MAVEN FUZZY FACTORY: ECOMMERCE DATA ANALYSIS

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INTRODUCTION

DATASET OVERVIEW

Maven Fuzzy Factory – fictional e-commerce startup

- Product: Stuffed animals.

- Time span: 2012–2015

- Sessions: 472,871 unique user sessions

Features: 6 Tables

Orders

Products

Order Items
Refunds

Website
Sessions

Order Items

Pageviews

IMPORTANT COLUMNS

1. Target Variable – Revenue

- Revenue generated

- Product cost (COGs)

- Refunds.

2. Product-Related Variables

- Product name,

- Product ID

3. Website Traffic

- Traffic source

- Device type

- Pageviews

- Repeat sessions

WHAT WE'RE SOLVING

PROBLEM STATEMENT

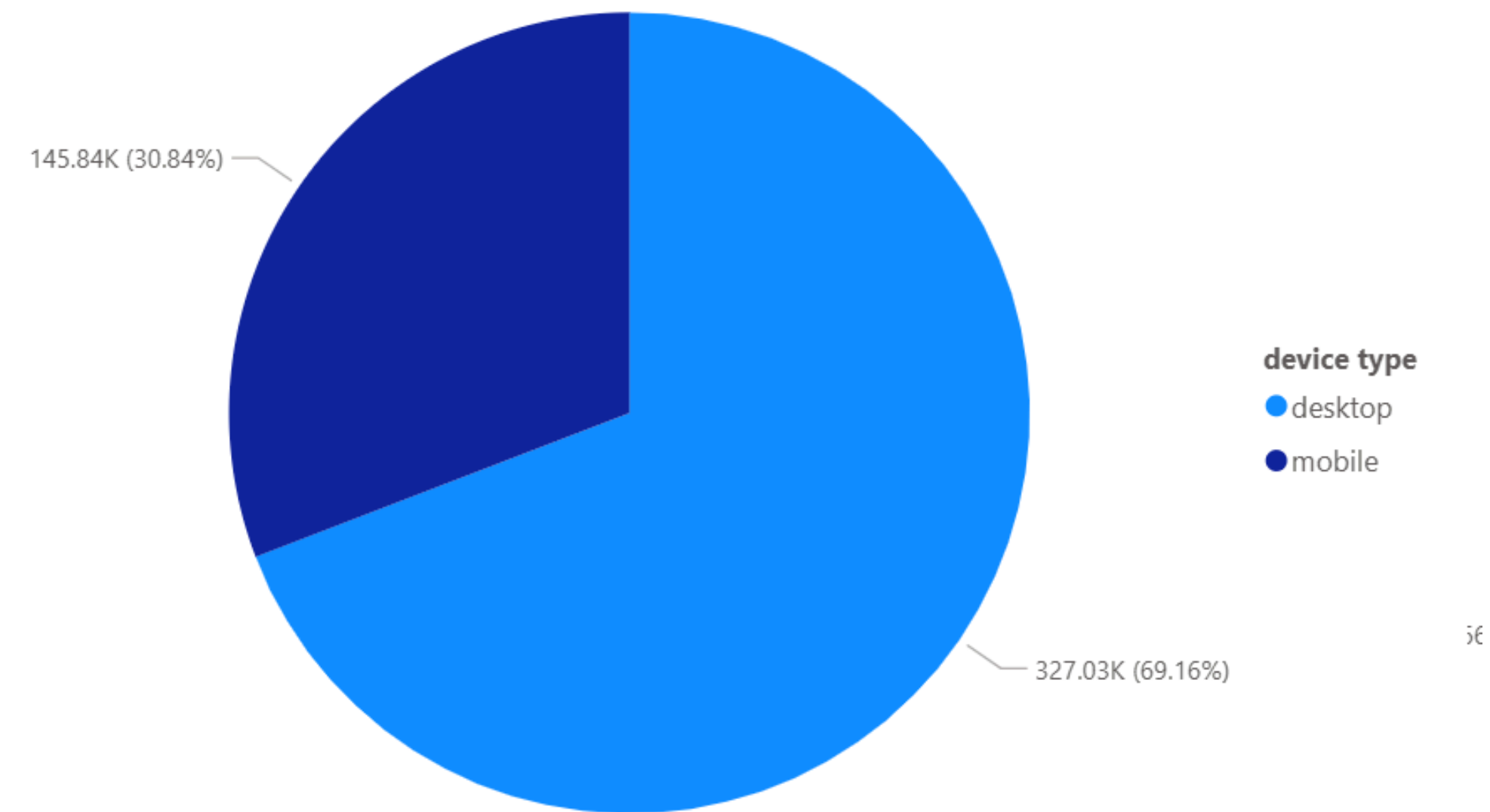What drives revenue performance for Maven Fuzzy Factory.

