



# Impact Of Neuromarketing On The Buying Behavior Of Youth In Wayanad

<sup>1</sup>Feba Jose <sup>2</sup>Shimla Latheef

<sup>1</sup> Guest Lecturer, PG & Research Department of Commerce, Government College Mananthavady, Kannur University

<sup>2</sup> Guest Lecturer, PG & Research Department of Commerce, Government College Mananthavady, Kannur University

## Abstract

The study investigates the impact of neuromarketing on the buying behavior of youth in the Wayanad district of Kerala. Neuromarketing, a novel approach that combines neuroscience and marketing, has been increasingly used by marketers to influence consumers purchasing decisions. However, there is a scarcity of research on its effects on the buying behavior of youth, a demographic crucial to marketers. This study aims to fill this gap by examining the relationship between neuromarketing strategies and the buying behavior of youth in Wayanad district. Using a mixed method approach, the study surveys youth and conduct interviews with participants. The findings reveal that neuromarketing strategies significantly influence the buying behavior of the youth. The study also identifies that youth are more likely to make impulsive purchases and are heavily influenced by social media and peer pressure. The results have implications for marketers, policy makers, and researchers, highlighting the ned for responsible and ethical use of neuromarketing techniques to avoid manipulating young consumers.

**Keywords:** Neuromarketing, Marketing, Sensory Marketing, Promotion, Advertisement

## 1.1 INTRODUCTION

Radical marketing has ushered in a new era, propelling us into the information age. Businesses no longer focus solely on mass production and consumption, filling stores with excessive inventory and offering indiscriminate discounts. Instead, there has been a noticeable surge in purchasing power. Thanks to advancements in information technology, consumers can now compare their choices with competitors at the click of a button. However, comprehending the needs of consumers is no easy task, as some desires may remain hidden in their subconscious. Marketers must possess a discerning eye for deciphering their

overt and covert needs. While marketers previously relied on techniques like focus groups and in-depth interviews to gauge consumer opinions about products or services, they often encountered significant disparities between what consumers claimed and what they genuinely believed.

Neuromarketing serves as a method to determine whether commercials or products evoke positive cerebral responses. This approach utilizes neuropsychology in commercial marketing communication and allows for the observation of affective and cognitive reactions to marketing stimuli, as well as consumer sensorimotor responses and market studies. By employing sophisticated technology and equipment, such as electroencephalograms, motion capture for eye tracking, and magnetic resonance imaging, neuromarketing combines the realms of neuroscience and psychology. In essence, the concept of neuromarketing revolves around gathering data to gauge how a market responds to a product. This process allows firms to refine their original product designs based on comprehensive market research.

## 1.2 STATEMENT OF THE PROBLEM

This research paper aims to provide a comprehensive analysis of brand perception, focusing on various psychological factors that influence the decision-making process. Furthermore, it seeks to establish correlations between key aspects of neuromarketing, such as color, psychological pricing strategies, pre-purchase factors, gender, and brand loyalty, specifically within the youth demographic. The primary objective of this study is to examine the impact of neuromarketing on the buying behavior of young consumers.

## 1.3 OBJECTIVES OF THE STUDY

1. To analyze the perception of Youth towards neuro-marketing strategies
2. To examine the influence of personality factors on Youth buying behavior.
3. To analyze the impact of neuro-marketing strategies

## 1.4 HYPOTHESIS OF THE STUDY

- $H_0$ : There is no significant relationship between influencing factors for brand selection and income level of respondents.
- $H_1$ : There is a significant relationship between influencing factors for brand selection and income level of respondents.

## 1.5 RESEARCH METHODOLOGY

Research methodology is a systematic way to see solving a research problem. Research has designed its methodology deals with the research method and takes into consideration the logic behind the method. The study targets a sample population drawn from youth in the Wayanad district in this study research found descriptive research design is relevant.

#### ➤ 1.5.1 PRIMARY DATA

The information was collected from 50 youths in Wayanad district with the help of well -structured questionnaire.

#### ➤ 1.5.2 SAMPLING TECHNIQUES

The sampling techniques were used in convenience sampling.

## 2. REVIEW OF LITERATURE

This section presents the review of literature to identify impact of neuromarketing strategies on buying behavior of youth. Neuromarketing is an emerging scientific discipline which is a combination of neuro science and marketing. Reviews also justify the methodology adopted by the researcher for the study. Hence, the literature review is an essential academic requirement in research. This review of literature chapter is made with vivid and extensive materials like journals, books, white papers, and many other sources. It thus provides a detailed discussion about the variables chosen for the study.

