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A Study On Neuromarketing : How Colour & Packaging Influence Consumer Buying Decisions

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ABSTRACT

This study examines the manner in which visual stimuli specifically colour and product packaging shape consumer purchasing behaviour when viewed through the prism of Neuromarketing. Modern shoppers encounter hundreds of products daily, making subconscious cues a dominant driver of selection rather than deliberate rational evaluation. The research draws on the Stimulus-Organism-Response model, Dual Process Theory, and Colour Psychology to construct an analytical framework. Primary data were gathered from a sample of 120 respondents via a structured Liker-scale questionnaire; secondary data were sourced from peer-reviewed journals, industry reports, and seminal textbooks. Findings reveal that colour alone accounts for up to 90 per cent of a first product impression, while well-designed packaging triggers emotional responses that override logical cost-benefit reasoning. The combined visual effect of congruent colour and packaging is markedly stronger than either element acting independently. Demographic variables — age, gender, and cultural background moderate these responses, and the growing importance of digital retail environments is noted. The study provides actionable guidance for MBA-level marketing practitioners seeking to leverage neurological consumer insights.

Keywords: Neuromarketing, Colour Psychology, Packaging Design, Consumer Behaviour, Buying Decision, Emotional Branding, Purchase Intention, S-O-R Model, Visual Marketing, Brand Recall

CHAPTER 1: INTRODUCTION

The contemporary marketplace is characterised by product proliferation, information overload, and shrinking consumer attention spans. A shopper confronted with dozens of similar products at a retail shelf — or hundreds of thumbnail images on an e-commerce platform — cannot realistically conduct a thorough rational evaluation of each option. Research consistently shows that first visual impressions are formed within 90 seconds, and that between 62 and 90 per cent of initial product judgment is attributable to colour alone (Singh, 2006). It is within this context that Neuromarketing has emerged as a transformative discipline, offering science-backed explanations for purchasing behaviour that traditional survey-based methods fail to capture.

Neuromarketing integrates neuroscience, cognitive psychology, and marketing theory to study how the brain responds to commercial stimuli. Rather than asking consumers what they think, it measures what their brains actually do when exposed to advertising, packaging, or product design. Technologies such as Electroencephalography (EEG), functional Magnetic Resonance Imaging (fMRI), and eye-tracking

have made it possible to observe real-time neural activity, attention patterns, and emotional arousal. The field has moved from academic curiosity to mainstream corporate practice: firms such as Coca-Cola, P&G, and Google now routinely employ neuromarketing insights to optimise product design and advertising content.

Among the many stimuli that neuromarketing investigates, colour and packaging stand out for their immediacy and ubiquity. Colour operates as a pre-attentive visual feature, meaning it is processed by the brain before conscious attention is engaged. Packaging, meanwhile, serves as the first tangible interface between consumer and product a 'silent salesperson' that communicates quality, brand values, and emotional identity without a single spoken word. When these two elements work in concert, they create a powerful sensory signal that guides subconscious decision-making.

This study, conducted within an MBA curriculum at Galgotias College of Engineering & Technology, seeks to deepen the understanding of how colour and packaging jointly influence consumer buying decisions. It builds on prior work by mapping existing literature, identifying gaps, and extending the analysis to include an integrated neuromarketing framework supported by primary survey data and relevant statistical analysis. The following chapters review the literature, describe the research methodology, present data analysis, and draw conclusions with practical recommendations for marketing managers.

CHAPTER 2: LITERATURE REVIEW

2.1 Overview of Neuromarketing as a Discipline

The academic foundation of neuromarketing rests on the premise — now well-supported — that a substantial share of human decision-making occurs below the threshold of conscious awareness. Zaltman (2003) argued that upwards of 95 per cent of cognition takes place at a subconscious level, a claim subsequently echoed and qualified by numerous neuroscientists. Lindstrom (2008), in his influential work Buyology, demonstrated through large-scale fMRI studies that emotional and instinctive responses to brands and products frequently outweigh the rational assessments consumers report in standard surveys. This divergence between stated and revealed preference is precisely what conventional marketing research fails to capture — and precisely what neuromarketing is designed to address.

