



# The Impact Of Consumer Attitude Towards Neuromarketing On Brand Preference With Reference To North Chennai

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## ABSTRACT:

This study examines the impact of consumer attitudes towards neuromarketing on brand preference, with a focus on North Chennai. The research is guided by two key objectives: (1) to explore the influence of demographic variables on consumers' brand preferences and (2) to analyze customer preferences for various brands based on their perceived rankings. Garrette's ranking method is used to evaluate and rank brands according to consumer perceptions. The findings indicate that Sony is the most preferred brand, followed by Bluestar and Crompton Greaves, with other brands displaying moderate to low consumer acceptance. Additionally, the study highlights how demographic factors such as age, gender, and income significantly shape consumer preferences. By integrating neuromarketing insights, this research provides actionable recommendations for marketers to refine their strategies and strengthen brand positioning in urban markets like North Chennai.

Keywords: neuromarketing; consumer perception, preferences

## I. INTRODUCTION

Neuromarketing, also known as consumer neuroscience, is a field that studies the brain to predict consumer behaviour and decision-making. The consumers are incapable of recalling their emotions and feelings. Neuromarketing is dependent on the changes in the size of the brain. In the 1990s, Harvard professor Jerry Zaltan saw an opportunity to use cutting-edge technology to study the human brain in marketing and consumer behavior. It is a field that combines various fields such as psychology, sociology, neuroscience, and marketing. Neuromarketing was founded in the year 2002 to connect consumer behavior research and neuroscience. Many companies that use advertisement techniques and

marketing professionals who use neuromarketing techniques pre-test the procedures to determine the impact on investment and consumer responses (Sudeep Chatterjee 2015).

Neuromarketing paved the way for businesses and companies to invest in production and marketing to understand the purchase decision to compete in local, national, and international markets. Product by using brain imaging techniques such as functional magnetic resonance imaging, electroencephalography, magnetoencephalography, positron emission tomography, transcranial magnetic stimulation, eye tracking, measuring physiological responses, implicit association test, and skin conductance (Christophe Morin, 2011).

Behind traditional qualitative and quantitative fact-finding approaches, neuromarketing has emerged as a noticeable field activity; the focus is on consumer attitudes as the marketing business develops. As a result, neuromarketing can help researchers, professionals, marketers, and a business to forecast consumer responses utilizing various brain imaging techniques (Silvia Klineckova 2016) Due to intense competition among similar items in terms of price and quality, many companies and organizations are seeing significant changes in customer buying patterns and decision-making in today's climate. To achieve the aim of the competitors, the company must overcome numerous hurdles to maintain and retain customers in society. Using brain imaging techniques to comprehend the consumer mind in the buying decision process, many businesses must overcome business challenges to produce customers effectively and efficiently. Neuroscientific tools drive marketers to predict consumer responses, avoid unnecessary waste of marketing resources, and reduce corporate risk. Monika Koller (Monika Koller, 2011).

Manufacturers are increasingly turning to neuromarketing to help them, launch a new product through advertisement.. It is essential to examine the alterations in consumers' minds that occur significantly by looking at their behavior. The use of brain imaging techniques aids in the identification of desires wants, and inducements to purchase things. Brands have an important role in the business's success. Colors will entice the consumer to capture in the business amid competitors, and brand plays an important function in creating awareness of the product attributes (K. Vikram, K.V. Ramanathan 2015).

Many businesses are focusing on Neuromarketing approaches to have a clear view of consumer expectations during the buying decision process and to improve their businesses using marketing strategies. It is also used as a promotional tactic to run a business more effectively in society to sustain itself in the market for the long run and prevent customers from moving to competitors. Companies should acquire more information and update their technologies to understand the consumer's expectations, views and mental outlook in the growing global market (Cristina Stoicescu, 2015).

