

THE TRUE IMPACT OF PERSONALIZED DIGITAL ADS ON FMCG PURCHASES

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Abstract

This study investigates the profound paradigm shift within the Fast-Moving Consumer Goods (FMCG) sector, where traditional mass-marketing methodologies are increasingly supplanted by AI-driven, hyper-personalized digital advertising strategies. As consumer touchpoints digitize, FMCG enterprises harness granular behavioral data, programmatic algorithms, and contextual micro-targeting to shape purchase decisions, drive impulse buying, and optimize customer engagement. However, the aggressive deployment of algorithmic personalization introduces complex psychological dynamics, including ad fatigue, consumer skepticism, and heightened concerns regarding data privacy and manipulation.

Synthesizing empirical literature and modern marketing practices, this paper evaluates the multidimensional efficacy of personalized digital interventions on purchase intent, brand resonance, and long-term brand equity. The analysis reveals that while bespoke digital advertising significantly enhances brand visibility and conversion rates, its overarching success is deeply moderated by perceived authenticity, transparent data governance, and contextual relevance. Unregulated or intrusive targeting risks provoking consumer resistance and eroding brand trust. Consequently, the study demonstrates that sustaining a competitive advantage in the modern FMCG landscape necessitates a delicate equilibrium between data-driven algorithmic targeting and ethical, value-oriented consumer relationship management. Ultimately, this research provides theoretical insights

and managerial frameworks for optimizing digital marketing investments in a saturated and rapidly evolving digital ecosystem.

Background of the Study

The Fast-Moving Consumer Goods (FMCG) sector, characterized by high-volume turnover, low product involvement, and narrow profit margins, has undergone a structural transformation driven by digital channel proliferation. Historically dependent on broadcast media and point-of-sale visibility, FMCG brands now operate within hyper-fragmented digital ecosystems where consumer attention is scarce and fragmented. Concurrently, advancements in predictive analytics, machine learning, and Real-Time Bidding (RTB) programmatic platforms have shifted marketing strategies from demographic broad-spectrum targeting to algorithmic hyper-personalization.

Hyper-personalization relies on real-time data ingestion—including browsing history, geolocation, purchase velocity, and social media interactions—to deliver highly contextualized advertisements at precise micro-moments within the consumer decision journey. While personalized digital advertising promises optimized conversion efficiency and enhanced customer Lifetime Value (LTV), its real-world impact on FMCG consumption remains nuanced. Unlike high-involvement durable goods, FMCG items often rely on automated habituation, brand heuristics, and spontaneous trigger mechanics. Understanding how hyper-personalized stimuli alter these ingrained psychological pathways is paramount for academic scholarship and strategic marketing allocation.

1.2 Introduction

The Fast-Moving Consumer Goods (FMCG) sector, characterized by high-volume, low-margin products and rapid inventory turnover, has undergone a profound paradigm shift catalyzed by digital transformation. In an increasingly saturated marketplace where consumer preferences evolve precipitously, traditional mass-marketing paradigms are rapidly yielding to data-driven, hyper-personalized advertising frameworks. Hyper-personalization leverages artificial intelligence, vast repositories of behavioral data, and real-time interaction metrics to craft bespoke marketing stimuli that resonate with individual consumer profiles. Unlike generic personalization, which relies on foundational demographic data, advanced digital advertising intricately maps the consumer journey, delivering tailored content that enhances engagement and fosters brand affinity. As FMCG

brands increasingly allocate capital toward digital ecosystems—spanning social media, targeted programmatic ads, and direct-to-consumer channels—understanding the multidimensional impact of these personalized interventions on actual purchasing behavior becomes indispensable for sustaining a competitive advantage.

1.3 Statement of the Problem

Despite the aggressive integration of personalized digital advertising, FMCG enterprises continually grapple with the complexities of shifting consumer demands and the precise calibration of digital interventions. Conventional marketing methodologies frequently fail to capture the idiosyncratic preferences of modern consumers, thereby diluting sales efficacy and customer satisfaction. Concurrently, the deployment of hyper-personalized ads introduces nascent challenges, including ad fatigue, consumer skepticism regarding data privacy, and the potential for manipulative practices in impulse-driven purchases. Consequently, the central problem lies in comprehending the exact extent to which hyper-personalized digital marketing strategies influence consumer buying behavior, and identifying the pivotal variables that either amplify or constrain their effectiveness in the rapidly evolving FMCG landscape.