GOAL OF ANALYSIS

The goal is to identify profit contributors

HOW DID CUSTOMERS GET HERE?
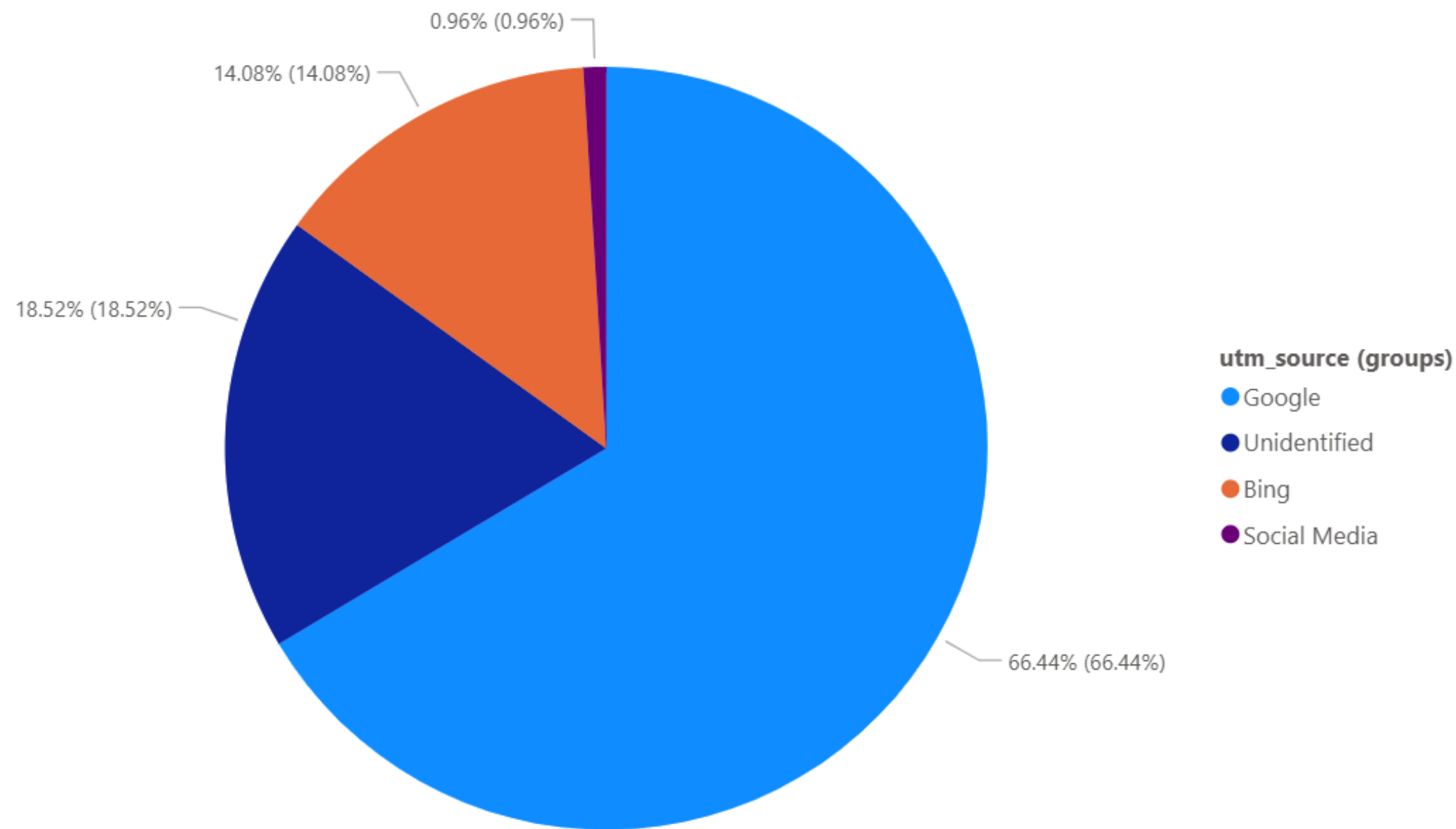
MARKETING PATTERNS AND RETENTION ISSUES

DEVICE

145.84K (30.84%)

327.03K (69.16%)

device type
- desktop
- mobile

Global averages (2012–2015):
- Desktop: 88–59%
- Mobile: 11–35%

TRAFFIC SOURCE

Global stats (2012–2015)
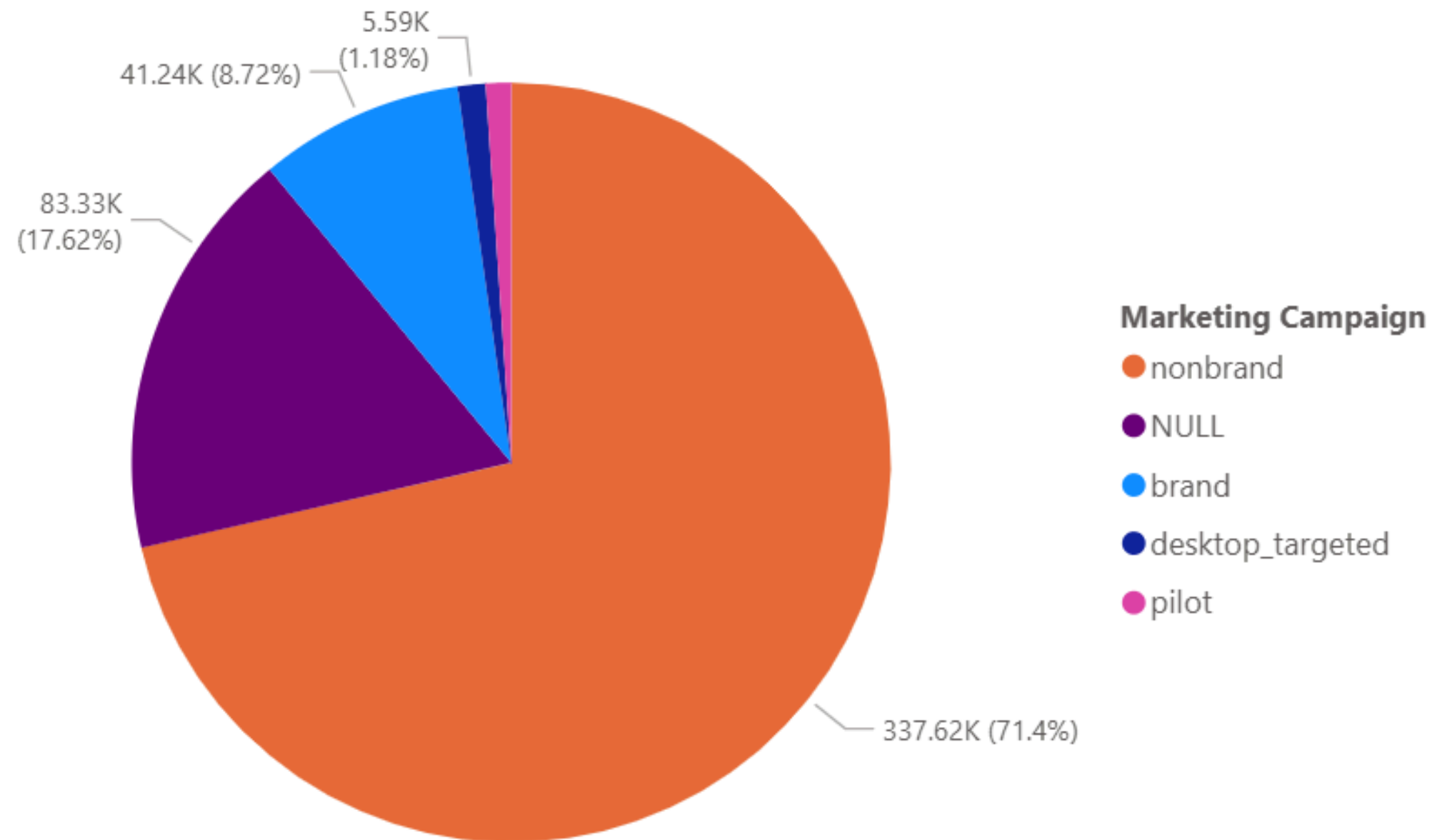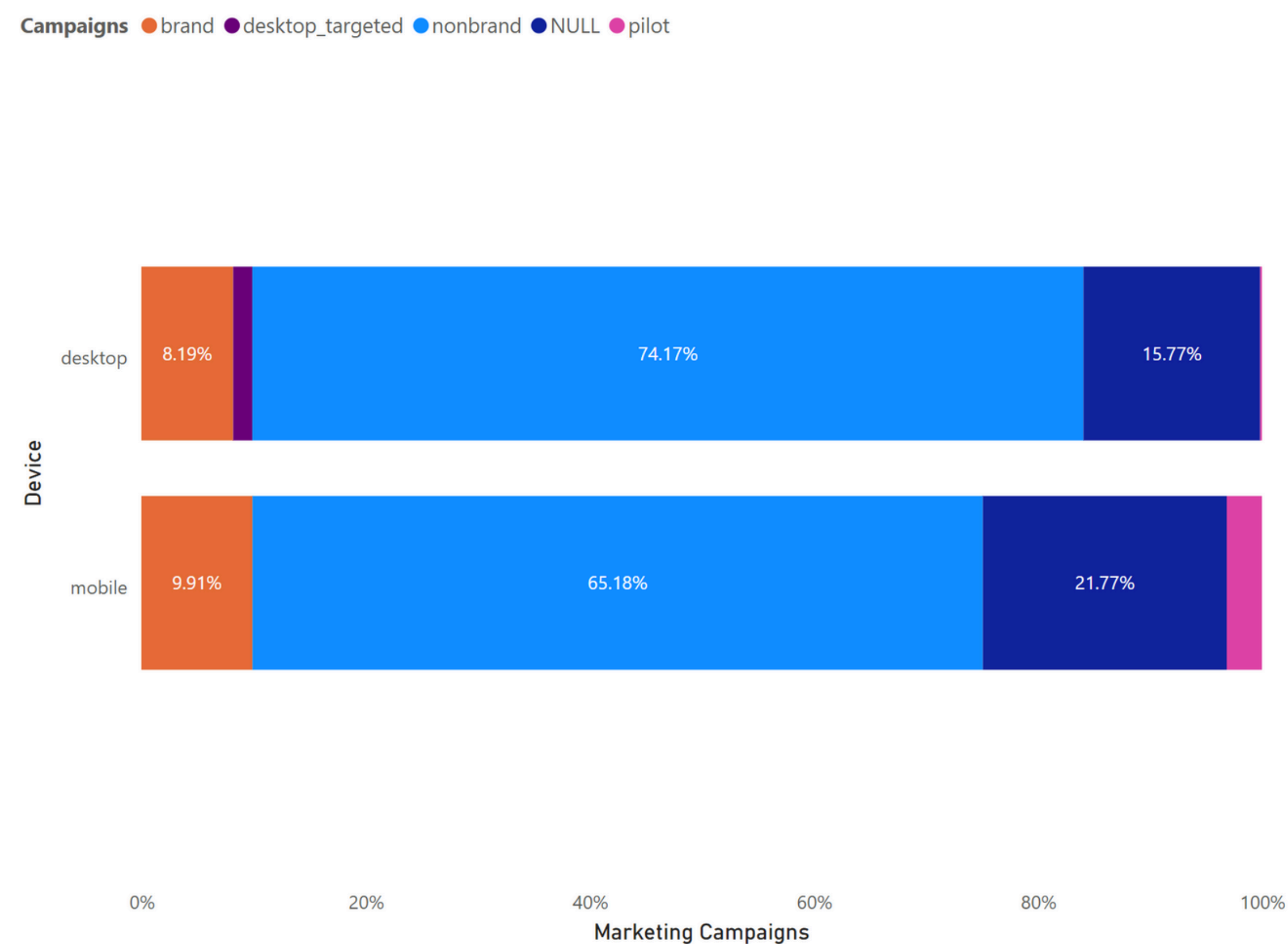- Google: approx. 57% desktop; 43% mobiles
- Bing: 67% desktop; 33% mobile
- Social Media: 30–40% desktop; 60–70% mobile (2014–2015)