- Hamelin et al (2017) In neuromarketing strategy, the impact of high and low emotion advertisement on attitude is quite visible; high emotional advertisement linked with more stable changes in attitude than low emotional advertisement. Changes in technology can lead to more efficiency than the traditional technology.
- Nijhof, Andre HJ Jeurissen( 2017) Celebrity brand endorsement plays the role of one of the most important factors in case of brand recognition and brand recall. Although in some cases, the gender factor and even the celebrity associative image with the brand become the matter of concern, but in order to build a sustainable brand, application of neuroscience to understand the mindset of the consumer is a big game changer.
- Daugherty et al (2018) Application of neuroscience basically paves the way for the traditional marketing methods to increase the efficiency and effectiveness of an advertisement. By applying current concepts and techniques of neuroscience and combining them with the previous ones, results into the best option for the advertisement agencies and marketers and enhances the credibility and strengthens the existing message of the brand.
- Gordon , Crociari and Van(2018) Neuromarketing is a brain related technique which is also interdisciplinary in nature. The major variables involved in this neuroscience activity are attention, memory, emotion and motivation. The scientific technique measures the attentional engagement of consumers towards a stimulus.
- Monica et al (2019) There is an associative link between the consumer behavior and recalling the past memory and experience (direct, indirect or both). The recalling of the past memory and experience can be varied depending upon the mentioning rate. This can be helpful in the application of the neuroscience in various fields. Use of pictures can be an important element in case of recalling any event or subject, even if the content of the picture is different from the previous one, which has been seen by the consumer previously, but the title and the frame of the picture can help o recall the

subject associated with the picture. Use of colors can increase the rate of recalling the specific subject and even the position of the content in the webpage can influence the viewing pattern and recalling of a consumer.

### 3. INFLUENCE OF NEUROMARKETING STRATEGY ON MARKETING PRACTICES

Promotional strategies are considered to be a direct route to grab consumer attention. The basic aim of any promotional strategy is to make the brand famous to that extend that consumers can easily recall every single aspect of the same. They create a positive association with the brand and consumer thought process. Consumers try to relate whatever seen or heard and connect with it emotionally. It will enable them to remember a particular advertisement if it is reinforced repetitively. They share majority or almost all information regarding the brand. It is thus an implicit learning.

Neuromarketing strategies adopt various techniques for different types of campaign. Below given tables shows the different type of promotional methods and parallel are those influencing areas where neuromarketing strategy is adopted to narrow down the complexities faced in the marketing practices. These techniques are researched and proved to be the successful practical applications by eminent experts (Hedda Martina Sola, 2013).

TABLE 3.1

#### INFLUENCE OF NEUROMARKETING ON PRODUCT DEVELOPMENT

PRODUCT DEVELOPMENT	INFLUENCE OF NEUROMARKETING
Introduction of a new product in the market	<ul style="list-style-type: none"> <li>a) Taste, scent and colour of a product</li> <li>b) Health or fashion trends</li> <li>c) Identification of new target groups</li> </ul>
Product design and packaging	<ul style="list-style-type: none"> <li>a) Location of logo</li> <li>b) Colour distribution</li> <li>c) Packaging material</li> <li>d) Packaging size</li> <li>e) Series limitation</li> <li>f) Scent</li> </ul>
Product distribution	<ul style="list-style-type: none"> <li>a) Position on the shelf</li> <li>b) Positioning of a product</li> <li>c) Conceptualization of special offers</li> <li>d) Scent, music and general impression of object</li> <li>e) Product availability</li> </ul>

TABLE 3.2

## INFLUENCE OF NEUROMARKETING ON PROMOTIONS

PROMOTION TYPE	INFLUENCE OF NEUROMARKETING
TV or Radio Commercial	a) Choice of radio station b) Duration
Online Advertising	a) Content of the advertisement b) Duration of promotion
Point of purchase advertising	a) Choice of location b) Choice of product or brand
Sponsoring	a) Choice of celebrity b) Famous events

TABLE 3.3

## INFLUENCE OF NEUROMARKETING ON GRAPHIC DESIGN

PROMOTION TYPE	INFLUENCE OF NEUROMARKETING
Billboard Campaign	a) Poster size b) Colour distribution c) Marketing message d) Choice of a celebrity
TV Commercial	a) Duration b) Choice of product- focus c) Balance of information and entertainment d) Colour distribution e) Images f) Speaker and Music

