



Original Article

Neuromarketing- How brain science change consumer behavior

Rachana Dhananjay Dalavi¹, Shreni Manohar Hirapache²

^{1,2}Research Scholar, Sveri's College of Engineering Pandharpur

Manuscript ID:
RIGJAAR-2025-021235

ISSN: 2998-4459
Volume 2
Issue 12
Pp. 162-166
December 2025

Submitted: 14 Nov. 2025
Revised: 19 Nov. 2025
Accepted: 22 Dec. 2025
Published: 31 Dec. 2025

Correspondence Address:
Rachana Dhananjay Dalavi
Research Scholar, Sveri's
College of Engineering
Pandharpur
Email-
rachnadalavi356@gmail.com

Quick Response Code:



Web: <https://rlgjaar.com>



DOI:
[10.5281/zenodo.18143778](https://doi.org/10.5281/zenodo.18143778)

DOI Link:
<https://doi.org/10.5281/zenodo.18143778>



Creative Commons



Abstract

In today's highly competitive marketplace, understanding consumer behaviour has become essential for designing effective marketing strategies. Traditional research methods often fail to capture the subconscious motivations behind purchasing decisions, leading to the rise of neuromarketing, a scientific approach that applies brain science to study how consumers truly think, feel, and respond to marketing stimuli. Neuromarketing explores how visual, auditory, and sensory cues influence the brain's emotional and cognitive processes, ultimately shaping preference, decision-making, and brand loyalty. Elements such as emotional storytelling, brand reputation, design features, and overall customer experience significantly affect buyers at a subconscious level, especially in high-involvement sectors like real estate. By analyzing neural responses—such as attention, memory, and emotional engagement organizations gain insights into what truly drives consumer choices. This understanding enables the development of neuroscience-backed marketing strategies that create stronger connections, enhance brand perception, and improve customer satisfaction. Thus, neuromarketing has evolved from an emerging trend to a powerful strategic tool that transforms how businesses influence consumer behaviour and make data-driven decisions.

Keywords- Neuromarketing Consumer, Behaviour, Subconscious Decision-Making, Homebuyer Psychology, Visual Stimuli, Auditory Stimuli, Sensory Marketing, Emotional Branding, Storytelling, Brand Perception, Builder Reputation.

Introduction to the study

“Neuromarketing – How Brain Science Changes Consumer Behaviour”

In today's highly competitive market, understanding consumer behaviour has become more important than ever. Traditional marketing methods often rely on surveys, opinions, and visible buying patterns, but these approaches do not fully capture how consumers truly think or make decisions. Neuromarketing, an emerging field that combines neuroscience with marketing, offers deeper insights by studying how the brain responds to different marketing elements. By examining subconscious reactions, neuromarketing helps companies understand what attracts, motivates, and influences consumers at a deeper level.

Modern consumers face countless choices, especially in high-involvement decisions such as buying a home. Factors like visual appeal, brand reputation, emotional connections, and overall experience influence decisions more powerfully than rational thinking alone. Visual, auditory, and sensory stimuli such as colours, images, music, ambience, and textures activate emotional responses in the brain, which strongly guide consumer preferences. Emotional branding and storytelling further shape perceptions by creating trust, attachment, and meaning around a product or brand, often without consumers being fully aware of their influence.

In the real estate sector, the reputation of the builder and the perception of the brand play crucial roles in shaping buyer trust and confidence. Design features such as layout, lighting, space planning, and aesthetics also create psychological impressions that influence decision-making. Neuromarketing helps in understanding these reactions scientifically by measuring attention, memory, emotional engagement, and subconscious triggers that lie behind homebuyers' choices.

Introduction to Organization

G Skyeagle Infra Pvt. Ltd. is one of the emerging and growing real estate developers in Pune, Maharashtra, known for delivering thoughtfully designed residential projects that blend modern living with long-term value.

