

## A Study of Effect of Neuro-Marketing Strategies for Luxury Brands of Cosmetic Products on Buying Decision

Rupali Gaikwad<sup>1</sup> and Dr Roshni Sawant<sup>2</sup>

<sup>1</sup>Research Scholar, D. Y. Patil deemed to be University school of management, CBD Belapur, Navi Mumbai

<sup>2</sup>Associate Professor, D. Y. Patil deemed to be University school of management, CBD Belapur, Navi Mumbai

**Received:**  
05/08/2025  
**Revised:**  
16/08/2025  
**Accepted:**  
08/09/2025  
**Published:**  
17/09/2025

### ABSTRACT

The study examines the impact of neuromarketing strategies on consumer buying decisions for luxury cosmetic brands. Neuromarketing, an interdisciplinary approach that combines neuroscience and marketing, has been increasingly utilized by luxury cosmetic brands to decode consumer behavior and enhance decision-making processes. This research explores how emotional triggers, sensory branding, and cognitive responses influence consumer preferences for high-end cosmetic products. The study emphasizes the role of neuromarketing tools such as eye-tracking, EEG, and fMRI in understanding subconscious consumer desires and shaping effective marketing strategies. The findings highlight that neuromarketing significantly enhances the appeal of luxury cosmetic products by fostering emotional connections and creating memorable experiences. Sensory stimuli like packaging, fragrance, and color schemes evoke positive associations, increasing the likelihood of purchase. Additionally, the research underscores the ethical considerations of using neuromarketing techniques to ensure transparency and consumer well-being. The study provides actionable insights for marketers to optimize branding strategies and align them with consumer expectations in the competitive luxury cosmetics market.

**Keywords:** Neuromarketing, Luxury Cosmetics, Consumer Behavior, Sensory Branding.



© 2025 by the authors; licensee Advances in Consumer Research. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC-BY-NC-ND) license(<http://creativecommons.org/licenses/by/4.0/>).

### INTRODUCTION

Neuromarketing strategies use insights from brain science to influence consumer behavior by targeting subconscious triggers that often drive purchasing decisions. Unlike traditional marketing, which appeals mostly to conscious thought, neuromarketing taps into emotional and instinctive responses, making campaigns more effective in capturing attention and fostering brand loyalty. By understanding how the brain processes information, marketers can design strategies that resonate on a deeper psychological level, encouraging consumers to connect with products intuitively rather than through rational analysis alone. One of the most powerful neuromarketing techniques is visual storytelling, which employs vivid imagery and engaging narratives to create emotional connections with the audience. Stories are inherently memorable and can evoke empathy, aspiration, or desire, helping luxury brands convey their identity and values in a compelling way. When consumers emotionally engage with a story, they are more likely to remember the brand and develop a positive attitude toward it. Similarly, color psychology plays a critical role in shaping perceptions by eliciting specific emotional reactions—red can trigger excitement and urgency, encouraging quick decisions, while blue

tends to evoke feelings of trust and calmness, reinforcing brand reliability. These color cues subtly influence how consumers feel about a product and can drive their purchasing behavior.

In addition, eye-tracking technology allows marketers to understand exactly where consumers focus their attention when viewing advertisements, websites, or product displays. By identifying natural gaze patterns, marketers can optimize the placement of key information or visuals to ensure maximum engagement and retention. Finally, scarcity and Fear of Missing Out (FOMO) exploit psychological impulses by suggesting that a product is in limited supply or available only for a short time. This perceived exclusivity generates urgency, prompting consumers to act quickly to avoid losing out. Together, these neuromarketing strategies work synergistically to influence consumer choices by appealing to both emotional and cognitive processes, ultimately driving stronger brand connections and purchase intentions.

### Effect of Neuro-Marketing Strategies for Luxury Brands of Cosmetic Products on buying decision.

Emotional Engagement through Visual Storytelling: Luxury cosmetic brands effectively use visual

storytelling to build aspirational narratives around beauty, identity, and lifestyle. By featuring high-end models, celebrity endorsements, and elegant visuals, they create a dream-like world that consumers emotionally connect with. This emotional engagement strengthens brand recall and subtly influences buying decisions by allowing customers to visualize themselves as part of that elite lifestyle. Such storytelling taps into self-image and aspirations, which are powerful drivers in the luxury market.