Plassmann et al. (2012) provided a comprehensive taxonomy of neuromarketing methods, distinguishing between brain-imaging technologies (fMRI, EEG), physiological measures (galvanic skin response, heart-rate variability), and behavioural proxies (eye-tracking, facial coding). Each method illuminates a different facet of subconscious processing. Eye-tracking, for instance, reveals where attention is directed on a package within the first 200 milliseconds — before the consumer is aware of looking. EEG captures emotional valence and engagement in near-real-time. The synthesis of these streams produces a richer map of consumer response than any single methodology can provide.

Kumar (2015) situated neuromarketing within the broader evolution of marketing thought, tracing a trajectory from mass-media persuasion through CRM-based personalisation to neuroscience-informed design. The author noted that while neuromarketing tools carry high per-study costs, the actionable output — specific design changes validated by neural data — can generate disproportionately large returns on investment, particularly in FMCG (Fast-Moving Consumer Goods) categories where packaging is the primary communication channel.

2.2 Colour Psychology and Consumer Behaviour

Singh (2006) conducted one of the most widely cited analyses of colour in marketing, demonstrating that colour accounts for up to 90 per cent of snap product judgments and that it can raise or lower brand recognition by as much as 80 per cent. The study employed a combination of self-report and implicit association tasks to show that colour congruence — that is, the degree to which a product's colour aligns with category norms and brand identity — is a powerful driver of perceived quality and purchase intention.

Elliot and Maier (2014) extended colour research into the neurological domain by showing that red activates the amygdala — the brain's threat and arousal centre — in ways that have measurable consequences for attention and motivation. While initially investigated in competitive performance contexts, subsequent marketing applications (Puccinelli et al., 2009) showed that red price tags in retail environments accelerate purchase decisions by triggering a mild urgency response, a finding with direct implications for promotional packaging design.

Labrecque and Milne (2012) adopted a brand-personality lens to examine how specific hues map onto consumer trait attributions. Blue was consistently linked to competence and trustworthiness — explaining its dominance in financial services and healthcare branding. Green activated associations with naturalness and sustainability, a finding increasingly relevant as eco-conscious consumption grows. Yellow triggered optimism and approachability, while black conveyed prestige and exclusivity. Crucially, the authors found that violations of these colour-personality congruences — such as a luxury brand using bright yellow — generated cognitive dissonance and reduced purchase intent.

Madden, Hewett, and Roth (2000) introduced the cross-cultural dimension, surveying consumers across eight countries to show that colour preferences and symbolic meanings vary substantially by cultural context. Red carries luck and prosperity in Chinese culture but signals danger in many Western contexts; white denotes mourning in parts of Asia yet signifies purity in Europe. For globally operating firms, this research underscores the necessity of localised colour strategy rather than a one-size-fits-all approach.

More recently, Kauppinen-Raisanen and Luomala (2010) examined how colour influences taste perception specifically in food packaging, finding that warm colours enhanced perceptions of sweetness while cool tones were associated with freshness. This sensory cross-modality — where a visual cue influences a non-visual judgment — illustrates the depth at which colour operates on consumer cognition, well beneath deliberate conscious analysis.

2.3 Packaging as a Marketing and Communication Tool

Rundh (2005) offered a foundational conceptualisation of packaging as a multifunctional strategic asset, arguing that it simultaneously performs containment, protection, communication, and differentiation functions. The communication function, Rundh contended, is the most undervalued: packaging encodes brand identity, quality signals, usage cues, and value positioning through visual and tactile channels that operate without consumer effort. This view repositioned packaging from a cost centre to a revenue-generating marketing investment.

Underwood (2003) introduced the concept of 'packaging as a communication cue', demonstrating through experimental research that the image-vividness of packaging — the richness and clarity of visual content — directly predicted brand attitude and purchase intention. High-vividness packaging activated more extensive elaboration of brand attributes, providing both informational and emotional benefits that low-vividness alternatives failed to deliver. This finding has practical implications for decisions about packaging complexity, image resolution, and the use of product-use imagery.

Garber, Burke, and Jones (2000) employed eye-tracking in a simulated retail environment to study visual attention allocation across competing products. Their findings showed that distinctive colour-packaging combinations attracted first fixation significantly faster than less differentiated alternatives, and that first fixation predicted trial purchase probability. The study effectively quantified the 'shelf interrupt' value of packaging design — its ability to break through visual clutter and command the consumer's gaze.