#### 4. RESULTS AND DISCUSSION

TABLE 4,1

##### DEMOGRAPHIC PROFILE

DEMOGRAPHY	FREQUENCY	PERCENTAGE
Gender		
Male	34	34
Female	66	66
Age		
15-20	14	14
20-30	82	82
30-40	4	4
Educational Qualification		
School	10	10
Graduate	34	34
Post-Graduate	50	50
Professional	6	6
Income Earned		
Below 10000	38	38
10000 – 20000	36	36
More than 20000	26	26
<b>Total</b>	<b>100</b>	<b>100</b>

**Source: Authors' Calculation**

According to the provided data, 66% of the respondents identified as female, while the remaining 34% identified as male. Therefore, the majority of respondents were female.

The data shows that 82% of the respondents are between the ages of 20 and 30. Additionally, 14% fall within the 15-20 age group, while only 4% belong to the age group of over 30 years.

The majority of respondents, comprising 50% of the total, held postgraduate qualifications. Graduates accounted for 34% of the respondents, while professionals represented 6% of the sample. The remaining 10% of respondents had educational qualifications limited to the school level.

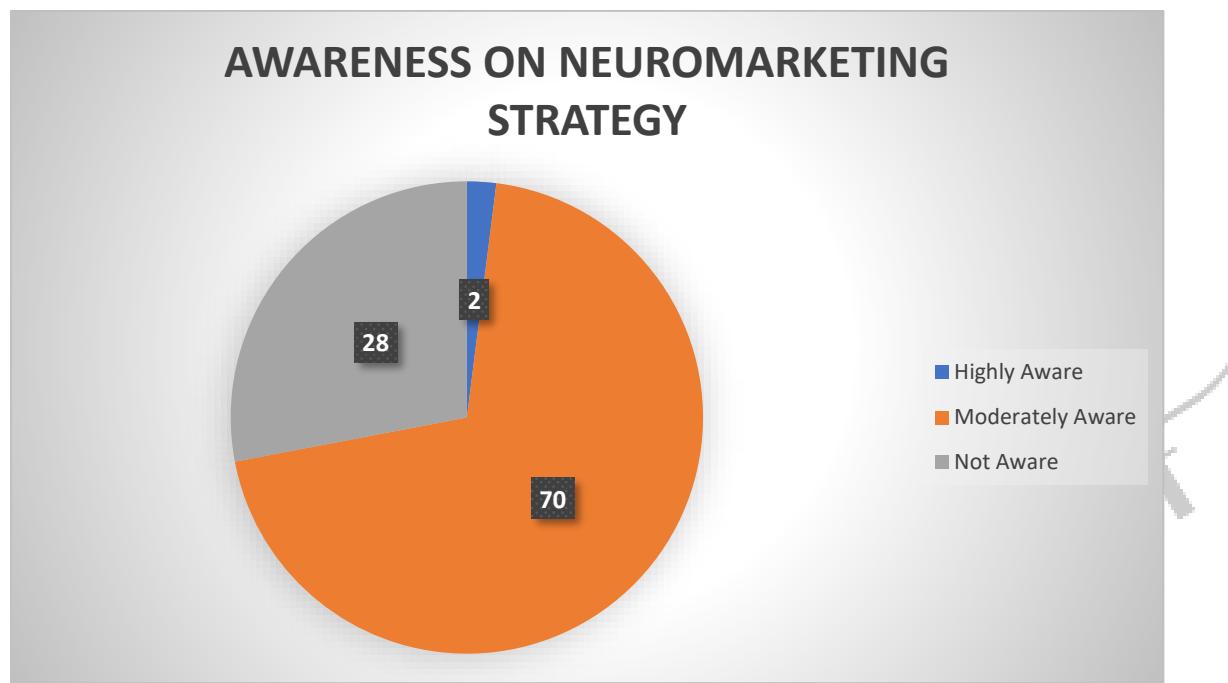
The data reveals that 38% of respondents have a monthly income less than 10,000, indicating a significant portion with lower incomes. Additionally, 36% fall within the income range of 10,000 to 20,000, suggesting

a substantial proportion with a moderate income level. Only a minority of respondents, 26%, have a monthly income of more than 20,000, indicating a smaller percentage with higher incomes.