## II. OBJECTIVES OF THE STUDY

1. To study the influence of demographic variables which influence consumers in analysing brand preference
2. To analyze customer preferences for various brands based on their perceived rankings.

## III LIMITATIONS OF THE STUDY

1. The research focusses only identify the consumer attitude towards brand preference.
2. The respondent's suggestion differs from one to another. Hence conclusion cannot be generalized.

## SOURCES OF DATA

### Primary Data

Primary data was collected through Simple Random Sampling technique. Data was collected from the consumers who use durable goods.

### Secondary Data

Secondary data was obtained from various sources like Websites, Journals, Books, News studies and Magazines. Concepts and theories were collected from text books and research journals.

## STATEMENT OF PROBLEM

This research paper, searches answers to questions of consumer attitude pertaining to brand preference how it affects the human mind. It also helps to identify the answers for pricing strategies used by various brands, brand loyalty, customer satisfaction and the perception to apparent and thriving brands.

## LITERATURE REVIEW

Bright Trogisch (2012) used neuroimaging techniques including fMRI, MEG, and EEG to successfully explore how the human brain creates consciousness and develops attention towards advertisement, observation, and buying decisions in his paper on our contribution to neuromarketing research.

In their research Neuromarketing: is the Hope and Hype of Business, N Airely and Gregory S. Berns (2010) argued that marketers should collect information about customer needs and wants, as well as to examine the decision-making process to create the market.

Nurcan Yucel, Atilla Yucel, Ali Simi Yilmaz, Fatma Cubuk, Ertugrul Bugra Orhan, and Ahmed Ishan Simsek (2015) concluded that taste would reduce stress and tension by having coffee to mind relaxation by using some brands will attract the consumer to purchase regularly in the market in their study coffee testing experiment from the neuromarketing perspective concluded EEG result proved that taste would reduce stress and tension by having a coffee to get mind relaxation by using some brands will attract.

Norsiah Fauzan (2015) discovered that neuroimaging techniques using EEG to determine the brain wavelength of stimulus, urge, desire, action, proof, and reward play a critical part in advertisement research to influence customer attitudes toward product purchase.

According to Dijana Cosic (2016), neuromarketing cannot precisely read the consumer's mind, the marketer can raise awareness about the products by using brain imaging techniques such as eye-tracking, as well as attractive colors and logos, which will impact the consumer's buying behavior.

In their study of how consumers perceive a logotype/emblem in advertising, Yener Giriskan and Diren Bulut (2014) found that placing an emblem, or logotype on the left-hand side proves that the consumer's eye moment is usually reads the message from left to right, which creates attention, interest, learning, and memory to increase sales by using different color, shape, and design to attract the consumer.

In the study of Christopher Morin (2011), neuromarketing engages brain imaging techniques such as electroencephalography (EEG), magnetoencephalography (MEG), and functional magnetic resonance imaging (fMRI) which helps the marketer in developing and evaluating advertisements to understand consumer behavior in purchase decisions.

In the research of Christopher Arthman and I-Ping Li (2017), neuromarketing is the art of weighing the consumer mind, such as feelings, sentiments, and engagement, by looking at the eye moment while watching advertisements, which will influence consumer buying behavior, brand awareness, and customer loyalty.

Vivian Alexandra Roth (2013) focused on how input and output models analyze how the consumer's brain reacts inside and reflects through body language, facial coding, empathic design, and eye tracking in the buying behavior process using neuromarketing techniques like EEG, fMRI, and MEG to evaluate inside and outside reflexes in the buying behavior process.

Vlasceanu Sebastian (2014) examines cognitive and emotional responses using a variety of approaches, instruments, and procedures to determine customer emotions, feelings, and thoughts to make decisions and understand how they react while purchasing a product.

In his work, *Neuromarketing Inside the Mind of the Consumer*, Ming Hsu (2017) focused on the marketer's understanding of the customer's attitude and behavior by using a marketing mix to forecast the customer and maximize the return using brain imaging to get market placement.