Silayoi and Speece (2004) developed a conceptual model of packaging elements segmented into visual elements (graphics, colour, size, shape) and informational elements (technology, product information). Their research with Thai consumers found that under conditions of time pressure — replicating real-world retail decisions — visual elements dominated informational ones in driving choice. Under low time pressure, informational elements became relatively more important. This situational moderation has implications for packaging design strategy: brands targeting convenience-driven shoppers should invest proportionally more in visual differentiation than in on-pack copy.

2.4 Theoretical Frameworks Underpinning Visual Marketing

The Stimulus-Organism-Response (S-O-R) model, originating in environmental psychology (Mehrabian & Russell, 1974), provides the core theoretical architecture for this study. External stimuli — colour and packaging — impinge on the internal state of the organism (consumer), activating emotional and cognitive processes that culminate in approach or avoidance behaviours, the most relevant of which is purchase. The S-O-R model thus frames colour and packaging not as peripheral aesthetic concerns but as active triggers of the neurological machinery that produces buying behaviour.

Kahneman's (2011) Dual Process Theory distinguishes System 1 (fast, automatic, affective) from System 2 (slow, deliberate, rational) processing. In time-constrained retail environments — physical or digital — most product encounters are dominated by System 1. Colour and packaging operate principally through System 1, generating immediate affective responses and heuristic-based quality inferences before System 2 analysis has an opportunity to engage. This is why a premium-looking package can command a price premium even when consumers cannot articulate why they perceive it as superior.

Sensory Marketing Theory (Krishna, 2012) broadens the S-O-R framework to encompass touch, sound, and smell in addition to vision. While this study focuses on visual stimuli, the theory provides context: visual cues such as packaging texture rendering and colour warmth can prime expectations about tactile and olfactory experiences that the consumer has not yet had. A rough-textured kraft paper package, rendered visually, activates anticipatory tactile associations with artisanal authenticity — a form of cross-modal priming with direct bearing on perceived product quality.

2.5 Emotional Engagement, Brand Equity, and Loyalty

Roberts (2004) argued for a category of 'Lovemarks' — brands that command love as well as respect — and identified consistent sensory identity, including colour and packaging, as a prerequisite. Emotional Branding Theory holds that the strength of the consumer-brand relationship is mediated by the emotional resonance of brand stimuli; packaging and colour are primary vehicles through which this resonance is established at each purchase occasion. Damasio's (1994) somatic marker hypothesis provides the neurological underpinning: emotions attach to stimuli through experience, and these markers subsequently bias decision-making in favour of emotionally familiar and positively tagged options.

Keller (1993), in his seminal work on Customer-Based Brand Equity (CBBE), identified brand associations — including visual and sensory attributes — as a foundational layer of equity. Consistent colour usage across packaging and communication touchpoints strengthens the cognitive links between the brand node and its associated attributes in long-term memory, facilitating faster recognition and more positive evaluation at the point of purchase. Studies have shown that brand colour alone can increase recognition by up to 80 per cent, reducing the cognitive load required to identify a familiar product in a visually crowded environment.

2.6 Gaps in Existing Literature and Justification for the Present Study

Despite the richness of individual streams of inquiry — colour psychology, packaging design, neuromarketing techniques, and emotional branding — the literature reveals three persistent and consequential gaps that the present study is designed to address.

First, most empirical work examines colour and packaging in isolation. Colour studies typically manipulate hue while holding packaging design constant; packaging studies vary structural or textual elements while standardising colour. Yet in the real marketplace, consumers encounter integrated visual ensembles. The combined, interactive effect of colour and packaging on purchase intention has received comparatively limited attention, and no study identified in this review has used an Indian consumer sample to investigate this integration.

Second, the methodological toolkit of most accessible studies remains anchored in self-report instruments. Surveys and focus groups are prone to social desirability bias, post-hoc rationalisation, and demand characteristics — problems that are particularly acute when investigating subconscious processes. The present study augments survey data with Likert-scale constructs validated against established consumer behaviour scales, moving closer to the latent psychological processes of interest.

Third, the majority of studies in the neuromarketing and packaging literature are conducted in Western, high-income, and English-speaking contexts. Emerging market consumers in India operate within a distinct cultural semiotic, have different price-sensitivity profiles, and engage with both traditional modern trade (kiranas, malls) and rapidly growing digital commerce. Findings from the United States or Europe cannot be uncritically transposed to this context. By focusing on Indian MBA-student and general-consumer respondents, the present study contributes context-specific empirical evidence to a literature that has largely ignored this market.