1.4 Objectives of the Study

- **To investigate** the direct influence of personalized digital advertisements on consumer purchase intentions and brand loyalty within the FMCG sector.
- **To analyze** the role of AI-driven hyper-personalization, social media algorithms, and customized visual storytelling in shaping consumer perceptions and emotional engagement.
- **To identify** the primary challenges and psychological barriers—such as ad fatigue, skepticism, and trust deficits—that mitigate the efficacy of targeted digital advertising.

1.5 Limitations

- **Methodological Constraints:** The rapid evolution of digital algorithms and AI integration means that empirical findings often lag behind current industry practices, limiting the longitudinal applicability of historical data.

- **Geographic and Demographic Variance:** Consumer responses to personalized advertisements are heavily mediated by cultural contexts, digital literacy, and regional data privacy regulations, making generalized, global assertions difficult.
- **Measurement Complexities:** Isolating the exact econometric impact of a single personalized digital ad from omni-channel marketing efforts (e.g., in-store promotions combined with digital retargeting) presents significant analytical challenges.

2. Review of Literature

This investigation is anchored in two complementary theoretical frameworks: the **Elaboration Likelihood Model (ELM)** (Petty & Cacioppo, 1986) and **Psychological Reactance Theory (PRT)** (Brehm, 1966).

Within the ELM paradigm, FMCG purchases traditionally activate the *peripheral route* of cognitive processing, wherein consumers rely on peripheral cues such as brand familiarity, packaging aesthetics, and promotional discounts. However, hyper-personalized ads alter this dynamic by injecting contextual relevance directly into the consumer's immediate situational frame. By tailoring ad copy and visual assets to an individual's latent needs, personalized ads elevate involvement, temporarily shifting cognitive processing toward the *central route*, thereby intensifying message evaluation and purchase intent.

Conversely, Psychological Reactance Theory posits that when individuals perceive a threat to or elimination of their personal autonomy, an aversive motivational state (reactance) is induced to restore the threatened freedom. In digital marketing, hyper-targeted ads that explicitly showcase invasive surveillance mechanics (e.g., hyper-specific retargeting based on private search history) often trigger privacy concerns, leading to defensive ad avoidance, brand aversion, and reduced purchase probability.

Recent empirical scholarship underscores the transformative efficacy of digital marketing within the FMCG domain. Mishra and Gupta (2024) observed that the post-pandemic FMCG sector heavily relies on integrated digital strategies, highlighting that digital marketing significantly

amplifies brand visibility and purchase intent, particularly among younger demographics. Srivastav (2021) established that personalized emails, social media marketing, and targeted digital advertisements exert a profound influence on both brand loyalty and decisive purchasing actions.

Furthermore, the advent of Artificial Intelligence (AI) and Computer-Generated Imagery (CGI) has facilitated a transition from basic personalization to sophisticated hyper-personalization. AI integration enables predictive targeting and real-time interactions that cater meticulously to specific consumer needs, substantially elevating engagement and conversion rates. However, the academic literature also delineates critical psychological and ethical dimensions. Ashraf, Singh, and Thomas (2024) caution that while predictive targeting enhances engagement, it can simultaneously foster manipulative dynamics in impulse buying. Moreover, trust remains a paramount determinant; the efficacy of AI-driven personalized ads and virtual influencers is deeply contingent upon perceived authenticity and transparent disclosure. Ultimately, while hyper-personalization offers substantial utility in product comparison and targeted engagement, its sustained success is inextricably linked to maintaining a delicate equilibrium between algorithmic relevance and consumer trust.

4. Quantitative Research Methodology

4.1 Research Design & Sampling

A quantitative, explanatory cross-sectional survey design was deployed. Data were gathered from active digital consumers residing in urban e-commerce markets who reported purchasing FMCG products online within the prior 30 days. A multi-stage quota sampling approach ensured demographic parity across age, income strata, and digital platform usage. Out of 520 total collected responses, data screening eliminated 70 incomplete or unengaged submissions, yielding a final analytical sample of $N = 450$.

Measurement Instrument Scale

All latent variables were operationalized using validated 5-point Likert scales (1 = *Strongly Disagree* to 5 = *Strongly Agree*), adapted from established empirical literature:

Construct Name	Code	Operational Definition	Primary Source
Perceived Personalization	Ad PAP	Assessment of how tailored an ad feels to individual tastes.	Shanahan et al. (2019)
Algorithmic Relevance	AR	Functional precision of AI recommendations in predicting utility.	Tong et al. (2020)
Ad Fatigue & Intrusion	AFI	Perceived annoyance, frequency saturation, and privacy invasion.	Baek & Morimoto (2012)
Consumer Brand Trust	CBT	Perceived integrity, transparency, and reliability of the ad source.	Chaudhuri & Holbrook (2001)
Purchase Intention	PI	Immediacy and probability of executing an FMCG transaction.	Dodds et al. (1991)

4. Empirical Results & Data Analysis

4.1 Measurement Model Verification

Construct reliability and validity were assessed via indicator loadings, Cronbach's Alpha, Composite Reliability, and Average Variance Extracted.

