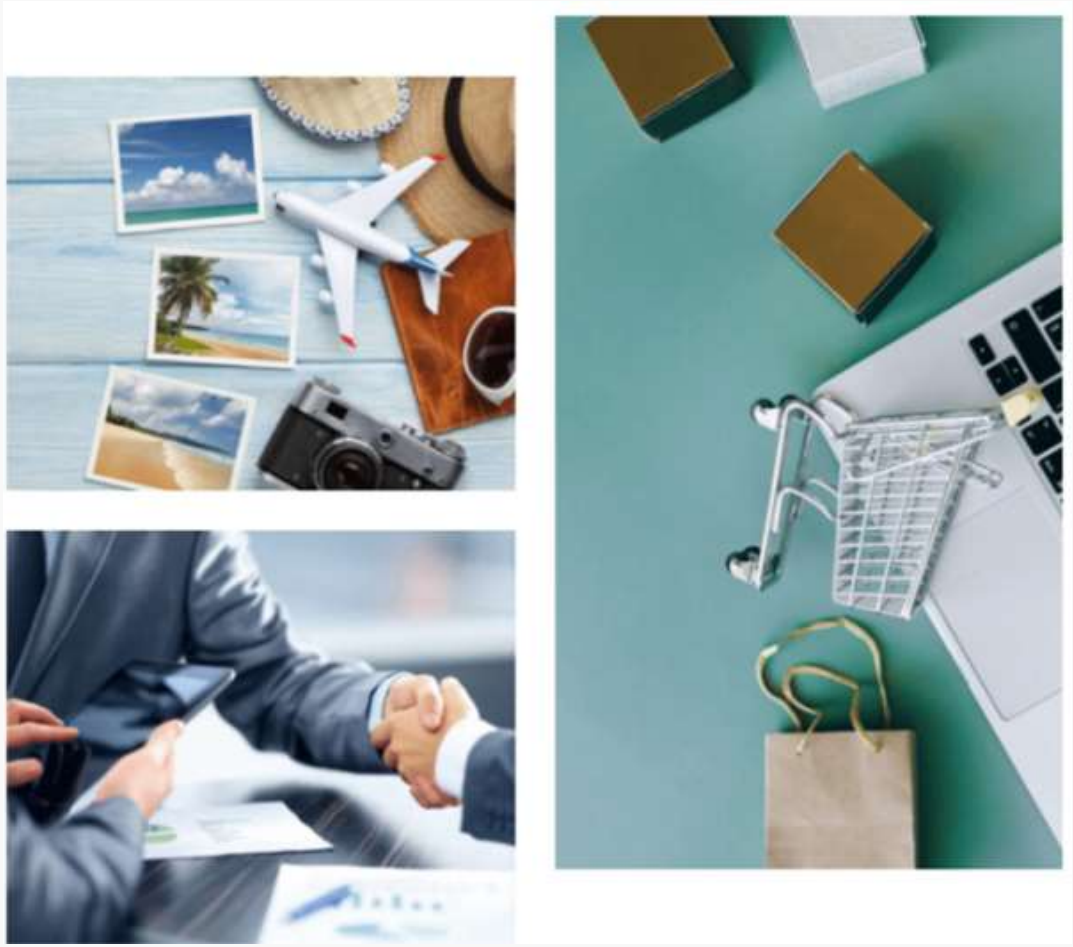


Project Title:
Digital Analytics for E-Commerce Company

Team Members:

Bhawya Kumar
Gaurav Nailwal
Parul Tiwari

Date:

13 June 2025

BUSINESS CONTEXT

A growing e-commerce startup specializing in stuffed animal toys has successfully completed three years of operations. As the company continues its expansion, Cindy Sharp (CEO) is preparing for the next round of funding and needs to demonstrate strong business performance supported by data-driven insights. The client aims to leverage these insights to optimize overall business performance, drive successful new product launches, and enhance operational efficiency across the organization.

PROBLEM STATEMENT

- The CEO needs compelling, data-backed narratives to present to investors for the upcoming funding round.
- Along with this, the client needs detailed analysis for the company performance and new product analysis

KEY OUTPUTS:

- Three dashboards for the internal stakeholders(CEO, Website manager, marketing manager)
- Detailed Analysis for company performance
- Business Pitch for investors

ASSUMPTIONS

- The briefing says that the product was launched on Dec 5, 2014 before it was cross-sold. Hence, the date in the product dataset is being taken as cross-sell product

TECHNOLOGY STACK

TECHNOLOGIES TO BE USED ARE:

- **SQL** : For data understanding, data cleaning and data processing
- **Python** : For advanced analytics and visualization using libraries like Pandas, Matplotlib, and Seaborn.
- **Power BI** : For creating dynamic and interactive dashboards with real-time insights
- **GitHub:** For storing the data in the GitHub repository
- **Render**: For deployment of the project
- **Streamlit:** For turning Python scripts into interactive data apps
- **Jira**: To track and project management

DATASET OVERVIEW

The database has 6 core tables:

Dataset	Rows	Columns	Primary Key	Foreign Key	Granularity
Products	4	5	Product id	–	Product-level (each row = one product)
Orders	32,313	8	Order id	Primary_product_id, Website_session_id	Order-level (each row = one order)
Orders Item	40,025	7	Order_item_id	Order_id, Product_id	Order Item-level (each row = one item in an order)
Order Item Refund	1,731	5	Order_item_refund_id	Order_item_id, Order_id	Refund-level (each row = one refund for an order item)
Website Sessions	4,72,871	9	Website_session_id	–	Session-level (each row = one browsing session)
Website Pageviews	11,88,124	4	Website_pageview_id	Website session id	Pageview-level (each row = one page view within a session)

DATASET DICTIONARY (1/3)

ORDERS TABLE		
Column Name	Data Type	Description
order_id	Integer	Unique identifier for each order
created_at	Datetime	Timestamp of when the order was placed
website_session_id	Integer	Foreign key to the session during which the order was placed
user_id	Integer	Unique identifier for the customer placing the order
primary_product_id	Integer	ID of the main product in the order
items_purchased	Integer	Total quantity of items purchased in the order
price_usd	Float	Total price of the order in USD
cogs_usd	Float	Cost of goods sold in USD

ORDER ITEMS TABLE		
Column Name	Data Type	Description
order_item_id	Integer	Unique identifier for each item in an order
created_at	Datetime	Timestamp of when the item was added to the order
order_id	Integer	Foreign key referencing the parent order
product_id	Integer	Foreign key to the purchased product
is_primary_item	Boolean	Indicates if the item is the primary product in the order
price_usd	Float	Price of the individual product in USD
cogs_usd	Float	Cost of goods sold for the item

DATASET DICTIONARY (2/3)

ORDER_ITEMS_REFUND TABLE		
Column Name	Data Type	Description
order_item_refund_id	Integer	Unique ID for the refund event
created_at	Datetime	Timestamp when the refund occurred
order_item_id	Integer	FK to the item that was refunded
order_id	Integer	FK to the order being refunded
refund_amount_usd	Float	Amount refunded in USD

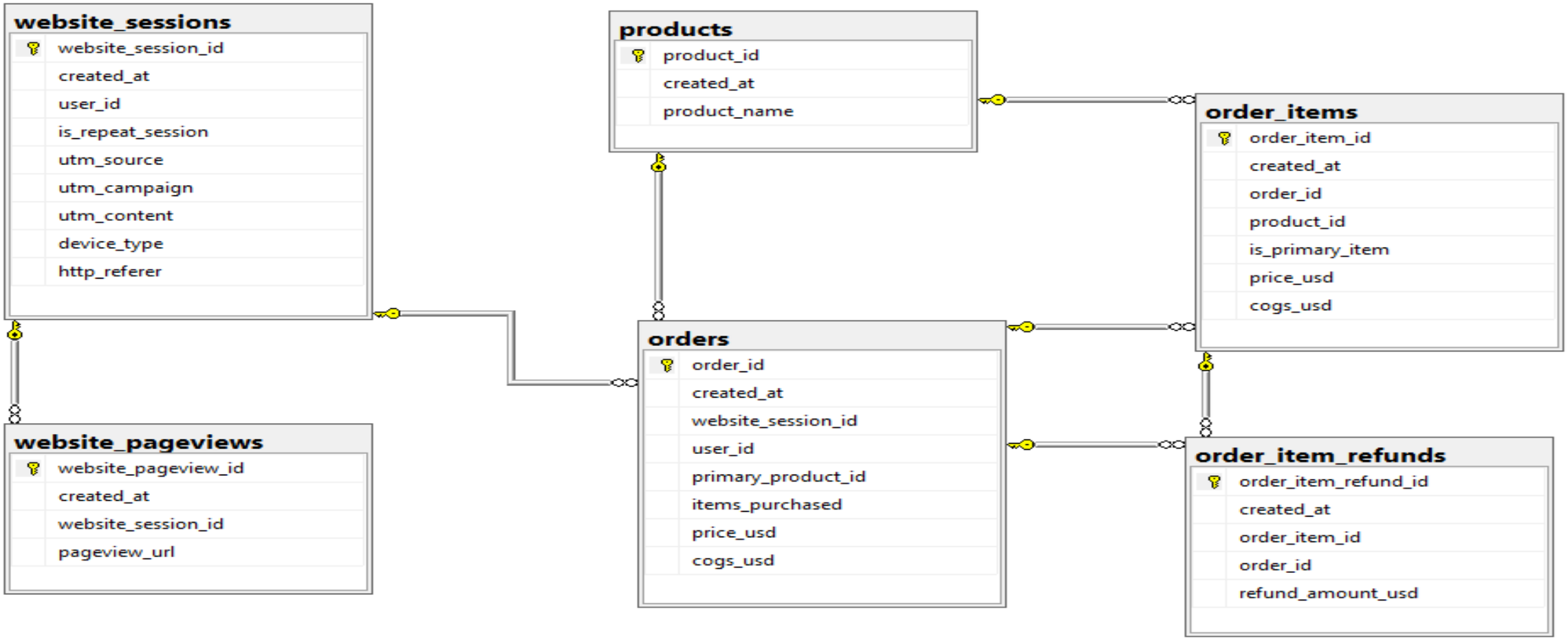
PRODUCT TABLE		
Column Name	Data Type	Description
product_id	Integer	Unique identifier for each product
created_at	Datetime	Timestamp when product was created/launched
product_name	String	Name of the product

DATASET DICTIONARY (3/3)

WEBSITE SESSION TABLE		
Column Name	Data Type	Description
website_session_id	Integer	Unique identifier for the session
created_at	Datetime	Session start time
user_id	Integer	ID of the user (if known)
is_repeat_session	Boolean	0 if first session, 1 if repeat
utm_source	String	Marketing source (e.g., gsearch, bsearch, direct)
utm_campaign	String	Campaign name (e.g., brand, nonbrand)
utm_content	String	Ad content identifier
device_type	String	Device used (e.g., mobile, desktop)
http_referer	String	URL of the referring page

WEBSITE PAGEVIEW TABLE		
Column Name	Data Type	Description
website_pageview_id	Integer	Unique ID for the pageview
created_at	Datetime	Timestamp when the page was viewed
website_session_id	Integer	FK to the session during which the pageview happened
pageview_url	String	URL/path of the viewed page

ENTITY RELATIONSHIP DIAGRAM



DATA CHECKS TO BE PERFORMED

- Duplicate checks
- Null value checks
- Data Type checks
- Data inconsistencies (like refund amount more than the cost)
- Referential Integrity Checks (example: every order_id in items exists in orders)
- Timeline Consistency like refund date must be after the order date only

DATA PROCESSING

1. Delete all duplicate values, if any
2. Replace Null values with ‘Others’
3. Format the correct data types
4. If any violations of referential integrity then exclude these in downstream analysis
5. Filter or flag invalid date entries
6. After the cleaning, we can join order database tables and product table to make 1 main order table, Website database tables as 1 main table.

EXPLORATORY DATA ANALYSIS

TRAFFIC ANALYSIS & OPTIMIZATION (1/2)

Analysis Type	Objective	Approach
Top Traffic Sources	Identify which sources bring in the most website traffic	Group sessions by utm_source and count the number of sessions
Traffic Source Conversion Rates	Identify which sources bring high-converting traffic	Merge sessions with orders and calculate conversion rate per utm_source
Traffic Source Trends	Understand how different sources evolve over time	Group sessions by utm_source and month, then count session volume

TRAFFIC ANALYSIS & OPTIMIZATION(2/2)

Analysis Type	Objective	Approach
Bid Optimization	identifying best-performing paid campaigns	• Segment paid traffic by source and campaign • analyze conversion performance
Traffic Source Segmentation	Distinguish traffic into direct, branded, and broad-based segments.	Use website_sessions.csv → Segment utm_source, utm_campaign, and utm_content to classify sessions as: Direct, Branded (e.g., brand terms), Broad (non-brand terms).
Traffic Source Performance Ranking	Rank traffic sources from most to least effective	Compare conversion rates, order volume, bounce rate, and engagement metrics per source
Wasteful Traffic Identification	Minimize waste by identifying and addressing low-performing traffic sources.	Identify sources with high sessions but low conversions or high bounce rates

CHANNEL PORTFOLIO MANAGEMENT(1/3)

Analysis Type	Objective	Approach
Session Profiling by Channel	Understand how users from different channels behave.	• Use website_sessions.csv and website_pageviews.csv • Join on session_id • Group by utm_source, analyze avg. pages per session, session duration, entry pages.
Orders & Revenue by Channel	Identify top-performing channels in terms of conversions and revenue	Join orders with website_sessions → Group by utm_source → Aggregate number of orders and total revenue.