The present study thus extends the existing body of knowledge in three directions: it investigates the integrated visual effect of colour and packaging within a single framework; it applies a neuromarketing theoretical lens to a self-report instrument designed to capture emotional and subconscious drivers; and it grounds its findings in an Indian consumer context, offering practical guidance for marketers operating in one of the world's fastest-growing consumer economies**.**

Table 1: Summary of Key Literature — Authors, Focus, and Relevance to Present Study

Author(s) & Year	Focus Area	Key Finding	Relevance to This Study
Singh (2006)	Colour & Brand Recognition	Colour drives up to 90% of initial product judgment	Establishes centrality of colour variable
Lindstrom (2008)	Neuromarketing & Emotion	fMRI shows emotional brain overrides rational brain in brand choices	Validates neuromarketing lens
Rundh (2005)	Packaging Strategy	Packaging is a multi-functional strategic asset, not merely protective	Frames packaging as core marketing tool
Underwood (2003)	Packaging Vividness	High-vividness packaging raises brand attitude and purchase intent	Informs packaging design dimension
Garber et al. (2000)	Visual Attention (Eye-tracking)	Distinctive colour-pack combos capture first fixation faster	Supports integrated visual effect argument
Madden et al. (2000)	Cross-cultural Colour Meaning	Colour preferences and symbolism vary significantly across cultures	Contextualises Indian consumer focus
Silayoi & Speece (2004)	Packaging Elements Under Time Pressure	Visual elements dominate under time pressure; info under low pressure	Explains situational moderation of pack elements
Kahneman (2011)	Dual Process Theory	System 1 dominates quick product encounters via emotion and heuristics	Theoretical backbone for subconscious decision-making

Keller (1993)	Customer-Based Brand Equity	Visual consistency builds brand associations and aids recognition	Links colour/packaging to long-term brand equity
Krishna (2012)	Sensory Marketing	Multisensory cues interact to shape consumer perception and behaviour	Extends framework beyond pure vision

CHAPTER 3: RESEARCH METHODOLOGY

3.1 Research Design

The study adopts a descriptive-analytical research design. It is descriptive in that it aims to characterise consumer perceptions of colour and packaging across a defined sample; it is analytical in that it examines relationships among key variables — colour attractiveness, packaging appeal, emotional response, and purchase intention — using statistical tools. A quantitative primary-data strand is complemented by a qualitative secondary-data strand drawn from published literature, providing triangulation and contextual depth.

3.2 Sampling and Data Collection

A convenience sample of 120 respondents was drawn from students, working professionals, and general consumers in the Greater Noida region. The questionnaire comprised 25 items: 5 demographic items, 8 colour-related Likert-scale items (1 = Strongly Disagree, 5 = Strongly Agree), 8 packaging-related items on the same scale, and 4 purchase-intention items. Data were collected via Google Forms (online) and paper forms (offline) between January and March 2025. Ethical protocols included informed consent, anonymity, and voluntary participation.

3.3 Statistical Tools

Descriptive statistics (frequency, percentage, mean, standard deviation) summarise respondent profiles and variable distributions. Pearson correlation analysis examines the relationship between colour attractiveness and purchase intention, and between packaging appeal and purchase intention. Cross-tabulation explores demographic differences in colour and packaging sensitivity. Microsoft Excel 2019 was used for all calculations.

CHAPTER 4: DATA ANALYSIS AND INTERPRETATION

4.1 Respondent Profile

Table 2: Demographic Profile of Respondents (n = 120)

Demographic Variable	Category	Frequency	Percentage (%)
Gender	Male	62	51.7
	Female	58	48.3
Age Group	18 – 25 years	54	45.0
	26 – 35 years	38	31.7
	36 – 45 years	18	15.0
	Above 45 years	10	8.3
Occupation	Student	52	43.3
	Working Professional	45	37.5
	Self-employed / Other	23	19.2
Income Level (Monthly)	Below ₹20,000	44	36.7
	₹20,001 – ₹50,000	41	34.2
	Above ₹50,000	35	29.1

4.2 Influence of Colour on Consumer Buying Decisions

Respondents were asked to rate eight statements about the role of colour in their purchasing behaviour on a five-point Likert scale. Means and standard deviations are reported below.

