

Business Case Analysis

Optimizing Digital Advertising



Context & Objective

2006-2007 Profitability Trends

- Airlines recovered from a \$42 billion loss over 6 years since 2000
- International air travel demand was growing faster than domestic
- Airline websites, aggregators, and metasearch engines (Kayak, Sidestep) created a fragmented marketplace
- Optimize Return on Ad Spend (ROAS) and increase bookings

Different Search Engines



Key Metrics

Clicks
Impressions
Click Charges
Bid Strategies & Average Position



Business Success!

200% Return on Investment

Conversion Rate **5%**

The Analysis

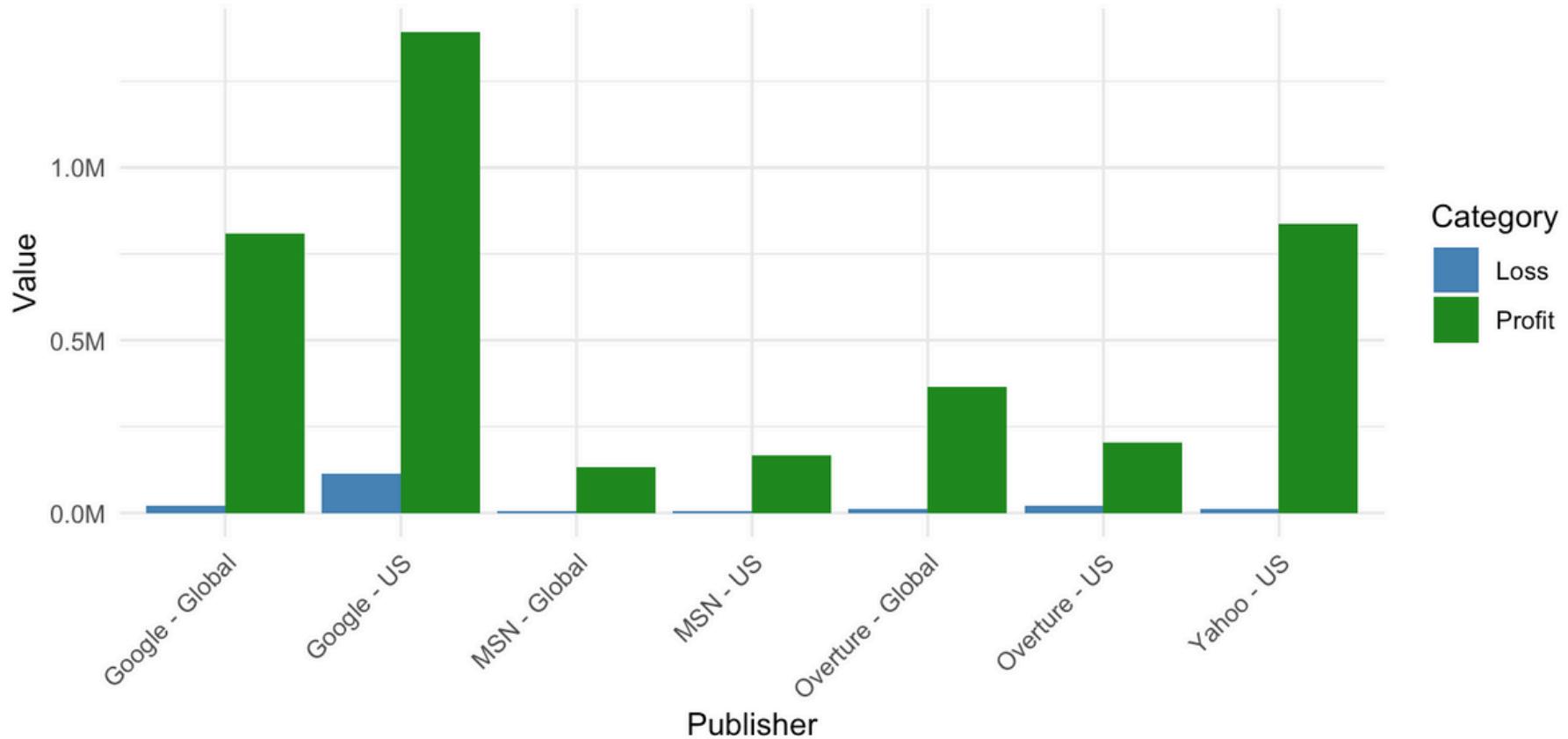
Analyzed the data:

