GreenBox: End-to-End Marketing Analytics & LTV Prediction

From Raw Data to Predictive Insights

Christopher Bonnin
Marketing Analyst

GreenBox
Sustainable Living Delivered

Executive Summary

GreenBox

A Direct-to-Consumer subscription service focused on sustainable living. The company delivers a monthly curated box of eco-friendly home goods, zero-waste products, and organic snacks to consumers.

Context

GreenBox launched a subscription service but lacked visibility into channel performance and user quality.

Objective

Analyze marketing ROI, validate A/B tests, and build a predictive model to identify high-value users early.

Key Results

Identified Winner

"Save Planet" variant drove **30% higher conversion**.

Cost Efficiency

**Facebook** yielded the highest ROAS despite higher CPC.

Predictive Power
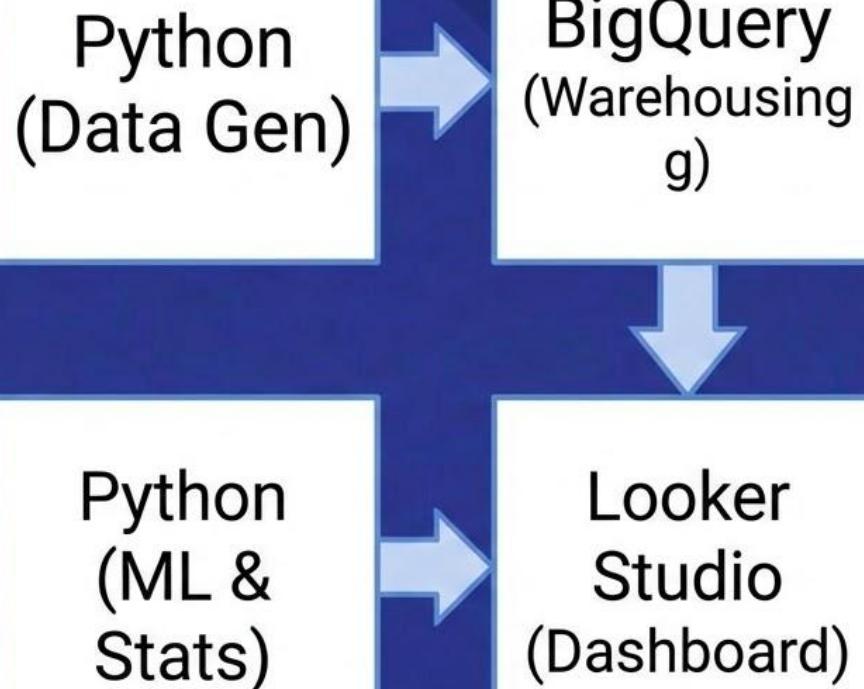
Built an LTV model with **90% accuracy** based on Day 7 behavior.
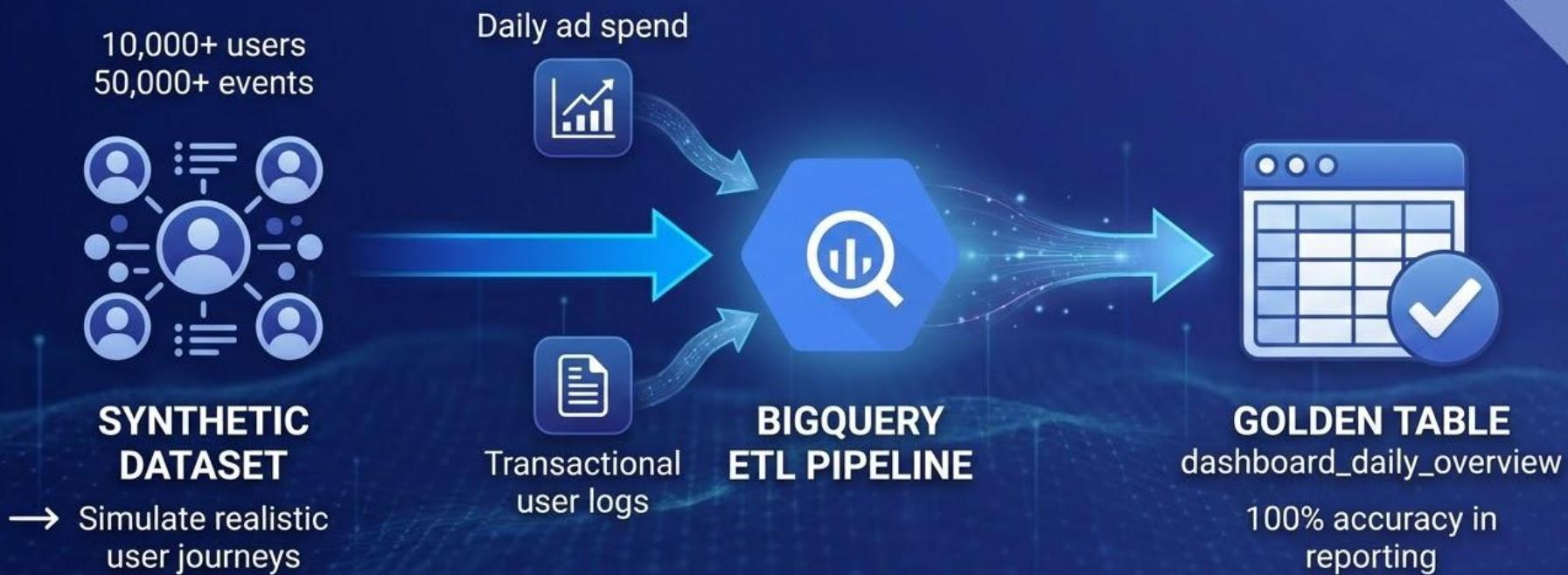
Project Overview