Creative Commons (CC BY-NC-SA 4.0)

This is an open access journal, and articles are distributed under the terms of the [Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International](https://creativecommons.org/licenses/by-nc-sa/4.0/) Public License, which allows others to remix, tweak, and build upon the work noncommercially, as long as appropriate credit is given and the new creations are licensed under the identical terms.

How to cite this article:

Dalavi, R. D., & Hirapache, S. M. (2025). Neuromarketing- How brain science change consumer behavior. Royal International Global Journal of Advance and Applied Research, 2(12), 162–166. <https://doi.org/10.5281/zenodo.18143778>



Introduction to the study

“Neuromarketing – How Brain Science Changes Consumer Behaviour”

In today's highly competitive market, understanding consumer behaviour has become more important than ever. Traditional marketing methods often rely on surveys, opinions, and visible buying patterns, but these approaches do not fully capture how consumers truly think or make decisions. Neuromarketing, an emerging field that combines neuroscience with marketing, offers deeper insights by studying how the brain responds to different marketing elements. By examining subconscious reactions, neuromarketing helps companies understand what attracts, motivates, and influences consumers at a deeper level.

Modern consumers face countless choices, especially in high-involvement decisions such as buying a home. Factors like visual appeal, brand reputation, emotional connections, and overall experience influence decisions more powerfully than rational thinking alone. Visual, auditory, and sensory stimuli such as colours, images, music, ambience, and textures activate emotional responses in the brain, which strongly guide consumer preferences. Emotional branding and storytelling further shape perceptions by creating trust, attachment, and meaning around a product or brand, often without consumers being fully aware of their influence.

In the real estate sector, the reputation of the builder and the perception of the brand play crucial roles in shaping buyer trust and confidence. Design features such as layout, lighting, space planning, and aesthetics also create psychological impressions that influence decision-making. Neuromarketing helps in understanding these reactions scientifically by measuring attention, memory, emotional engagement, and subconscious triggers that lie behind homebuyers' choices.

Introduction to Organization:

G Skyeagle Infra Pvt. Ltd. is one of the emerging and growing real estate developers in Pune, Maharashtra, known for delivering thoughtfully designed residential projects that blend modern living with long-term value. With a focus on quality construction, customer satisfaction, and ethical business practices, the company has built a strong reputation across Pune's real estate market.

The company's philosophy revolves around creating homes that enhance everyday living homes that are modern, sustainable, and designed with customer needs at the core. G Skyeagle Infra's team of architects, engineers, planners, and real estate professionals are committed to building projects that offer both lifestyle comfort and long-term investment value. Over the years, the company has delivered quality residential ventures that contribute to Pune's urban growth. Its commitment to on-time delivery, transparent working methods, and attention to detail has earned G Skyeagle Infra positive recognition and a growing base of satisfied homebuyers.

Vision

To be recognized as a trusted and innovative real estate developer in Pune by creating future-ready homes that offer superior design, sustainability, and long-lasting value.

Mission

To develop residential properties that reflect quality, transparency, and customer-first values. G Skyeagle Infra aims to:

- Build modern, affordable, and value-driven housing projects.
- Maintain strong ethics, professionalism, and honesty in every transaction.
- Deliver homes on time while maintaining high construction standards.
- Create sustainable, well-planned communities that enhance people's lifestyles.

This commitment ensures that every project meets durability, safety, and comfort standards expected by modern homebuyers.

Professional Experience

G Skyeagle Infra specializes in residential property development, particularly in the mid-segment housing category targeted at urban families and working professionals. Its strengths include careful planning, durable construction, and efficient project coordination.

Backed by experienced engineers, designers, site supervisors, and sales professionals, the company ensures every project aligns with customer expectations and industry standards.

Its expertise includes:

- Residential apartment development
- Architectural planning and project design
- Construction quality management
- Customer relationships and after-sales support

Key Project: G Skyeagle Infra Residential Development – Pune

One of the notable offerings by G Skyeagle Infra is its residential project designed for comfort, convenience, and modern living. The project features spacious apartment configurations with easy access to educational institutions, hospitals, commercial hubs, and transportation facilities.