USER INTERACTIONS

5.59K (1.18%)

41.24K (8.72%)

83.33K (17.62%)

Marketing Campaign

● nonbrand
● NULL
● brand
● desktop_targeted
● pilot

337.62K (71.4%)

- Higher acquisition-focused marketing
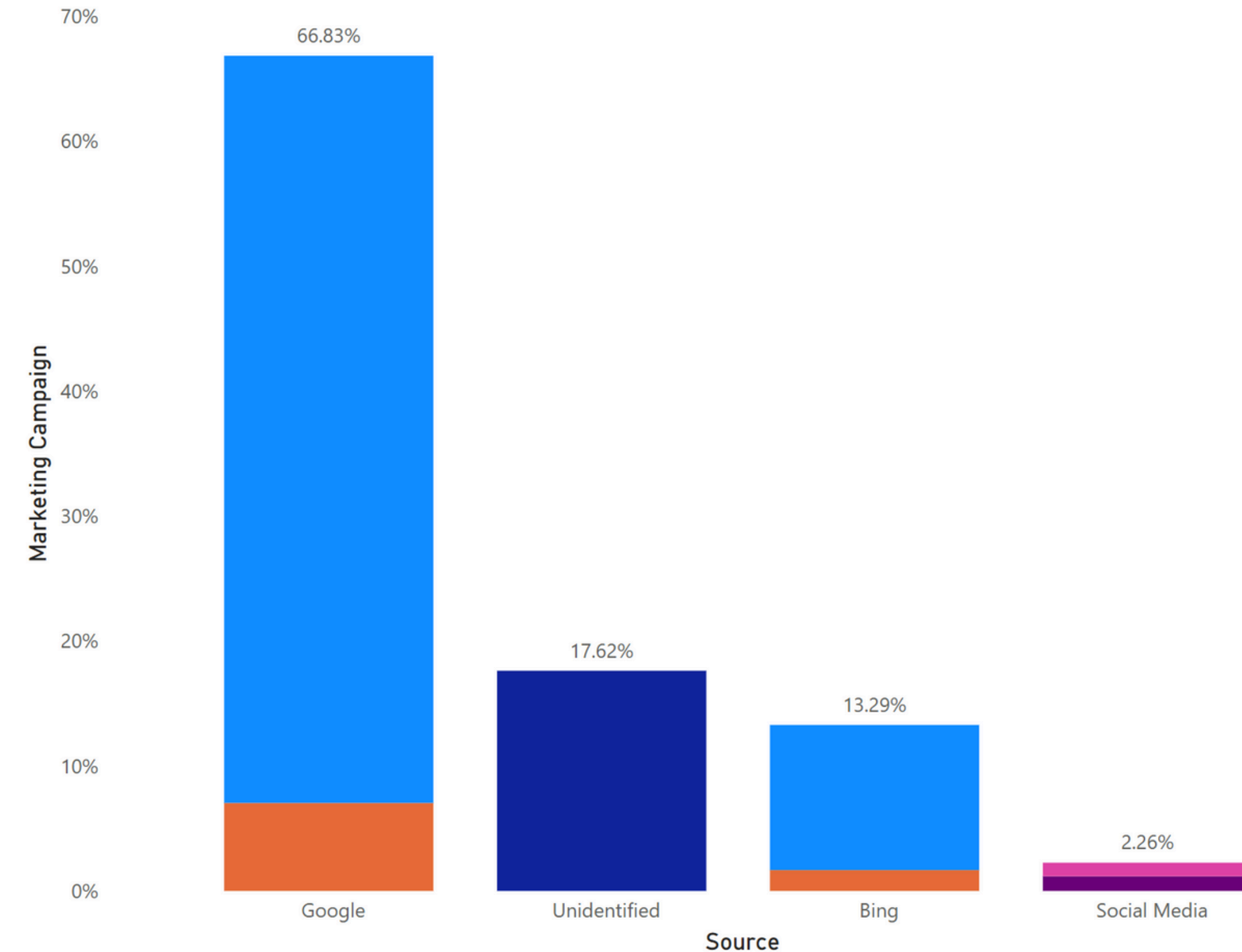- Consequence: low-customer retention

