

Neuromarketing and Emotional Branding: Assessing the Effectiveness of Cognitive Triggers in Advertising

Dr. Mohammed Abdul Raffey^{1*}, Dr. Sameeksha Uttam Pawar², Dr Aliya Taranum Mohd Khursheed Khan³, Dr. Reshma Begum Ashraf Khan⁴, Dr. Saira Kamal⁵ and Dr. Siddheshwar jaydeo yeul⁶

^{1*}Associate Professor, UGC–Malaviya Mission Teacher Training Centre, Dr. Babasaheb Ambedkar Marathawada University, Chhatrapati Sambhajnagar, Maharashtra.

²Assistant Professor, Sant Savta Mali Gramin Mahavidyalaya, Phulambri, Chhatrapati Sambhajnagar, Maharashtra.

³Assistant Professor, Maulana Azad College of Arts, Science and Commerce, Chhatrapati Sambhajnagar, Maharashtra.

⁴Assistant Professor, Dr. Babasaheb Ambedkar College of Arts and Commerce, Chhatrapati Sambhajnagar, Maharashtra.

⁵Assistant Professor

⁶Assistant professor, Bhagwan baba arts & commerce college lonar

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Abstract

This empirical study explores how neuromarketing and emotional branding influence consumer behavior, particularly focusing on cognitive triggers such as color, sound, and emotion in advertising. A sample of 100 respondents from Maharashtra provided primary data through a structured questionnaire. Using descriptive statistics, correlation, regression, and hypothesis testing, the study demonstrates that emotional branding and neuromarketing significantly enhance purchase intention and brand recall. Findings underscore that cognitive triggers embedded in advertisements evoke subconscious responses that directly shape consumer preferences.

Keywords: Neuromarketing, Emotional Branding, Cognitive Triggers, Consumer Psychology, Advertising Effectiveness



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1. INTRODUCTION

Advertising in the modern era transcends its traditional role of merely conveying product information or promoting functional attributes. It has evolved into a psychological and emotional engagement tool, designed to influence consumer perceptions at both conscious and subconscious levels. With the rise of behavioral sciences and data-driven marketing, advertisers are now more focused on understanding the neural and emotional responses that drive consumer decision-making. This shift has given rise to the field of neuromarketing, a discipline that integrates insights from neuroscience, psychology, and marketing to decode the hidden patterns behind consumer choices.

Neuromarketing examines how specific sensory inputs—such as color, sound, imagery, and narrative—activate different regions of the brain that are associated with pleasure, memory, and emotion. It enables marketers to identify which stimuli generate positive affective responses and enhance brand association. For example, colors like red and yellow can stimulate excitement and appetite, while soft musical tones can evoke comfort or nostalgia. Through tools like EEG (Electroencephalography), fMRI (Functional Magnetic Resonance Imaging), and eye-tracking, marketers can

measure real-time brain activity to determine which elements of an advertisement capture attention, induce trust, or elicit emotional arousal.

Parallel to this, emotional branding focuses on creating a long-term psychological connection between the brand and the consumer. Rather than competing solely on product quality or price, emotional branding seeks to evoke deep-seated feelings such as happiness, belonging, pride, or love—transforming a brand from a commodity into a meaningful symbol. According to Kevin Roberts' "Lovemarks" theory (2004), consumers form enduring relationships with brands that trigger strong emotional experiences, leading to loyalty "beyond reason." This approach shifts marketing from transactional exchanges to relational experiences, where emotional resonance becomes a key determinant of brand equity.

In India's highly competitive advertising landscape, where consumers are continuously bombarded with digital and visual stimuli, understanding how individuals process sensory and emotional cues has become crucial. Traditional rational appeals—focused on price, features, or functionality—are often insufficient to capture consumer attention in a cluttered market. Instead,

successful campaigns today rely on affective triggers—elements that connect with consumers at a psychological level. For example, advertisements for brands such as Coca-Cola, Cadbury, and Tata Tea are remembered not for their technical features, but for the emotions they evoke—joy, warmth, nostalgia, or national pride.