CHANNEL PORTFOLIO MANAGEMENT(2/3)

Analysis Type	Objective	Approach
Refunds by Channel	Assess channel quality by examining refund behavior	Join order_item_refunds → order_items → orders → website_sessions using relevant IDs. Group by utm_source (channel) and count number of refunds per channel.
Bounce Rate by Channel	Identify what % of users leave channel after viewing the page	Use website_pageviews data → Group by session_id and utm_source → Calculate bounce rate = sessions with only 1 pageview divided by total sessions per channel.
Time on Site by Channel	Measure average session duration across different marketing channels to evaluate user engagement.	Used website_pageviews.csv to calculate time spent in each session: ● Session Duration = Last Pageview - First Pageview ● Grouped sessions by utm_source (channel) ● Computed average session duration per channel

CHANNEL PORTFOLIO MANAGEMENT(3/3)

Analysis Type	Objective	Approach
Average Order Value (AOV)	Understand monetary value per order per channel	Calculate: Total Revenue ÷ Number of Orders
Pages per Session by Channel	Evaluate user engagement by measuring how many pages are viewed during each session across different traffic sources.	Count pageviews per session from website_pageviews; average by channel
Device/Browser Split by Channel	Know if traffic quality varies by tech platform	Group sessions by device_type or browser and channel
Revenue per Session By Channel	Identify value generated by each visitor from each channel	Calculate: Total Revenue ÷ Sessions per channel

WEBSITE PERFORMANCE ANALYSIS (1/3)

Analysis Type	Objective	Approach
Top Website Pages	Identify which pages receive the most overall views.	• Use website_pageviews.csv → Group by pageview_url • Count total views • Sort to find the most frequently viewed pages.
Top Entry (Landing) Pages	Determine which pages users first see when they visit the site.	• Filter website_pageviews.csv for pageview_order = 1. • Group by pageview_url and count sessions. • Highlight top-performing landing pages.
Conversion from Entry Pages	Measure how effectively landing pages convert visitors into customers.	• Join website_pageviews.csv (where pageview_order = 1) with website_sessions.csv and orders.csv Group by landing page • Compute conversion rate & revenue.
Conversion Funnel Construction	Visualize the step-by-step journey from entry to purchase.	• Use website_pageviews.csv (with pageview_order) to define funnel stages → Join with website_sessions.csv and orders.csv • Track drop-off and conversion at each stage.

WEBSITE PERFORMANCE ANALYSIS(2/3)

Analysis Type	Objective	Approach
Bounce Rate by Landing Page	Identify which landing pages lose users after only one pageview.	Use website_pageviews.csv Filter pageview_order = 1 ● Identify landing pages For each landing page: Count total sessions ● Mark sessions with only 1 pageview as bounces Compute Bounce Rate = (Bounced Sessions ÷ Total Sessions)
Landing Page A/B Test Analysis	Evaluate performance differences between landing page variants.	Identify URL variants (e.g., /landing-a vs /landing-b) in website_pageviews.csv Group sessions by landing page variant (where pageview_order = 1) Compare key metrics: Bounce Rate Conversion Rate (using orders.csv via session_id) Time on Site (difference between first and last pageview)
Path Performance Testing	Discover which user journeys lead to higher conversions by comparing different navigation paths and optimizing for the most effective one.	● Use clickstream sequences (pageview_url ordered by pageview_order) ● Segment by most common paths ● Measure conversion rates for each Test path A vs. path B.

WEBSITE PERFORMANCE ANALYSIS(3/3)

Analysis Type	Objective	Approach
Page-to-Order Correlation	Identify which pages (or sequences) lead to the highest number of product orders.	● Join website_pageviews.csv with orders.csv using session_id ● Track which pages appeared in sessions that resulted in an order ● Rank by conversion contribution.

PRODUCT ANALYSIS (1/3)

Analysis Type	Objective	Approach
Product Sales Performance	Track which products sell the most and generate the highest revenue.	• Use order_items.csv and products.csv → Group by product_id • Aggregate quantity sold and total revenue • Join with products.csv for product details.
New Product Launch Evaluation	Measure the success of recently launched products.	• Identify launch dates from products.csv (e.g., using product_launch_date if available) • Filter orders post-launch • Track sales and trends over time.
Sales Trends Over Time	Spot patterns in product performance by time (daily/weekly/monthly).	• Join orders.csv with order_items.csv → Group by product_id and order date • Create time series plots to detect seasonality, spikes, or declines.
Pageview Trends Over Time	Monitor how interest in certain pages evolves, particularly around campaigns or product drops.	• Add created_at (timestamp) from website_pageviews.csv • Analyze views per page over time • Spot seasonal spikes or sudden drops in visibility.

PRODUCT ANALYSIS (2/3)

Analysis Type	Objective	Approach
Cross-Sell Pattern Discovery	Identify which products are commonly purchased together in the same order.	• Use order_items.csv → Group by order_id • For orders with multiple products, track all combinations of product_ids • Count and rank frequent product pairings.
Product-Level Refund Rate	Identify products with the highest and lowest refund rates.	• Use order_items.csv joined with order_item_refunds.csv • For each product_id, calculate:Refund Rate = (# refunds / # units sold).
Refund vs. Revenue Impact	Measure how refunds are affecting revenue and customer experience.	• Calculate total revenue loss from refunds per product • Identify high-revenue-loss products

PRODUCT ANALYSIS (3/3)

Analysis Type	Objective	Approach
Step-Wise Drop-Off Analysis	Measure how many users drop off at each funnel stage.	• Calculate the number of sessions at each stage • Identify the biggest drop-offs • Compute % conversion from each step to the next.
Session Segmentation	Understand how user type or source affects funnel behavior.	• Segment funnels by channel (from website_sessions.utm_source, utm_campaign) • Compare conversion rates for organic vs. paid vs. direct traffic.

BUSINESS PATTERNS AND SEASONALITY

Analysis Type	Objective	Approach
Sales by Month	Identify seasonal spikes and dips in revenue	Sum total revenue grouped by month (order_date)
Orders by Month	Understand seasonality in order volume	Count of order_id grouped by month
Sales by Weekday vs Weekend	Find which days of the week drive the most revenue	Sum revenue grouped by WEEKDAY(order_date)
Sessions by Hour of Day	Determine peak traffic hours	Count of sessions grouped by HOUR(session_time)
Avg Revenue per Day	Assess daily performance level and trends	Total revenue ÷ number of active days
Peak Session Day	Pinpoint the day with highest website traffic	Date with maximum session_id count
Avg Orders per Hour	Find hourly conversion behavior patterns	Orders grouped by hour of day

USER ANALYSIS

Analysis Type	Objective	Approach
Repeat Visit Analysis	Understand return behavior across sessions and users	Use user_id and is_repeat_session flags. Calculate: % of repeat visitors, avg sessions/user
Purchase Behavior Analysis(New vs Repeat, Channel Comparison)	Understand how first-time vs. returning users convert across channels	Split data by new vs repeat user_id. Group by utm_source / utm_campaign- Compare session-to-order CVR, AOV
Customer Segmentation(Using RFM or Value Tiers)	Group users based on purchase behavior to tailor engagement	Calculate Recency, Frequency, Monetary values per user. Tag segments: Loyal, At-Risk, One-Timers, etc.
Cohort Analysis(Retention & Repeat Over Time)	Understand how customer behavior evolves over time	Create cohorts by first order month. Track: retention rate, order count, AOV by month since acquisition- Visualize with heatmaps or line charts

DASHBOARD FOR STAKEHOLDERS

DASHBOARD FOR CEO :

Business Performance And Growth Overview

PURPOSE :

Help the CEO track business growth, performance, seasonality, and product outcomes to present to investors.

DASHBOARD FOR CEO

TOTAL REVENUE	TOTAL ORDERS	CONVERSION RATE	AVG REVENUE PER SESSION	REFUND RATE

DATE

UTM SOURCE

DEVICE TYPE

UTM CAMPAIGN

SALES TREND MONTHLY
(LINE CHART)

X axis : Month
Y axis : Revenue

PRODUCT PERFORMANCE
(STACKED COLUMN CHART)

X axis : Product Name
Y axis : Revenue

CROSS SELL PRODUCT COMBINATIONS
(MATRIX /BAR)

X axis: Primary product name
Y axis: Secondary product name

REFUND RATE BY PRODUCT
(HORIZONTAL BAR CHART)

X axis : Refund %
Y axis : Product Name

SALES SEASONALITY
(SESSIONS BY HOUR-BINS / DAY)
(HEATMAP/MATRIX)
X axis : Hour-bins
Y axis : Day
Values : Count of Sessions

BUSINESS OVERVIEW | STRATEGIC INSIGHTS

DASHBOARD FOR CEO

TOTAL REVENUE	TOTAL ORDERS	CONVERSION RATE	AVG REVENUE PER SESSION	REFUND RATE

DATE

UTM SOURCE

DEVICE TYPE

UTM CAMPAIGN

TOP TRAFFIC SOURCES
(BAR CHART)

X axis: UTM Source
Y axis: Sessions / Orders

BUSINESS PERFORMANCE BEFORE AND AFTER NEW PRODUCT LAUNCH
(CLUSTERED BAR/COLUMN CHART)

X axis : KPI Names
Y axis : KPI Values before & after

NEW AND REPEAT USERS BY PAID V/S UNPAID SOURCES
(GROUPED COLUMN/MATRIX)

TRAFFIC VOLUME BY SOURCE TYPE (PAID V/S UNPAID)
(DONUT/PIE CHART)

CVR BY SOURCE TYPE
(PAID V/S UNPAID)
(COLUMN CHART)

REVENUE BY PAID V/S UNPAID SOURCES
(COLUMN/BAR CHART)

BUSINESS OVERVIEW

STRATEGIC INSIGHTS

DASHBOARD FOR CEO

KPI / Visual	Purpose	DAX Approach
Total Revenue	Total business revenue from orders	Sum of order_amount or order_items[price * qty]
Total Orders	Total completed customer orders	Count of distinct order_id
Conversion Rate	% of sessions that led to a purchase	Divide total orders by total sessions
Avg. Revenue per Session	Measures revenue generation efficiency	Total revenue ÷ total sessions
Refund Rate	% of refunded orders or items	Refund amount ÷ revenue OR refunded orders ÷ total orders
Sales Trend Monthly (Line)	Tracks growth in revenue/orders month by month	Line chart of revenue/orders grouped by month
Product Performance (Stacked Column)	Revenue or margin by product, over time	Revenue per product per month or quarter
Cross-Sell Product Combinations(Matrix)	Discover which products are frequently bought together in the same order.	Group by order_id, count co-occurring product_name pairs. Use matrix or bar chart to show frequency.

DASHBOARD FOR CEO

KPI / Visual	Purpose	DAX Approach
Refund Rate by Product (Bar)	Identify products with high return issues	Refund amount or % by product
Sales Seasonality (Heatmap/Matrix)	Shows peak hours/days for sessions	Sessions grouped by hour & weekday
Top Traffic Sources(Bar)	Identify which UTM sources drive the most sessions or orders.	Count session_id or order_id, grouped by utm_source. Use a bar or pie chart.
Business Performance: Before vs After New Product Launch(Clustered Bar/Column)	Compare overall KPIs (revenue, orders, CVR, etc.) before and after MrFuzzy launch.	Create two sets of measures: one filtered for dates before product launch and after product launch. Plot both in a clustered bar chart.
New vs Repeat Users by Traffic Type	Show loyalty based on traffic source	Count of repeat vs new users, grouped by Paid / Unpaid
Traffic Volume By Source Type	Track paid/unpaid trends across months	Session count by month + traffic type
Conversion Rate by Paid vs Unpaid	Measure efficiency of each traffic category	CVR = DIVIDE([Orders], [Sessions]) by Traffic Type
Revenue by Paid vs Unpaid	Compare who brings more total revenue	Sum Revenue grouped by Traffic Type

HOW THIS DASHBOARD IS HELPING THE BUSINESS

DASHBOARD FOR CEO – Business Overview & Strategic Insights

- **Demonstrates Scalable Growth**

Tracks overall revenue, order volume, and conversion trends to highlight business momentum.

- **Validates Product-Market Fit**

Shows which products are most popular and which drive cross-sell opportunities.

- **Improves Strategic Planning**

Seasonal trends and product-level refund data guide future product launches and operational decisions.

- **Supports Investor-Ready Storytelling**

Clear before/after comparisons and portfolio performance insights make growth measurable and presentable.

DASHBOARD FOR WEBSITE MANAGER :

Website Engagement & Funnel Performance

PURPOSE :

Help the website manager optimize user experience and conversion across the site.