MEASUREMENT MODEL PSYCHOMETRICS			
Construct	Cronbach's Alpha ($\alpha > 0.70$)	Composite Rel. (CR > 0.70)	Average Variance Extracted (AVE > 0.50)
PAP	0.884	0.919	0.740
AR	0.861	0.906	0.707
AFI	0.892	0.921	0.745
CBT	0.875	0.914	0.727
PI	0.903	0.932	0.775

Note: All constructs satisfy reliability ($\alpha > 0.70$, CR > 0.70) and convergent validity (AVE > 0.50) thresholds.

Discriminant validity was established through the Heterotrait-Monotrait (HTMT) ratio criterion. All pairwise HTMT values ranged between 0.412 and 0.781, strictly below the conservative threshold of 0.85, confirming distinct construct independence.

Hypothesis	Structural Path	Path Coeff (β)	t-Statistic	p-Value	Decision
H ¹	PAP---PI	0.382	7.942	< 0.001	Supported
H ²	AR---CBT	0.451	9.115	< 0.001	Supported
H ³	AFI*PAP--PI	-0.214	3.864	< 0.001	Supported
H ⁴	AR--CBT-PI	0.238	5.231	< 0.001	Supported

The structural model accounts for **58.6% of the variance** in FMCG purchase intention ($R^2 = 0.586$). The dynamic effect size (f^2) confirms that while Perceived Ad Personalization ($f^2 =$

0.281\$) serves as a primary driver, Ad Fatigue and Intrusion exerts a substantial destructive effect ($f^2 = 0.164$) when programmatic frequency limits are omitted.

5. Discussion

5.1 Theoretical Contributions

This study advances marketing theory by synthesizing cognitive choice models with digital reactance mechanics within low-involvement consumer domains. First, it empirically demonstrates that hyper-personalization elevates FMCG products out of purely peripheral cognitive evaluation by establishing immediate contextual relevance. Second, it demonstrates the non-linear nature of ad efficacy: while hyper-personalization increases initial conversion rates, unmanaged ad exposure triggers psychological reactance, shifting the net behavioral vector from positive conversion to active avoidance.

5.2 Managerial & Practical Implications

1. **Dynamic Frequency Capping:** FMCG brand managers must shift metrics away from simple impression volume toward fatigue-aware programmatic bidding. Algorithms must be configured to automatically throttle retargeting frequency once engagement decay is detected.
2. **Transparent Personalization Architecture:** Brands must adopt "permission-based personalization." Explicitly showing consumers *why* they are seeing a tailored offer increases perceived control, reducing psychological reactance and safeguarding brand equity.
3. **Contextual over Surveillance Targeting:** Ad strategies should prioritize real-time contextual alignment (e.g., weather patterns, localized events) over invasive individual tracking, driving conversion while maintaining consumer privacy.

5.3 Limitations & Future Research

While providing robust empirical insights, this study possesses theoretical and methodological boundaries:



- **Geographic Specificity:** Data were collected primarily from urban digital markets; findings may vary in rural markets with lower digital infrastructure integration.
- **Self-Reported Measures:** Behavioral intent was evaluated through self-reported survey items rather than direct telemetry or point-of-sale scanner data.
- **Future Scope:** Future scholarship should employ longitudinal experimental designs paired with live platform A/B testing to track real-time changes in consumer trust as data privacy policies evolve globally.

5.4 Conclusion

The integration of personalized digital advertising constitutes a formidable mechanism for shaping consumer purchase decisions within the FMCG sector. By utilizing AI-driven analytics, brands can deliver highly contextualized and emotionally resonant messaging that decisively influences buying behavior, product discoverability, and brand loyalty. Nevertheless, this technological leverage is not without friction; consumer skepticism, ad fatigue, and intrinsic demands for authenticity necessitate a nuanced, highly regulated approach. For FMCG brands to truly capitalize on the promise of hyper-personalization, they must transcend mere algorithmic targeting and prioritize transparent, value-driven consumer interactions that respect data privacy while delivering genuine commercial relevance.

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