Do AI-Generated Video Advertisements Work for Pakistan's Small Businesses?

A Field-Study Proposal for Urdu-Language AI Video Ads in WhatsApp Commerce

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Abstract

Generative-AI video advertisements are now cheap enough for small businesses to produce, and a growing body of experimental research measures their effectiveness — but every major study to date has been conducted in Western or English-language developing-market contexts. No published study examines AI-generated video ads in **Urdu**, for **Pakistani small and medium enterprises (SMEs)**, distributed through **WhatsApp**, the channel on which much of Pakistan's small-business commerce actually runs. This paper (i) surveys the existing experimental literature on AI-generated ad effectiveness, (ii) identifies the Pakistan/Urdu/WhatsApp gap as an unaddressed research frontier, and (iii) proposes a concrete, low-cost randomised field experiment — executable by an undergraduate researcher with cooperating Lahore businesses — comparing AI-generated versus human-produced Urdu video ads on click-through, retention, conversion, and brand perception. The proposal is designed to be reproducible, ethically disclosed, and directly useful to Pakistan's digital SME economy.

1. Introduction

In 2024–2026, text-to-video and image-to-video models collapsed the cost of producing a polished video advertisement from thousands of dollars to a few dollars of compute. Freelance marketplaces now list 'AI video ads' as a standard service category, and small businesses — historically priced out of video marketing — are the natural customers. The question is no longer *can* AI make the ad, but *does* the AI-made ad work? A first wave of experimental studies has begun to answer this. Yet those answers come from contexts far removed from Pakistan: US consumers, English copy, Instagram and web placements. Pakistan's SME commerce runs substantially through WhatsApp broadcast lists and status updates, in Urdu (often code-switched with English), for audiences whose media literacy and trust cues differ from Western panels. Whether the headline findings of the existing literature survive that translation is unknown — and that is the gap this proposal addresses.

2. Literature Review: What the Experiments Say So Far

2.1 Personalisation and engagement gains

Kumar and Kapoor (MIT Initiative on the Digital Economy / Harvard Business School) ran an online experiment with over **21,000 consumers**, delivering AI-generated personalised video ads through a WhatsApp marketing provider alongside personalised image ads and generic video ads. AI personalised videos achieved click-through rates **9.4 percentage points higher** than personalised image ads and 6.5 points higher than generic video — with effects consistent across customer segments. Notably, the creative message remained human-controlled; generative AI served as a production tool, not the creative engine.

A separate large-scale study of personalised AI-generated video advertisements reported average CTR of **28% versus 15%** for traditional formats, with stronger emotional-engagement ratings (4.3 vs 2.7) and a moderating role for perceived relevance (highly relevant ads reaching 35% CTR).

2.2 The conversion gap

A June 2026 randomised field experiment by Li and Li (Hong Kong Baptist University) on more than **150 unique video advertisements** found that AI-generated ads achieved higher CTR, stronger viewer retention, and fewer negative reactions than human-created ads — but **performed worse on conversions**. Attention, in other words, does not automatically convert to purchase.

2.3 Brand-equity and disclosure penalties

Peruta and colleagues (Syracuse University, with Ipsos, 2026) tested 10 human-created and 10 AI-generated ads on **3,000 US consumers**. Only 25% of viewers could identify the AI-made ads with confidence — yet consumers still rated human-produced spots more entertaining, unique, and conversation-worthy. Business results were starker: AI ads were on average **14% weaker on short-term effectiveness and 17% weaker on long-term brand equity**. Related industry research further reports that when consumers *know* AI was involved, CTR drops by roughly **31.5%** — a direct tension with transparency requirements such as the EU AI Act's disclosure rules.

2.4 What remains consistent

Across studies, two patterns recur: (a) AI-generated ads reliably win on **attention metrics** (CTR, retention, novelty), and (b) they lag on **persuasion metrics** (conversion, brand equity, perceived authenticity) — especially for narrative or emotionally nuanced creative, while performing best on direct, product-driven messages.

3. The Research Gap

Every study above shares three contextual features: **Western or English-language audiences**, **formal ad placements** (web, Instagram, panels), and **established-brand or generic products**. None examines:

- **Urdu-language AI video ads** — including the Urdu–English code-switching typical of Pakistani marketing copy — and whether synthesised Urdu voiceover carries the same persuasive weight as human speech.

- **Pakistani SMEs** as advertisers — businesses with no brand equity to lose, for whom the 14–17% brand-equity penalty found in US studies may be irrelevant, and for whom a Rs. 500 AI ad versus a Rs. 50,000 shoot is the actual decision.
- **WhatsApp as the distribution channel** — broadcast lists and Status, where the ad arrives as a personal message rather than an interruption, potentially reshaping both attention and trust dynamics. (The MIT study used a WhatsApp provider, but in an Indian e-commerce, English-script context.)
- **Disclosure effects in a Pakistani audience** — whether the ~31.5% CTR penalty for known-AI content replicates where AI-media literacy is lower and novelty higher.

To the author's knowledge, **no peer-reviewed or preprint study** has been published on AI-generated video-ad effectiveness in any of these dimensions. This is the frontier this proposal targets.