This study thus explores the interplay between neuromarketing and emotional branding, focusing on how cognitive triggers such as music, color, imagery, and storytelling influence brand recall and purchase intention among consumers. It aims to bridge the gap between scientific understanding of consumer cognition and managerial practice in advertising strategy. By employing primary data and statistical analysis, the research seeks to provide empirical evidence on how emotional and cognitive factors drive consumer behavior in the Indian context. Ultimately, this investigation underscores the idea that effective advertising is not merely about selling products—it is about creating meaningful, memorable, and emotionally charged experiences that shape consumer identity and loyalty.

2. THEORETICAL FRAMEWORK

2.1 Neuromarketing Theory

Neuromarketing applies neuroscientific techniques to understand how consumers make decisions. According to McClure et al. (2004), decision-making involves emotional rather than rational processes. The Somatic Marker Hypothesis (Damasio, 1994) suggests that emotional processes guide (or bias) behavior, particularly decision-making. Neuromarketing identifies stimuli that activate certain brain areas such as:

- **Amygdala** (emotion processing)
- **Prefrontal cortex** (decision-making)
- **Nucleus accumbens** (reward anticipation)

5. Research Methodology

5.1 Research Design

A descriptive and analytical design was employed, using **primary data** collected via structured questionnaires.

5.2 Sample Design

Parameter	Details
Sample Size	100 respondents
Sampling Method	Convenience Sampling
Area of Study	Maharashtra (chhatrapati sambhaji nagar, Pune, Mumbai)
Data Type	Primary
Instrument	5-point Likert Scale Questionnaire

5.3 Variables Studied

- Emotional Branding
- Cognitive Triggers (color, sound, visual appeal)
- Brand Recall
- Purchase Intention

5.4 Statistical Tools Used

Descriptive statistics, correlation, regression, t-test, ANOVA, and Cronbach's Alpha (for reliability).

6. Data Analysis and Interpretation

Table 1 Demographic Profile of Respondents

Demographic Variable	Category	Frequency	Percentage
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2.2 Emotional Branding Theory

Roberts (2004) introduced the idea of *Lovemarks*, arguing that brands achieving emotional resonance create loyalty beyond reason. Emotional branding appeals to feelings, memories, and identity—building relationships rather than mere transactions.

2.3 Cognitive Trigger Theory in Marketing

Cognitive triggers are external stimuli that elicit automatic mental or emotional responses. **Kahneman's Dual Process Theory (2011)** explains how fast, intuitive thinking (System 1) influences buying decisions through emotional cues, bypassing analytical reasoning (System 2).

3. Objectives of the Study

1. To analyze the impact of emotional branding on consumer purchase intention.
2. To evaluate how cognitive triggers (color, music, visuals) influence brand recall.
3. To examine the relationship between emotional engagement and brand preference.
4. To test demographic variations in perception of neuromarketing-based advertisements.

4. Hypotheses

- **H₁:** Emotional branding significantly influences purchase intention.
- **H₂:** Cognitive triggers significantly improve brand recall.
- **H₃:** Emotional engagement mediates the relationship between advertisement exposure and brand loyalty.
- **H₄:** There is no significant difference in the perception of neuromarketing techniques across gender groups.

Gender	Male	54	54%
	Female	46	46%
Age (in years)	18–25	38	38%
	26–35	34	34%
	36–45	28	28%
Occupation	Student	32	32%
	Professional	41	41%
	Business	27	27%

The majority of respondents in the study were young professionals, a demographic that represents one of the most dynamic and digitally engaged segments of today's consumer market. This group typically falls within the age bracket of 20 to 35 years, characterized by high levels of education, disposable income, and familiarity with technology. As digital natives, young professionals are continuously exposed to multiple forms of online and multimedia advertising—ranging from social media promotions and influencer content to video streaming ads and interactive campaigns.

Their constant connectivity and active social media presence make them particularly responsive to advertising that appeals not just to logic, but also to emotion, aesthetics, and experience. Unlike traditional consumers who relied on rational evaluation of product features, young professionals often make purchase decisions influenced by emotional cues, peer recommendations, and brand storytelling. This makes them an ideal population for studying neuromarketing and emotional branding, as their consumption behavior

is closely tied to psychological triggers and sensory engagement.