Full-Stack Analytics Pipeline

Handling Scale & Complexity

10,000+ users
50,000+ events

Daily ad spend

SYNTHETIC DATASET

→ Simulate realistic user journeys

Transactional user logs

BIGQUERY ETL PIPELINE

GOLDEN TABLE
dashboard_daily_overview

100% accuracy in reporting

Facebook Drives Quality Over Volume

FACEBOOK

Cheapest traffic (Low CPC) but lower retention.

TIKTOK

Higher acquisition cost, but significantly higher **ROAS** (Return on Ad Spend).

TABLET USERS

Represents ~10% of traffic with high purchase intent.

Marketing Analytics Dashboard
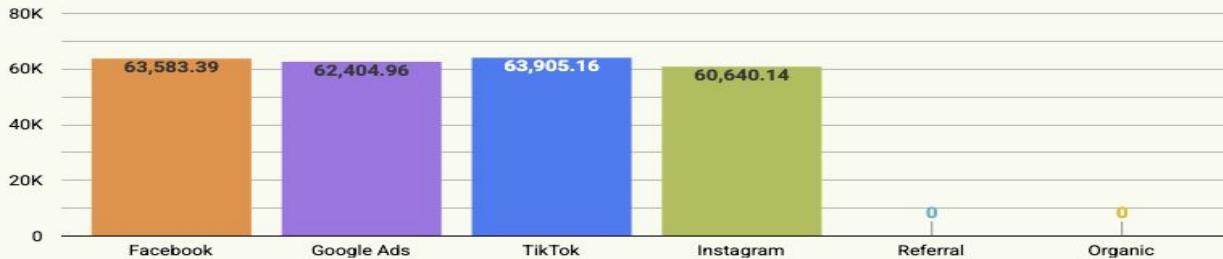
GreenBox
Sustainable Living Delivered