**Influence of Color Psychology:** Color psychology plays a significant role in the luxury cosmetic segment. Colors like black, gold, and deep red are often used in packaging and branding to signify sophistication, exclusivity, and sensuality. These color cues trigger emotional responses that align with luxury, such as confidence, prestige, and allure. As a result, consumers may perceive products as more premium and desirable, directly impacting their willingness to pay higher prices and influencing brand preference at the point of purchase.

**Optimized Design through Eye-Tracking Insights:** Eye-tracking technology helps luxury brands understand where consumers' visual attention goes first—whether it's the logo, model's face, or product itself. These insights are used to design visually balanced packaging and advertisements that guide the gaze to key features or messages. By optimizing visual hierarchy, brands can effectively communicate value and uniqueness, reinforcing purchase intention. In the competitive cosmetics space, even subtle design tweaks based on eye-tracking can significantly boost consumer interest and brand engagement.

**Driving Urgency with Scarcity and FOMO:** Luxury cosmetic brands often create limited editions or exclusive product launches to trigger scarcity and FOMO. By highlighting limited availability or time-bound offers, they generate urgency and increase perceived value. Consumers, driven by the fear of missing out on something rare and desirable, are more likely to make impulsive decisions. This psychological tactic is particularly effective in luxury, where exclusivity is a major appeal factor, thus significantly influencing the buying behavior of aspirational and loyal customers alike.

## REVIEW OF LITERATURE

Liu, Y., et.al (2021), In the research titled “A summary of the marketing strategies of luxury cosmetics brands” The study concludes that luxury cosmetics brands effectively maintain their competitive advantage in the digital era by leveraging sophisticated brand positioning combined with visually compelling storytelling and strong digital media presence. Consistent use of high-quality visual content and emotionally engaging narratives significantly enhances consumer loyalty and positively influences purchase intention. This indicates that storytelling is not only a branding tool but a strategic marketing asset that deepens emotional consumer connections and

drives sustained sales growth in the luxury cosmetic sector.

Karulkar, Y., et.al (2024), In the research titled “Eye tracking in neuromarketing: A study on visual attention patterns” The findings reveal that eye-tracking technology provides critical insights into consumer visual attention patterns that directly impact purchasing decisions, even for brands that consumers have not previously encountered. This confirms that neuromarketing tools like eye-tracking are invaluable for optimizing packaging design, as they allow marketers to predict and enhance consumer engagement effectively. For the cosmetics industry, this means packaging can be strategically designed to capture and hold consumer attention, thereby increasing the likelihood of purchase.

Kim, J., et.al (2024), In the research titled “Changes in pupil size according to the color of cosmetic packaging: Using eye-tracking techniques” This research demonstrates that color selection in cosmetic packaging profoundly affects emotional engagement, as evidenced by physiological responses such as pupil dilation. Pink, in particular, evokes the strongest emotional reaction, suggesting its effectiveness in capturing consumer interest. Meanwhile, colors like black and blue contribute to aesthetic harmony, which supports brand image balance. These insights underscore the importance of applying color psychology deliberately in packaging to enhance consumer engagement and drive purchase decisions within the cosmetics market.

Kim, M., et.al (2023), In the research titled “Neuroscientific analysis of logo design: Implications for luxury brand marketing” The study concludes that luxury brand logos combining verbal cues and dynamic visual elements trigger stronger emotional arousal while minimizing cognitive dissonance, as revealed by neuroscientific measures including EEG and eye tracking. This emotional and cognitive harmony enhances memory recall and purchase intentions, especially among women aged 20–40, a key demographic for luxury cosmetics. The findings suggest that logo design is a powerful neuromarketing tool that can effectively influence consumer perceptions and buying behavior through subconscious emotional engagement.

Torres, A. (2024), In the research titled “Sensory marketing: How luxury brands engage the brain” Torres' research highlights how sensory marketing elements such as luxury packaging and store visuals activate the brain's reward and pleasure centers, stimulating dopamine release that reinforces feelings of exclusivity and desire. These neurological responses are critical in forging strong emotional connections with consumers, which in turn increase their willingness to pay premium prices. The study confirms that sensory cues in luxury branding go beyond aesthetics—they play a fundamental role in motivating

consumer purchasing behavior by engaging deep-seated reward mechanisms in the brain.