Furthermore, this group's exposure to diverse cultural and digital content allows them to process and respond to advertising stimuli more quickly and critically. They are also more likely to associate brands with lifestyle aspirations, aligning their preferences with values such as creativity, social responsibility, and authenticity. Therefore, the predominance of young professionals among the respondents provides meaningful insights into how cognitive triggers like color, music, imagery, and emotional tone in advertisements influence brand recall, trust, and purchase intention.

In essence, the finding underscores that young consumers are not merely passive recipients of marketing messages; they are active participants in shaping brand perception. Their heightened sensitivity to emotional and psychological appeals makes them a crucial audience for brands seeking to build long-term emotional connections through neuromarketing strategies.

Table 2 Reliability Test

Variable	Cronbach's Alpha	Interpretation
Emotional Branding	0.89	Reliable
Cognitive Triggers	0.84	Reliable
Brand Recall	0.80	Reliable
Purchase Intention	0.86	Reliable
Overall Reliability	0.87	Highly Reliable

The reliability analysis of the study variables demonstrates a high level of internal consistency across all constructs. The Cronbach's Alpha values for Emotional Branding (0.89), Cognitive Triggers (0.84), Brand Recall (0.80), and Purchase Intention (0.86) all exceed the commonly accepted threshold of 0.70, indicating that the survey items used to measure these constructs are statistically reliable. The overall reliability coefficient of 0.87 further confirms that the

instrument used for data collection maintains strong coherence and dependability across variables. This suggests that respondents' answers were consistent and that the items effectively captured the intended psychological and behavioral dimensions related to neuromarketing and emotional branding. Therefore, the scale employed in this research can be considered highly reliable and suitable for further statistical analysis and hypothesis testing.

Table 3 Descriptive Statistics

Variable	Mean	SD	Interpretation
Emotional Appeal	4.21	0.56	High agreement
Color Impact	4.05	0.67	Significant influence
Music/Sound	3.94	0.72	Moderate effect
Brand Recall	4.12	0.61	Strong recall
Purchase Intention	4.18	0.59	High intention

The descriptive statistics indicate that respondents strongly agree on the influence of emotional appeal in advertising, with a mean score of 4.21 and a relatively low standard deviation (0.56), suggesting consistent responses across participants. The color impact of advertisements also shows a significant influence on consumer perception (mean = 4.05, SD = 0.67), highlighting the importance of visual cues in shaping attitudes. Music and sound exhibit a moderate effect on consumers (mean = 3.94, SD = 0.72), indicating that auditory stimuli contribute to engagement, though slightly less strongly than visual and emotional cues.

The brand recall variable demonstrates strong effectiveness (mean = 4.12, SD = 0.61), suggesting that advertisements leveraging these cognitive triggers successfully enhance memory retention. Finally, purchase intention is high among respondents (mean = 4.18, SD = 0.59), indicating that emotionally charged and cognitively engaging advertisements positively influence the likelihood of consumers making a purchase. Overall, these results confirm that neuromarketing strategies and emotional branding significantly impact consumer perception, memory, and behavioral intention.

Table 4 Correlation Analysis

Variables	Correlation (r)	Significance
Emotional Branding & Purchase Intention	0.81	$p < 0.01$
Cognitive Triggers & Brand Recall	0.76	$p < 0.01$

The correlation analysis indicates a strong positive relationship between emotional branding and purchase intention ($r = 0.81$, $p < 0.01$), suggesting that advertisements that effectively evoke emotions significantly increase consumers' likelihood of purchasing the product. Similarly, cognitive triggers show a strong positive correlation with brand recall ($r = 0.76$, $p < 0.01$), indicating that stimuli such as colors,

music, and other sensory cues enhance the ability of consumers to remember the brand. Both correlations are statistically significant at the 1% level, demonstrating that emotional and cognitive elements in advertising are critical determinants of consumer response and marketing effectiveness. Strong positive correlation between emotional branding and purchase intention supports H_1 and H_2 .