Total Spend	Total Revenue	ROAS	CPA
250,533.65 €	110,527.89 €	44%	113.31 €

Channel Performance

	Facebook	Google Ads	TikTok	Instagram	Referral	Organic
	63,583.39	62,404.96	63,905.16	60,640.14	0	0
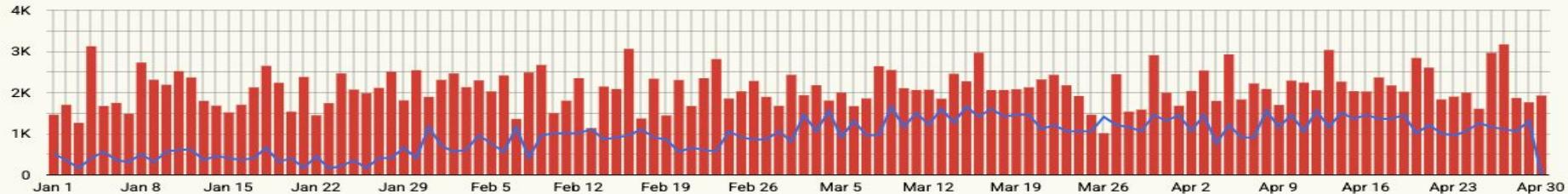
Revenue and Spending Trends

GreenBcx
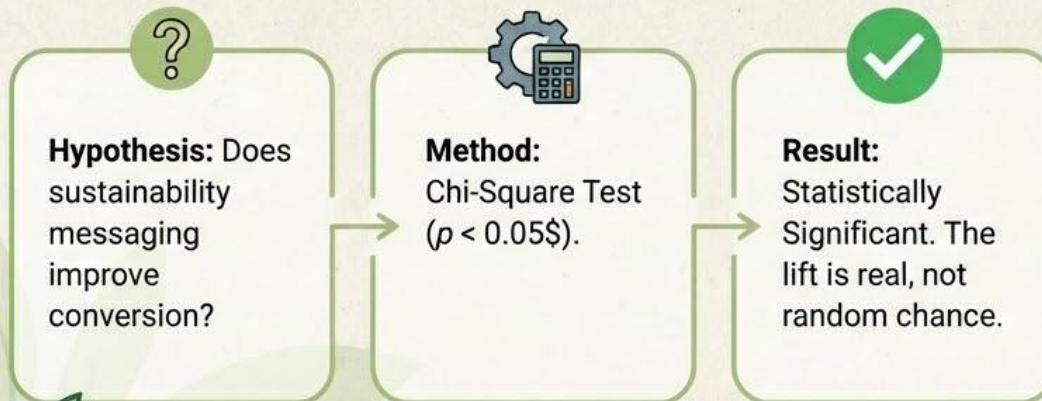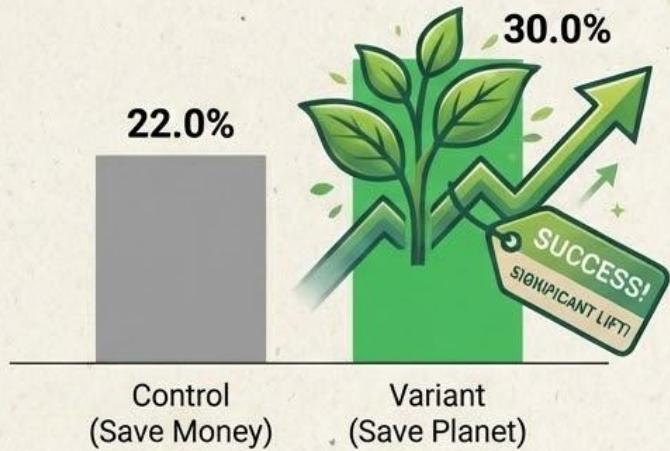
The "Save Planet" Messaging Wins

The Math:

Hypothesis: Does sustainability messaging improve conversion?

Method: Chi-Square Test ($p < 0.05$).

Result: Statistically Significant. The lift is real, not random chance.

A/B Test Impact:
Sustainability Messaging vs. Control

30.0%

22.0%

SUCCESS!
SIGNIFICANT LIFT!