TABLE 4.2

## AWARENESS OF RESPONDENTS ABOUT NEUROMARKETING STRATEGY

AWARENESS	FREQUENCY	PERCENTAGE
Highly Aware	2	2
Moderately Aware	70	70
Not Aware	28	28
<b>Total</b>	<b>100</b>	<b>100</b>



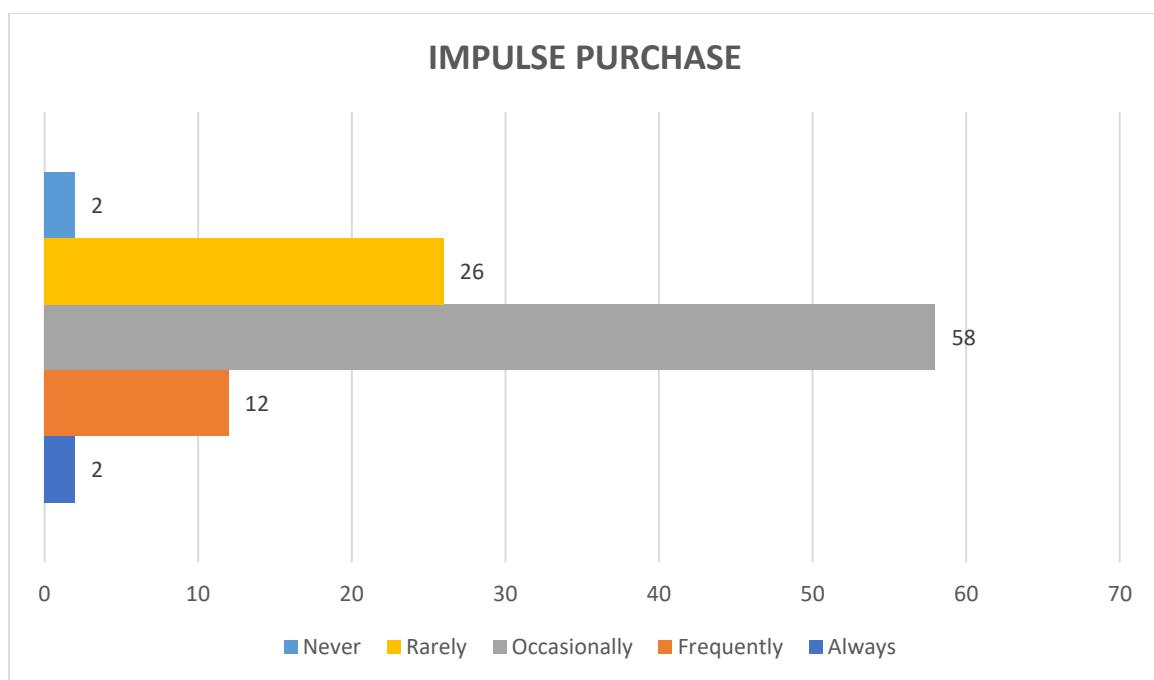
According to the survey data, 70% of the youth surveyed have moderate awareness of the neuromarketing strategy. 28% have no awareness of it, while only 2% have a high level of awareness.

TABLE 4.3

## FREQUENCY OF IMPULSE PURCHASE

OPINION	FREQUENCY	PERCENTAGE
Always	2	2
Frequently	12	12
Occasionally	58	58
Rarely	26	26
Never	2	2
<b>Total</b>	<b>100</b>	<b>100</b>

Source: Authors' Calculation



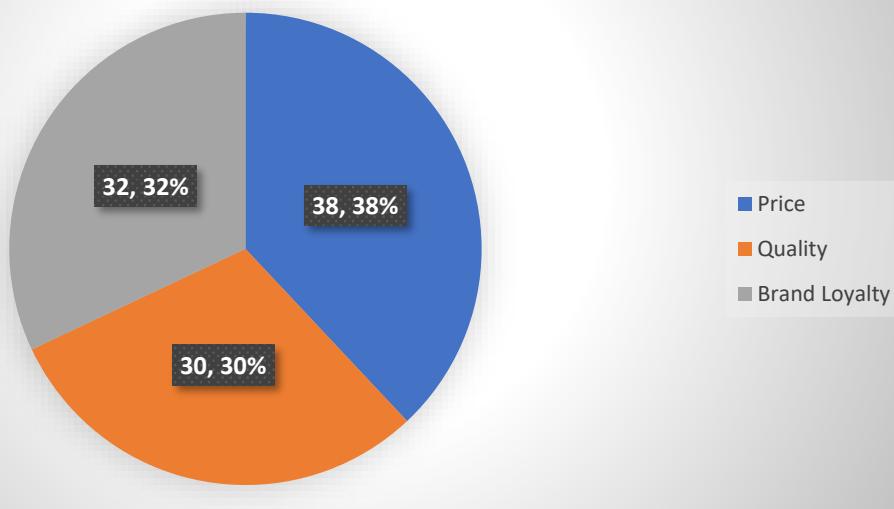
Among 50 samples, 58% of youths occasionally make impulse purchases. 26% rarely buy on impulse, 12% frequently engage in such purchases, 2% almost always make impulsive purchases, and another 2% never do so.