DASHBOARD FOR WEBSITE MANAGER

TOTAL SESSIONS	BOUNCE RATE	AVG SESSION DURATION	TOP ENTRY PAGE	TOP EXIT PAGE	AVG REVENUE PER SESSION(NEW)	AVG REVENUE PER SESSION(REPEAT)

DATE

DEVICE TYPE

UTM SOURCE

SOURCE TYPE (PAID & UNPAID)

<u>TOP VIEWED PAGES BY PAGEVIEWS</u>
(BAR CHART)

X-Axis: Page URL
Y-Axis: Pageviews

<u>CONVERSION FUNNEL</u>
(FUNNEL CHART)

X-Axis: Funnel Steps
Y-Axis: Count of Sessions

Drill Through **Product based conversions**

<u>FUNNEL PERFORMANCE TREND OVER TIME</u>
(LINE CHART)

X-Axis: Month
Y-Axis: Funnel Completion Rate (%)

<u>A/B TESTING ANALYSIS</u>
/billing VS /billing-2
Conversion Funnel comparison(BAR CHART)

X-Axis: Version (/billing&/billing-2)
Y-Axis: Conversion Rate (%)

<u>LANDER TEST ANALYSIS</u>
BEFORE VS AFTER
(LINE/BAR CHART)

X-Axis: — Before vs After
Y-Axis: Click-Through Rate (%)

<u>BOUNCE RATE BY PAGES</u>
(BAR CHART)

X-Axis:Page Name
Y-Axis: Bounce Rate (%

PRODUCT CONVERSION AND PATHING ANALYSIS

(Drill through page)

TOP PRODUCT BROWSING PATHS
(FLOW CHART)

PRODUCT CONVERSION FUNNEL

X axis : Funnel steps/Page name
Y axis : Sessions Count/users

DETAILED PRODUCT BROWSING SEQUENCES

X axis : Path
Y axis : Sessions Count

G-SEARCH NON BRAND CONVERSION FUNNEL
(FUNNEL CHART)

X-Axis: Funnel
Y-Axis: Count of Sessions
Filter (applied to visual): utm_source = "gsearch_nonbrand"

DASHBOARD FOR WEBSITE MANAGER

KPI / Visual	Purpose	DAX Approach
Total Sessions	Measures total number of website visits.	Total Sessions = DISTINCTCOUNT(website sessions [session id])
Bounce Rate	Identifies % of single-page visits (no interaction).	Divide bounced sessions by total sessions
Avg Session Duration	Evaluates engagement based on time spent on site.	Avg Session Duration = AVERAGE(website_sessions[session_duration_seconds])
Top Entry Page	Identifies most frequent landing pages.	Identify first page per session and count occurrences
Top Exit Page	Identifies most frequent exit points.	Identify last page per session and count occurrences
Avg Revenue Per Session (New)	Measure how much revenue is generated per session by new users	DIVIDE([Total Revenue for New Users], [New Sessions])Use user type filter = "New"
Avg Revenue Per Session (Repeat)	Understand average revenue per session from repeat visitors	DIVIDE([Total Revenue for Repeat Users], [Repeat Sessions])Use user type = "Repeat"
Top Viewed Pages by Pageviews (Bar Chart)	Finds which pages get the most traffic.	Pageviews = COUNT(website pageviews [page url])
Conversion Funnel (Funnel Chart)	Shows number of users dropping out at each funnel stage.	Create measures per page step, show counts in funnel format

DASHBOARD FOR WEBSITE MANAGER

KPI / Visual	Purpose	DAX Approach
Funnel Performance Trend Over Time(Line Chart)	Tracks overall funnel conversion rate month-wise.	Calculate conversion rate per month and plot over time
A/B Testing Analysis: /billing vs /billing-2 (Bar Chart)	Compare which billing version led to more orders.	Measure conversion from each version and compare via bar chart
Lander Test Analysis (Before vs After) (Line/Bar Chart)	Shows improvement in click-through from landing page.	CTR = clicks to /product ÷ visits to /lander-1, compare time ranges
Bounce Rate by Pages (Bar Chart)	Highlights which pages have high bounce rate.	Calculate bounce rate grouped by page url.
Top Product Browsing Paths(Flow Chart)	Visually show most common sequences users follow across product pages	Build step-wise path from session_id, order by timestamp, and count top N sequences
Detailed Product Browsing Sequences(Table)	Provide a detailed view of exact paths users took across pages	Use CONCATENATEX to combine ordered page visits per session and count occurrences
Product Conversion Funnel	Show user drop-off and completion across key product funnel stages.	Create measures for number of users who reached each funnel step: Product View, Cart, Checkout, Thankyou.
G-Search Non Brand Conversion Funnel	Track how users from G-search non-brand move through the purchase funnel steps	Create DAX for each step using utm_source = "gsearch_nonbrand" filter and count sessions

HOW THIS DASHBOARD IS HELPING THE BUSINESS

DASHBOARD FOR WEBSITE MANAGER– UX & Funnel Optimization

- **Improves Website Experience**
  Tracks bounce rates, exit pages, and session behavior to identify usability issues and improve user engagement.

- **Boosts Funnel Completion**
  Highlights where users drop off in the purchase journey and compares funnel versions to drive better conversions.

- **Validates Page Performance**
  Entry/exit page data helps prioritize optimizations to key landing and checkout pages.

- **Supports Continuous Testing & Improvement**
  A/B test results for billing and landing pages enable a data-driven UX strategy

DASHBOARD FOR MARKETING MANAGER :

Channel & Campaign Optimization

PURPOSE :

Help the marketing director assess campaign performance and optimize ad spend.

DASHBOARD FOR MARKETING MANAGER

REPEAT SESSION %	REPEAT PURCHASE CONVERSION RATE	NEW V/S REPEAT SESSIONS RATIO	TOP UTM SOURCE	AVG TIME BET VISITS

DATE

DEVICE TYPE

CAMPAIGN

Drill through

CHANNEL INSIGHTS

MONTHLY SESSIONS TREND UTM SOURCE
(LINE CHART)

X-Axis: Month
Y-Axis: Count of Sessions
Legend: UTM Source

CONVERSION RATE TREND BY UTM SOURCE OVER TIME
(LINE CHART)

X-Axis: Month or Week
Y-Axis: Conversion Rate (%)
Legend: UTM Source

REPEAT PURCHASE CONVERSION BY CHANNEL
(COLUMN CHART)

X-axis: Channel
Y-axis: Repeat conversion Rate (%)

SESSIONS BY UTM SOURCE
(BAR CHART)

X-Axis: UTM Source
Y-Axis: Count of Sessions

NEW V/S REPEAT SESSIONS
(% Share)
(PIE / DONUT CHART)

Legend : User Type (New vs Repeat)
Values : Count of sessions

REPEAT USERS BY CHANNEL
(COLUMN CHART)

X-Axis: Channel or UTM Source
Y-Axis: Count or % of Repeat Users

CHANNEL OPTIMIZATION

(Drill through page)

CHANNEL KPI COMPARISON
(CLUSTERED BAR CHART)

X-axis: Channel
Y-axis: Value
Legend: KPI Type (CVR, AOV, Repeat %)

CROSS CHANNEL PERFORMANCE TREND
(LINE CHART)

X-axis: Month
Y-axis: Conversion Rate %
Legend: utm source(multi-line chart)

CONVERSION RATE FOR PAID V/S UNPAID SOURCES

X-Axis: Traffic Type (Paid, Unpaid)
Y-Axis: Conversion Rate (%)

SESSIONS TREND FOR PAID V/S UNPAID SOURCES

X-Axis: Month (from session date)
Y-Axis: Count of Sessions
Legend: Traffic Type (Paid, Unpaid)

REPEAT BEHAVIOUR FOR PAID V/S UNPAID SOURCES

X-Axis: Traffic Type (Paid, Unpaid)
Y-Axis: Repeat Session %

AVG SESSION DURATION COMPARISION FOR SOURCE TYPES

X-Axis: Traffic Type (Paid, Unpaid)
Y-Axis: Average Session Duration (in mins/secs

DASHBOARD FOR MARKETING MANAGER

KPI / Visual	Purpose	DAX Approach
Repeat Session %	Share of sessions from returning users	Count repeat sessions ÷ total sessions
Repeat Purchase Conversion Rate	Conversion rate for repeat visitors only	Orders from repeat sessions ÷ repeat sessions
New vs Repeat Session Ratio	Compare proportion of new vs repeat users	Categorize sessions as new/repeat, calculate ratio
Top UTM Source	Most effective source in driving traffic/orders	Rank sources by session or order count
Avg Time Between Visits	Behavioral insight into revisit frequency	DATEDIFF between 1st and 2nd session per user, averaged
Monthly Sessions Trend by UTM Source	Track session trends by channel	Line chart grouped by month and UTM source
Conversion Rate Trend by Source (Line)	Measures channel effectiveness trend	Conversion rate by source over time
Repeat Purchase Conversion by Channel	Identify which channels generate the most repeat buyers	Calculate Repeat Conversion Rate = Repeat Orders / Total Repeat Sessions by channel
Sessions By Utm Source	Track detailed traffic source	Bar Chart Showing Count Of Sessions By Sources

DASHBOARD FOR MARKETING MANAGER

Analysis Type	Purpose	DAX Approach
New vs Repeat Sessions (Pie)	Breakdown of new vs repeat in % terms	Pie chart on session type count
Repeat Users by Channel	Find which sources bring users back	Count of repeat sessions grouped by utm_source
Channel KPI Comparison	Compare key marketing KPIs (CVR, Repeat %, AOV) across all UTM channels	Create separate DAX measures for CVR, Repeat %, AOV, and plot them per utm_source
Cross-Channel Performance Trend	Track how each channel's performance (CVR) changes over time	Create monthly CVR measure: CVR = Orders / Sessions, grouped by Month and utm_source
Conversion Rate For Paid vs Unpaid Sources	Compare quality of paid and unpaid traffic	CVR = DIVIDE([Orders], [Sessions]), grouped by Traffic Type
Sessions Trend For Source Type: Paid vs Unpaid	Track monthly volume trends for both traffic types	Create a Traffic Type column from UTM source; count sessions monthly
Repeat Behavior For Paid v/s Unpaid Sources	Show which traffic type brings more repeat users	Repeat % = DIVIDE([Repeat Sessions], [Total Sessions]) by traffic type
Avg. Session Duration by Source Type	Assess engagement levels across paid vs unpaid	AVG(Session Duration) grouped by Traffic Type

HOW THIS DASHBOARD IS HELPING THE BUSINESS

DASHBOARD FOR MARKETING MANAGER – Channel & Traffic Effectiveness

- **Reveals High-Performing Traffic Sources**
  Segmenting traffic into Direct, Branded, and Broad shows which sources drive volume and conversions.

- **Highlights Repeat Visitor Behavior**
  Tracks repeat sessions and purchase conversion to understand loyalty and customer retention.

- **Improves Channel Strategy**
  Paid vs. Unpaid traffic breakdown shows which types of acquisition are working — without needing cost data.

- **Guides Targeting Efforts**
  Trend lines by UTM Source and Device help fine-tune campaigns for time, device, and audience

KPI’s & EDA FOR INVESTORS

HIGH LEVEL METRICS

KPI	Objective	Analytical Approach
Total Orders	Measure total demand and revenue-driving transactions	Count unique order_id from the orders dataset.
Total Sessions	Evaluate website traffic and user engagement	Count unique session IDs from the website sessions dataset.
Total Profit	Assess profitability and financial health	Calculate profit per order as (Selling Price – Cost of Goods Sold) and minus refund value then sum across all orders.
Total Quantities Sold	Understand sales volume and product movement	Sum up the quantity of items sold across all transactions.
Total Return % (if low)	Highlight low return rates as a positive signal for product quality and satisfaction	Divide number of refunded orders by total orders, express as percentage. Only report if under threshold.
Repeat Visitor %	Measure user retention and loyalty	Calculate the percentage of sessions or users marked as repeat visitors.
Bounce Rate(If low)	Assess site experience and landing page effectiveness	Identify sessions with only one pageview and divide by total sessions to compute bounce rate.

Business Growth & Performance overview

Analysis Type	Objective	Approach
Quarterly Volume Trend	Track quarterly growth in sessions and orders	Group website_sessions and orders by quarter using session/order created_at, then count entries
Conversion Rate Trend	Measure how well sessions are converting to orders	Calculate orders / sessions monthly & quarterly using user_id or session_id join
Average Revenue per order	Determine average revenue per order	Divide total revenue by total number of orders and take the average
Average Revenue per session	Identify revenue generated per session	Divide total revenue by total number of sessions and take the average
Daily website visitors	Understand website footfall	Count sessions per day

Marketing & Channel performance

Analysis Type	Objective	Approach
Quarterly Channel Order Trend	Evaluate effectiveness of each channel over time	Group orders by session UTM source & campaign by quarter
Channel Conversion Rate	Understand which traffic source converts best	Calculate CVR = orders / sessions grouped by utm_source
GSearch Performance	Deep-dive into GSearch (Google) channel performance	Filter UTM source = 'gsearch'; get monthly sessions and orders
Campaign-Level Sales	Evaluate revenue from campaigns on GSearch	Group by utm_campaign within GSearch; sum revenue and orders
Device-Level Analysis	Understand performance by device	Group by device_type from website_sessions
Monthly Traffic & Sales by Channel	Overview of channel health	Join sessions and orders by session_id, group by month and channel
Brand vs Non-Brand Trend	Understand how brand awareness is growing	UTM campaign classification (brand vs non-brand); plot trend lines

Product & Revenue Insights

Analysis Type	Objective	Approach
Monthly Product Revenue	Identify revenue contribution per product	Use order_items, group by product_id and month; sum price
Margin by Product	Understand per-product profitability	(Price - Cost) / Price per product
Product Engagement Funnel	Track engagement from product views to orders	From website_pageviews, filter /products URL → join to orders
Cross-Sell Matrix	Identify which products are bought together	Use order_items grouped by order_id; create co-occurrence matrix
Post-Launch Sales Spike	Measure performance impact of new product	Compare order volume pre- vs post-launch date of 4th product
AOV Impact from Launch	Did new product raise avg. order value?	Calculate AOV before & after launch using order revenue/order count

Website Optimization Impact

Analysis Type	Objective	Approach
GSearch Lander Test Impact	Estimate revenue uplift due to improved landing page experience	Compare CVR before the test, during the test and after the test
Billing Page Test Impact	Quantify conversion and revenue improvement from billing page redesign	Compute revenue per billing session during the test, after the test and before the test
Monthly Billing Page Impact	Understand broader trend due to billing page changes	Aggregate sessions/orders for new billing page version monthly
New vs Returning Sessions	Behavior differences between new vs returning visitors	Use is_repeat_session flag; analyze trends monthly/quarterly
Avg Sessions Before First Order	Understand engagement needed before purchase	Group by user_id: count sessions before 1st order
Time Between Sessions	Analyze session spacing and customer journey length	For users with >1 session: compute time difference between first and second session timestamps.
Page Depth by Referrer	Understand content engagement by traffic source	Count pageviews per session, then group by http_referrer

DASHBOARD FOR INVESTORS

DASHBOARD 1 :

Business Growth & Performance

PURPOSE:

Show high-level business growth and key performance indicators that investors care about – traffic, orders , revenue, refund rate, conversion rates.