USER INTERACTIONS

- Pilot campaigns only generated mobile-based traffic.
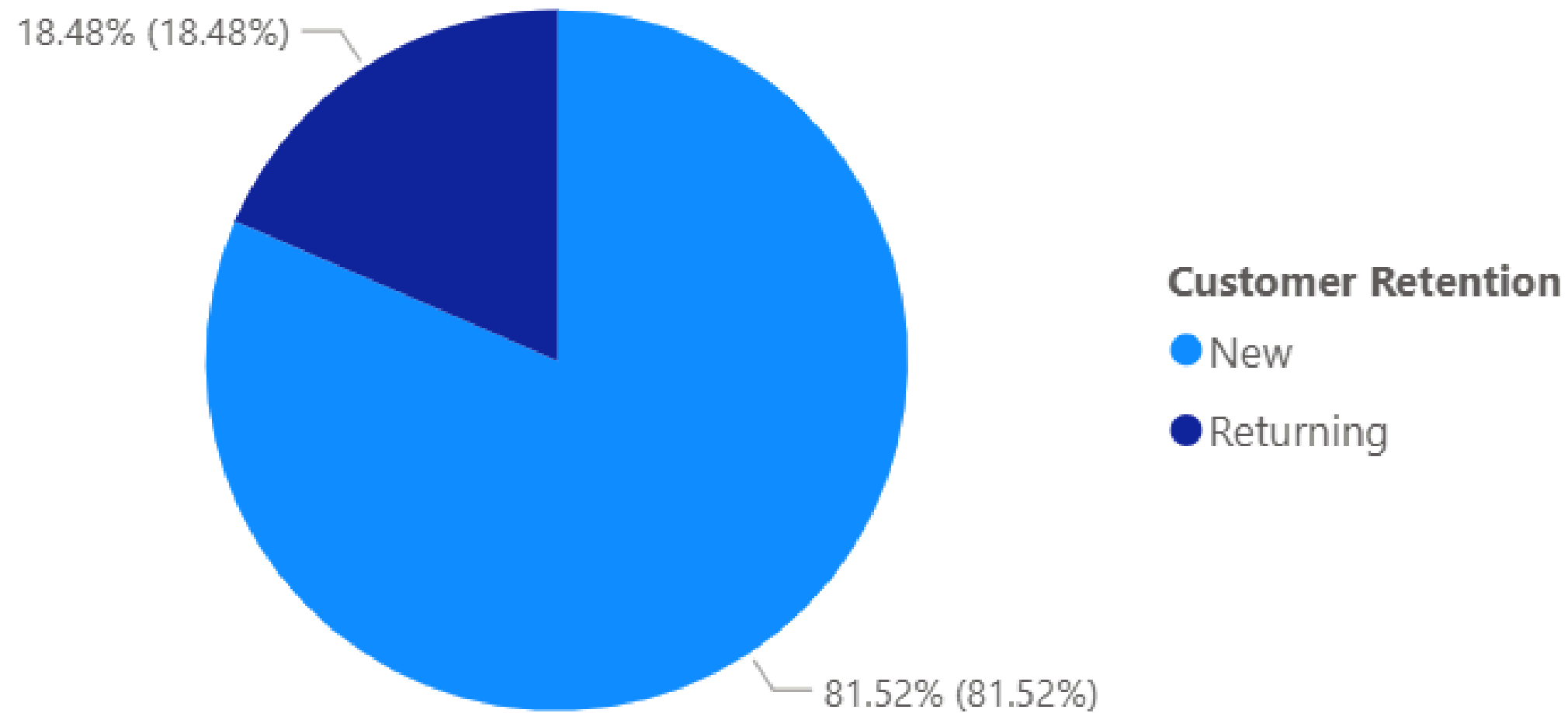- No significant differences in other campaigns.

USER INTERACTIONS

- Search engines ran Non-brand and brand campaigns
- Social Media only runs pilot and desktop campaigns

CUSTOMER RETENTION

Low customer retention= need for different marketing strategies

18.48% (18.48%)

Customer Retention

- New
- Returning

81.52% (81.52%)

CUSTOMER RETENTION

- No brand awareness
- Product-focused intent
- One-time problem solving
- Weak emotional connection
- Retargeting
- Competition

CUSTOMER RETENTION

Search engines = New
Returning = Unidentified

Most non-brand campaigns ran on
search engines

CUSTOMER RETENTION

Groups ● New ● Returning

- No significant difference
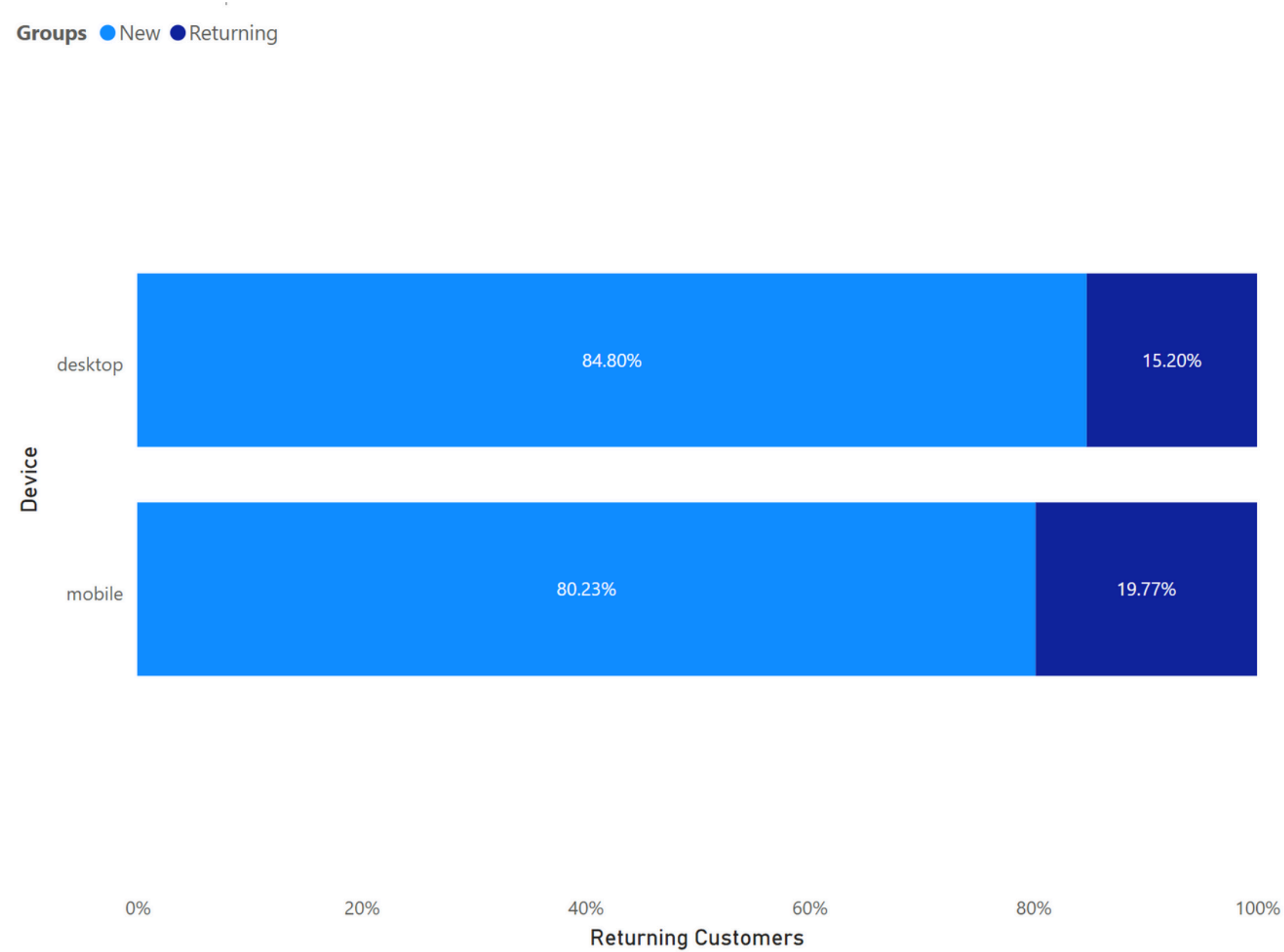- Reason: Marketing strategies
- Need of times: Mobile Optimization