TABLE 4.4  
INFLUENCING FACTORS FOR BRAND SELECTION

FACTORS	FREQUENCY	PERCENTAGE
Price	38	38
Quality	30	30
Brand Loyalty	32	32
<b>Total</b>	<b>100</b>	<b>100</b>

Source: Authors' Calculation

## INFLUENCING FACTORS FOR BRAND SELECTION



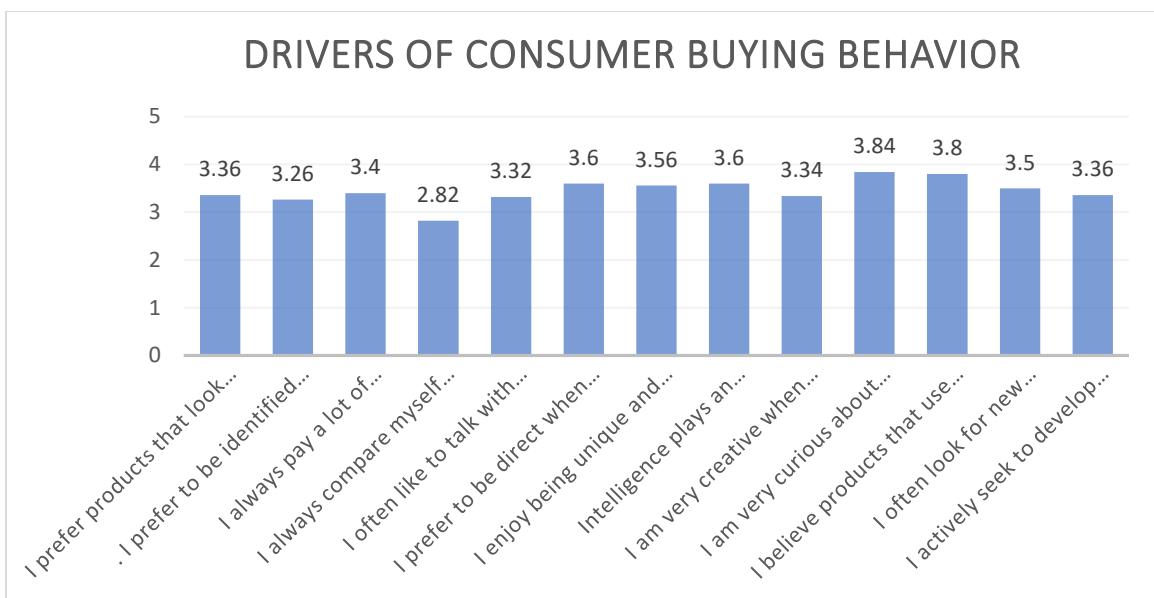
The above data shows, the majority of adolescents (38%) prioritize product price when choosing a particular brand. This indicates that they place a high value on the quality and performance of the product. On the other hand, 32% of youngsters prioritize brand loyalty, suggesting that they are more price-sensitive and inclined to seek affordable options. Only a small percentage of adolescents (30%) base their brand selection on brand loyalty, indicating that they have a strong attachment and trust towards specific brands.

TABLE 4.5

DRIVERS OF CONSUMER BUYING BEHAVIOR

Aspects	Agreement					Sum	Mean
	SA	A	N	D	SD		
I prefer products that look attractive to others.	8	42	34	10	6	168	3.36
I prefer to be identified in the group.	8	38	32	16	6	163	3.26
I always pay a lot of attention to how I shop.	8	38	42	10	2	170	3.4
I compare myself with others on to what brand I have chosen.	6	26	28	24	16	141	2.82
I like to talk with others about mutual opinions and experiences	8	34	44	10	4	166	3.32
I prefer to be direct when discussing about a product or brand.	12	44	38	4	2	180	3.6
I enjoy being unique and different from others in many ways	14	40	36	8	2	178	3.56
Intelligence plays an important role for me while shopping.	8	50	36	6	0	180	3.6
I am very creative when using products.	6	38	44	8	4	167	3.34
I am very curious about how the product I bought would work.	18	56	20	4	2	192	3.84
I believe products using new technology are convenient to use.	14	58	24	2	2	190	3.8
I often look for new products or brands	14	40	30	14	2	175	3.5
I develop my uniqueness by buying special products or brands	8	36	42	12	2	168	3.36