Business Growth

Total Revenue	Total orders	% Repeat visitors	% conversion rate	avg order value

- Years
- Quarter
- Device Type
- Product Name
- UTM Campaign

Revenue Growth over time

Chart : Line chart

- x-axis → month
- y1 axis → Revenue per session
- y2 axis → Revenue per order

New visitor vs Repeat visitor

Chart : Line chart

- x -axis→ Month
- y1- axis → Revenue by new visitor
- y2- axis → Revenue by repeat visitor

Traffic Source Distribution

Chart : Bar chart

- x-axis → utm_source
- y axis → number of sessions

Monthly Sessions and Orders

Chart : Line Chart

- x-axis → month
- y1 axis → number of session
- y2 axis → count of orders

KPI Name	Purpose	Approach
Total Sessions	Total number of user sessions on the site	count(distinct website_session_id)
Total Orders	Total number of completed order	count(order_id)
Total Revenue	Total revenue generated from all orders	sum(price_usd)
Avg Order Value	Average amount spent per order	sum(price_usd) / count (order_id)
Conversion Rate (Sessions → Orders)	% of sessions that resulted in an order	(count(orders.order_id) / count (sessions.website_session_id)) * 100
Repeat Visitors %	% of users who returned to the site	(count(distinct case when is_repeat_session = 1 then user_id end) / count (distinct user_id)) * 100
Refund Rate	% of items refunded	(count(refunds.order_item_refund_id) / count (order_items.order_item_id)) * 100

HOW THIS DASHBOARD IS HELPING THE BUSINESS

“This dashboard provides investors with a clear view of company’s growth trajectory over time. It highlights increasing traffic, rising order volume, and improving conversion rates — all essential indicators of market demand”. :

- Rising monthly sessions and orders show consistent user acquisition and sales growth.
- Increasing average order value (AOV) indicates improved monetization strategy.
- Stable conversion rates even as traffic scales shows we're not sacrificing quality for quantity.
- Strong revenue per session proves that our marketing spend is yielding returns.
- Multiple product lines contributing to revenue prove we're not dependent on one product.
- Balanced device type usage shows adaptability to mobile-first trends.

DASHBOARD 2 :

Website Performance Analysis

PURPOSE:

Demonstrate how changes to landing pages, product pages and checkout flow impact user behaviour and conversions.

WEBSITE PERFORMANCE

Average time on site	Bounce rate	Avg page per session	Landing page conversion rate	Product page CTR

- Years
- Quarter
- Product Name
- Device Type

Page Depth by Referrer

Chart : Bar chart

x-axis → http_referer

y-axis → avg no. of pageview per session

Sessions by Traffic Source

Chart : Horizontal bar chart

x axis → count of session

y axis → utm_source

GSearch Lander Test Impact

Chart : Clustered bar chart

x-axis → Landing page

y axis → session count

Traffic Trend Over Time

Line chart:

x-axis → month

Y axis → count of session

Sessions by Campaign

Chart : stacked bar Chart

x-axis → utm_campaign

y axis → number of session

Billing Page Impact

Chart : Clustered bar chart

x-axis → Time period(pre test, during test, post test)

y axis → Revenue per session

KPI Name	Purpose	Approach
Bounce rate	% of users who left without viewing more than one page	(Number of single-page sessions / Total sessions) * 100
Average Pages per Session	how many pages users viewed per session	avg(pageviews_per_session)
Landing Page Conversion Rate	% of visitors who made a purchase after landing	(Orders from landing page / Sessions to landing page) * 100
Average time on Site	Average duration of a user session	avg(datediff(minute, first_hit, last_hit))
Product Page CTR	% of users who clicked through to cart from product page	(Visits to cart / Visits to product page) * 100
Cart Abandonment Rate	% of users who added to cart but didn’t complete purchase	(Sessions with cart but no order / Sessions with cart) * 100

HOW THIS DASHBOARD IS HELPING THE BUSINESS

“This dashboard tells the story of how data-driven decisions have improved user experience and increased conversions. It shows that we understand our users and are continuously optimizing their journey.” :

- Improved CTR from product page to cart reflects better content and layout.
- Rising average pages per session indicates deeper user interaction.
- Longer session durations suggest users are more engaged with the site.

DASHBOARD 3 :

Marketing Channels Analysis

PURPOSE:

Highlight marketing channel effectiveness, bidding strategy insights, and customer lifetime value.

MARKETING CHANNEL

Total session by channel

Channel Mix Over Time

Total Revenue per Session

% Repeat Visitors

Years

Quarter

Product Name

Utm_campaign

Monthly Channel Mix by Sessions

Chart : Stacked Bar chart

x-axis → month

y-axis →count of website session id

Traffic Distribution by Channel

Chart : Pie chart

Labels → utm source

Values → count of website session id

Brand vs Non-Brand Trend

Chart : Line chart

x -axis→ month

y- axis → session count

Gsearch Sessions & Orders by Device Type

Chart : dual axis line chart

x-axis → month

y1 axis →count of GSearch session id

y2 axis →count of GSearch orders

Revenue per Session by Channel

Chart : Column chart

x-axis →utm_source

y axis → revenue per session

KPI Name	Purpose	Approach
Sessions by Channel	Volume of traffic from each source	count(website_session_id)
New vs Repeat Visitors	Ratio of new vs returning users	count(case when is_repeat_session = 0 then 1 end) / count(*)
Revenue per Session	How much revenue each session generates	sum(price_usd) / count(website_session_id)
Channel Mix Over Time	Evolution of traffic sources over time	count(website_session_id) over(partition by utm_source)

HOW THIS DASHBOARD IS HELPING THE BUSINESS

“This dashboard gives investors confidence in our marketing strategy. It shows we know where to invest, what works, and how to optimize spend for maximum return.” :

- Clear device-type performance helps justify bid adjustments.
- Investors see we're not just spending blindly — we're testing, learning, and adjusting.
- We're not overly reliant on one channel — diversified across gsearch, bsearch, organic, and direct .

DASHBOARD 4 :

Product Portfolio Expansion & Performance

PURPOSE:

To show investors how your product line has grown, how each product contributes to revenue, orders and basket size and how cross-selling has boosted average order value.

Product Portfolio Expansion & Performance

Avg items per order

Avg profit per product

Orders with multiple products

Monthly units sold per product

Units sold per product

Years

Quarter

Product Name

Utm_campaign

Order Share by Product

Chart : pie chart

Labels : Product Name

Values : Count of orders or revenue

Basket Size Before vs After Product Launches

Chart : Bar chart

x-axis →Time Period(e.g., Pre-Dec 2013, Post-Dec 2013)

y-axis → avg item per order

Monthly Revenue Contribution by Product

Chart : Line chart

x-axis →Month

y-axis →Revenue

Monthly Units Sold per Product

Chart : Line chart

x-axis → Month

y-axis → units sold

KPI Name	Purpose	Approach
Monthly units sold per product	Shows growth trends for each product	count(order_item_id) grouped by product_id and month
Orders with multiple products	orders containing more than one product	count(case when items_purchased > 1 then order_id end)
Units sold per product	Shows which products are most popular	count(order_item_id) grouped by product_id
Avg profit per product	Net profit	(Price - Cost) / Price per product
Avg items per order	Measures basket size	sum(quantity)/count(distinct order_id)

HOW THIS DASHBOARD IS HELPING THE BUSINESS

“This dashboard tells the story of our expanding product line and its impact on basket size, customer satisfaction, and overall revenue. It shows that we're growing smartly and managing product quality effectively.” :

- Increased avg items per order after launching new products shows successful upsell strategies.
- Investors see that adding products increases customer lifetime value (CLV) .
- Clear product-level revenue contribution shows which items are stars.
- Investors get visibility into seasonality patterns , helping them forecast future potential.
- Low refund rates post-launch indicate product-market fit and quality control.
- Investors gain confidence that we're not just selling more — we're keeping customers satisfied.

KPIs and Analysis

KEY PERFORMANCE INDICATORS

CORE METRICS

Total Orders 32,313	Total Profit $1.13M
Total Sessions 473K	Total Items 40,025
Total Revenue $1.94M	Net Revenue $1.85M
Total Cost (COGS) $722.37K	Conversion Rate 6.83%
Net Cost $690.39K	Bounce Rate 44.76%
Total Products 4	Total Buyers 31,696

KEY PERFORMANCE INDICATORS

Buyer Behavior

Avg Revenue/Buyer
$61.16

Avg Profit/Buyer
$35.68

Avg Revenue/Order
$59.99

One-time Buyers
31,105

Returning Buyers
591

% Returning Buyers
1.86%

One-time Buyers
98.14%

Avg Items/Order
1.24

Avg Days 1st → 2nd buy
34.68 days

KEY PERFORMANCE INDICATORS

User Behavior

One-time Users
343.05k

Returning Users
51.27k

Avg Sessions/User
1.20

Returning Users
13.00%

% One-time Users
87.00%

Refund Metrics

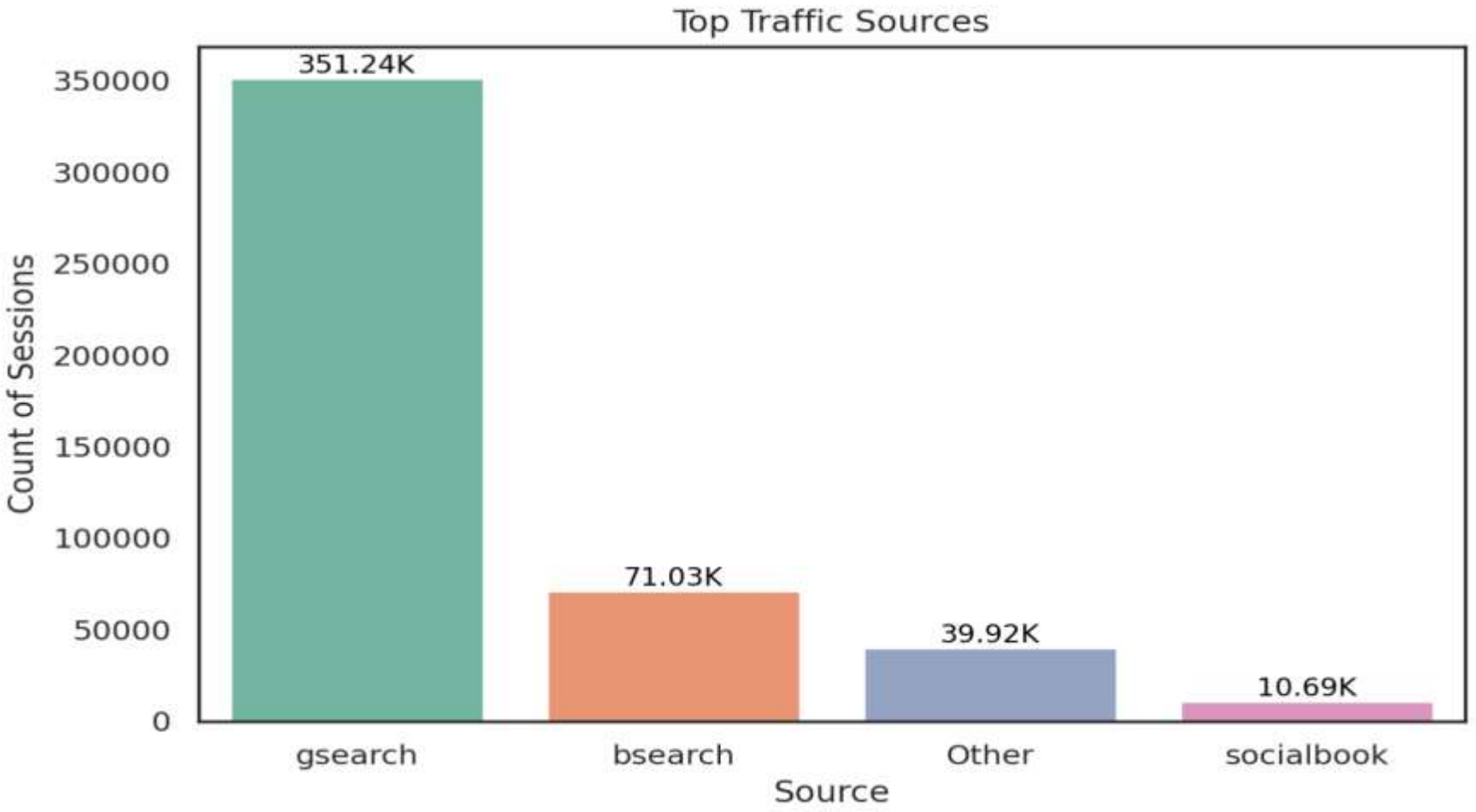
Total Refund Amount
$85.34k

Total Items Refunded
1,731

% Returned Items
4.32%

TRAFFIC ANALYSIS

TOPTRAFFIC SOURCES



Insight

- Dominance of gsearch – Largest traffic source is gseacrh with 3,51,237 sessions followed by bsearch (Bing Search) , contributing 71,032 sessions
- Socialbook has the lowest traffic engagement with only 10,685 sessions overall