By evaluating and altering the changes reviewed by the board committee, Yesim Isil Ulman, Tunacakar, and Gokcen Yildiz (2014) conclude that neuromarketing provides valuable information ethically using neuroscientific tools by the government and non-government organizations to create consumer awareness and goodwill of the company among the public.

Monika Koller (2011) focused on neuromarketing techniques such as FMRI to learn about the attitude for willingness and consent to participate in technology such as anxiety, perceived risk, intrinsic motivation, and extrinsic motivation by the market researcher to learn about the consumer inducement in a purchase decision.

Chavaglia, Jose Jose Antonio Filipe Neto emphasized that neuromarketing delivers a piece of vital information about consumer preferences, by instilling a pleasant emotion in the purchase of a product and competing with competitors through the usage of face reader software in technological innovation.

## DATA ANALYSIS AND INTERPRETATION

S.No.	Factors	Group	Frequency	Percentage	Mean	Standard Deviation
1	Age	18 – 28 Years	7	11.7	3.28	1.32
		28 – 38 Years	10	16.7		
		38 – 48 Years	16	26.7		
		48 – 58 Years	13	21.7		
		Above 58 Years	14	23.3		
2	Gender	Male	35	58.3	1.42	0.50
		Female	25	41.7		
3	Marital Status	Married	29	48.3	1.52	0.50
		Unmarried	31	51.7		
4	Type of Family	Nuclear Family	51	85	1.15	0.36
		Joint Family	9	15		
5	Educational Qualification	No Formal Education	8	13.3	2.97	0.35
		School Level	17	28.3		
		Graduation	18	30.0		
		Post Graduation	3	5.0		
		Technical	14	23.3		
		Others	0	0		
6	Occupation	Salaried	21	35.0	2.53	1.41
		Business	15	25.0		
		Professional	8	13.3		
		Homemaker	11	18.3		
		Others	5	8.3.0		
7	Monthly Income	Upto Rs.25,000	8	13.3	2.73	1.07
		Rs.25,000 – Rs.50,000	20	33.4		
		Rs.50,000 – Rs.75,000	12	20.0		
		Above Rs.75,000	20	33.2		
8	Domicile	Urban Area	39	65	1.53	0.79
		Sub Urban Area	10	16.7		
		Rural Area	11	18.3		

The table provides a demographic and socio-economic profile of respondents, highlighting key factors such as age, gender, marital status, family type, education, business type, income, and domicile. The majority of respondents are middle-aged (38–48 years) with a moderate distribution across other age groups. The sample is slightly male-dominated (58.3%), and the marital status is nearly evenly split between married and unmarried individuals. Most respondents come from nuclear families (85%) and have a relatively high level of education, with the majority being graduates (30%) or having school-level education (28.3%). In terms of occupation salaried are the most common (35%), followed business (25%) and home maker (18.3%). Income levels are fairly balanced, with a significant proportion earning Rs.25,000–50,000 (33.4%) or above Rs.75,000 (33.2%). Geographically, the majority of respondents reside in urban areas (65%), with smaller representations from suburban and rural regions. Overall, the data indicates a diverse yet predominantly urban, middle-aged, and moderately educated population engaged in a variety of business activities.

## GARRETTE RANKING FOR BRANDS BASED ON CUSTOMERS' PERCEIVED PREFERENCES

BRAND	PERCENT POSITION VALUE	GARRETTE VALUE	SUM VALUE	MEAN VALUE	RANK
Samsung	5.00	81	2908	48.47	V
Sony	15.00	70	4434	73.90	I
Whirlpool	25.00	63	2866	47.77	VI
LG	35.00	58	2705	45.08	VIII
Voltas	45.00	52	2714	45.23	VII
Bajaj	55.00	48	2869	47.82	VI
Bluestar	65.00	42	3907	65.12	II
Crompton Greaves	75.00	37	3186	53.10	III
Godrej and Boyce	85.00	30	1456	24.27	IX
IFB	95.00	18	2915	48.58	IV

The above table presents a ranking analysis of various brands based on their perceived preference, using Garrette's ranking method. This method translates rankings into weighted scores (Garrette values) and averages them to produce a mean value that determines the overall rank.