Source: Authors' Calculation



The data suggests that young people prioritize product functionality and performance, as indicated by the high mean score of 3.84. Additionally, they value the convenience of using the newest technology, with a mean score of 3.8. However, comparing oneself with others based on the brand they have chosen appears to be of lesser importance, as reflected by the relatively lower mean score of 2.82. Overall, young people seem to prioritize the practical aspects of a product over its perceived status or social validation.

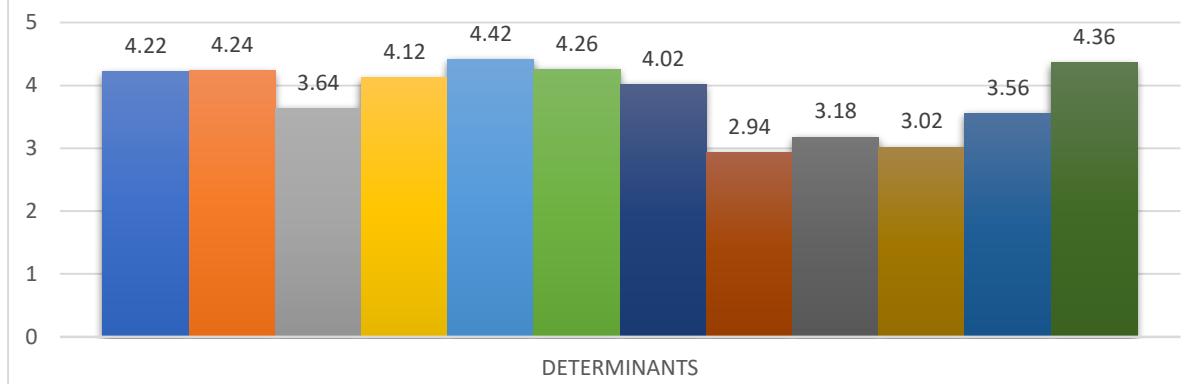
TABLE 4.6

## DETERMINANTS OF BRAND PREFERENCE DURING ADVERTISEMENTS

ASPECTS	SA	AGREEMENT				SUM	MEAN
		A	N	D	SD		
Price of the product	44	34	22	0	0	211	4.22
Feature of the product	40	46	12	2	0	212	4.24
Brand Endorsers	12	50	32	2	4	182	3.64
Offers	36	42	20	2	0	206	4.12
Quality of the product	56	30	14	0	0	221	4.42
Use of the product	54	30	14	2	0	213	4.26
Necessity of the product	46	36	16	2	0	201	4.02
Opinion of expert about the product	34	34	32	0	0	147	2.94
Celebrity	4	24	44	18	10	159	3.18
Entertainment element	8	32	38	14	8	151	3.02
Emotional connect	10	24	34	22	10	178	3.56
Packaging and visual image	16	42	28	10	4	218	4.36

Source: Authors' Calculation

## DETERMINANTS OF BRAND PREFERENCE DURING ADVERTISEMENTS



The chat data reveals that product quality is the most important factor in influencing brand preference, with a mean value of 4.42. Advertisements that effectively showcase both product quality and visually appealing content are highly preferred, scoring a mean value of 4.36. However, the option for expertise received a relatively low preference score of 2.94, suggesting it has less influence on brand preference.

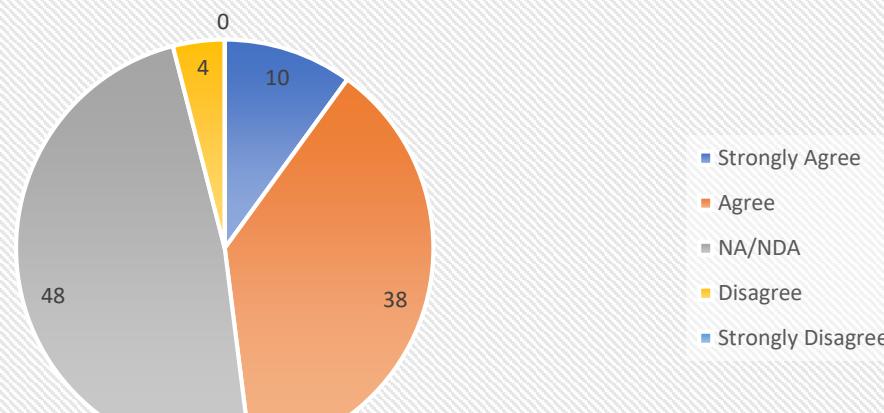
TABLE 4.7

### INFLUENCE OF NEUROMARKETING IN BUYING BNEHAVIOR

OPINION	FREQUENCY	PERCENTAGE
Strongly Agree	10	10
Agree	38	38
Neither Agree nor Disagree	48	48
Disagree	4	4
Strongly Disagree	0	0
<b>Total</b>	<b>100</b>	<b>100</b>