Prasad, K. (2023), In the research titled “Recent trends in neuromarketing – A review” This review underscores the rapid growth and adoption of advanced neuromarketing tools like EEG, eye-tracking, and fMRI to decode subconscious consumer motivations. It stresses the importance of integrating neuroscience insights into marketing strategies to craft campaigns that resonate on a subconscious level, thereby improving luxury product adoption. Additionally, the study calls for ethical considerations in handling consumer data to maintain trust while leveraging neuromarketing’s power, signaling that responsible use of these tools is essential for sustainable marketing success.

Wikipedia Contributors. (2025), In the research titled “Consumer neuroscience” The research summarized in this entry concludes that aesthetically appealing packaging significantly influences consumer decision-making by engaging brain regions associated with reward and pleasure. This activation leads consumers to prefer beautifully designed packaging even when it comes at a premium price. The findings validate the role of packaging aesthetics as a critical factor in luxury cosmetics, where the visual appeal can tip consumer preference and willingness to invest in higher-priced products, reinforcing the strategic importance of design in neuromarketing.

Nowak, J., & Mroczek, A. (2024), In the research titled “Colour choice as a strategic instrument in neuromarketing” This theoretical review concludes that color choice, grounded in neuro-physiological and cultural contexts, is a potent strategic instrument in neuromarketing. The authors argue that aligning color strategies with both biological responses and cultural meanings enhances brand personality, emotional resonance, and ultimately, purchase likelihood. For luxury cosmetic brands, this framework offers a valuable guide to crafting color schemes that not only appeal aesthetically but also connect deeply with consumers on multiple levels, reinforcing brand identity and consumer loyalty.

## RESEARCH GAP

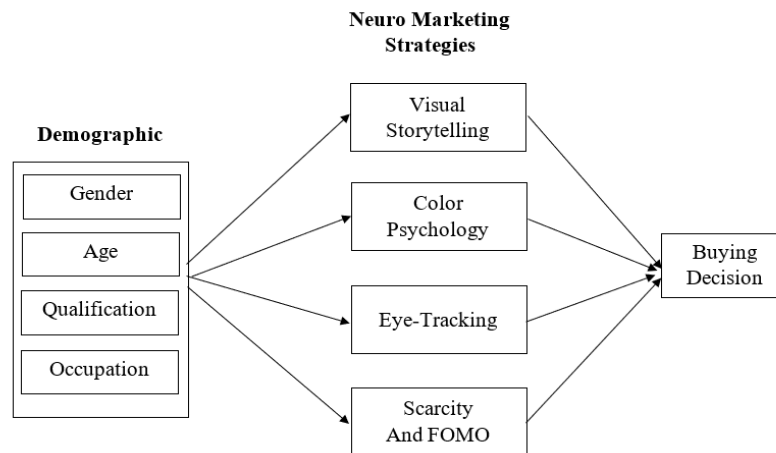
While existing research extensively explores various neuromarketing strategies—such as visual storytelling, color psychology, eye-tracking, and sensory branding—in the context of luxury cosmetic brands, a key research gap remains in integrating these strategies into a unified, consumer-centric framework that accounts for demographic diversity, cultural variation, and psychological segmentation. Most studies focus on isolated effects (e.g., color or logo design) or use experimental tools like EEG and eye-

tracking without examining how these strategies interact in real-world digital and retail environments. Furthermore, there is limited empirical work linking these strategies to long-term brand equity or loyalty metrics, particularly across different consumer segments such as age, culture, or gender. Addressing this gap would require multidimensional studies that combine neuroscience data with behavioral analytics to holistically understand and predict luxury consumer behavior in a more personalized and sustainable manner.

