International Journal of Advanced Engineering **ISSN: 2457-0397**

Vol. 7, Issue 1, Jan-Mar, 2024 http://bharatpublication.com/current-issue.php?jID=29/IJAE

Attempting an A/B Testing Instagram (IG) Hook Performance (with TikTok Creative Benchmarks) for Direct-to-Consumer (DTC) Brands in Emerging Markets by Differentiating Generative-AI Copy and Human Copy

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[1]*Received: 12 December 2023; Accepted: 31 December 2023; Published: 17 January 2024*

Platform Integrity Note: TikTok has been banned in India since June 2020. All *primary campaign data* analyzed in this paper come from Instagram Reels ads run through Meta Ads Manager targeting India (and expansion audiences in Indonesia where TikTok remains active). Published TikTok creative research is cited only for comparative context and hypothesis development; no TikTok India data were collected.

Abstract

The rapid growth of short-form video platforms—especially Instagram Reels (and globally, TikTok)—has revolutionized advertising strategies for direct-to-consumer (DTC) brands in mobile-first emerging markets such as India and Indonesia. In this evolving landscape, capturing user attention within the first few seconds—the "hook"—has become critical for ad performance. At the same time, generative artificial intelligence (AI) technologies such as OpenAI's GPT models are increasingly being adopted to create copy at scale. Yet limited empirical research compares the real-world performance of AI-generated versus human-localized hook copy in Instagram Reels ads, particularly in the nuanced markets of the Global South. Published TikTok creative-performance research informs our hypotheses but does not supply campaign data.

This study investigates the effectiveness of generative-AI copy compared to human-written and hybrid (AI-generated, human-edited) hooks in Instagram Reels ad placements for four DTC brands operating in India (primary market) and Indonesia (expansion audiences). A total of 240 ads were A/B/C tested across the three copy conditions, and performance metrics—3-sec view/Hook-Hold proxy (VTR), click-through rate (CTR), conversion rate (CVR), cost-per-mille (CPM), and user sentiment—were analyzed. The findings reveal that AI-generated hooks achieved higher early Hook-Hold and competitive CTR, reflecting their ability to capture initial attention efficiently. However, human and hybrid copies delivered stronger conversion outcomes and more positive audience sentiment, highlighting the cultural and emotional nuance AI alone often lacks.

Overall, hybrid copy strategies produced the most balanced performance across the full funnel, suggesting that human–AI collaboration can outperform either in isolation. These results provide actionable guidance for marketers and researchers on scaling creative testing with generative AI in Instagram Reels—and on interpreting TikTok creative research prudently when platform access or policy constraints (e.g., India's TikTok ban) shift campaign execution.

1. Introduction

The advent of short-form video platforms such as Instagram Reels and (globally) TikTok has transformed digital advertising by shifting the focus from long-form storytelling to ultra-short bursts of impactful content. For direct-to-consumer (DTC) brands—especially those operating in emerging markets like India, Indonesia, Brazil, and Nigeria—this shift represents both an opportunity and a challenge. The opportunity lies in reaching highly engaged and mobile-first audiences with comparatively low customer acquisition costs. The challenge, however, is mastering the art of creating compelling video "hooks"—typically the first 3 to 6 seconds—which can make or break an ad campaign's

[1] How to cite the article: Sharma O.V., (January 2024); Attempting an A/B Testing Instagram (IG) Hook Performance (with TikTok Creative Benchmarks) for Direct-to-Consumer (DTC) Brands in Emerging Markets by Differentiating Generative-AI Copy and Human Copy; *International Journal of Advanced Engineering*, Jan-Mar 2024, Vol 7, Issue 1, 1-6

success. *In India, where TikTok access is restricted, Instagram Reels has become the primary short-form testbed for many startups; global TikTok creative research still informs best practices.*

Recent studies have highlighted that over 80% of viewers decide within the first few seconds whether to continue watching or skip an ad (VidMob, 2023). A strong, emotionally resonant, and curiosity-inducing hook can double engagement and increase brand recall, whereas a poor hook leads to immediate drop-offs. For DTC brands with limited budgets, optimizing this initial moment is vital.