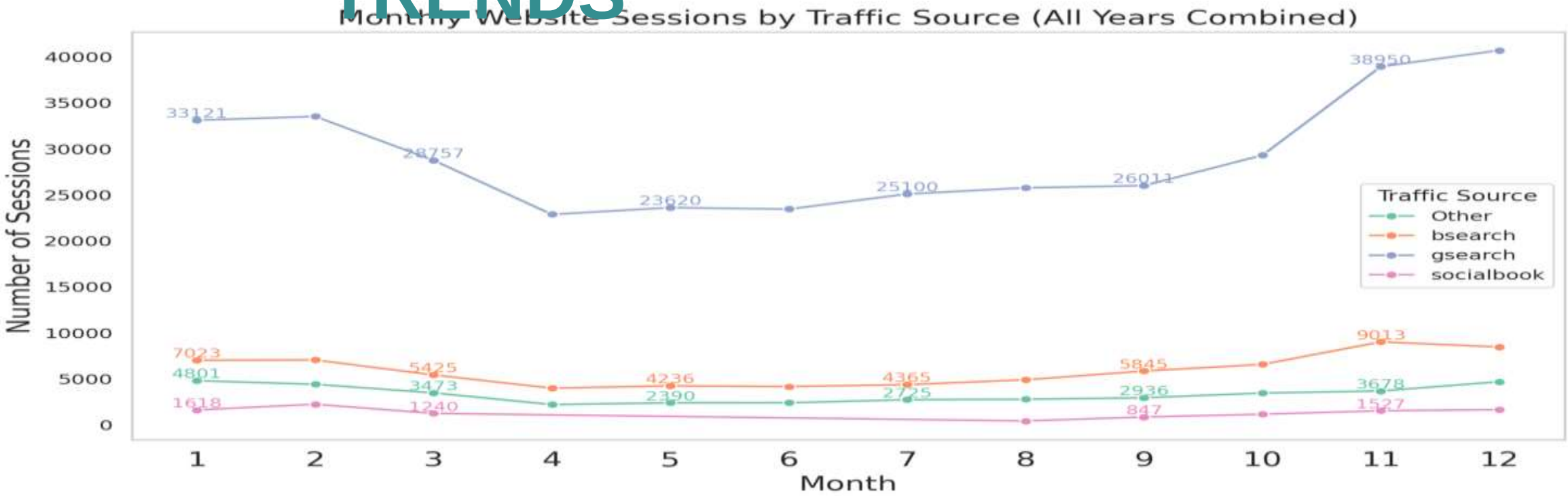
RECOMMENDATION

- OPTIMIZING CONTENT AND SEO STRATEGIES:
  Since gsearch dominates the traffic sources, it is crucial to focus on optimizing content and SEO strategies for Google.

- INCREASE IN SOCIAL MEDIA ENGAGEMENT:
  Given the importance of social media in modern digital marketing, consider increasing efforts to engage with audiences on social platforms.

- SOCIAL MEDIA STRATEGIES:
  Develop a social media strategy that includes regular posting, engaging content, and paid advertising to drive more traffic.

TRAFFIC SOURCE TRENDS



Insight

- Gsearch is the Dominant Channel: Consistently drives highest traffic across all months.
  Peaks in November (38,950) and December (40,327) — likely tied to holiday season or campaign efforts
  Lowest in May (23,620), a ~41% dip from January levels.
- bsearch Shows Strong Seasonality: Starts at 7,023 in January → dips to 4,236 in May → peaks again at 9,013 in November.
- Other sources show mild growth and Socialbook is the weakest channel with consistent underwhelming performance over the months.

RECOMMENDATION

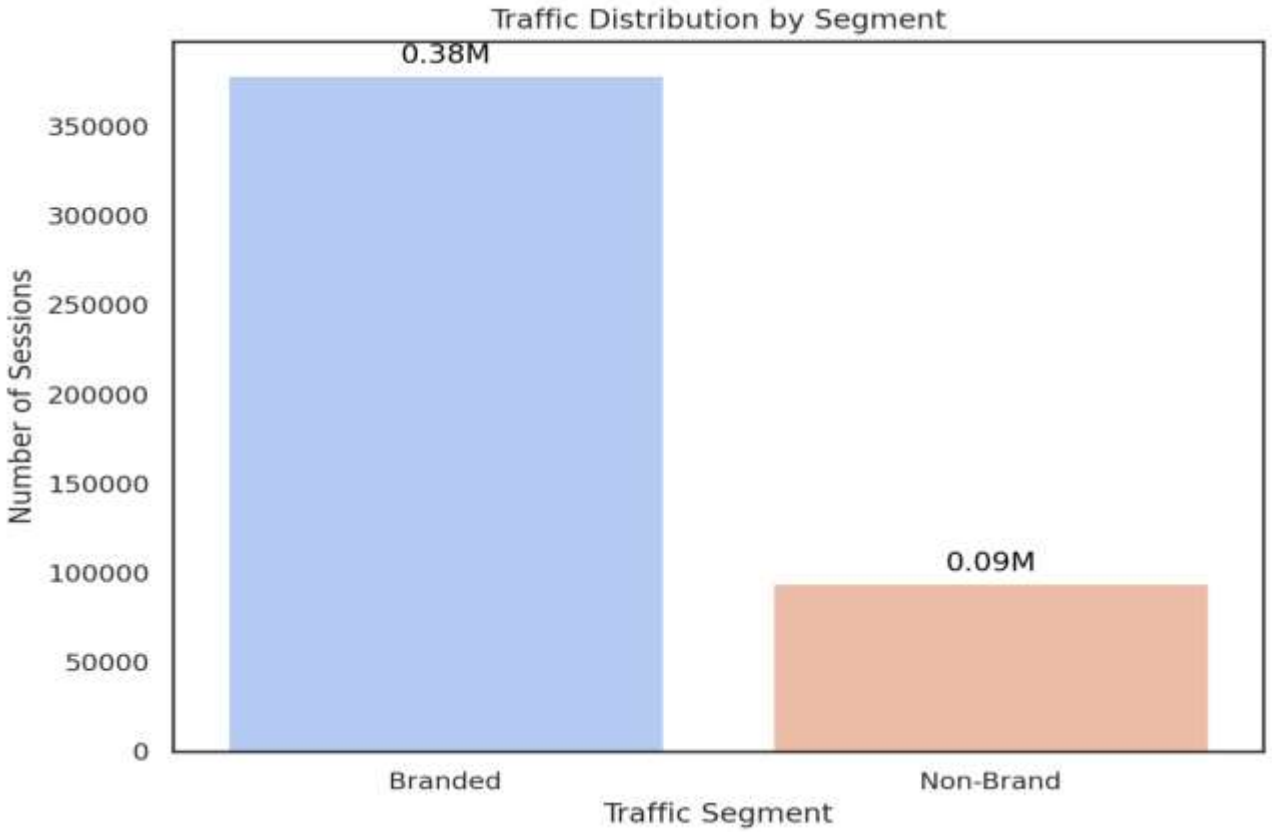
- Double Down on gsearch:
  Invest more in Google search optimization & ads, especially in Q4 (Oct–Dec) when ROI is likely highest.
  Consider A/B testing creatives or ad formats in low-performing months (Apr–Jun).

- Analyze bsearch Surge in Q4:
  We should Investigate why bsearch picks up sharply in Q4 to understand is it seasonal demand.
  Replicate success strategies in other months.

- Optimize ‘Other’ Traffic Channels:
  Since they show modest growth, evaluate which specific sources are contributing.
  Explore retargeting or email campaigns if relevant.

- Reassess Socialbook Strategy:
  As it has very low impact so we should Pause or restructure campaigns.
  Or else we should think of shifting budget to better-performing channels unless brand visibility is the goal.

TRAFFIC SEGMENT DISTRIBUTION



Insight

- The Brand segment received ~378.9K views, while Non-Brand got only ~94K.
- This means Brand accounts for ~80% of total traffic, outperforming Non-Brand by a margin of ~2.8X.
- Indicates strong brand recall, search intent, and possibly effective brand bidding strategies.

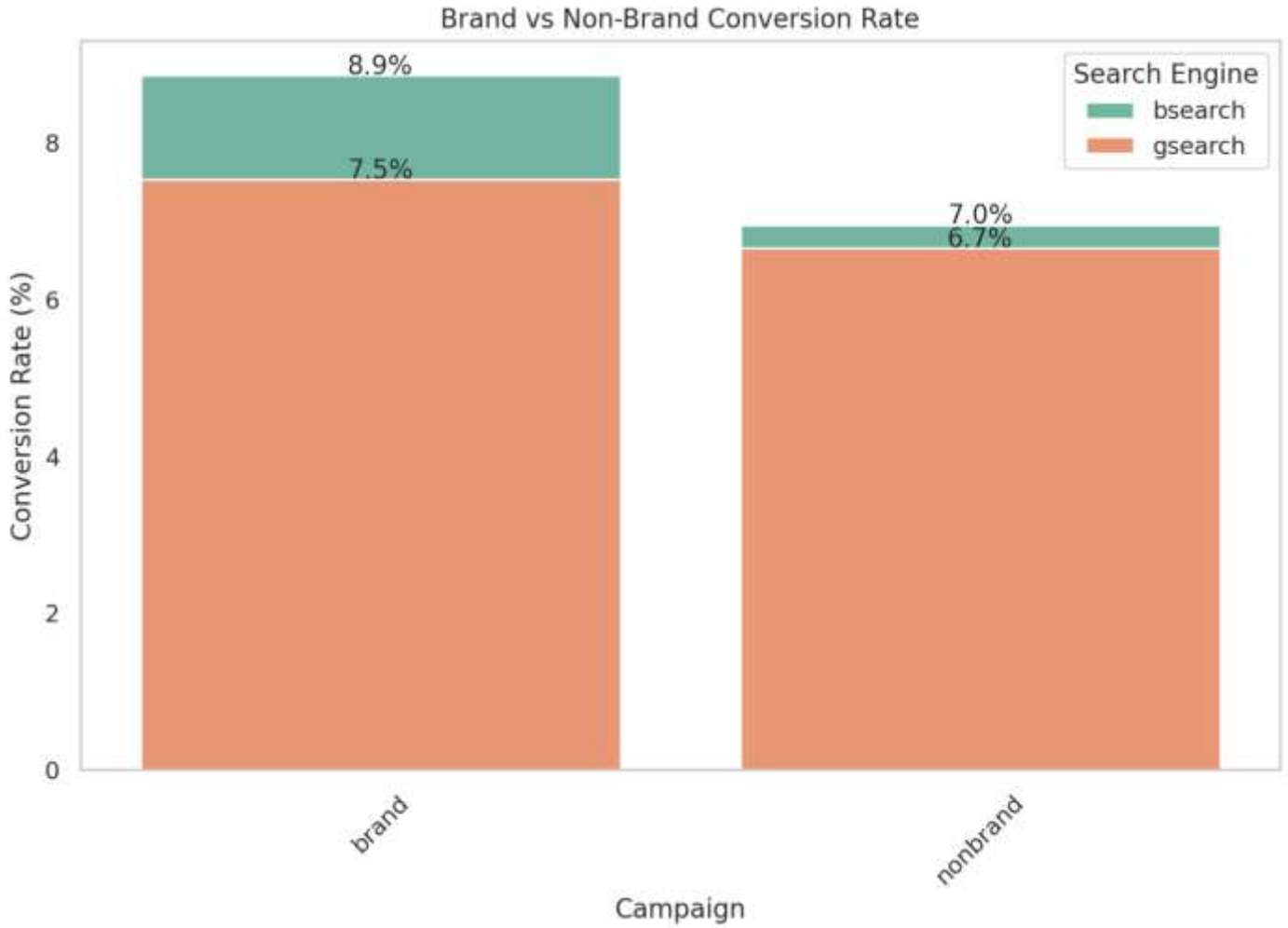
RECOMMENDATION

- Brand traffic is the engine; non-brand is the growth opportunity.
- Sustain Investment in Brand Campaigns:
  Brand campaigns are clearly driving most of the website visits.
  Maintain or increase investment in branded keywords, especially on high-performing platforms like bsearch (per earlier insights).

- Expand Non-Brand Reach for Top-Funnel Growth:
  As Non-Brand makes up only ~20% of traffic — indicating underutilized awareness potential. Running broad-match or category-level keywords
  Launching discovery/awareness campaigns
  Testing non-brand creatives with strong call to action

- Balance ROAS with Volume
  While brand delivers volume, don’t ignore long-term funnel building.
  Optimize non-brand for lower CPCs to balance customer acquisition cost (C

BID OPTIMIZATION



Insight

- Brand Campaigns Perform Better Overall not just in terms of traffic but also CVR. It delivers a ~27% higher conversion rate than non-brand campaigns.
- Total Conversion Rate:
  Brand = 8.9%
  Non-Brand = 7.0%
- Bsearch shows consistently higher conversion rates than Gsearch in both campaign types — contrary to volume trends (where gsearch dominates in traffic).
- Gsearch performs consistently well across both brand and non-brand, making it a strong candidate for scaled investment.
- bsearch is 4.6x more effective in brand than in non-brand, showing poor ROI for non-brand efforts.