## RESEARCH METHODOLOGY

1. **Research Design:** This study adopted a quantitative research design to systematically investigate the impact of neuromarketing strategies on consumer buying behavior in luxury cosmetic brands. A structured questionnaire was developed to collect numerical data that could be analyzed statistically, allowing for objective measurement of respondents’ perceptions and preferences related to various neuromarketing techniques.
2. **Sample and Sampling Technique:** The research involved a total of 140 respondents, selected through convenience sampling due to ease of access and resource constraints. The sample included a diverse demographic profile, with a majority of female participants (64.3%) and most respondents belonging to the age group of up to 25 years (60%), ensuring representation of the target consumer segment for luxury cosmetic products.
3. **Data Collection:** Primary data was collected using a carefully designed survey questionnaire, which focused on key neuromarketing strategies such as visual storytelling, color psychology, eye tracking, and scarcity/FOMO, alongside questions assessing their influence on buying decisions. The questionnaire was administered directly to respondents to capture their perceptions and behavior in relation to luxury cosmetic brands.
4. **Hypotheses Tested**
  - **H01:** No difference in neuromarketing strategies among luxury cosmetic brands
  - **H02:** No impact of neuromarketing strategies on buying behavior
5. **Statistical Tools Used:** To analyze the data, the Friedman test was employed to compare the effectiveness of different neuromarketing strategies and identify statistically significant differences. Additionally, Pearson correlation analysis was conducted to examine the strength and direction of relationships between the neuromarketing strategies and consumer buying behavior, enabling a comprehensive understanding of their impact.

## Conceptual Framework



The conceptual framework depicted in the diagram outlines the relationship between demographic variables and neuromarketing strategies, and how these collectively influence consumer buying decisions. It proposes that factors such as gender, age, qualification, and occupation play a crucial role in shaping the effectiveness of neuromarketing techniques like visual storytelling, color psychology, eye-tracking, and scarcity/FOMO. These strategies are designed to tap into consumers' subconscious responses and emotional triggers, ultimately guiding their purchasing behavior. The framework highlights a cause-effect pathway where demographics inform strategic marketing approaches, which in turn drive buying decisions.

## Data Analysis

### Demographic Factor

Sr No.	Particular	Category	Frequency	Percent
1	Gender	Male	50	35.7
		Female	90	64.3
2	Age	Up to 25 Years	84	60.0
		26 to 35 Years	24	17.1
		36 to 45 Years	22	15.7
		40 to 60 Years	10	7.1
3	Qualification	Up to SSC	24	17.1
		HSC	15	10.7
		Graduation	45	32.1
		Post Graduation	38	27.1
		Professional Degree	18	12.9
4	Annual Income	Student	23	16.4
		Service	49	35.0
		Self Employed	23	16.4
		Business	19	13.6
		Retired	2	1.4
		Homemaker	24	17.1

The frequency data presents the demographic profile of 140 respondents. Among them, 64.3% were female (90 respondents), while males accounted for 35.7% (50 respondents). In terms of age distribution, the majority (60%) were up to 25 years old (84 respondents), followed by 17.1% aged 26 to 35 years (24 respondents), 15.7% between 36 to 45 years (22 respondents), and a smaller portion of 7.1% aged 40 to 60 years (10 respondents). Regarding educational qualifications, 32.1% had completed graduation (45 respondents), 27.1% had post-graduate degrees (38 respondents), 17.1% had education up to SSC (24 respondents), 12.9% held professional degrees (18 respondents), and 10.7% had completed HSC (15 respondents). For annual income or occupational status, 35% were employed in service jobs (49 respondents), 17.1% were homemakers (24 respondents), 16.4% were students (23 respondents) and self-employed individuals (23 respondents), 13.6% were engaged in business (19 respondents), and a small fraction of 1.4% were retired (2 respondents). This data reflects a predominantly young, educated, and female respondent group with diverse occupational backgrounds.

## Objective and Hypothesis

Objective 1 To Study neuro marketing Strategies for Luxury Brands of Cosmetic Products.

Null Hypothesis H01: There is no difference in strategies of neuro marketing in Luxury Brands of Cosmetic Products.

Alternates Hypothesis H11: There is a difference in strategies of neuro marketing in Luxury Brands of Cosmetic Products.

**To Test the above null hypothesis Friedman test is applied and Chi-square test is obtained results are as follows.**

Test Statistics <sup>a</sup>	
N	140
Chi-Square	9.581
df	3
P-value	.022
a. Friedman Test	

Interpretation: Above results indicate that p-value is 0.022. It is less than standard value of 0.05. Therefore, the chi-square test is rejected. Hence null hypothesis is rejected and alternate hypothesis is accepted.

