumer behaviour.

**Vitor Costa Rozan Fortunato:** - “**A Review of Studies on Neuromarketing: Practical Results, Techniques, Contributions and Limitations**” - This study has been conducted for the purpose of to know the clear idea about neuromarketing techniques and the practical result of the neuromarketing in the market. This study is focussed on the ethical issues, limitations, importance and technical aspect of neuromarketing.

**Aleksandra Krajnovic:** - “**NEUROMARKETING AND CUSTOMERS' FREE WILL**” -

This paper try to find out the influence of sensory elements: colour, design, and also music, scent and customer taste and preferences. It also explores the influence of marketing instruments on the emotions of customers.

**Vivian Alexandra Roth:** - “**The Potential of Neuromarketing as a Marketing Tool**” – This paper revealed that neuromarketing will be an important tool for understanding the customer behaviour and other aspects.

## **1.3 IMPORTENCE OF THE STUDY**

Neuromarketing is the study of people's emotional and cognitive response to media or marketing stimuli. Researchers use technologies that observe brain activity and biometrics (such as heart rate, eye tracking, galvanic skin response, facial coding, etc.) to determine how people respond physiologically to marketing messages. It is no secret that neuromarketing has taken the world by storm. Many individuals, companies, educational institutions as well as government departments are using it in one way or another. Despite its widespread use in the marketing world, the term sometimes remains unclear. Basically, the term refers to the utilisation of modern brain science to determine the impact of advertising and marketing on consumers. This study is very important

to know the impact of neuromarketing on consumer purchase decision and also to know the various factors that influence the customer purchasing decision.

#### **1.4 OBJECTIVES**

1. To study the different neuromarketing factors that influencing customer purchasing behaviour
2. To analyse the impact of neuromarketing in customer purchasing behaviour
3. To analyse the perception of the customers to words traditional marketing and neuromarketing.

#### **1.5 HYPOTHESIS**

Ho1	There is a no impact of neuromarketing in customer purchasing behaviour
Ha1	There is an impact of neuromarketing in customer purchasing behaviour
Ho2	There is no difference between the perception of customers towards traditional marketing and neuromarketing
Ha1	There is a difference between the perception of customers towards traditional marketing and neuromarketing

#### **1.6 METHODOLOGY**

This study is mainly based on both primary and secondary data. The primary data collected by the researchers from 50 customers through questioners and secondary data collected from various websites, journals and articles etc. The researchers used simple random sampling technique for collecting the primary data. Factor analysis, Regression analysis, and paired T-Test has been used by the researcher for analysing and interpreting the data through SPSS tool.

#### **2.1 ANALYSIS AND INTERPRETATION**

To identify the different neuromarketing factors that influence the customers, the researcher used factor analysis.

**Table 2.1 KMO and Bartlett's Test**

<b>KMO and Bartlett's Test</b>			
Kaiser-Meyer-Olkin	Measure of Sampling	Adequacy.	.703
Bartlett's Test of Sphericity	Approx. Chi-Square		203.247
	Df		66
	Sig.		.000

From the above table KMO value is .703 which is more than .60 that means this data is appropriate to carry out the factor analysis and all the 10 factors communality value is more than .4 which means all the factors that influence the customer purchasing behaviour.

The number of factors to be chosen is based on the Eigen values of the factors (>1) and the total variance explained by such factors (60%). In the present case, we take 4 factors for further analysis since they have Eigen values >1 and total variance explained is 68.085%.

<b>Table 2.2 Rotated Component Matrix<sup>a</sup></b>					
<b>Factor</b>		<b>Component</b>			
		<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
Eye Tracking	Colour	0.825			
	Design	0.741			
	Packaging	0.659			
Brain	Advertisement		0.751		
	Audios		0.612		
	Videos		0.588		
Mind Tricks	Sign			0.421	
Others	Smell				0.741
	Facial Coding				0.667
	Touching				0.529

As per the factor analysis, it is clear that there are mainly four neuromarketing factors that influence the customer purchasing behaviour such as Eye Tracking, Brain Tracking, Mind tricks and others factors.

To analyse the paired difference between traditional marketing and neuromarketing the researcher done the paired T test.

**Table 2.3 Paired difference**

		Mean	Std. Deviation	T	Df	Sig. (2-tailed)	Hypothesis
Pair1	Effectiveness	1.9567	.7492	5.543	18	.002	Accept H <sub>a</sub>
Pair2	Understanding Level	3.0533	.9840	17.221	18	.000	Accept H <sub>a</sub>
Pair 3	Customer Satisfaction	1.60000	.8647	3.224	18	.001	Accept H <sub>a</sub>
Pair 4	Cost	3.16667	.5691	12.231	18	.003	Accept H <sub>a</sub>
Pair 5	Genuinely or Truth	3.2345	.5439	10.105	18	.001	Accept H <sub>a</sub>
Pair 6	Uniformity	3.3434	.6534	6.8543	18	.004	Accept H <sub>a</sub>

The Above table explain the paired difference between traditional and modern talent acquisition impact on employee performance in which it can be seen that theirs difference and paired t test values are 5.543, 17.221, 3.224, 12.231, 12.231, 6.8543 and degree of freedom is 18, significance level(5%) is p and p values of this variables 0.002,0.000,0.001,0.003,0.001,.004 from which researcher comes to conclusion i.e., reject the null hypothesis and Accept the alternative hypothesis: There is a paired difference between traditional way of marketing and neuromarketing in consumer purchasing behaviour.

Ho2	There is no difference between the perception of customers towards traditional marketing and neuromarketing	Reject
Ha2	There is a difference between the perception of customers towards traditional marketing and neuromarketing	Accept

**To analyse the impact of neuromarketing in consumer purchasing behaviour the researcher used regression analysis.**

**Table 2.4 Regression Analysis**

Dependent Variable	Impact of Neuromarketing
Predictors(Independent Variable)	Eye tracking, Brain, Mind Tricks & Others
R Square Value	62.03%
F value of the model	34.2
Significance	0.001

The above table R Square Value = 62.03% which means around 62 percentage positive impact on purchasing behaviour through neuromarketing. The F value of the model = 34.2 and significant value = 0.001 which is less than .05 so the researcher reject the null hypothesis and accept the alternative hypothesis. That means there is an impact of cloud accounting on the business organization

Ho1	There is a no impact of neuromarketing in customer purchasing behaviour	Reject
Ha1	There is an impact of neuromarketing in customer purchasing behaviour	Accept

## 2.2 CONCLUSION

Neuromarketing is an innovative technique that studies the brain process of people and their changes during decision making in order to predict the purchasing behaviour of the consumer. More than 90% of the decisions occur in an unconscious and illogical way. Through this study it is clear that, neuromarketing play an important role in the customer while taking the purchasing decision. It is a very power full tool used by the marketers to identify and predict the taste and preference of the customers.