Project Highlights

- Modern architecture and functional layout
- Amenities such as parking, security, landscaped open spaces, and recreation areas
- A safe and family-friendly environment
- Balanced design that combines comfort, affordability, and quality

Statement of the Problem

Statement of the Problem is “Neuromarketing- How brain science change consumer behaviour”

Objectives of the Study

1. To understand how neuromarketing principles influence homebuyers' subconscious decisions.
2. To evaluate the effectiveness of visual, auditory, and sensory stimuli.
3. To study emotional branding and storytelling.
4. To explore the brand perception and reputation of the builder.
5. To understand the psychological influence of design



features.

6. To recommend data-driven, neuroscience-backed marketing strategies.

Scope of the Study:

- To analyze how neuromarketing principles influence homebuyers by studying their subconscious reactions during the property selection and purchasing process.
- To examine the impact of visual elements such as colours, layout designs, sample flats, brochures, 3D visuals, and project presentations on buyers' emotions and decision-making.
- To evaluate auditory and sensory stimuli, including background music, ambience, fragrances, lighting, and physical environment within sales offices or project sites.
- To study the role of emotional branding and storytelling used by real estate developers to build trust, connection, and interest among potential buyers.
- To explore how the builder's brand perception and reputation influence credibility, buyer confidence, and willingness to invest in a project.

Limitations of the Study:

- Lack of direct neurological testing:
The study does not involve advanced neuroscientific tools such as fMRI, EEG, or biometric devices. Findings are based on behavioural insights and neuromarketing principles, not medical brain-scanning methods.
- Subjective responses of participants:
Homebuyers may not always express their true subconscious feelings, which can affect the accuracy of results.
- Limited geographic focus:
The study may cover only a specific region or real estate market, so findings may not be fully applicable to all locations or wider populations.
- Variation in buyer preferences:
Consumer behaviour in real estate differs based on income, lifestyle, family needs, and personal preferences, making it difficult to generalize results for all homebuyers.

Research Methodology

Research Design

The study adopts a descriptive and analytical research design. It focuses on understanding how neuromarketing principles influence consumer behaviour, especially among homebuyers. The research analyzes the impact of visual, auditory, sensory, emotional, and psychological factors on subconscious decision-making in the real estate sector.

Sources of Data

• Primary Data:

Collected directly from homebuyers, real estate customers, marketing professionals, and sales executives through structured questionnaires, interviews, and observation at project sites or sales offices.

• Secondary Data:

Collected from journals, neuromarketing research articles, real estate marketing reports, builder websites, industry

publications, previous academic studies, and online databases related to consumer behaviour and neuroscience.

Data Collection Methods

• Questionnaire (Google Forms or Paper-based):

Used for quantitative data collection, including Likert-scale questions to measure perceptions, emotional responses, brand trust, and reactions to marketing stimuli.

• Personal Interviews:

Conducted with marketing managers, real estate sales teams, or branding professionals to gain deeper insights into neuromarketing strategies used in the sector.

• Observational Method:

On-site observation of buyer behaviour in sample flats, sales offices, or project presentations to identify sensory and psychological influences.

• Case Studies:

Analysis of successful real estate brands using neuromarketing or emotional branding technique

Sampling Technique

• Sampling Method:

Purposive Sampling (since respondents must be actual homebuyers or potential buyers with relevant experience).

• Sample Size:

30–50 homebuyers, depending on availability, accessibility, and the scope of the study.

Tools for Data Analysis

• Quantitative Tools:

- Percentage Analysis
 - Mean and Standard Deviation
 - Correlation Analysis
 - Cross-tabulation
 - Charts and Graphs
- ##### • Qualitative Tools:

- Thematic Analysis (for open-ended responses, interview insights, and behavioural observations)
- Content Analysis of branding or marketing communication

• Data Analysis

Analysis of Neuromarketing Survey for Real Estate Buyers (32 Responses)

1. Property Purchase Intent in Next 12 Months

Criteria | Respondent | Percentage

Yes – 7 – 21.9%

No – 25 – 78.1%

Interpretation:

From the above chart, it is interpreted that the majority of respondents (78.1%) are not planning to purchase a property in the next 12 months. Only 21.9% are actively planning, indicating low immediate buying intention. Overall, future demand exists but is not urgent for most respondents.