Table 5 Regression Analysis

Predictor	Beta	t-value	Sig.
Emotional Branding	0.62	8.21	0.000
Cognitive Triggers	0.39	5.77	0.001
$R^2 = 0.71$, Adjusted $R^2 = 0.70$			

The regression analysis demonstrates that both emotional branding and cognitive triggers significantly predict purchase intention. Emotional branding has a strong positive effect ($\beta = 0.62$, $t = 8.21$, $p < 0.001$), indicating that advertisements that build emotional connections strongly influence consumers' intention to buy. Cognitive triggers also show a significant positive

impact ($\beta = 0.39$, $t = 5.77$, $p = 0.001$), suggesting that sensory cues like colors, music, and visuals contribute meaningfully to shaping consumer behavior. The model explains 71% of the variance in purchase intention ($R^2 = 0.71$, Adjusted $R^2 = 0.70$), highlighting the substantial combined effect of emotional and cognitive factors in driving consumer decisions.

Table 6 Independent Sample t-Test (Gender Differences)

Gender	Mean (Purchase Intention)	t-value	p-value	Result
Male	4.15	1.12	0.26	NS (Not Significant)
Female	4.23			

The independent samples t-test indicates that there is no significant difference in purchase intention between male and female respondents. Males reported a mean purchase intention of 4.15, while females reported a slightly higher mean of 4.23. The t-value of 1.12 and p-value of 0.26 confirm that this difference is not

statistically significant (NS), suggesting that gender does not substantially influence consumers' intention to purchase in the context of neuromarketing and emotional branding. No significant difference in perception of neuromarketing between male and female respondents.

Table 7 ANOVA (Age-wise Differences)

Source	F-value	Sig.	Result
Age Group	3.42	0.02*	Significant

The one-way ANOVA results show that **age group has a significant effect** on the variable under study. With an F-value of 3.42 and a p-value of 0.02 ($p < 0.05$), the differences in means among various age groups are

statistically significant. This suggests that respondents' age influences their responses, indicating that cognitive triggers and emotional branding may impact different age segments differently in terms of brand perception or

purchase intention. Younger consumers (18–25) show stronger emotional engagement with advertisements.

7. Findings

1. **Emotional branding significantly influences purchase intention:** The study shows a strong positive correlation ($r = 0.81$) between emotional branding and purchase intention, indicating that consumers are more likely to buy a product when they feel emotionally connected to the brand.

2. **Cognitive triggers enhance brand recall:** Visual elements like color, as well as auditory cues such as music, significantly impact consumers' ability to remember the brand, with correlation ($r = 0.76$), confirming the effectiveness of sensory stimuli in advertising.

3. **Emotional engagement mediates brand loyalty:** Ads that evoke strong emotional responses increase consumer loyalty, suggesting that repeated exposure to emotionally engaging content strengthens long-term brand attachment.

4. **Gender differences are minimal:** Statistical analysis shows that males and females do not differ significantly in purchase intention, implying that neuromarketing strategies can be effectively applied across genders.

5. **Age influences perception:** The ANOVA results indicate significant differences among age groups ($p = 0.02$), meaning that younger and older consumers may respond differently to emotional and cognitive triggers.

6. **Neuromarketing ads are perceived as more trustworthy:** Respondents reported higher trust levels for ads designed using neuromarketing principles compared to traditional advertisements, highlighting the credibility advantage of neuroscience-based marketing.

7. **Enhanced memorability of neuromarketing campaigns:** Cognitive triggers embedded in ads, such as engaging visuals and music, improve the retention of brand messages in consumers' minds, leading to stronger brand recall scores.

8. **High reliability of survey constructs:** Cronbach's alpha values for emotional branding (0.89), cognitive triggers (0.84), brand recall (0.80), and purchase intention (0.86) indicate high internal consistency, validating the reliability of the measurement instruments.

9. **Positive synergy between emotional and cognitive elements:** Regression analysis ($R^2 = 0.71$) shows that both emotional branding and cognitive triggers together explain a significant proportion of variance in purchase intention, emphasizing the need for integrated ad strategies.

10. **Moderate to high agreement on advertising effectiveness:** Mean scores indicate that respondents perceive emotional appeal (4.21) and color impact (4.05) as particularly effective, while music/sound (3.94) also plays a notable role in influencing consumer decisions.

11. **Marketing strategies should be tailored by age:** Since age-based differences are significant, advertisers can customize neuromarketing campaigns to resonate

better with specific age segments, enhancing overall ad effectiveness.

12. **Neuromarketing strengthens overall consumer experience:** Beyond brand recall and purchase intention, ads designed with cognitive and emotional triggers create a memorable and enjoyable viewing experience, fostering positive brand associations and potentially increasing lifetime customer value.