RECOMMENDATION

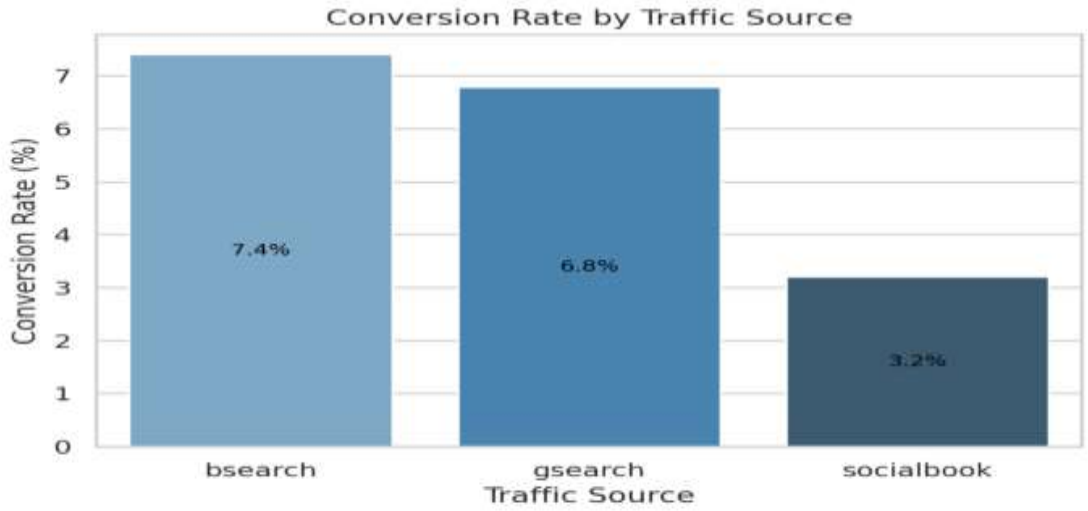
- Shift Higher Bids Toward bsearch Campaigns:
  Prioritize bidding on bsearch across both brand and non-brand campaigns, especially where cost-per-click (CPC) is competitive.

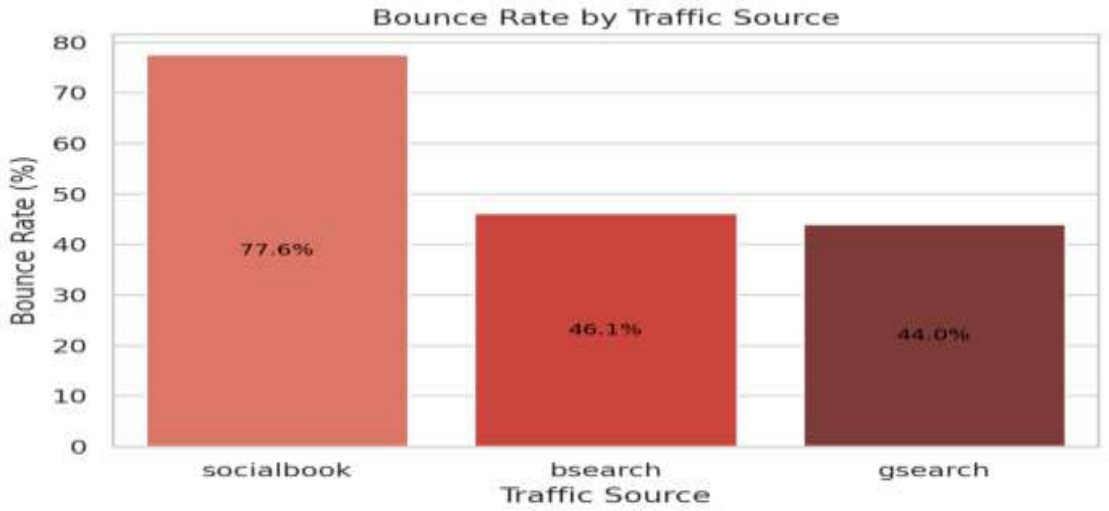
- Maintain Volume via gsearch, but Focus ROI on bsearch:
  Gsearch may provide more traffic, but Bsearch offers better return on ad spend (ROAS).
  Optimize gsearch bidding strategy to reduce cost per acquisition (CPA).

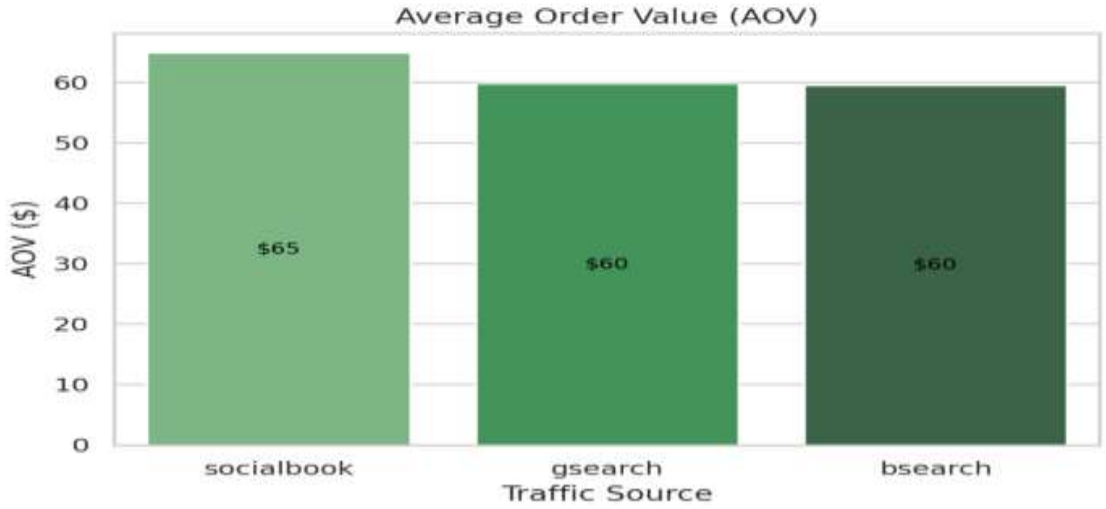
- Expand Brand Campaigns on bsearch:
  With 8.9% conversion rate, bsearch brand campaigns are high-performers.
  Consider increasing budget or expanding for brand-focused bsearch ads.

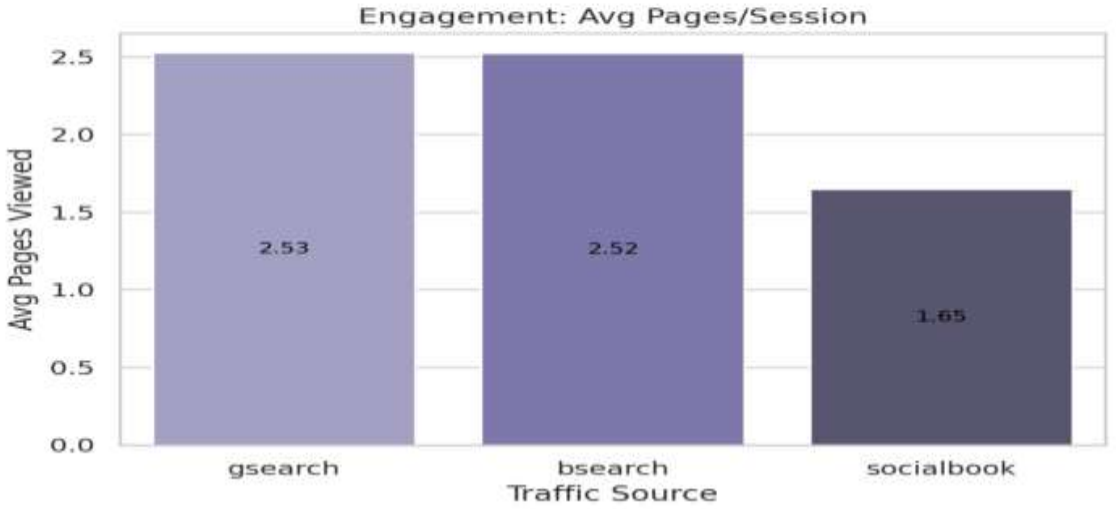
Business Action:
Bid Strategy: Shift toward high-converting bsearch campaigns.
Goal: Maximize ROAS by focusing investment where conversion efficiency is highest.
Reduce wastage on lower-performing gsearch segments through CPC controls.

TRAFFIC SOURCE PERFORMANCE METRICS









INSIGHTS & ✓ RECOMMENDATIONS

Insights

- Conversion Rate Leader: bsearch (7.4%). Highest conversion rate among all sources. Gsearch follows closely at 6.8%.
  Socialbook lags significantly at 3.2%, indicating weaker purchase intent.
- Bounce Rate Concern: Socialbook (77.6%) has extremely high bounce rate indicates users exit without engaging. Gsearch (44.0%) and Bsearch (46.1%) have much healthier bounce rates.
- Highest AOV: Socialbook ($65). While fewer convert, those who do from Socialbook spend the most. Gsearch and Bsearch both at $60.
- User Engagement: gsearch & bsearch Lead. gsearch (2.53 pages/session) and bsearch (2.52) show strong on-site engagement. However, Socialbook only averages 1.65 pages/session — likely driving unqualified or low-intent traffic.

Recommendations

- Increase bid investment in bsearch: Highest conversion rate + good engagement + low bounce
- Sustain gsearch spend: Balanced performance across all KPIs — strong engagement & low bounce
- Rethink Socialbook targeting: Poor conversion & high bounce suggest misaligned or uninterested users
- Retarget high-AOV Socialbook users - Use remarketing strategies to bring back those few high-spending users
- Test landing pages for Socialbook: Try more relevant content or offers to reduce bounce rate.
- Add micro-conversions tracking: Especially for socialbook — measure clicks, time on site, scrolls etc

⊘ WASTEFUL TRAFFIC IDENTIFICATION

Channels Flagged as Wasteful

utm_source	Sessions	CVR		Bounce_Rate	Revenue_Per_Session
socialbook	10685	3.210108	0	77.63219	2.083232

INSIGHTS & ✓ RECOMMENDATIONS

Insights:

- Socialbook has been identified as wasteful channel as it has been constantly performing below the expectations.
- It drives traffic but lacks engagement and conversion potential. Revenue per session = $2.08 is likely unsustainable if CPC is high.

Recommendations

- Channel Cost Efficiency: Prioritize channels with low CPA and high ROAS.
- For underperformers like socialbook, introduce cost caps in bidding strategies.
- Shift to Value-Based Bidding (VBB): Maximize revenue instead of just conversions. For bsearch and gsearch, switch from manual CPC to Target ROAS bidding.
- Audience Segmentation & Intent Targeting: Use in-market segments, lookalike audiences, and custom intent keywords.
- For Socialbook, refine audience by excluding low-intent segments (e.g., bounce-prone profiles).
- Ad Copy & Creative Testing:Align messaging with user behavior on each channel. For socialbook: run thumb-stopping creatives or video formats to combat bounce.

BUSINESS AND SEASONALITY ANALYSIS

MONTHLY SALES

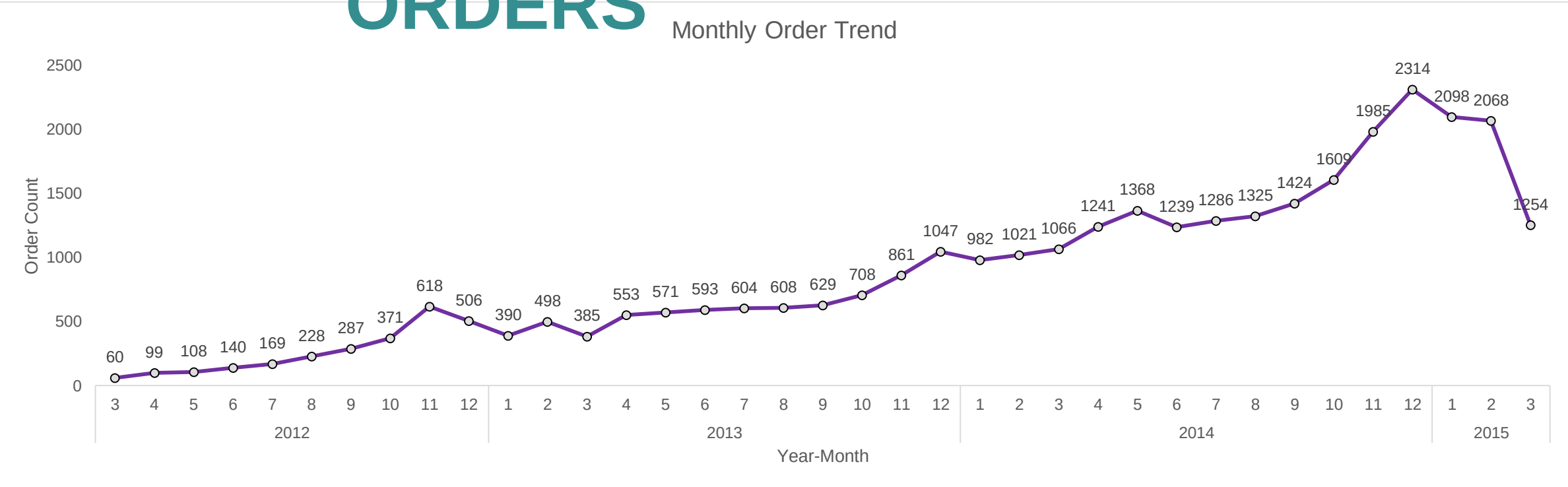
INSIGHTS

- Sales Dip Between March–June: Sales decline sharply from 0.22M (Feb) to a yearly low of 0.11M (Apr).
- Gradual increase begins in July and picks up pace in Q4, peaking in December (0.23M).
- Peak Sales Months: Feb & Dec. Likely driven by seasonal demand, festivals, or promotional campaigns.
- Both months exceed 0.21M, indicating strong performance opportunities.