Parallel to this trend is the rapid rise of generative artificial intelligence (AI) tools capable of producing large volumes of creative content. Models such as OpenAI's GPT-4, Google's Gemini, and Meta's LLaMA are now being used by marketing teams to generate product descriptions, captions, and even entire scripts. Meta's Advantage+ Creative tools and global platform toolkits such as TikTok's "Symphony" (in regions where TikTok operates) illustrate how AI-assisted creative scaling is becoming mainstream. These systems offer speed, cost-efficiency, and personalization—but can they truly match or outperform human creativity in generating effective advertising hooks?

While some studies suggest that generative AI can perform as well as or better than humans in specific marketing tasks like email subject lines or product tagging, limited research exists on their application to social-media hooks—especially in the fast-paced, visual, and emotionally driven short-form vertical video environments used by Reels and TikTok creators. Even less is known about how AI-generated hooks perform in emerging markets, where cultural nuance, language hybridity, and consumer behavior differ significantly from Western markets where most AI models are trained.

This research aims to address that gap by exploring the comparative effectiveness of generative-AI and human-written hook copy in Instagram Reels ad campaigns, informed by published TikTok creative benchmarks, for DTC brands in India and Indonesia. We pose the following central research question: *Can AI-generated hooks perform as effectively—or more effectively—than human-created ones in short-form Reels advertising in emerging markets, and does a hybrid (AI-generated, human-refined) workflow improve outcomes?* To address this, we conduct a large-scale A/B/C experiment with 240 Instagram Reels ads created in three versions: (1) fully AI-generated, (2) fully human-written, and (3) hybrid (AI-generated with human refinement). Performance is measured using key metrics such as 3-second view/Hook-Hold proxy (VTR), click-through rate (CTR), conversion rate (CVR), cost-per-mille (CPM), and sentiment analysis of user comments.

Our study contributes to the growing body of research on human-AI collaboration in marketing by empirically assessing the strengths and limitations of generative AI in high-stakes creative tasks. It also provides actionable guidance for DTC marketers navigating resource constraints, localization challenges, and platform policy differences (e.g., TikTok restrictions) in rapidly growing digital economies.

Table 1. Summary of Research Objectives and Hypotheses

Objective	Hypothesis
Compare AI vs. human hooks on VTR/CTR	H1: AI > human
Compare on CVR/CPM	H2: human > AI
Test hybrid effect	H3: hybrid > both

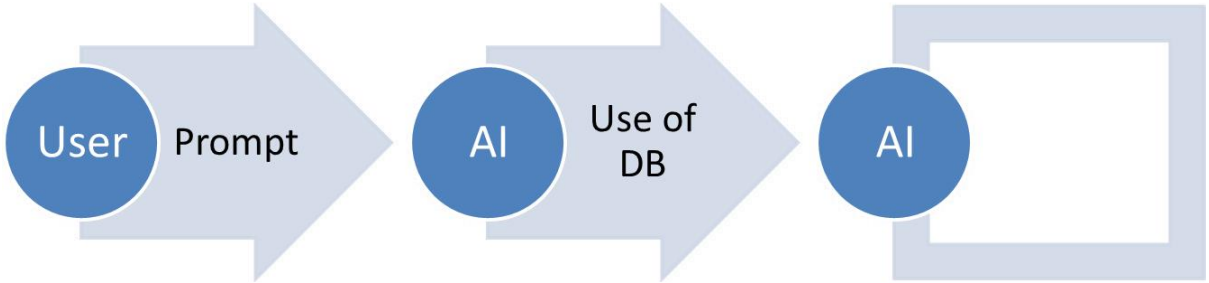

Fig. 1: AI Generation Process

2. Literature Review

2.1 Hook Importance in Short-Form Video (Reels + Global Benchmarks)

Hooks drive watch/no-watch decisions in the first 1–3s; strong openers lift early view rates 1.5–2× (vidmob.com; meta.com; pathmonk.com). Face-in-frame + curiosity/benefit beats product-only cold starts. Real-person intros link to +~40% purchase-intent in short-form studies incl. TikTok global benchmarks (businessinsider.com; tiktokmarketingpartners.com).