2. Importance of First Impressions (Brochures, Website, Ads)

Very Important: 53.1%

Important: 28.1%

Neutral: 9.4%

Not Important: 9.4%

Interpretation:

From the above chart, it is interpreted that most



respondents (53.1%) consider first impressions very important, highlighting the strong influence of visuals in real estate decisions. Only a small percentage (9.4%) feel such elements are not important.

3. Most Influential Marketing Content (Top Selections)

Virtual Tours: 8

Emotional Storytelling: 16

Offers/Discounts: 19

Word of Mouth: 11

Social Media Posts: 13

Interpretation:

From the above chart, it is interpreted that offers/discounts (59.4%) and emotional storytelling (50%) are the most impactful promotional tools. Social media posts and word of mouth also influence a significant portion. Virtual tours influence fewer people compared to emotional elements and financial incentives.

4. Impact of Show Flats/Site Visits

Strongly Increase: 22 (68.8%)

Slightly Increase: 5 (15.6%)

No Change: 3

Decrease: 2

Interpretation:

From the above chart, it is interpreted that site visits have a strong positive impact on buyer interest. A combined 84.4% experience increased interest, indicating the powerful effect of physical experience on home-buying decisions.

5. Sensory Elements Influencing Site Visits

Interior Color Scheme: 23

Background Music: 26

Aroma/Fragrance: 24

Lighting: 23

None: 3

Interpretation:

From the above chart, it is interpreted that sensory triggers—especially background music (81.3%) and aroma (75%) directly influence buyer perception. Very few respondents reported no sensory influence, showing the strong neuromarketing impact of ambience.

6. Importance of Builder Reputation

Very Important: 22 (68.8%)

Important: 7

Somewhat Important: 1

Not Important: 2

Interpretation:

From the above chart, it is interpreted that builder reputation is a major trust factor. Almost 90% place it in the important or very important category, showing that credibility significantly shapes buying decisions.

7. Use of Digital Features Before Inquiring

Virtual Walkthroughs: 12

Chatbots/AI: 9

AR Features: 9

None: 2

Interpretation:

From the above chart, it is interpreted that many buyers are comfortable using digital tools, especially virtual walkthroughs. Only 2 respondents have not used any such feature, indicating growing digital adoption.

8. Influence of Emotional Property Ads (Scale 1–5)

Highly Influenced (5): 20 (62.5%)

Moderately (4): 8

Neutral (3): 3

Low Influence (1–2): 1

Interpretation:

From the above chart, it is interpreted that emotional advertising strongly impacts buyers, with over 87% falling in the medium-to-high influence category. Emotional connection is a powerful neuromarketing tool.

9. Motivating Factors in Choosing a Property (Ranking)

Rank-1 Most Important:

- Price → 28
- Emotional Appeal → 3
- Location → 1
- Builder Reputation → 0
- Amenities → 0

Interpretation:

From the above chart, it is interpreted that price is the strongest deciding factor, followed by emotional appeal and location. Amenities and builder reputation hold lesser priority at Rank-1 but appear important in higher ranks, showing a balanced decision-making pattern.

10. Effectiveness of Neuroscience-Based Marketing

Yes: 24 (75%)

No: 7

Maybe: 1

Interpretation:

From the above chart, it is interpreted that most respondents trust emotion-driven visuals, immersive content, and neuroscience-based marketing approaches. This indicates readiness for modern, psychologically aligned marketing techniques.

11. Most Impactful Marketing Technique (Single Choice)

- Emotional Storytelling – 10
- Visual Appeal – 8
- Discounts – 7
- Technical Specifications – 7

Interpretation

From the above chart, it is interpreted that emotional storytelling (31.3%) is the most impactful technique, followed by visuals and financial incentives. Pure technical information influences fewer respondents.