RECOMMENDATION

- Plan Seasonal Campaigns Early (Q4): Leverage demand in Nov–Dec with promotions, bundles, and influencer pushes
- Introduce Mid-Year Campaign (Apr–June): Bridge the sales dip with a “Summer Surprise” or Clearance Sale.
- Analyze Product-Level Sales in Low Months: Identify slow-moving products contributing to the Q2 dip.
- Run Customer Retention Campaigns: Engage past buyers through loyalty points or email exclusives

MONTHLY ORDERS



INSIGHTS

- Orders increased from 60 (Mar 2012) to a peak of 2314 (Dec 2014) — nearly 39x growth in under 3 years.
- Clear spike in Q4 every year, especially Nov–Dec
- Steep drop from 2314 (Dec) to 1154 (Mar) — nearly 50% decline. A common trend post-holiday season, but needs management.

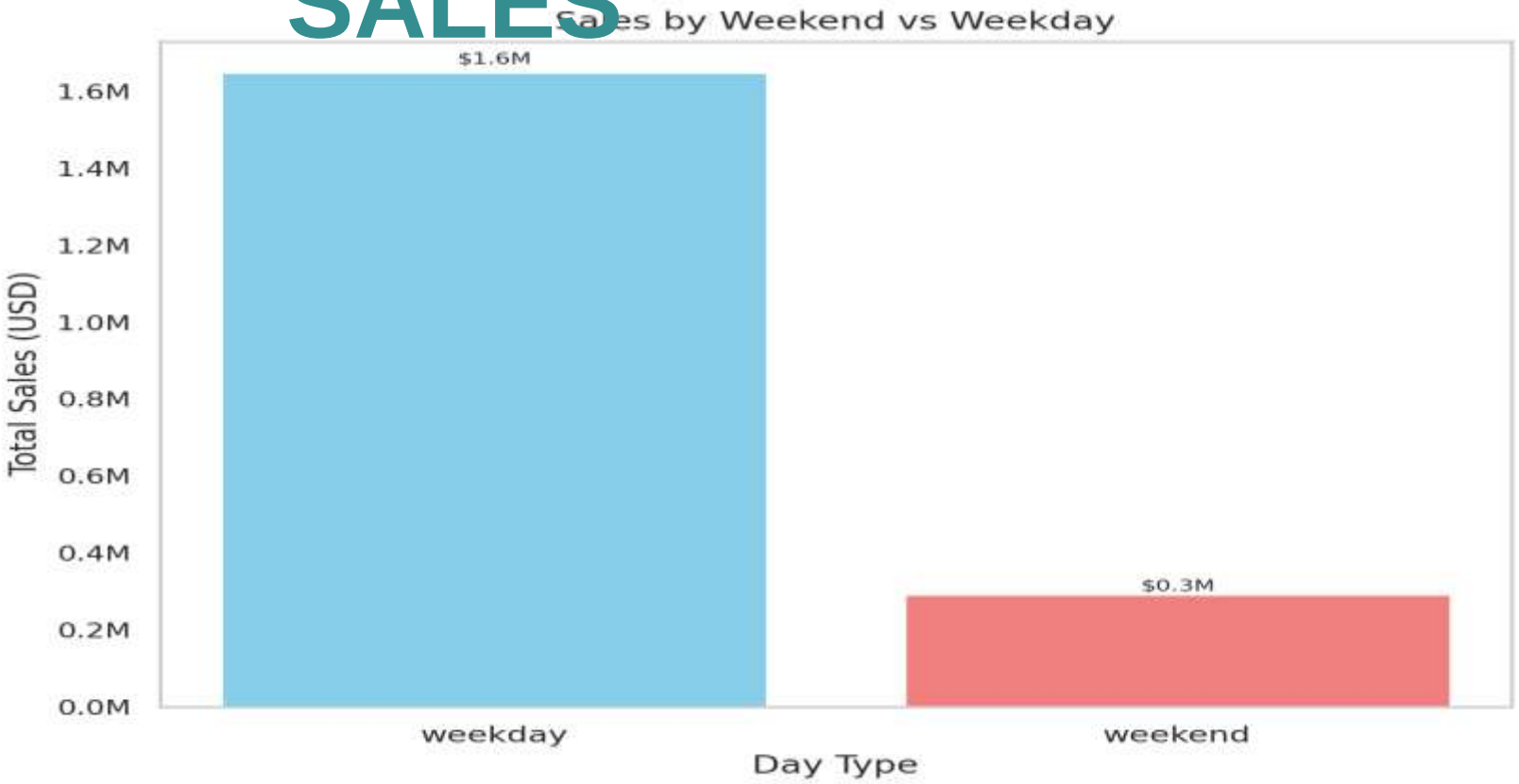
✓ RECOMMENDATION

- Introduce Loyalty Retargeting in Q1: Mitigate Q1 drop via offers to recent Q4 customers
- Run Mid-Year Growth Campaign (Q2/Q3): Avoid stagnation—try product drops, referrals, or contests.
- Optimize Inventory & Fulfillment Cycles: Ensure stock and delivery readiness during peak months
- Scale Q4 Campaigns Further: Maximize ROI from proven seasonality with early planning

Highlights:

- ❑ Q4 is the growth engine — double down.
- ❑ Q1 needs retention focus — reactivation is key.
- ❑ Avoid mid-year plateaus with fresh offers and product variety.

WEEKDAY VS WEEKEND SALES



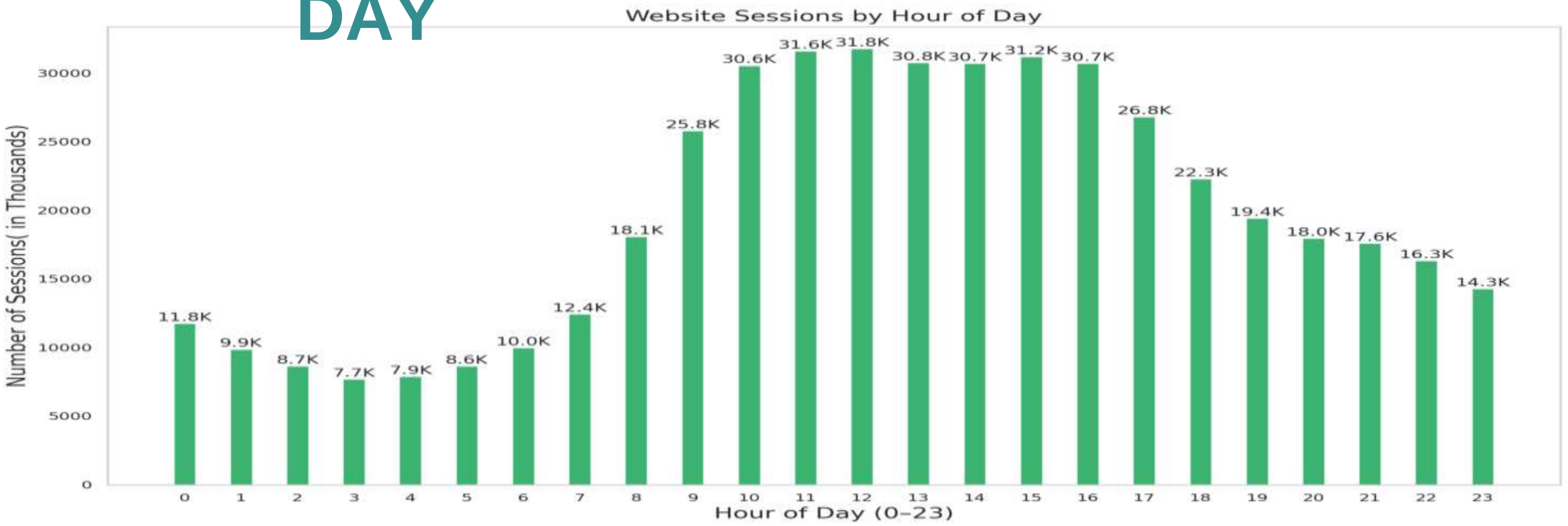
INSIGHTS

- Weekday Sales Dominate: Total sales during weekdays = $1.6M and total sales during weekends is $0.3M
- >80% of revenue is generated during weekdays.
- Weekend Underperformance: Sales drop significantly on weekends, despite consumers having more leisure time.

RECOMMENDATION

- Weekend Campaigns: Launch exclusive weekend flash deals to drive urgency and demand
- Push Notifications: Use mobile/email push during weekends to re-engage dormant users
- Weekend-Only Discounts: Promote certain products or bundles with “Weekend Saver” offers
- Optimize Ad Timing: Run targeted ads Fri-Sun evenings, when weekend traffic may spike

SESSIONS BY HOUR OF DAY



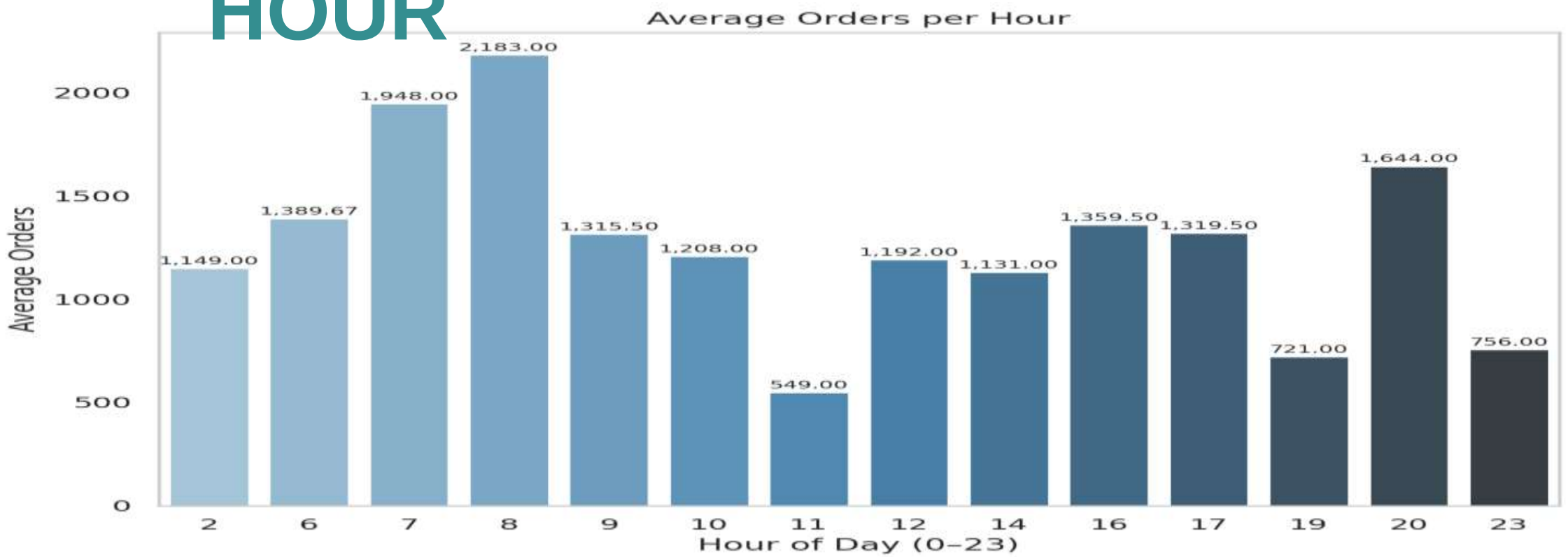
INSIGHTS

- Traffic consistently exceeds 30K sessions between 10 AM to 4 PM. Highest sessions at 12 PM (~31.8K), followed closely by 11 AM and 1–3 PM.
- Sessions between 12 AM to 7 AM average below 12K. Lowest session count around 3–4 AM (~7.7K–7.9K).
- Post 6 PM, traffic gradually drops, from 22.3K (6 PM) to 14.3K (11 PM).