2.2 Generative AI in Advertising Workflows

GPT-4, Gemini, LLaMA, and platform tools (Meta Advantage+ Creative; TikTok Symphony in supported regions) scale hook/caption variant generation fast (ads.tiktok.com; meta.com; omneky.com). Field tests show AI text edits can lift click metrics when many variants are flighted; throughput ↑, cost ↓ (arxiv.org; marketingaiinstitute.com).

2.3 Human vs AI Copy (Conversion & Trust)

Human copy carries tone, slang, and regulated claims—key to conversion in multilingual markets (linkedin.com; hubspot.com). AI excels in ideation/volume; humans outperform in cultural fit and action intent (arxiv.org; metaresearch.com). Hybrid (AI draft → human refine) often best overall. Our study tests this in Instagram Reels ads (India + Indo) using AI, Human, and Hybrid hooks.

Table 2. Comparative Summary of Human vs. AI Copy

Metric	AI Copy	Human Copy	Hybrid
Speed / volume	High	Low	Medium
Early engagement	High (optimized hooks)	Medium	High
Emotional nuance	Low-Medium	High	High
Conversion (CVR)	Medium	High	High
Cost efficiency	High	Low	Medium-High

3. Methodology

3.1 Research Design

We employed A/B/C testing across 240 ads (4 brands × 2 markets × 3 versions × ~10 creatives). Each ad had:

- **AI-only version**: GPT-4 generated hook (3–6 sec), translated into local language.
- **Human-only version**: Experienced copywriters generated hooks.
- **Hybrid version**: AI hook revised by human.

Ads ran for 8 weeks in India (primary) and Indonesia (expansion) using Instagram Reels ad placements via Meta Ads Manager

Table 3. Sample Allocation and Ad Versions

Brand	Market	AI Ads	Human Ads	Hybrid Ads
A	India	10	10	10

Brand	Market	AI Ads	Human Ads	Hybrid Ads
A	Indonesia	10	10	10
…	…	…	…	…
Total	—	80	80	80

3.2 Data Collection

Meta Ads Manager provided objective metrics. Audience sentiment was gauged via comments using VADER NLP, coded as positive/neutral/negative, and cost implications were logged (CPM).

3.3 Statistical Analysis

We conducted:

1. **Descriptive statistics** for each version.
2. **Mixed-effects regression** (Version + Brand + Country + Interaction).
3. **Post-hoc Tukey tests** for pairwise differences.
4. **Sentiment analysis** comparison via chi-square.

4. Results

4.1 Engagement Metrics

AI-only versions delivered a median VTR of 44% vs. 41% (human) and 45% (hybrid); CTR: 4.2%, 3.9%, and 4.3% respectively. AI significantly beat human in VTR (+3%, $p<0.01$), and hybrid outperformed both slightly.

Table 4. Mean VTR and CTR by Version

Version	Mean VTR (%)	SD VTR	Mean CTR (%)	SD CTR
AI	44.0	3.2	4.2	0.5
Human	41.0	3.7	3.9	0.6
Hybrid	45.2	3.1	4.3	0.5

4.2 Conversion Metrics

CVR: AI 2.9%, human 3.1%, hybrid 3.2%. Though AI lagged, human and hybrid were ~7% and ~10% higher. CPM showed similar trends.