Device		
desktop	84.80%	15.20%
mobile	80.23%	19.77%

0%   20%   40%   60%   80%   100%

Returning Customers

Traffic Insights

- Google Search dominates; social media is lowest.
- Non-brand campaigns bring traffic but low retention.
- Desktop users lead, showing stronger engagement than mobile.
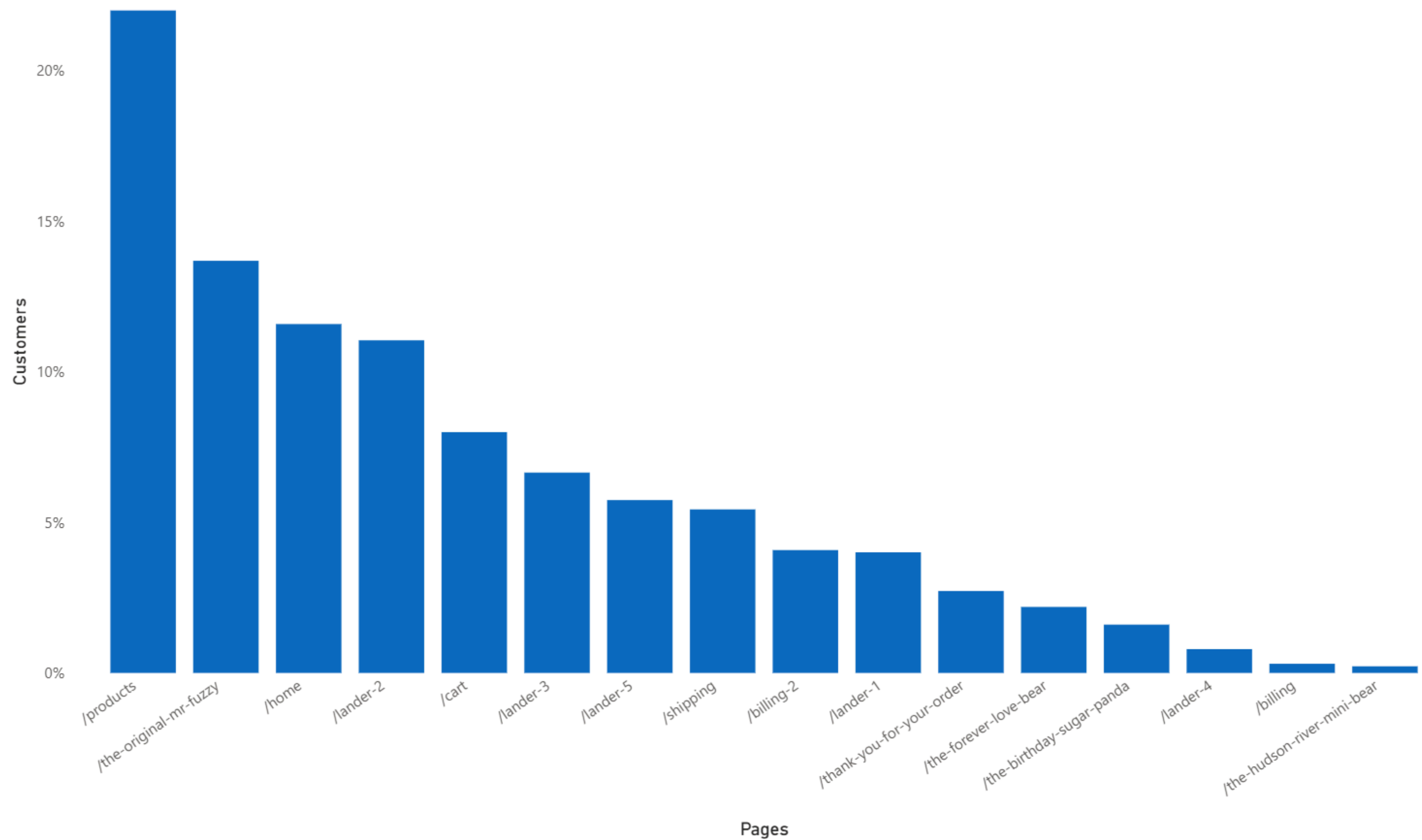
Recommendations:

- Post-purchase experience
- Loyalty programs
- Retargeting ads
- Social-Media and Product-based retention
- Personalization
- Mobile Optimization

WHERE DID THEY GO?