**Conclusion:** There is a difference in strategies of neuro marketing in Luxury Brands of Cosmetic Products.

**Findings:** To understand the findings of hypothesis, mean rank of strategies of neuro marketing in Luxury Brands of Cosmetic Products are obtained and presented in the following table.

Ranks	
	Mean Rank
Visual Storytelling	2.75
Color Psychology	2.52
Eye Tracking	2.44
Scarcity & FOMO	2.30

The mean rank analysis of neuromarketing strategies for luxury cosmetic brands reveals consumer preferences and perceived effectiveness of each strategy in influencing buying decisions. Visual storytelling holds the highest mean rank (2.75), indicating it is considered the most impactful strategy, likely due to its ability to emotionally engage consumers and convey brand identity. Color psychology follows closely (2.52), reflecting the importance of visual appeal and emotional triggers through color schemes in luxury packaging and branding. Eye tracking (2.44) ranks third, suggesting that design elements guiding consumer gaze contribute moderately to decision-making. Scarcity and FOMO rank lowest (2.30), implying that while urgency and exclusivity matter, they are perceived as slightly less influential in the luxury cosmetics context where experience and brand perception play a stronger role.

Objective 2 To Study impact of neuro marketing strategies for Luxury Brands of Cosmetic Products on Buying behaviour.

**Null Hypothesis H02:** There is no impact of neuro marketing strategies for Luxury Brands of Cosmetic Products on Buying behaviour.

**Alternate Hypothesis H12:** There is an impact of neuro marketing strategies for Luxury Brands of Cosmetic Products on Buying behaviour.

**To Test the above null hypothesis correlation test is applied and obtained results are as follows.**

Correlations						
		Buying Decision	Visual Storytelling	Color Psychology	Eye Tracking	Scarcity & FOMO
Buying Decision	Pearson Correlation	1	.268**	.399**	.274**	.298**
	P-value		.001	.000	.001	.000
	N	140	140	140	140	140
Visual Storytelling	Pearson Correlation	.268**	1	.456**	.123	-.065
	P-value	.001		.000	.147	.445
	N	140	140	140	140	140
Color Psychology	Pearson Correlation	.399**	.456**	1	.330**	-.104

	P-value	.000	.000		.000	.219
	N	140	140	140	140	140
Eye Tracking	Pearson Correlation	.274**	.123	.330**	1	.019
	P-value	.001	.147	.000		.824
	N	140	140	140	140	140
Scarcity & FOMO	Pearson Correlation	.298**	-.065	-.104	.019	1
	P-value	.000	.445	.219	.824	
	N	140	140	140	140	140
**. Correlation is significant at the 0.01 level (2-tailed).						

Interpretation: Above results indicate that p-value is less than standard value of 0.05. Therefore, the correlation test is rejected. Hence null hypothesis is rejected and alternate hypothesis is accepted.

**Conclusion:** There is an impact of neuro marketing strategies for Luxury Brands of Cosmetic Products on Buying behaviour.

**Findings:** The correlation analysis reveals that all four neuromarketing strategies—visual storytelling, color psychology, eye-tracking, and scarcity/FOMO—have a statistically significant positive correlation with buying decision at the 0.01 level, indicating they influence consumer behavior. Among them, color psychology shows the strongest correlation with buying decision ( $r = 0.399$ ), suggesting that color cues play a major role in purchase intent. Eye-tracking ( $r = 0.274$ ), visual storytelling ( $r = 0.268$ ), and scarcity/FOMO ( $r = 0.298$ ) also show moderate positive correlations, signifying their influence is meaningful but less than that of color. Furthermore, color psychology and visual storytelling are highly interrelated ( $r = 0.456$ ), while scarcity/FOMO shows negligible or negative relationships with other variables, indicating it works independently.

#### Regression Model-1

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.552a	.305	.284	13.483
a. Predictors: (Constant), Scarcity & FOMO, Eye Tracking, Visual Storytelling, Color Psychology				

The model summary indicates that the four neuromarketing strategies—Scarcity & FOMO, Eye Tracking, Visual Storytelling, and Color Psychology—collectively explain approximately 30.5% (R Square = 0.305) of the variance in the dependent variable, which is likely buying behavior or purchase decision. The multiple correlation coefficient (R) of 0.552 suggests a moderate positive relationship between these predictors and the outcome. The adjusted R Square of 0.284 accounts for the number of predictors in the model, indicating that about 28.4% of the variability in buying behavior is explained by these strategies after adjusting for model complexity. The standard error of the estimate (13.483) reflects the average distance that the observed values fall from the regression line, providing a measure of the model's prediction accuracy.

