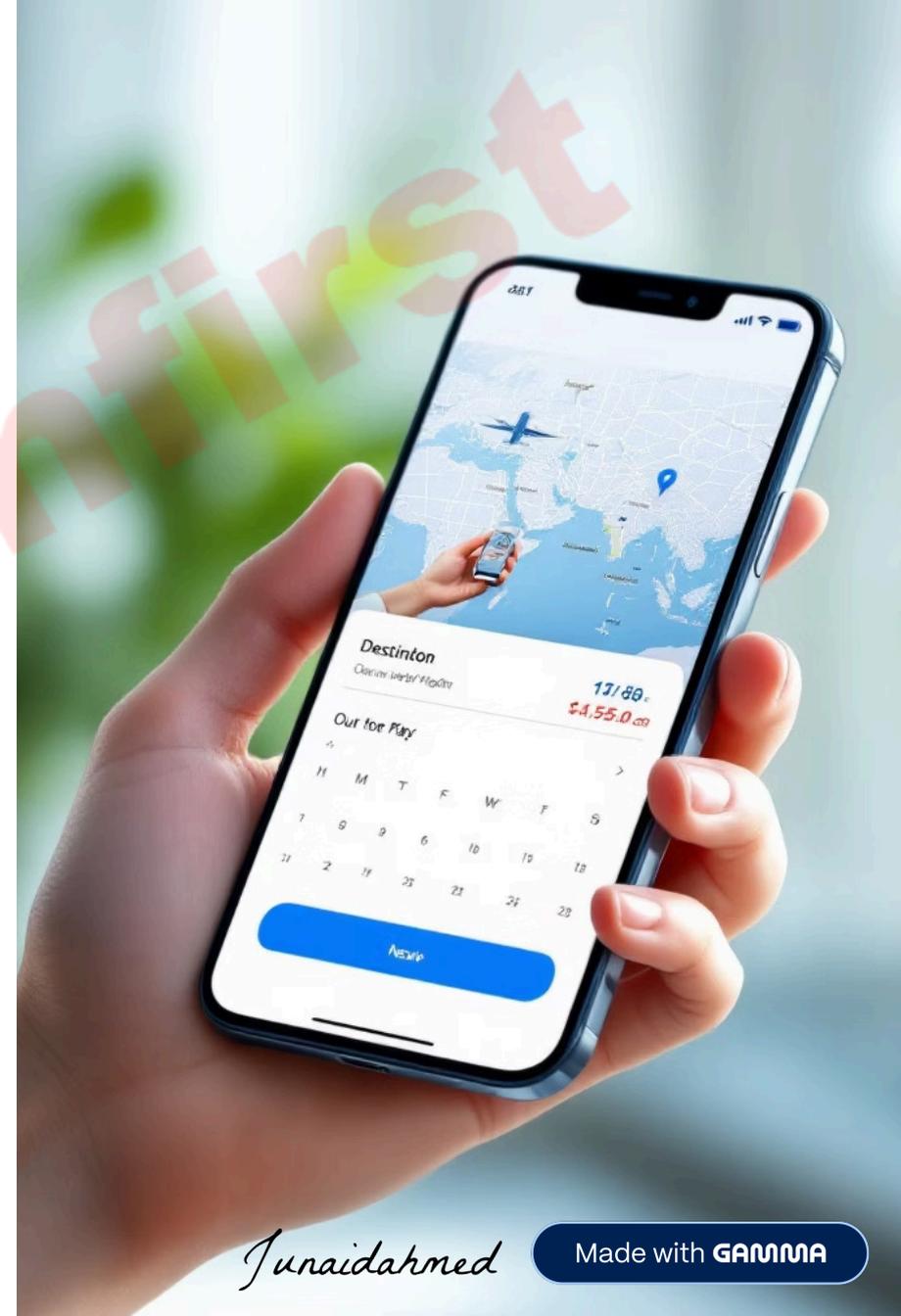


Scaling Cross-Platform App Acquisition by 13x While Halving CPA

A data-driven optimization case study demonstrating how intelligent tracking architecture and machine learning integration can dramatically scale user acquisition while reducing costs.

[Junaidahmed Kazi](#)



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The Business Challenge

Aggressive Scaling Requirements

Massively increase user acquisition for iOS and Android applications in a highly competitive travel market segment.

Cost Efficiency Mandate

Achieve volume growth without inflating Cost Per Acquisition—a challenge since scaling ad spend typically increases per-click costs.