Table 3: Likert Scale Analysis — Colour Items (n = 120)

Statement	Mean	Std. Dev.	Interpretation
I notice colour before any other product attribute	4.32	0.71	Strongly Agree
Colour creates an immediate emotional reaction in me	4.18	0.82	Agree
Warm colours (red, orange) make me feel a sense of urgency	4.05	0.88	Agree
Cool colours (blue, green) increase my trust in a product	4.21	0.76	Agree
Colour helps me recognise a brand quickly on a crowded shelf	4.47	0.65	Strongly Agree
I am more likely to purchase a product whose colour appeals to me	3.98	0.91	Agree
Colour communicates product quality before I read the label	3.87	0.95	Agree
Cultural/personal background influences my colour preference	3.64	1.02	Agree

The highest mean score (4.47) was recorded for brand recognition through colour, reinforcing Singh's (2006) finding that colour is the primary channel for brand recall. The statement linking warm colours to urgency (mean 4.05) is consistent with Elliot and Maier's (2014) neurological evidence for red activating the amygdala. The relatively lower score for cultural influence (3.64) may reflect the comparatively homogeneous cultural profile of the sample; a geographically broader study would likely show greater variance.

4.3 Influence of Packaging on Consumer Buying Decisions

Table 4: Likert Scale Analysis — Packaging Items (n = 120)

Statement	Mean	Std. Dev.	Interpretation
Attractive packaging draws my attention before product features	4.29	0.74	Strongly Agree
I associate premium packaging with higher product quality	4.15	0.85	Agree
I have bought a product mainly because its packaging was attractive	3.92	0.96	Agree
Packaging shape/size influences my perceived value of the product	3.87	0.98	Agree
Clear and informative labelling influences my purchase choice	4.38	0.67	Strongly Agree
I prefer eco-friendly / sustainable packaging options	4.02	0.89	Agree
Innovative/unique packaging design increases my curiosity	4.19	0.80	Agree
Online product images of packaging influence my digital purchases	4.24	0.77	Strongly Agree

The highest-rated packaging item was clear and informative labelling (mean 4.38), consistent with Silayoi and Speece's (2004) finding that informational packaging elements gain importance when consumers have more deliberation time. The strong rating for eco-friendly packaging (mean 4.02) reflects growing sustainability awareness among urban Indian consumers. The high score for online packaging images (mean 4.24) validates the growing importance of digital-channel packaging optimisation noted in the research gap.

4.4 Correlation Analysis: Visual Appeal and Purchase Intention

Table 5: Pearson Correlation — Visual Variables and Purchase Intention

Variable Pair	Pearson r	Significance (p)	Relationship
Colour Attractiveness → Purchase Intention	0.74	< 0.01	Strong Positive
Packaging Appeal → Purchase Intention	0.78	< 0.01	Strong Positive
Combined Visual Appeal → Purchase Intention	0.83	< 0.01	Very Strong Positive
Colour Attractiveness → Brand Recognition	0.69	< 0.01	Strong Positive
Eco-Friendly Packaging → Purchase Intention	0.61	< 0.01	Moderate Positive

The correlation between combined visual appeal (integrated colour and packaging score) and purchase intention ($r = 0.83$, $p < 0.01$) is the strongest in the analysis, providing empirical support for the central argument that the interactive effect of colour and packaging exceeds the independent effect of either variable. This is the primary extension of prior literature, which has largely studied these dimensions in isolation.

4.5 Colour Preferences by Demographic Segment

Table 6: Colour Preference Distribution by Age Group (% of respondents selecting colour as most influential)

Preferred Colour	18–25 yrs (%)	26–35 yrs (%)	36–45 yrs (%)	Above 45 yrs (%)
Red / Orange (Energy, Urgency)	38	28	22	12
Blue / Teal (Trust, Calm)	20	32	38	44
Green (Health, Sustainability)	22	24	27	28
Black / Gold (Luxury, Premium)	12	10	9	10

Yellow / Bright Multi-colour	8	6	4	6

The data confirm Labrecque and Milne's (2012) finding that colour-personality congruence is age-moderated: younger consumers prefer high-energy warm tones, while older cohorts gravitate toward trust-signalling cool tones. Marketers targeting youth segments should deploy red and orange cues more aggressively; brands seeking to build credibility with mature professional audiences should favour blue-dominant palettes.

CHAPTER 5: FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

5.1 Key Findings

The analysis yields eight substantive findings, summarised below and linked back to the literature reviewed in Chapter 2.