ANOVAa						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	10769.889	4	2692.472	14.811	.000b
	Residual	24541.997	135	181.793		
	Total	35311.886	139			
a. Dependent Variable: Buying Decision						
b. Predictors: (Constant), Scarcity & FOMO, Eye Tracking, Visual Storytelling, Color Psychology						

Above results indicates that p-value is 0.000. It is less than 0.05. It indicates that linear regression model is good to fit.

Coefficientsa					
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	-6.376	11.327		-.563	.574

Visual Storytelling (VS)	.182	.121	.121	1.503	.135
Color Psychology (CP)	.446	.114	.332	3.901	.000
Eye Tracking (ET)	.140	.075	.143	1.872	.063
Scarcity & FOMO (SAF)	.490	.105	.338	4.677	.000
a. Dependent Variable: Buying Decision					

Above table indicate the values of coefficients and corresponding significance. According to p-value of the Buying Decision factors it is observed that except “eye tracking” all remaining variables has significant impact on Buying Decision factors.

**The mathematical equation to estimate the Buying Decision factors is presented as follows:**

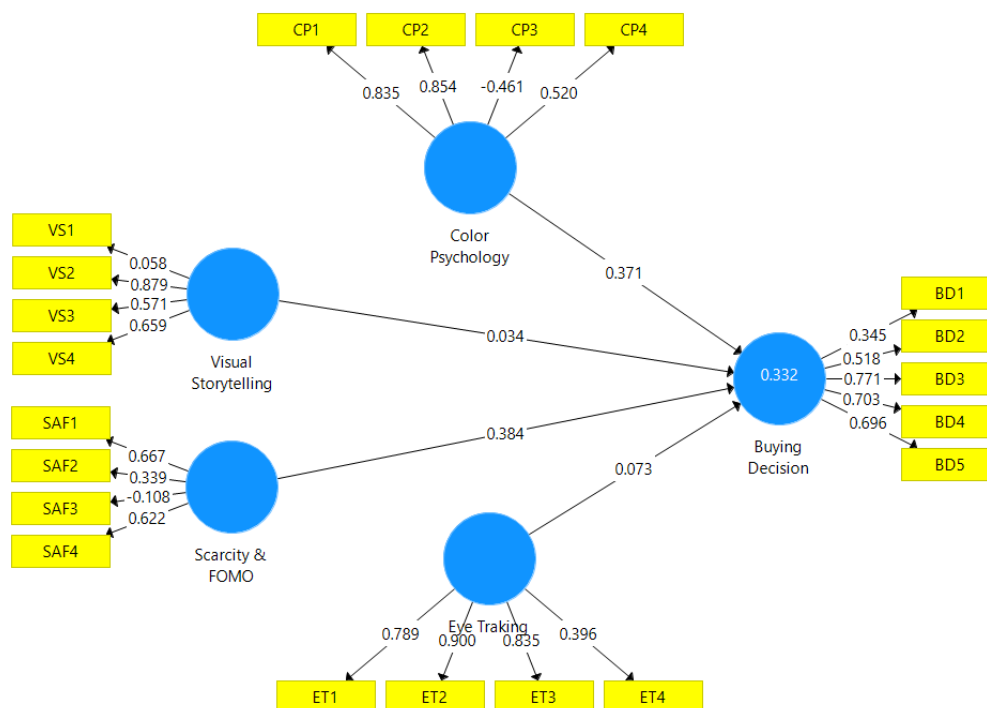
$$\text{Buying Decision} = -6.376 + 0.182 \cdot \text{VS} + 0.446 \cdot \text{CP} + 0.140 \cdot \text{ET} + 0.490 \cdot \text{SAF}$$

Structural Equation Model (SEM Model)

The Structural Equation Model (SEM) shown combines both measurement and structural components to analyze how different neuromarketing strategies influence consumer buying decisions. It includes latent constructs such as Color Psychology, Visual Storytelling, Scarcity & FOMO, and Eye Tracking, each measured through multiple observed indicators. The structural path coefficients indicate the strength of influence these factors have on the Buying Decision. Among them, Scarcity & FOMO (0.384) and Color Psychology (0.371) are the most influential, while Visual Storytelling (0.034) and Eye Tracking (0.073) have weaker effects. The model explains 33.2% of the variance in Buying Decision, reflecting a moderate explanatory power.