Source: Authors' Calculation

### INFLUENCE OF NEUROMARKETING IN BUYING BNEHAVIOR



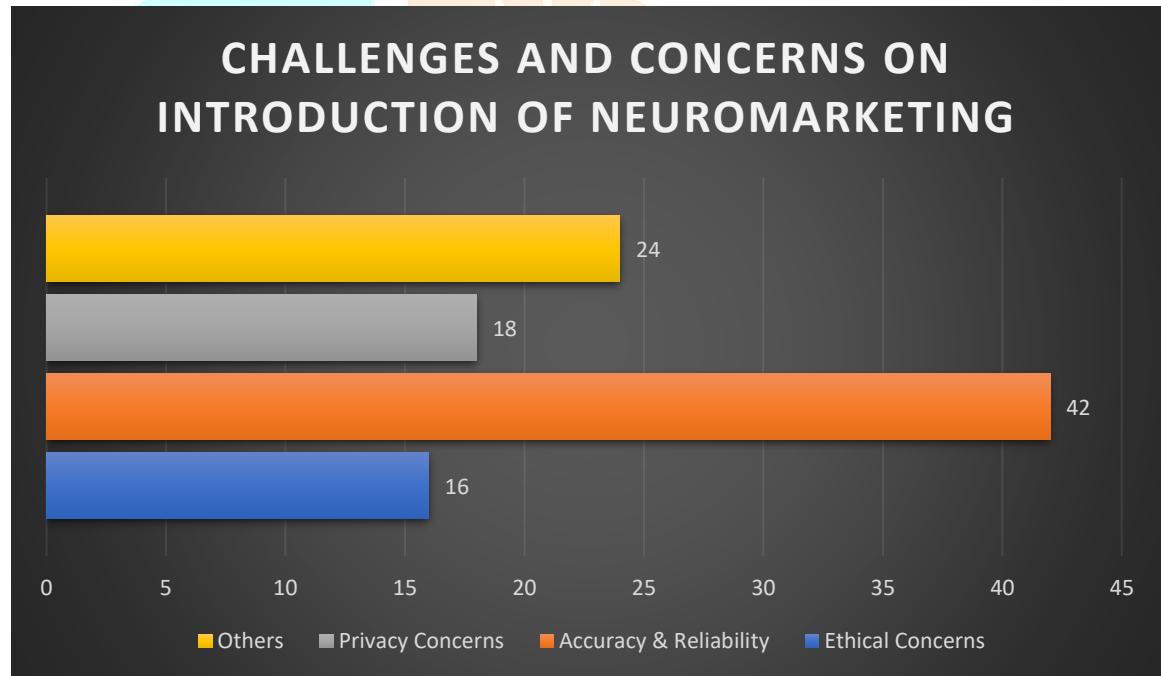
The chart shows that opinions on whether neuromarketing manipulates consumers' buying decisions are divided. Around 48% of respondents were neutral, while 38% agreed with the statement to some extent. Only 4% disagreed, and none strongly disagreed. These results suggest that a significant portion of respondents believe in the influence of neuromarketing on consumer behavior, while others remain undecided or skeptical.

TABLE 4.8

## CHALLENGES AND CONCERN ON INTRODUCTION OF NEUROMARKETING

PROBLEMS	FREQUENCY	PERCENTAGE
Ethical Concerns	16	16
Accuracy & Reliability	42	42
Privacy Concerns	18	18
Others	24	24
<b>Total</b>	<b>100</b>	<b>100</b>

Source: Authors' Calculation



The chart indicates that the main problems encountered with the introduction of neuromarketing, as identified by respondents, are concerns about accuracy and reliability (42%), unspecified issues (24%), privacy (18%), and ethical considerations (16%). These findings highlight the need for addressing these challenges to ensure trust, transparency, and ethical standards in neuromarketing practices.