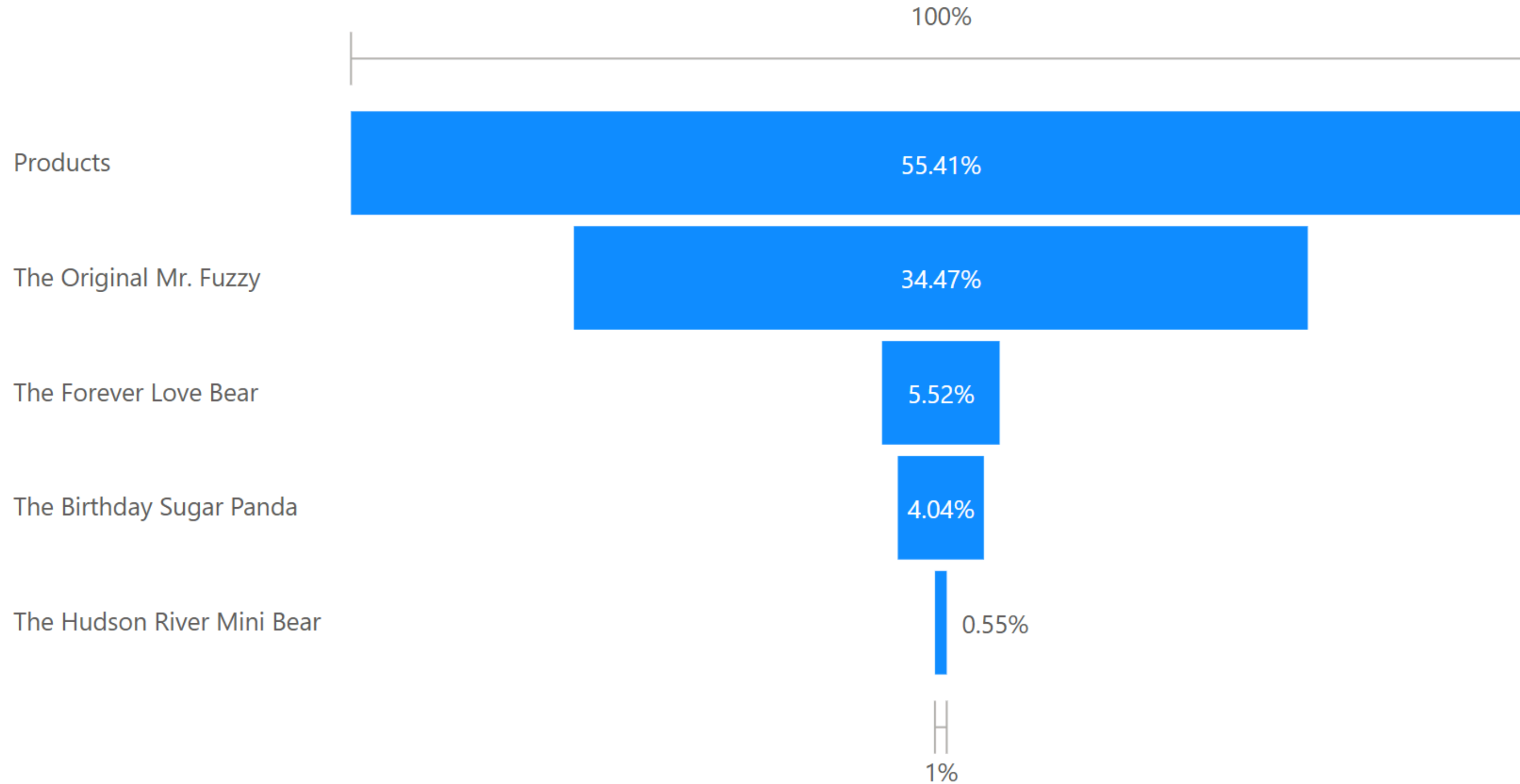# CUSTOMER WEBSITE BEHAVIOR
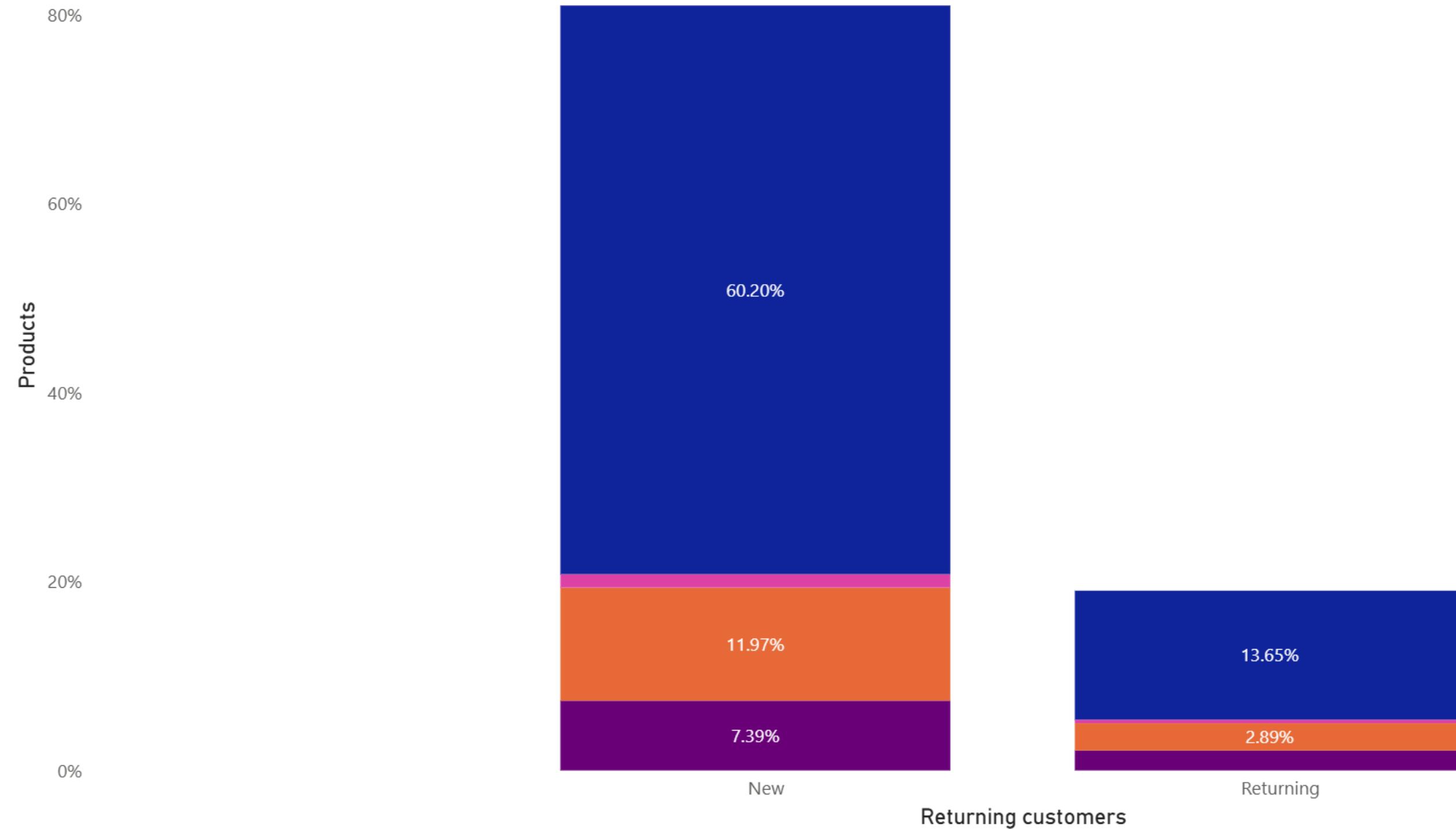
WHAT USERS DO

WHAT USERS DO

100%

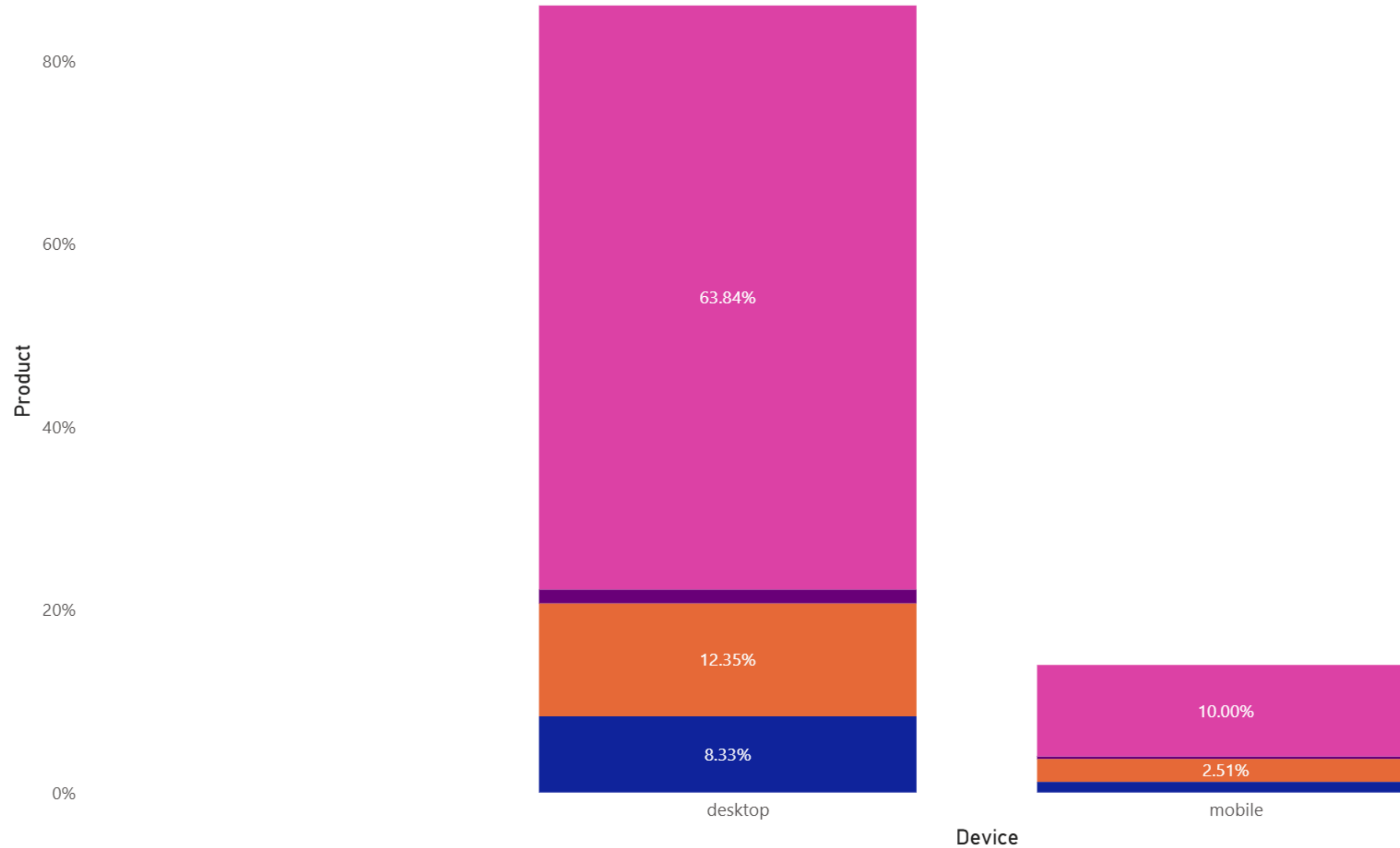|	
Products	55.41%
The Original Mr. Fuzzy	34.47%
The Forever Love Bear	5.52%
The Birthday Sugar Panda	4.04%
The Hudson River Mini Bear	0.55%