- by **Publisher**
- by **Successes** and **Failure**
- Linear Regression
- Logistic Regression
- Decision Trees



Key Findings

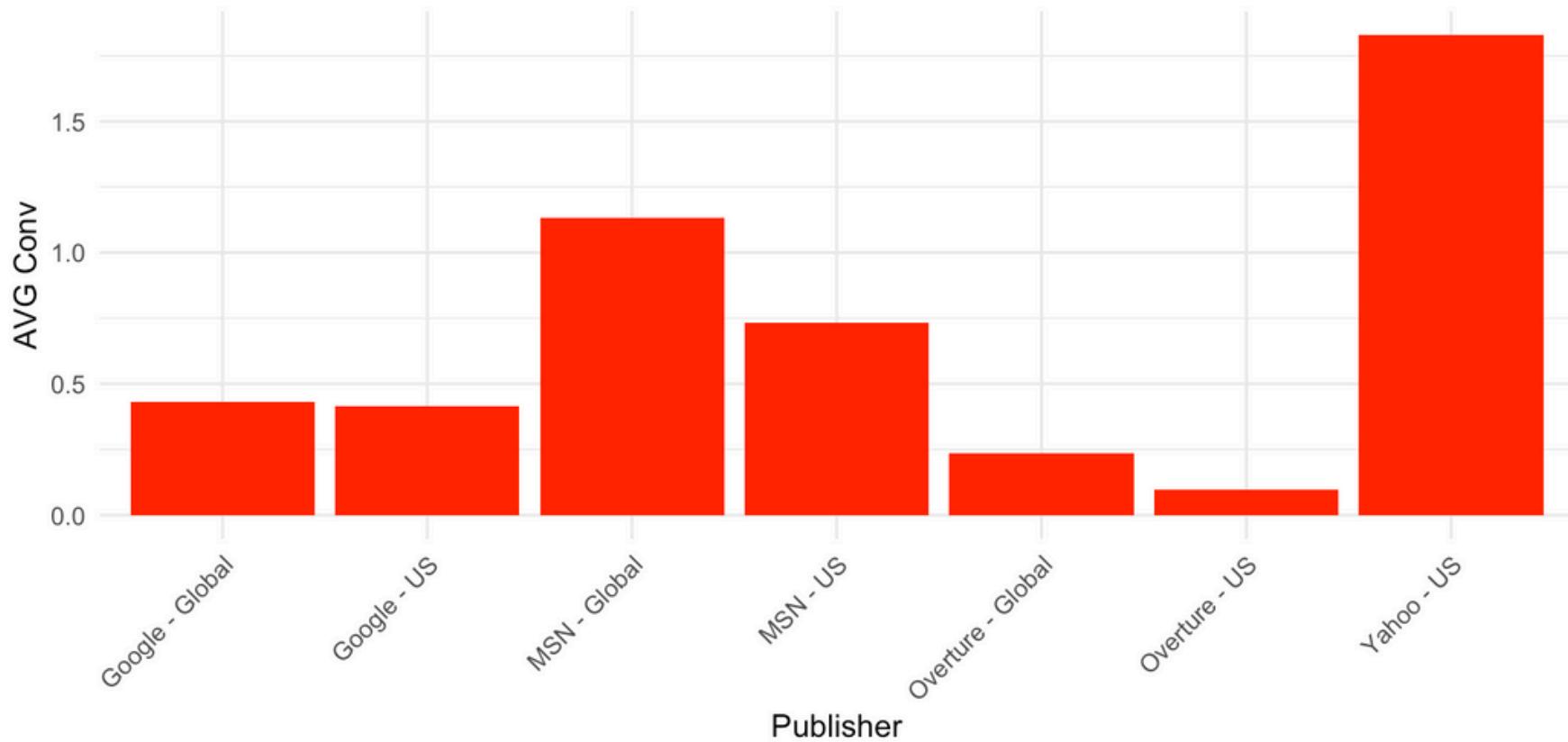
Total Losses and Profits by Publisher



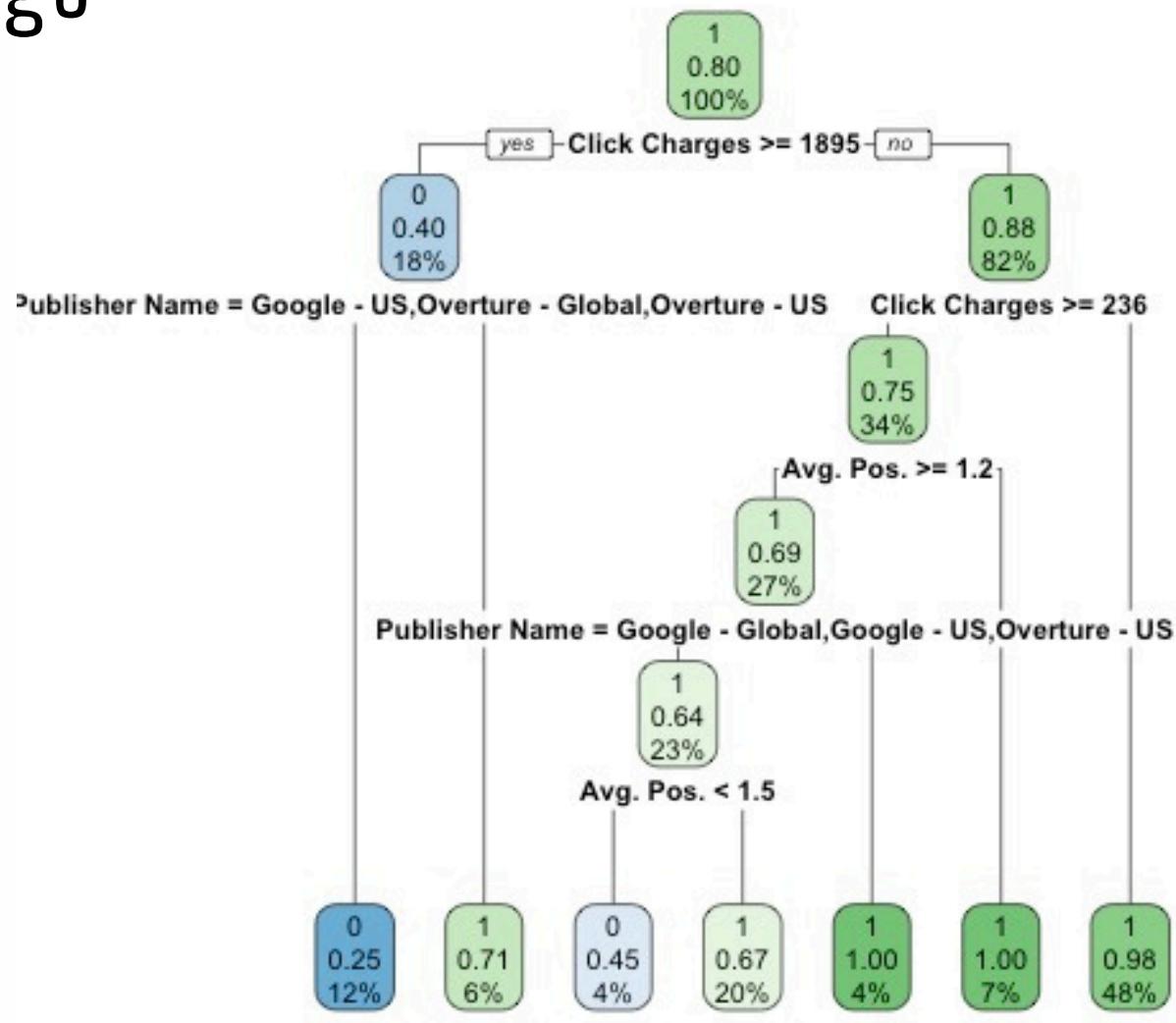
- **Google US and Google Global** have the **highest total profits** among all publishers
- The profit of almost all publishers in the US market is **roughly equal** to the total profit in the global market.

Key Findings

Avg Conversion Rate by Publisher



Key Findings



- ***Click Charged doesn't guarantee the performance of the ADs***
- ***Lower-cost ADs can have same or higher conversion rate than higher cost ADs***

Regression Model Insights

- Logistic regression: Predicts campaign success
- Decision tree: Highlights key factors affecting ad profitability
- Linear regression: Clicks, Impressions, and Click Charges impact revenue

Recommendations

1. Reduce budget for ADs Testing
2. Optimize Yahoo USA Campaigns to take advantage of Conversion Rates
3. Align the Global investments with USA investments
4. Regularly review ROAS and Conversion rate to fit the strategy with the market
5. Higher cost doesn't translate in better performances

Team 9

Thank You!