Finding 1 — Colour is the primary pre-attentive purchase trigger: With a mean response of 4.32 on the salience item and a correlation of 0.74 with purchase intention, colour is confirmed as the most immediate and powerful visual cue in the consumer decision process. This aligns with Singh (2006) and extends it to an Indian urban sample.

Finding 2 — The integrated visual effect is greater than the sum of parts: The combined visual appeal score yielded a correlation of 0.83 with purchase intention — higher than either colour (0.74) or packaging (0.78) acting independently. This is the primary novel contribution of the study, addressing a gap identified in the literature review.

Finding 3 — Packaging acts as a quality proxy: The strong association between premium packaging and perceived quality (mean 4.15) confirms Underwood's (2003) framework. When consumers lack prior brand knowledge, packaging aesthetics serve as a diagnostic cue for product quality.

Finding 4 — Impulse buying is significantly triggered by visual cues: The statement 'I have bought a product mainly because its packaging was attractive' recorded a mean of 3.92, confirming the link between packaging design and unplanned purchasing identified by Garber et al. (2000).

Finding 5 — Informational clarity in packaging is highly valued: Clear labelling recorded the highest packaging mean (4.38), indicating that while aesthetic appeal is necessary, informational adequacy is also a critical driver — particularly for this educated, MBA-student-heavy sample.

Finding 6 — Sustainability is an emerging purchase driver: The eco-friendly packaging item achieved a mean of 4.02 and a significant correlation ($r = 0.61$) with purchase intention, indicating that environmental credentials are becoming mainstream rather than niche concerns among urban Indian consumers.

Finding 7 — Digital packaging imagery is a high-impact channel: The mean of 4.24 for online packaging images confirms that the packaging's role has migrated beyond the physical shelf, making digital photo quality and colour calibration strategically critical for e-commerce brands.

Finding 8 — Demographic moderation is significant: Age and gender moderate responses to colour and packaging. Younger consumers respond more strongly to vibrant, warm colours; older consumers prefer trust-building cool tones. This necessitates segmented visual strategies rather than universal ones.

5.2 Conclusions

This study set out to examine, within a neuromarketing framework, how colour and packaging jointly influence consumer buying decisions. The evidence consistently supports the central proposition: visual stimuli trigger subconscious emotional and heuristic processes that determine product choice before

rational evaluation has a chance to intervene. Colour captures attention within milliseconds; packaging communicates quality, values, and personality in the absence of verbal exchange. When these elements operate in concert — when the colour palette, structural design, material, and typography of a package form a unified, brand-coherent visual signal — the resulting impact on purchase intention is substantially greater than the additive effect of either element alone.

The study's findings extend prior literature by demonstrating this synergistic interaction in an Indian urban consumer context, validating the S-O-R model and Dual Process Theory as appropriate theoretical lenses for neuromarketing research in emerging markets. They also highlight areas requiring further investigation: the role of tactile and olfactory packaging cues, the dynamics of neuromarketing in voice-commerce and augmented reality environments, and the ethical implications of deploying subconscious persuasion techniques at scale.

5.3 Practical Recommendations for Marketing Managers

Based on the findings, the following evidence-based recommendations are offered to marketing practitioners.

Recommendation 1 — Develop an integrated visual identity system: Colour and packaging should be designed simultaneously, not sequentially. A coherent visual ensemble — tested through rapid-response consumer panels before launch — will produce the synergistic purchase-intent boost documented in this study.

Recommendation 2 — Segment colour strategy by target demographic: Given the age-moderated colour preference data (Table 6), youth-targeted SKUs should feature warm, energetic colours; professional and mature segments should be approached with cooler, trust-signalling palettes. Global brands should conduct localised cultural audits before deploying colour schemes.

Recommendation 3 — Invest in informational design as rigorously as aesthetic design: The high salience of clear labelling (mean 4.38) indicates that MBA-educated and professional consumers are not seduced by aesthetics alone. Packaging must earn trust through transparent, well-organised information architecture.

Recommendation 4 — Treat digital packaging photography as a distinct investment: With online packaging imagery achieving a mean of 4.24 for purchase influence, brands must allocate dedicated resources to professional digital asset creation, colour-accurate photography, and platform-optimised image specifications.

Recommendation 5 — Integrate sustainability credentials visibly into packaging: The eco-friendly packaging correlation ($r = 0.61$) is large enough to justify investment in recyclable materials and prominent eco-certification display. Sustainability should be communicated through both symbolic colour choices (green, earth tones) and explicit labelling.

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