1%

WHAT USERS DO

WHAT USERS DO

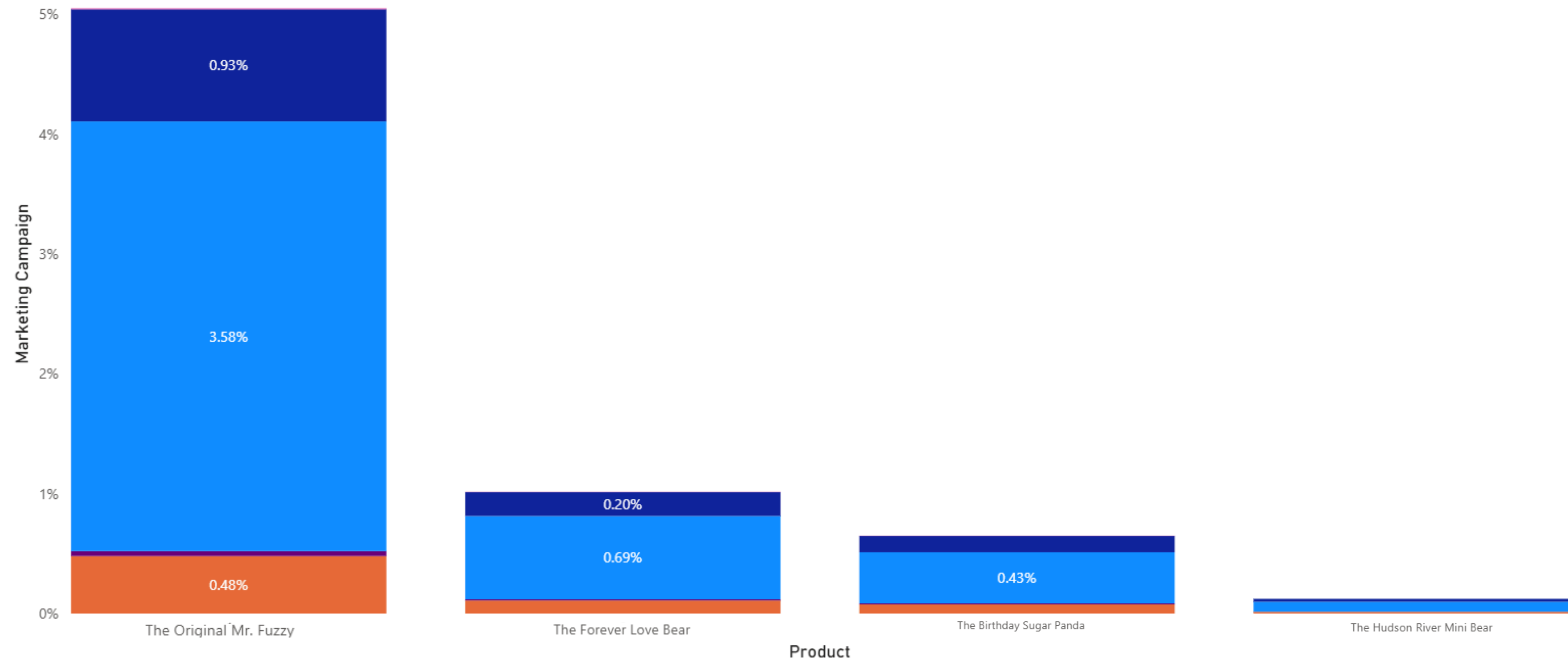Groups ● The Birthday Sugar Panda ● The Forever Love Bear ● The Hudson River Mini Bear ● The Original Mr. Fuzzy

Product

80%

60%

40%

20%

0%

63.84%

12.35%

8.33%

10.00%

2.51%

desktop

mobile

Device

USER JOURNEY

100%

| Landing Pages | 39.90% | Navigation to product |

| Products | 31.09% | Buying intention – add to cart |

| Cart | 11.30% | Drop may be due to holding or changing intent |

| Shipping | 7.67% | Shipping cost, type, payment |

| Billing | 6.19% | |

| Thank You for your order | 3.85% | Typical early–2010s pattern: strong entry on product pages, mid–funnel drop–offs, and strong completion once users reach checkout. |