Independent Variable: Color Psychology, Visual Storytelling, Scarcity & FOMO, Eye Tracking.

**Dependent Variable: Buying Decision.**



**Path Coefficient**

	Buying Decision
Color Psychology	0.371
Eye Tracking	0.073
Scarcity & FOMO	0.384
Visual Storytelling	0.034

The Path Coefficient table presents the strength and direction of influence each latent variable has on the Buying Decision. Among the predictors, Scarcity & FOMO (0.384) and Color Psychology (0.371) have the strongest positive impact, indicating that these factors significantly influence consumer buying behavior. Eye Tracking has a minimal positive effect (0.073), suggesting a weaker relationship, while Visual Storytelling shows the least impact (0.034), indicating it plays a minor role in shaping buying decisions in this model. Overall, the results highlight that psychological triggers like perceived scarcity and color cues are more influential in driving consumer purchase decisions than visual techniques alone.

#### Outer Loadings

	Buying Decision	Color Psychology	Eye Tracking	Scarcity & FOMO	Visual Storytelling
BD1	0.344				
BD2	0.518				
BD3	0.770				
BD4	0.702				
BD5	0.696				
CP1		0.834			
CP2		0.854			
CP3		-0.460			
CP4		0.519			
ET1			0.788		
ET2			0.900		
ET3			0.835		
ET4			0.395		
SAF1				0.666	
SAF2				0.339	
SAF3				-0.108	
SAF4				0.622	
VS1					0.057
VS2					0.879
VS3					0.570
VS4					0.658

The Outer Loadings table shows the correlation between each observed indicator and its respective latent construct, reflecting how well each item represents the construct it is associated with. Higher loadings indicate stronger representation. For the Buying Decision construct, BD3 (0.770), BD4 (0.702), and BD5 (0.696) are the most reliable indicators, while BD1 (0.344) contributes the least. In Color Psychology, CP2 (0.854) and CP1 (0.834) are strong indicators, whereas CP3 (-0.460) shows a negative relationship, possibly indicating an item that does not align well with the construct. Eye Tracking is well-represented by ET2 (0.900), ET3 (0.835), and ET1 (0.788), while ET4 (0.395) is relatively weak. For Scarcity & FOMO, SAF1 (0.666) and SAF4 (0.622) are moderate contributors, but SAF3 (-0.108) negatively loads and may need to be reconsidered. In Visual Storytelling, VS2 (0.879) shows high reliability, followed by VS4 (0.658) and VS3 (0.570), while VS1 (0.057) contributes minimally.

#### Outer Weights

	Buying Decision	Color Psychology	Eye Tracking	Scarcity & FOMO	Visual Storytelling
BD1	0.197				
BD2	0.177				
BD3	0.391				
BD4	0.370				
BD5	0.400				

CP1		0.425			
CP2		0.501			
CP3		-0.173			
CP4		0.261			
ET1			0.361		
ET2			0.389		
ET3			0.304		
ET4			0.277		
SAF1				0.728	
SAF2				0.424	
SAF3				0.047	
SAF4				0.602	
VS1					0.070
VS2					0.684
VS3					0.262
VS4					0.370

The table displays "Outer Weights" representing the strength of relationships between observed variables and their respective latent constructs: Buying Decision, Color Psychology, Eye Tracking, Scarcity & FOMO, and Visual Storytelling. Each construct is associated with a set of indicators (e.g., BD1–BD5 for Buying Decision), and the weights show how significantly each indicator contributes to its construct. For instance, BD5 (0.400) has the strongest contribution to Buying Decision, while CP2 (0.501) dominates Color Psychology. Negative weights, like CP3 (-0.173), suggest an inverse relationship. Similarly, SAF1 (0.728) and VS2 (0.684) are the most influential indicators for Scarcity & FOMO and Visual Storytelling, respectively, indicating these items are key drivers in their categories.