## 5. HYPOTHESIS TESTING

➤ Null hypothesis(H0)

There is no significant relationship between monthly income and influencing factors for brand selection

➤ Alternative hypothesis(H1)

There is a significant relationship between monthly income and influencing factors for brand selection

TABLE 5

TEST: SINGLE FACTOR ANOVA.

MONTHLY INCOME	INFLUENCING FACTORS FOR BRAND SELECTION		
	PRICE	QUALITY	BRAND LOYALTY
Below 10000	16	12	10
10000 – 20000	12	10	14
Above 20000	10	8	8

ANOVA TABLE

GROUPS	COUNT	SUM	AVG	VARIANCE
Column 1	3	38	12.666	9.333
Column 2	3	30	10.000	4.000
Column 3	3	32	10.666	9.333

SOURCE OF VARIATION	SS	DF	MS	F	P - VALUE	F CRIT
Between Groups	11.56	2	5.78	0.77		
Within Groups	45.34	6	7.56		0.506	0.765
Total	56.84	8				

Source: Authors' Calculation

After conducting the ANOVA analysis, the resulting p-value was calculated to be 0.506. This p-value is greater than the significance level of 0.05. Consequently, we fail to reject the null hypothesis based on the analysis. Therefore, we conclude that there is no significant relationship exists between monthly income and the influencing factors for brand selection. In other words, the evidence does not support to suggest that monthly income has a notable impact on the factors influencing brand selection.

## 6. FINDINGS

1. The majority of respondents were female
2. The majority of respondents were in the age range of 20-30 years
3. Postgraduates accounted for the largest portion of respondents,
4. The data analysis reveals a notable income disparity, with a substantial percentage of respondents reporting monthly incomes below 10,000.

5. A substantial majority of the surveyed youth demonstrated a moderate level of awareness regarding the neuromarketing strategy.
6. A significant portion of youths admit to occasionally making impulse purchases.
7. Young people prioritize product functionality and performance, emphasizing their emphasis on practicality and effectiveness.
8. Product quality and durability strongly influence the purchase decisions of young consumers, accounting for 44% of their decision-making factors.
9. Opinions on neuromarketing's impact on consumers' buying decisions are divided, with around 48% of respondents maintaining a neutral standpoint. This highlights the need for further investigation and understanding of the subject.
10. The analysis found that there is no significant relationship between monthly income and the factors influencing brand selection, suggesting that monthly income does not have a notable impact on consumers' brand choices.

## 7. SUGGESTIONS

- ❖ Consider products or services that cater to higher-income brackets.
- ❖ Educate and engage the youth audience about neuromarketing.
- ❖ Utilize media sources to communicate neuromarketing initiatives.
- ❖ Appeal to personal desires in marketing campaigns.
- ❖ Emphasize product quality and durability to attract adolescents.
- ❖ Craft compelling marketing messages to influence consumer choices.
- ❖ Continuously improve product quality to maintain and enhance brand preference.
- ❖ Foster empathy and brand identity through relatable and authentic brand messaging.

## 8. CONCLUSION

Neuromarketing has emerged as a powerful tool for effectively engaging young consumers and influencing their buying behavior. The study titled "Impact of Neuromarketing on the Buying Behavior of Youth: Special Reference to Kozhikode" aims to delve into the specific effects of neuromarketing strategies on the purchasing decisions of young consumers in Calicut. By understanding the subconscious triggers and psychological factors that drive consumer behavior, businesses can tailor their marketing approaches to capture the attention and interest of young consumers.

To engage young consumers effectively, businesses should leverage various channels and media sources to communicate their neuromarketing initiatives. By employing diverse platforms such as social media, online

advertising, and immersive experiences, businesses can maximize their reach and impact among the youth in Calicut. This multi-channel approach allows businesses to convey compelling messages that resonate with the target audience and create a strong emotional connection. In addition to channel selection, businesses should prioritize personal desires and product quality when targeting young consumers. Crafting marketing messages that evoke emotions, utilizing impactful video advertisements, and providing exceptional customer service are essential elements in attracting and retaining the attention of young consumers.

By incorporating personality factors and collaborating with influencers who appeal to the youth audience, businesses can further enhance their engagement and influence. Furthermore, the study emphasizes the importance of addressing potential purchase regrets and promoting the benefits of neuromarketing to build trust and credibility among young consumers in Calicut. Continuous adaptation of marketing strategies based on consumer feedback and evolving trends is crucial to maintaining effectiveness and staying relevant in the fast-paced world of neuromarketing.

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