9.6%

CONVERSION RATE

Total Sessions

472.871K

Orders

32.313K

Conversion rate: 6.83%

Global average (2012–2015): 1–4%

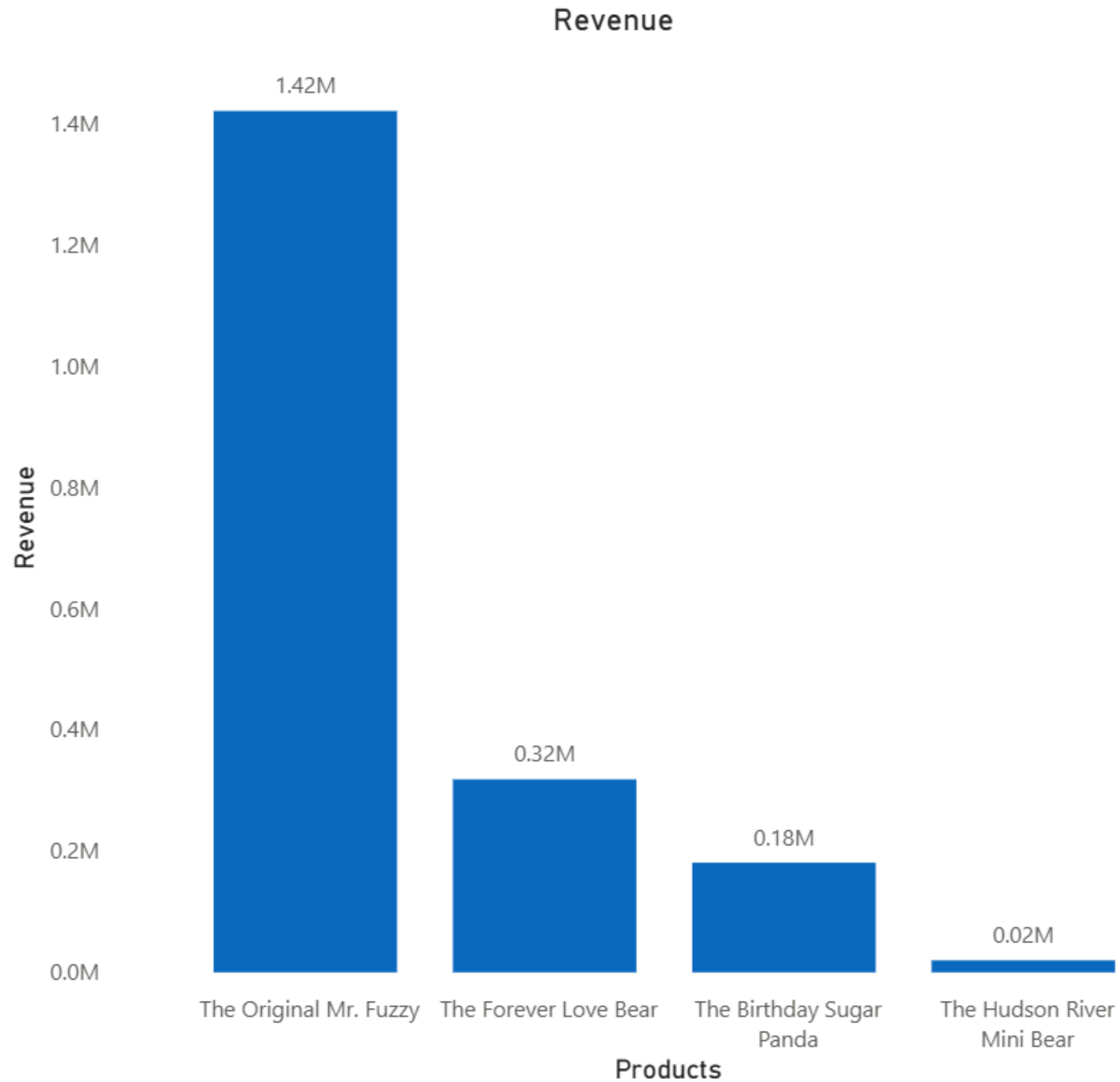Toys and Gift Items (2012–2015): 2–3.5%

Behavior Insights
- Top pages: Product page (esp. Mr. Fuzzy), Home, and Landing Page 2.
- Lowest: Hudson River Mini Bear page.
- Product trends = Marketing trends
- Conversion rate: 6.83% (well above global 1–4%).

Overall: Product pages drive intent

WHAT WERE THE OUTCOMES?

PROFITABILITY AND COSTS

REVENUE

Revenue

1st: The Original Mr. Fuzzy ($49.99)
2nd: The Forever Love Bear ($59.99)
3rd: The Birthday Sugar Panda ($45.99)
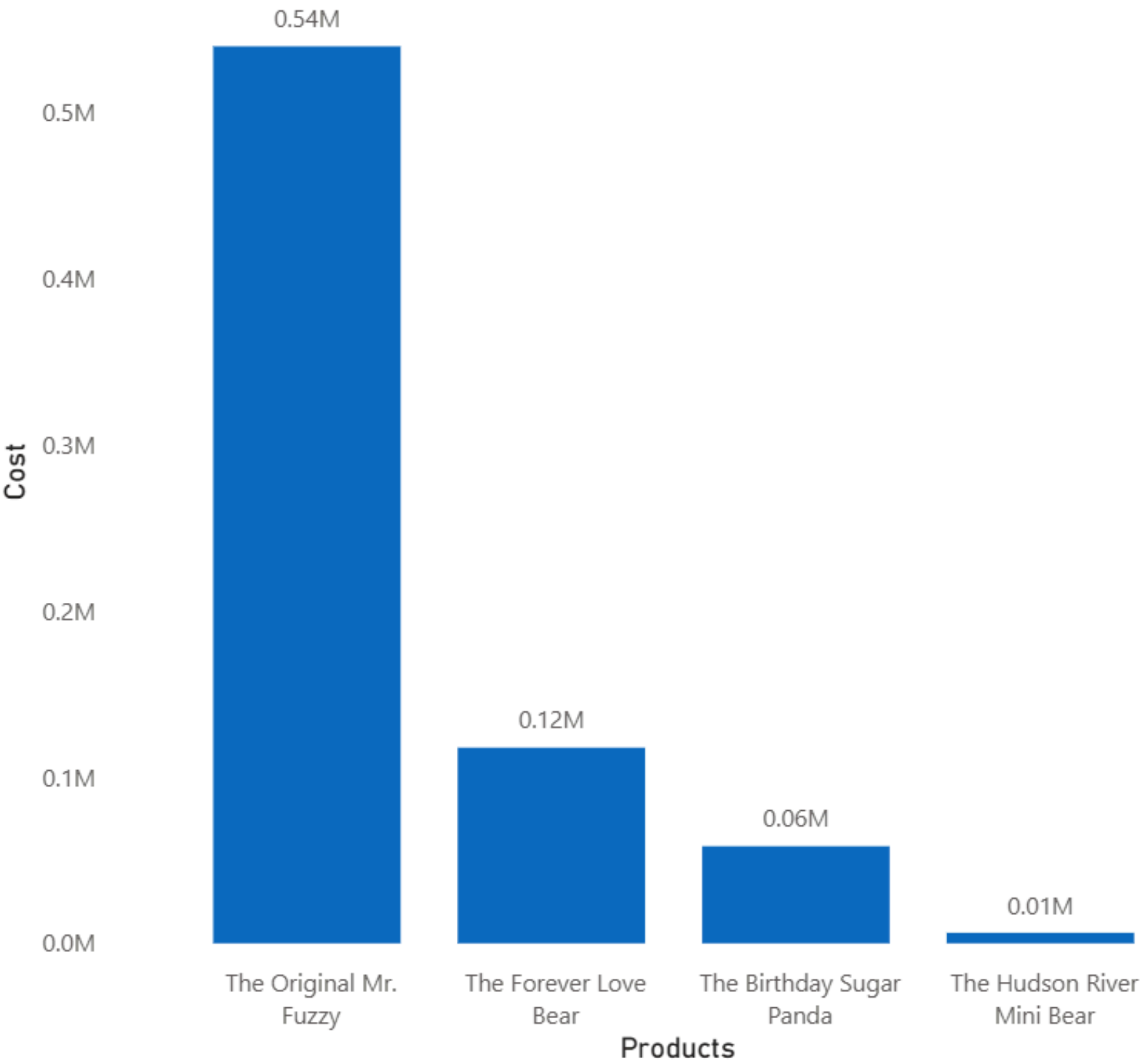4th: The Hudson River Mini Bear ($29.99)

REFUNDS

Refunds

Refunds

1.731K

The Original Mr. Fuzzy: 4.3%
Total refund rate: 4.40%.

Global averge: 15–30% (Google Search)

MANUFACTURING

Cost of Products

The Original Mr. Fuzzy: $19.49

The Forever Love Bear: $22.49

The Birthday Sugar Panda: $23.98

The Hudson River Mini Bear: $9.49

REVENUE DRIVERS SUMMARY

- Mr. Fuzzy: Top seller, strong margins despite higher COGS and refunds (below global averages).
- Mid-tier products: Steady performance; monitor costs.
- Mini Bear: Low demand and low risk, but minimal growth.

Overall: Prioritize Mr. Fuzzy, optimize mid-tier, reconsider Mini Bear strategy.

CONCLUSION AND RECOMMENDATIONS

- Mr. Fuzzy – top-performing, profitable product,
- Mini Bear – low demand.
- Low retention.
- Focus: Optimizing Mr. Fuzzy, improving retention and mobile experience, and reassessing the Mini Bear.