## CONCLUSION

The study concludes that neuromarketing strategies significantly influence both their perceived effectiveness and consumer buying behavior in the context of luxury cosmetic brands. The Friedman test results confirm that there is a statistically significant difference among the various strategies, with visual storytelling being perceived as the most impactful, followed by color psychology, eye tracking, and scarcity/FOMO. Additionally, correlation analysis reveals that all four strategies have a significant positive impact on buying decisions, with color psychology showing the strongest influence, highlighting its role in stimulating emotional responses and driving purchase intent. These findings suggest that luxury cosmetic brands should strategically prioritize emotionally resonant visual content and carefully selected color schemes to enhance consumer engagement and buying behavior.

## BIBLIOGRAPHY

- Liu, Y., Lu, J., & Qi, G. (2021). A summary of the marketing strategies of luxury cosmetics brands. *Advances in Economics, Business and Management Research*, 174, 48–52.
- Karulkar, Y., Kadam, N., & Patil, V. (2024). Eye tracking in neuromarketing: A study on visual attention patterns. *International Journal of Creative Research Thoughts*, 12(3), 91–96.
- Kim, J., Lee, S., & Park, H. (2024). Changes in pupil size according to the color of cosmetic packaging: Using eye-tracking techniques. *Applied Sciences*, 14(4), 885. <https://doi.org/10.3390/app14040885>
- Kim, M., Kim, H., & Kim, S. (2023). Neuroscientific analysis of logo design: Implications for luxury brand marketing. *Brain Sciences*, 13(6), 899. <https://doi.org/10.3390/brainsci13060899>
- Torres, A. (2024). Sensory marketing: How luxury brands engage the brain. *Luxonomy – Journal of Luxury & Consumer Behavior*, 6(2), 35–42.
- Prasad, K. (2023). Recent trends in neuromarketing – A review. *Journal of Coastal Life Medicine*, 11(1), 2001–2005.
- Wikipedia Contributors. (2025). Consumer neuroscience. Wikipedia. Retrieved June 8, 2025, from [https://en.wikipedia.org/wiki/Consumer\\_neuroscience](https://en.wikipedia.org/wiki/Consumer_neuroscience)
- Nowak, J., & Mroczek, A. (2024). Colour choice as a strategic instrument in neuromarketing. *Behavioral Sciences*, 14(3), 222. <https://doi.org/10.3390/bs14030222>.
- Budnik, R., Budnik, M., Wnuk, A., & Budnik, J. (2022). Use of consumer neuroscience in the choice of aromatisation as part of the shopping atmosphere and a way to increase sales volume. *Applied Sciences*, 12(14), 7069. <https://doi.org/10.3390/app12147069>
- Chaudhary, M., Mukhopadhyay, S., Litoiu, M., Sergio, L. E., & Adams, M. S. (2020). Understanding brain dynamics for color perception using wearable EEG headband. *arXiv preprint arXiv:2012.00570*.

11. Hasan, S., Hussain, M., & Beg, M. O. (2024). A systematic review on EEG-based neuromarketing: Recent trends and analyzing techniques. *Brain Informatics*, 11(1), 6. <https://doi.org/10.1186/s40708-024-00189-z>
12. Karulkar, Y., D'Lima, C., Sharma, A., Gada, M., & Tank, A. (2024). Eye tracking in neuromarketing: A study on visual attention patterns. *Academy of Marketing Studies Journal*, 28(S5), 1–11.
13. Kowalczyk, J., & Mroczek, A. (2021). Review of the potential of consumer neuroscience for aroma marketing and its importance in various segments of services. *Applied Sciences*, 11(16), 7636. <https://doi.org/10.3390/app11167636>
14. Quiles Pérez, M., Martínez Beltrán, E. T., López Bernal, S., Horna Prat, E., Montesano Del Campo, L., Fernández Maimó, L., & Huertas Celdrán, A. (2022). Data fusion in neuromarketing: Multimodal analysis of biosignals, lifecycle stages, current advances, datasets, trends, and challenges. *arXiv preprint arXiv:2202.05726*.
15. Rojas García, L., & García Calvo, T. (2020). Neuromarketing in the digital age: The direct relation between facial expressions and website design. *Applied Sciences*, 10(16), 5587. <https://doi.org/10.3390/app10165587>