Control
(Save Money)

Variant
(Save Planet)

Predicting Customer Value on Day 7

Key Discovery:
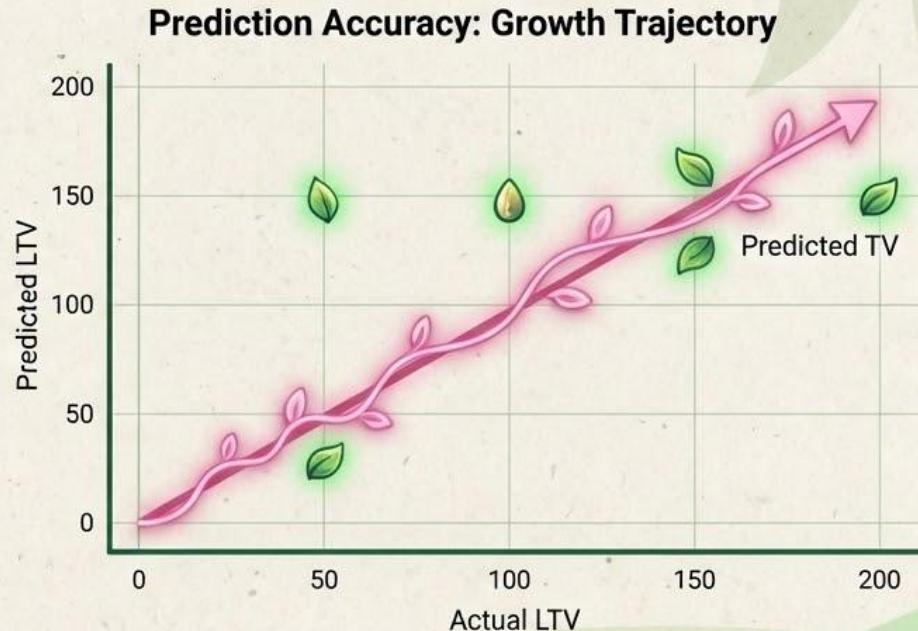
Users who 'Add to Cart' > 2 times in the first week but don't buy are the highest potential targets for retargeting.

First-week revenue is the strongest predictor of long-term value.

Model: Linear Regression ($R^2 \approx 0.90$)

Prediction Accuracy: Growth Trajectory

Predicted LTV

Predicted TV

Actual LTV

Understanding Our User Personas

Window Shoppers:
High views, zero cart adds.
(Strategy: Low-cost email nurture).

The Browsers:
High cart adds, low spend.
(Strategy: Send discount codes).
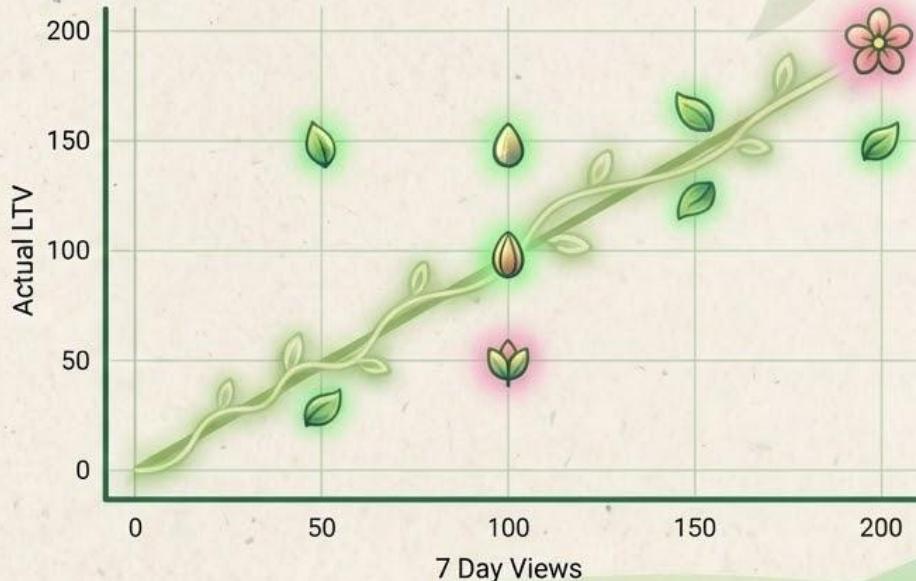
Power Users:
High activity, high spend.
(Strategy: VIP Loyalty Program).

User Segmentation: Engagement vs. LTV