4. Research Questions and Hypotheses

- **RQ1:** Do Urdu-language AI-generated video ads achieve higher CTR and retention than human-produced video ads for the same Pakistani SME products on WhatsApp? (H1: yes — attention advantage replicates.)
- **RQ2:** Do they convert worse, as in Li & Li (2026)? (H2: the conversion gap replicates but is smaller for low-consideration, low-price products.)
- **RQ3:** Does disclosing AI involvement reduce engagement among Pakistani viewers? (H3: the disclosure penalty replicates but is weaker than the ~31.5% Western figure.)
- **RQ4:** Does synthesised Urdu voiceover underperform human Urdu voiceover on trust and purchase intent, holding visuals constant? (H4: yes — voice is the authenticity bottleneck.)

5. Proposed Methodology

5.1 Design

A **randomised field experiment** run with 8–12 cooperating SMEs in Lahore (e.g., clothing, cosmetics, food, mobile accessories). For each business, two 15–30 second vertical video ads are produced for the same product and offer: one **AI-generated** (text-to-video / image-to-video pipeline with synthesised Urdu voiceover) and one **human-produced** (smartphone-shot, human Urdu voiceover), matched on script, duration, and call-to-action. Each business's WhatsApp broadcast list is randomly split; halves receive one version. A subset of AI-ad recipients additionally receives an **AI-disclosure** label, enabling a disclosure-effect comparison.

5.2 Metrics

- **Attention:** view-through rate, average watch time, CTR on the order/catalogue link.
- **Conversion:** inquiries and completed orders per 1,000 recipients, with 7-day attribution.
- **Perception:** a short post-exposure survey ($n \approx 200$) rating trust, quality, and purchase intent on 5-point scales; an AI-identification check ('do you think this ad was made by AI?').

- **Cost:** production cost and turnaround time per ad, for a cost-effectiveness comparison.

5.3 Analysis

Paired comparisons per business (AI vs human), aggregated with mixed-effects models accounting for business-level variation; pre-registered hypotheses RQ1–RQ4; significance at $\alpha = 0.05$ with confidence intervals reported throughout.

5.4 Ethics

Participating businesses give informed consent; customers receive genuine offers at real prices (no deception on the transaction itself); the disclosure arm satisfies transparency; all data is anonymised and reported in aggregate. Total participant burden is one short video — the same marketing they would otherwise receive.

6. Expected Contributions

- **First empirical evidence** on AI video-ad effectiveness in a South-Asian, Urdu-language, WhatsApp-commerce setting — directly testing whether Western findings generalise.
- **Practical guidance** for Pakistan's SMEs: when AI ads are cost-effective, where the conversion gap bites, and whether disclosure labels help or hurt.
- **A replicable low-cost protocol** other undergraduate and independent researchers can reuse, including bilingual (Urdu/English) survey instruments.
- **Voiceover insight:** isolating whether synthesised Urdu voice — rather than AI visuals — is the binding constraint on trust.

7. Limitations

WhatsApp broadcast delivery is subject to platform limits and list-quality variation; results from Lahore SMEs may not generalise to rural markets or other languages (Punjabi, Sindhi); novelty effects may decay as AI ads become commonplace — a follow-up wave after 6–12 months is advisable. The study measures short-horizon outcomes; long-term brand equity, the dimension where AI ads lag most in Western studies, requires longitudinal design beyond this proposal's scope.

8. Conclusion

The experimental literature has established that AI-generated video ads win attention and lose persuasion — in the West, in English, on formal placements. Whether that trade-off holds for an Urdu-speaking shopkeeper's customers receiving a video on WhatsApp is not a footnote; for Pakistan's digital economy, it is the main question. This proposal lays out a feasible, ethical, undergraduate-executable path to answering it.

References

[1] M. Kumar and A. Kapoor, "Frontiers: Generative AI and Personalized Video Advertisements," MIT Initiative on the Digital Economy Research Brief, 2025. 21,000-consumer experiment; +9.4pp CTR vs personalised image ads.

[2] H. Li and Q. Li, “AI-generated vs human-created video advertisements: a randomised field experiment,” conference paper, June 2026. 150+ ads; higher CTR/retention, lower conversion for AI ads.

[3] A. Peruta et al. (with Ipsos), “Human-made vs AI-generated ads,” 2026. 3,000 US consumers; AI ads 14% weaker short-term, 17% weaker on brand equity.

[4] “The Impact of Personalized AI-Generated Video Ads on Consumer Click-Through Rates,” SCIRP, 2025. 28% vs 15% CTR; emotional engagement 4.3 vs 2.7.

[5] OM Media Trials / Zefr, “Brand reactions to AI-generated content adjacency,” 2026. ~5,000 US/Canada respondents; context-dependent brand effects.

[6] Industry analysis of visual generative-AI ad effectiveness: disclosure of AI involvement associated with ~31.5% CTR reduction; from-scratch AI creative outperforms AI-modified human creative. LinkedIn Top Voices synthesis, 2026.

Methodological note: this is a **research proposal**, not a completed experiment. Cited effect sizes are as reported in the referenced studies’ public abstracts and coverage; the proposed experiment has not yet been run.