High-Value Conversions

Focus on acquiring users with genuine booking intent rather than generic app installs to drive revenue.

Context: Thomas Cook India App | ₹3 Lakhs/month budget (~\$3,500 USD) | December 2025–February 2026 optimization period

Strategic Approach & Technical Execution

Engineered a closed-loop tracking architecture to feed granular user behavior directly into Google's machine learning algorithms, enabling data-driven bidding decisions.

01

Firestore Integration

Linked Google Analytics for Firebase directly with Google Ads for real-time post-click, in-app action tracking.

02

Granular Event Mapping

Defined and imported key conversion events—from `first_open` to `calculate_price`—moving beyond top-of-funnel clicks.

03

Algorithm Training

Trained bidding strategies to ignore low-quality traffic and target users with historical booking propensity.

Firestore Integration Architecture



Real-Time Data Pipeline

Established direct connection between Firebase and Google Ads, enabling real-time behavioral data sharing across platforms.

Post-Click Intelligence

Captured in-app actions including `first_open`, `calculate_price`, and booking completion events for comprehensive user journey mapping.

Event Mapping Strategy



Volume Building

Started with first_open events to establish initial traffic volume and baseline performance metrics.



Intent Targeting

Progressively shifted focus to high-intent events like calculate_price to identify booking-ready users.



Conversion Optimization

Trained algorithms on booking completion events to maximize ROI on high-value conversions.

Optimization Results: Volume Growth

13x

Total Installs

Monthly app installs scaled from 1,022 to 14,165 in one month

1,300%

Android Growth

Android install volume increased by 1,300% while improving efficiency

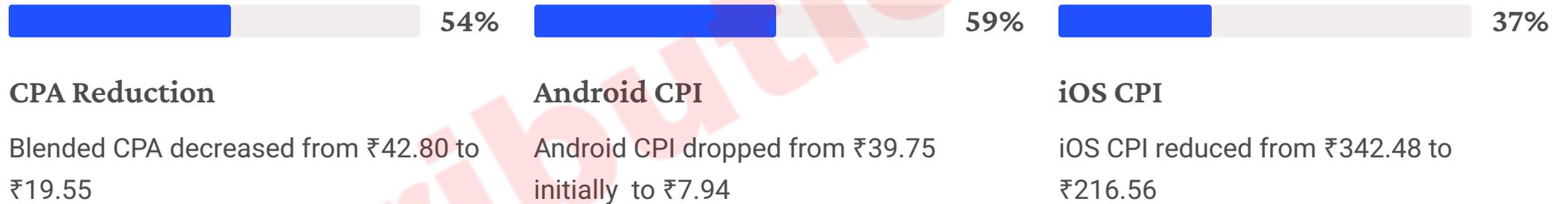
10x

iOS Scaling

iOS installs grew 10x from 73 to 788 installs in the optimization period

Campaign	Clicks <>	Cost / Install <>	Installs >>		Change	Change (%)	Cost <>	Conv. rate <>	Conversion <>	Cost / conv. >>			
			1/1/2026-1/31/2026	2/1/2026-2/28/2026						1/1/2026-1/31/2026	2/1/2026-2/28/2026	Change	Change (%)
Drafts in progress: 1 LS_TC_UAC_Android_AppInstall_Travel_Google_290126	1,917 (17%)	₹19.75 (+148.67%)	949.00	13,377.00	-12,428.00	-92.91%	₹18,740.83 (-82.36%)	2.77% (-74.88%)	949.00 (-92.91%)	₹19.75	₹7.94	₹11.81	+148.67%
LS_TC_UAC_iOS_AppInstall_Travel_Google_290126	7,191 (21%)	₹342.48 (+58.15%)	73.00	788.00	-715.00	-90.74%	₹25,001.54 (-85.35%)	0.14% (-79.08%)	73.00 (-90.74%)	₹342.48	₹216.56	₹125.93	+58.15%
Total: All but removed campaigns in your current view	9,108 (18%)	₹42.80 (+118.97%)	1,022.00	14,165.00	-13,143.00	-92.79%	₹43,742.36 (-84.20%)	1.19% (-80.02%)	1,022.00 (-92.79%)	₹42.80	₹19.55	₹23.25	+118.97%