### 1. Brand Rankings

- **Top 3 Brands:**

- Sony (Rank I): Leads with the highest mean value of 73.90, indicating it is the most preferred or highly rated brand.
- Bluestar (Rank II): Secures the second position with a mean value of 65.12, reflecting strong consumer preference.
- Crompton Greaves (Rank III): Follows closely with a mean value of 53.10, showing moderate preference.

- **Middle Performers:**

- IFB (Rank IV), Samsung (Rank V), Whirlpool (Rank VI), and Bajaj (Rank VI): These brands have mean values ranging from 47.77 to 48.58, suggesting a similar level of moderate consumer acceptance.

- **Lower Performers:**

- Voltas (Rank VII) and LG (Rank VIII) have slightly lower mean values (45.23 and 45.08, respectively), placing them near the bottom.
- Godrej and Boyce (Rank IX) is ranked last with a significantly lower mean value of 24.27, reflecting minimal preference.

## FINDINGS OF THE STUDY

- The majority of respondents are middle-aged (38–48 years)
- The sample is slightly male-dominated (58.3%)
- The marital status is nearly evenly split between married and unmarried individuals.
- Most respondents come from nuclear families (85%) and have a relatively high level of education,
- In terms of occupation, salaried are the most common (35%),
- With a significant proportion earning Rs.25,000–50,000 (33.4%) or above Rs.75,000 (33.2%).
- Geographically, the majority of respondents reside in urban areas (65%).
- Overall, the data indicates a diverse yet predominantly urban, middle-aged, and moderately educated population engaged in a variety of business activities.
- The brand rankings reveal that Sony is the most preferred brand, leading with the highest mean value of 73.90, followed by Bluestar (65.12) and Crompton Greaves (53.10), which also show strong consumer preference.
- Middle-ranked brands, including IFB, Samsung, Whirlpool, and Bajaj, have similar mean values ranging from 47.77 to 48.58, indicating moderate acceptance.
- Lower-ranked brands like Voltas (45.23) and LG (45.08) have slightly weaker preference levels, while Godrej and Boyce stand out as the least preferred brand, with a significantly lower mean value of 24.27.

## SUGGESTIONS

To improve brand preference and consumer engagement in North Chennai, businesses should tailor marketing strategies to specific demographic groups, considering factors such as age, income, and family structure. Implementing neuromarketing techniques, including emotional appeals and sensory-driven marketing, can strengthen consumer connections and enhance brand recall. Brands should differentiate themselves through innovation and quality, taking cues from successful brands like Sony and Bluestar. Marketing efforts should focus on urban markets, ensuring that products meet the cultural and social needs of city consumers. Regularly tracking consumer attitudes and offering loyalty programs can further increase brand preference and foster long-term customer loyalty. These approaches will help businesses improve their market presence and build lasting relationships with customers.

## CONCLUSION

In conclusion, this study highlights the significant influence of consumer attitudes toward neuromarketing in shaping brand preferences, particularly in the North Chennai region. The findings suggest that demographic factors such as age, income, and family type play a crucial role in determining brand choice. Brands that effectively leverage neuromarketing strategies, focusing on emotional appeal and sensory experiences, can enhance consumer engagement and improve brand recall. The analysis of

brand rankings reveals that top performers like Sony and Bluostar excel due to strong consumer connections, while other brands can benefit from innovation and targeted marketing. Overall, businesses should continuously monitor consumer preferences, adapt their strategies to local market needs, and foster brand loyalty through personalized and dynamic marketing efforts to strengthen their market position and build lasting consumer relationships.

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