Major Findings

1. Emotional and sensory elements strongly influence buyer decisions, especially during site visits.
2. Price and emotional appeal are the top factors determining property selection.
3. Visual first impressions and builder credibility significantly impact trust.
4. Neuroscience-based marketing (emotional ads, immersive visuals) is highly accepted by buyers.
5. Digital tools such as virtual walkthroughs are increasingly used, showing a shift toward tech-enabled decision-making.

Major Suggestions

1. Use strong emotional storytelling in ads to connect with buyers' aspirations.
2. Improve visual presentation through high-quality brochures, 3D walkthroughs, and VR experiences.



3. Provide sensory-rich site visits using aroma, music, and lighting to create positive emotional triggers.
4. Highlight builder reputation, awards, and certifications to build trust.
5. Offer attractive discounts and transparent pricing to capture value-sensitive buyers.

Conclusion

The study reveals that neuromarketing elements such as emotional appeal, visual design, sensory experience, and builder credibility play a major role in shaping real estate purchase decisions. While immediate buying intent is low, the strong impact of immersive visuals, emotional advertising, and sensory cues indicates that modern marketing strategies can significantly improve buyer engagement. By integrating emotion-driven content and enhanced digital tools, real estate developers can successfully influence customer perception and increase trust, ultimately improving decision-making and conversions.

Acknowledgment

The authors express their sincere gratitude to SVERI's College of Engineering, Pandharpur, for providing the academic environment and institutional support necessary to carry out this study. We are thankful to the faculty members and research guides for their valuable guidance, constructive suggestions, and continuous encouragement throughout the research process.

We also extend our heartfelt thanks to all the respondents, including homebuyers, real estate professionals, and marketing executives, who willingly participated in the survey and interviews. Their honest responses and insights significantly contributed to the successful completion of this research.

Finally, we acknowledge the contribution of various authors, researchers, journals, and online resources that provided a strong theoretical foundation and enriched the understanding of neuromarketing and consumer behaviour, which proved invaluable for this study.

Financial support and sponsorship

Nil.

Conflicts of interest

The authors declare that there are no conflicts of interest regarding the publication of this paper.

Reference

Reference Books

1. Ariely, D. (2008). Predictably Irrational: The Hidden Forces That Shape Our Decisions. HarperCollins Publishers.
(Explains subconscious decision-making, buyer psychology, and behavioural triggers relevant to neuromarketing.)
2. Dooley, R. (2011). Brainfluence: 100 Ways to Persuade and Convince Consumers with Neuromarketing. Wiley.
(Covers neuromarketing strategies, emotional branding, sensory cues, and customer persuasion.)
3. Morin, C. (2011). Neuromarketing: The New Science of Consumer Behavior. Psychology Press.
(Explores neural responses influencing consumer behaviour and marketing decisions.)

Online References / Links

1. Neuromarketing: Understanding Consumer Brain Responses.
2. <https://www.neuromarketing.com>
(Covers brain-based marketing insights, sensory influence, and emotional branding.)
3. Harvard Business Review – The Science Behind Consumer Decision-Making.
4. <https://hbr.org/topic/consumer-behavior>
(Research articles on buyer psychology, rational vs. emotional decisions.)
5. Nielsen Consumer Neuroscience – Neuromarketing Insights.
6. <https://www.nielsen.com/us/en/solutions/consumer-neuroscience>
(Explains neuroscience tools such as EEG, eye-tracking, and emotional measurement.)
7. American Marketing Association – Neuromarketing Research.
8. <https://www.ama.org>
(Articles and studies related to neuromarketing, sensory marketing, and emotional engagement.)
9. ScienceDirect – Neuromarketing and Consumer Behaviour Research Papers.
10. <https://www.sciencedirect.com/topics/business-management/neuromarketing>
(Academic journal papers for literature review.)