Cost Efficiency Improvements



CPA Reduction

Blended CPA decreased from ₹42.80 to ₹19.55

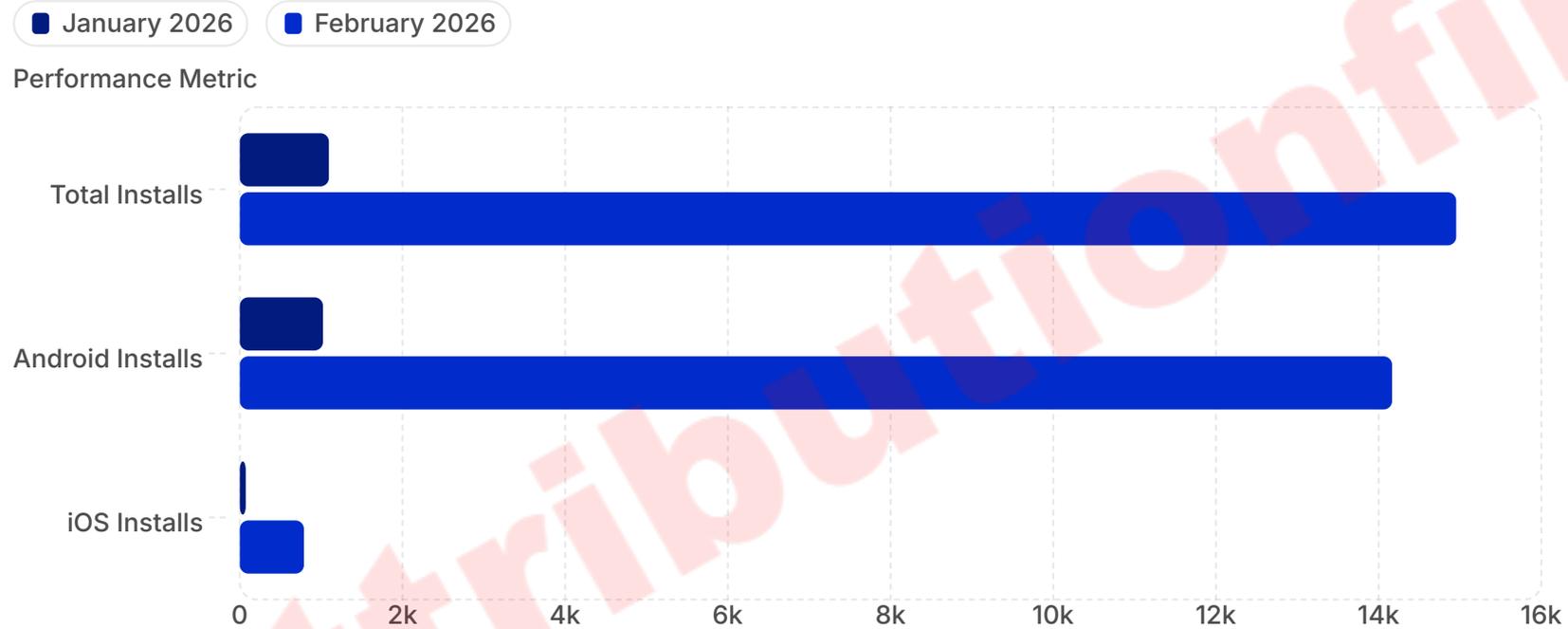
Android CPI

Android CPI dropped from ₹39.75 initially to ₹7.94

iOS CPI

iOS CPI reduced from ₹342.48 to ₹216.56

Month-over-Month Performance



Exponential growth trajectory demonstrates the effectiveness of data-driven bidding strategies and machine learning optimization.

Key Takeaways

Granular Tracking Drives Scale

Post-install event mapping enables machine learning algorithms to identify high-value users, allowing aggressive scaling without CPA inflation.

Sequential Optimization Strategy

Start with volume-building events (first_open), then progressively shift to high-intent signals (calculate_price) for maximum efficiency.

Platform Integration is Critical

Direct Firebase-to-Google Ads connections create real-time feedback loops that dramatically improve algorithmic bidding accuracy.

Business Impact Summary

Technical Achievement

Engineered closed-loop tracking architecture connecting Firebase with Google Ads, training ML algorithms on granular post-click behavior to optimize for booking-ready users.

Financial Results

13x install volume increase, 54% CPA reduction, and ₹7.94 Android CPI—all while maintaining budget discipline at ₹3 Lakhs/month (~\$3,500 USD).



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