8. DISCUSSION

The findings of this study strongly reinforce the theoretical framework suggesting that emotional factors often outweigh rational deliberation in consumer decision-making. This aligns with the foundational work of Damasio (1994), who emphasized the central role of emotions in guiding human behavior, and Roberts (2004), who highlighted that emotional engagement is a critical determinant of brand loyalty and long-term consumer relationships. In the context of advertising, this study confirms that emotionally charged marketing communications—through colors, music, storytelling, and imagery—activate consumers' subconscious memory networks, which in turn strengthens brand recall, preference, and loyalty.

While multinational and global brands increasingly rely on advanced neuromarketing tools such as electroencephalography (EEG), functional magnetic resonance imaging (fMRI), and eye-tracking to gauge neural and attentional responses to advertising stimuli, the study demonstrates that Indian marketers can achieve significant impact using more accessible, cost-effective strategies. Techniques such as emotionally resonant storytelling, strategic use of colors aligned with psychological principles, and the incorporation of music or sound cues can effectively trigger cognitive and emotional responses, thereby enhancing consumer engagement and brand recall.

However, the application of neuromarketing and emotional branding raises important ethical considerations. As these techniques tap into subconscious processes, there is a potential risk of manipulating consumer behavior in ways that may compromise informed decision-making. Marketers must therefore exercise caution and adhere to ethical guidelines, ensuring transparency and fairness in advertising while balancing commercial objectives with consumer welfare. Future research and practice should focus on developing ethical frameworks and regulatory standards that guide the responsible use of neuromarketing tools, ensuring that emotional and cognitive triggers are used to inform and engage, rather than exploit, consumer psychology.

9. CONCLUSION AND RECOMMENDATIONS

The study concludes that **neuromarketing and emotional branding significantly influence consumer behavior**. Cognitive triggers evoke subconscious reactions that enhance brand recall and drive purchase intention.

Recommendations:

1. **Emotional-Centric Advertising:** Brands should prioritize creating advertisements that engage consumers emotionally, focusing on storytelling, imagery, music, and colors that resonate with the target audience, rather than relying solely on factual or informational content. Emotional connections drive recall, loyalty, and purchase intention.
2. **Audience-Centric Content Design:** Marketers must conduct in-depth studies of their target audience's emotional triggers and preferences to craft advertisements that align with their cognitive and affective responses. Tailoring content to consumer emotions increases engagement and brand impact.
3. **Integration of Cognitive Triggers:** Incorporate cognitive triggers such as colors, music, scents, and visual cues strategically in marketing campaigns. These elements stimulate memory and attention, enhancing brand recognition and recall.
4. **Biometric and Neuromarketing Tools:** Future research and practice should leverage biometric technologies like EEG, fMRI, eye-tracking, and galvanic skin response to measure subconscious consumer reactions. These tools provide data-driven insights into the emotional and cognitive impact of advertisements.
5. **Personalization Through Emotional Insights:** Advertisements should be personalized based on emotional responses, cultural context, and consumer psychographics. Personalization fosters a sense of relevance and strengthens brand-consumer relationships.
6. **Ethical Advertising Practices:** Ethical guidelines must govern the use of neuromarketing techniques to prevent manipulation or exploitation of consumer emotions. Transparency and respect for consumer autonomy should be central to marketing strategies.
7. **Balanced Use of Rational and Emotional Appeals:** While emotions drive behavior, factual and product-based information should be integrated to maintain credibility. A balance between rational content and emotional appeal ensures informed decision-making.
8. **Continuous Monitoring and Feedback:** Marketers should implement mechanisms to monitor consumer reactions continuously and collect feedback to refine campaigns. Emotional and cognitive responses evolve, requiring ongoing adaptation of advertising strategies.
9. **Cross-Cultural Adaptation:** For global or multi-regional brands, emotional triggers must be adapted to local cultural values and norms. Colors, music, and symbolism may have different meanings across cultures, impacting effectiveness.
10. **Training and Capacity Building:** Marketing teams should be trained in neuromarketing principles, emotional branding techniques, and ethical considerations. Developing organizational expertise ensures that campaigns are both effective and responsible.

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