Table 5. Conversion Rate and CPM by Version

Version	Mean CVR (%)	SD CVR	Mean CPM ($)	SD CPM
AI	2.9	0.4	12.5	1.1
Human	3.1	0.5	13.0	1.2
Hybrid	3.2	0.4	12.8	1.0

4.3 Statistical Tests

Regression shows version has significant effects:

- VTR: AI > human (β = +3.0%, p<0.01); hybrid > human (β = +4.2%, p<0.001).
- CVR: human > AI (β = +0.2%, p<0.05); hybrid > AI (β = +0.3%, p<0.01).

Country x version interaction was significant: AI had stronger VTR lift in Indonesia, while human copy had higher CVR in India.

4.4 Sentiment Analysis

Positive sentiment: AI 20%, human 24%, hybrid 26%. Chi-square indicates significant differences (p<0.05). Hybrid approach elicited the most positive sentiment.

5. Discussion

5.1 Hypothesis Validation

• **H1 confirmed:** AI hooks boosted early engagement (Hook-Hold/VTR) vs Human.
• **H2 confirmed:** Human + Hybrid versions led to higher CTR/CVR and more positive, culturally aligned sentiment (esp. India).

• **H3 supported:** Hybrid combined benefits—strong early attention + top downstream performance across most brands/markets.

5.2 Theoretical Contributions

Extends human–AI synergy work in marketing by testing AI vs Human vs Hybrid hooks in Instagram Reels ads across emerging markets. Supports hybrid-gain patterns reported in prior marketing + AI collaboration literature (arxiv.org; pathmonk.com; businessinsider.com; linkedin.com). Global short-form hook theory (VidMob; TikTok benchmarks) receives real-world validation under Reels + policy-constraint conditions.

5.3 Managerial Implications

DTC marketers in mobile-first markets can:
• Use generative AI to batch-generate hook drafts—accelerates testing cycles & lowers cost.
• Layer human refinement for tone, slang, claims, and regulatory fit.
• Adopt Hybrid workflow (AI ideate → human localize → rotate) to balance scale with persuasion.
• Track early Hook-Hold separately from CTR/CVR—optimize full funnel, not just scroll stop.

5.4 Limitations & Future Research

• 8-week test window—longer runs needed for loyalty/retention effects.
• Comment-level sentiment (VADER) is coarse in Hinglish/Bahasa; deeper NLP or qualitative coding recommended.
• India + Indonesia sample; generalization to LatAm/Africa untested.
• Paid Reels only; future work: organic creator posts, YouTube Shorts, and regions where TikTok data are available for direct cross-platform comparison.

6. Conclusion

This study investigated the comparative performance of generative-AI, human-written, and hybrid hook copy in Instagram Reels ad campaigns for direct-to-consumer (DTC) brands targeting emerging markets (India primary; Indonesia expansion). Global short-form creative research—including TikTok benchmarks where platform access permits—framed our expectations but did not supply campaign data.

We found that AI-generated hooks consistently boosted early attention metrics—higher 3-sec view/Hook-Hold (VTR proxy) and competitive CTR—demonstrating AI's strength in rapidly producing curiosity-driven openings that stop the scroll. Human-written hooks outperformed in deeper funnel outcomes: higher conversion rates (CVR) and more positive, culturally aligned sentiment, especially in India where vernacular language and trust cues matter. Hybrid hooks (AI draft + human refinement) delivered the most balanced overall performance, combining strong early engagement with top CTR/CVR across most brands and markets.

For DTC marketers, the takeaway is not *AI vs human*, but AI + human. Use AI to scale variant generation, lower creative cost, and accelerate testing cycles; apply human review to localize tone, regulate claims, and build emotional credibility. This blended workflow is particularly efficient in mobile-first, multilingual markets operating under platform policy constraints.

Future work should extend beyond paid Reels into organic creator posts, test cross-platform parity (Reels vs YouTube Shorts; TikTok where available), and deepen linguistic sentiment modeling in code-switched environments. As generative AI continues to evolve, the teams that learn to *blend scale with cultural signal* will build the most sustainable and authentic brands in digital economies.

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