RECOMMENDATION

- Ad Spend Optimization: Concentrate paid ad budget (search, display, social) around peak hours (10 AM–4 PM)
- Retargeting Strategy: Retarget users from peak-hour sessions in evening with push/email offers
- Time-Sensitive Offers: Run “Power Hour Deals” during top 3 traffic hours to boost urgency and conversions.
- Email Campaign Timing: Schedule promotional emails to land between 9 AM–11 AM to catch users at entry time
- Chatbot & Support Staffing: Ensure customer service, live chat, and backend systems are fully staffed during 10 AM–4 PM

AVERAGE ORDERS PER HOUR



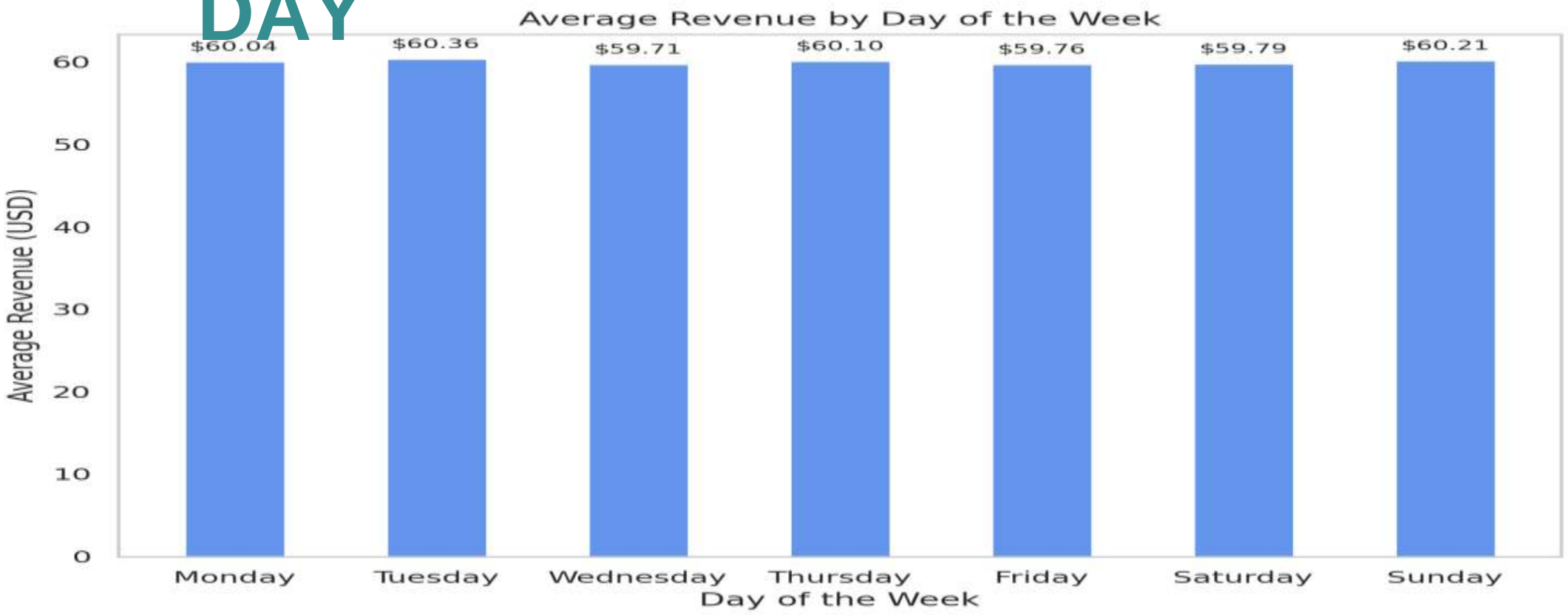
INSIGHTS

- 8 AM and 7 AM show the highest order activity (2,183 and 1,948 avg. orders respectively). Strong early-morning conversion — likely from routine shoppers or productivity-driven users.
- A noticeable drop around 11 AM (549 orders) — potential lull in purchase decisions or distraction period.
- Lowest orders observed between 11 AM – 2 PM and after 9 PM, possibly reflecting off-hours or browsing-only time.

RECOMMENDATION

- Flash Sale Timing: Launch limited-time morning deals (6 AM – 9 AM) or evening bundles (7 PM – 9 PM) to boost conversions.
- Conversion Boosting Tactics: Use personalized offers, countdowns, or urgency badges during peak hours to drive faster checkout.
- Site Performance Readiness: Ensure site speed, checkout stability, and support chat are optimized during early morning and evening hours.
- Ad Spend Optimization: Allocate search & display ad budgets more heavily between 6–9 AM and 7–9 PM for higher ROI.
- Trigger Email Reminders: If users browse midday but don’t convert (11 AM–2 PM), trigger email retargeting or cart reminders by evening.

💰 AVERAGE REVENUE PER DAY



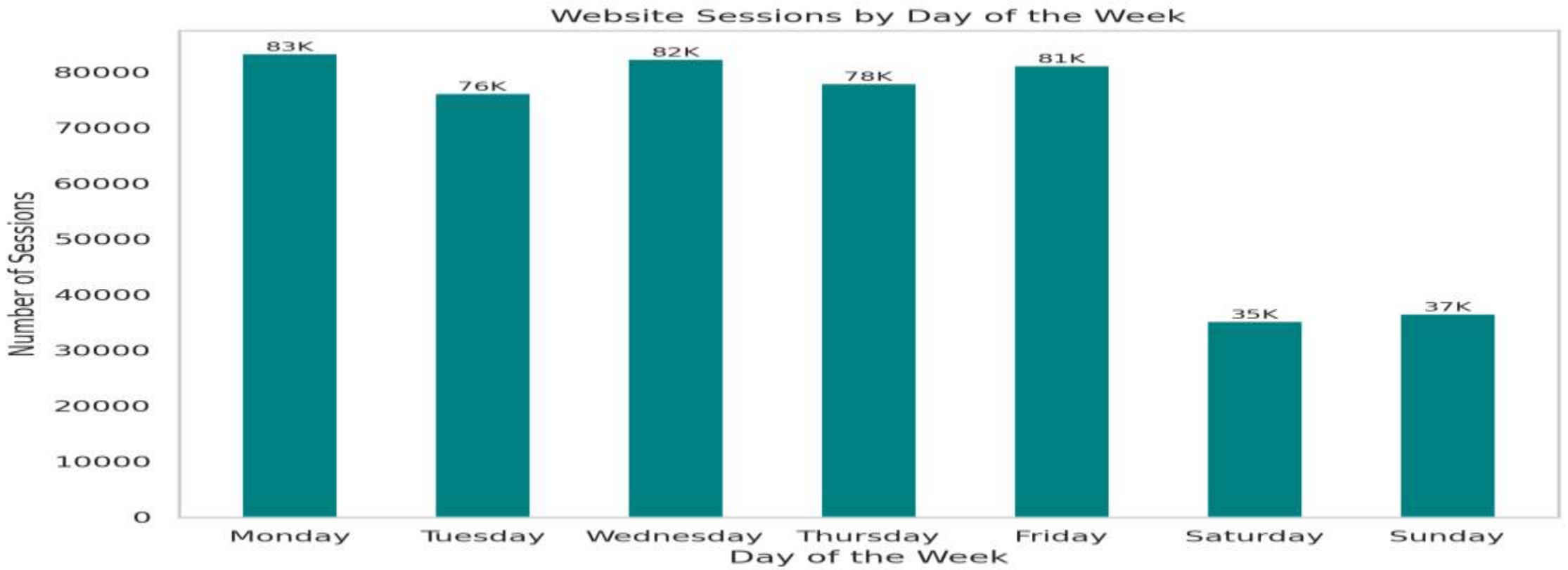
🔍 INSIGHTS

- Revenue per day hovers between $59.71 and $60.36, indicating very little variation across the week. Tuesday ($60.36) has the highest average revenue, closely followed by Sunday ($60.21) and Thursday ($60.10).
- Although total weekend sales volume is lower (from previous charts), revenue per transaction is not significantly lower on weekends.
- Saturday and Friday perform similarly to mid-week days like Wednesday in terms of revenue per order.

RECOMMENDATION

- Campaign Timing: Since average revenue is consistent across all days, spread campaigns throughout the week instead of concentrating only on weekdays.
- Weekend Promotions: Leverage weekends to boost overall traffic and order volume (sales are lower, but revenue per order is strong) using time-bound promotions.
- Email/Push Timing: Use Tuesday and Sunday evenings for key promotional sends — these days show higher engagement + higher revenue.

SESSION BY DAY



INSIGHTS

- Monday (83,307 sessions), Wednesday (82,367), and Friday (81,187) see the most sessions — indicating strong mid-week user engagement. Suggests a weekday-dominant audience behavior.
- Saturday (35,221) and Sunday (36,586) have less than half the traffic of weekdays. indicates lower browsing or purchase intent during weekends.

RECOMMENDATIO
N

- Content Strategy: Schedule high-effort content (e.g., new launches, campaigns) for high-traffic days. Use weekends for lighter, engaging content.
- Investigate Tuesday Drop: Perform a content, UI, or source audit for Tuesdays — check if performance issues, broken funnels, or audience fatigue exist.
- Traffic Recovery for Weekends: Launch exclusive weekend flash sales, gamified content, or social media-only discounts to boost weekend sessions.
- Email & Notification Sends: Schedule promotional emails or push alerts around Monday morning and Friday afternoon to align with session peaks.
- Campaign Timing: Prioritize key marketing pushes and retargeting on Monday, Wednesday, and Friday — highest site traffic.

USER BEHAVIOUR ANALYSIS

🔁 REPEAT VISITOR ANALYSIS

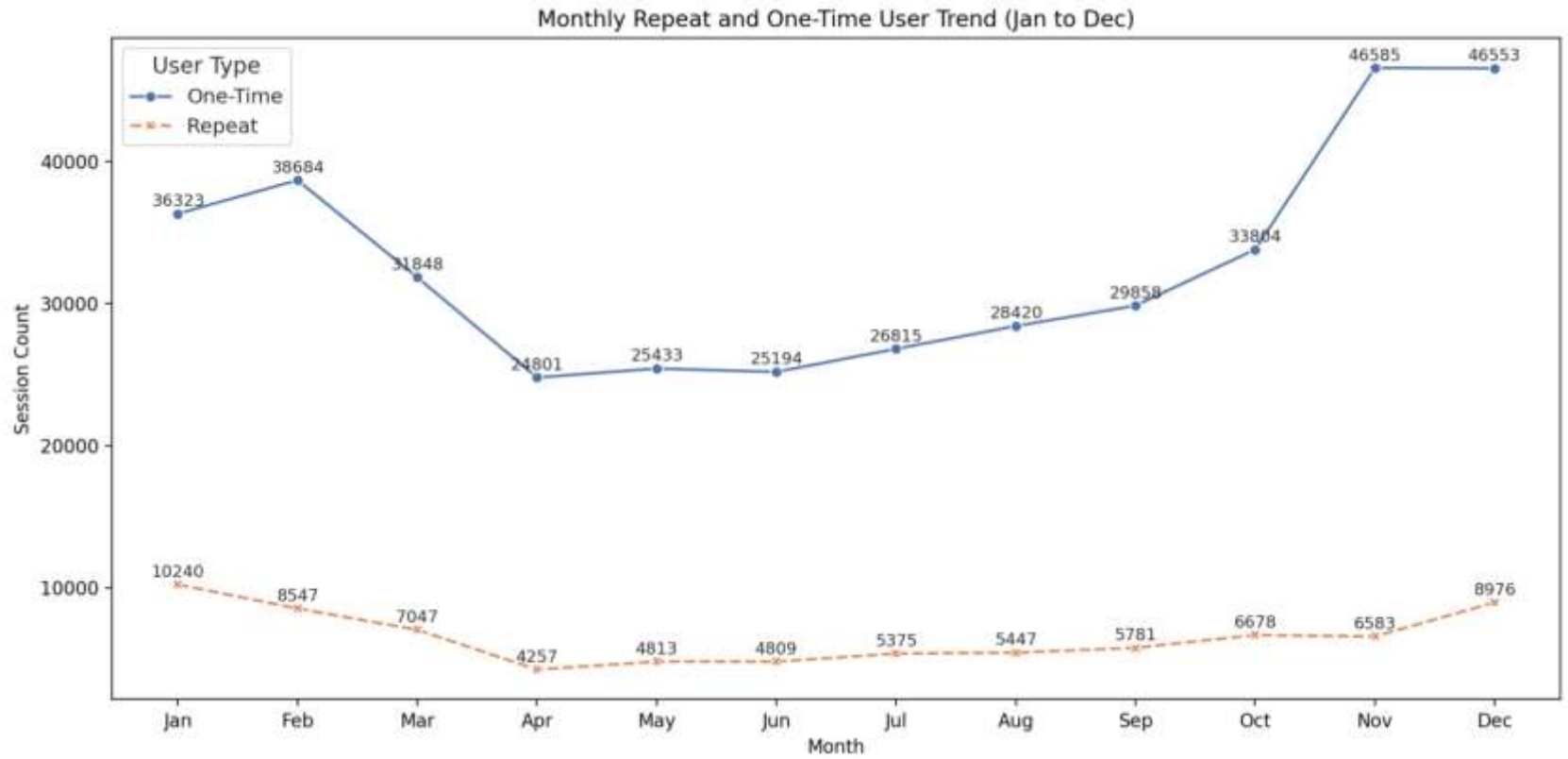
🔍 INSIGHTS

- 83.4% of sessions come from one-time buyers, indicating a heavy reliance on new or first-time visitors. Only 16.6% of sessions are from repeat buyers.
- This may suggest high acquisition but poor retention or engagement strategies.

✓ RECOMMENDATION

- Launch a CRM-driven Retention Campaign. Use purchase history and behavior to re-engage past buyers.
- Introduce Loyalty & Rewards Programs. Encourage repeat purchases with points, discounts, or exclusive offers.
- Improve Onboarding & Follow-Up. Streamline onboarding, send thank-you emails, and request feedback to improve repeat likelihood.
- While high session counts from one-time buyers can indicate strong marketing and visibility, true long-term growth lies in increasing the share of repeat buyers. Focusing on customer retention and engagement strategies will help balance this distribution and create a healthier, more sustainable business model.

MONTHLY REPEAT AND ONE TIME USER TR



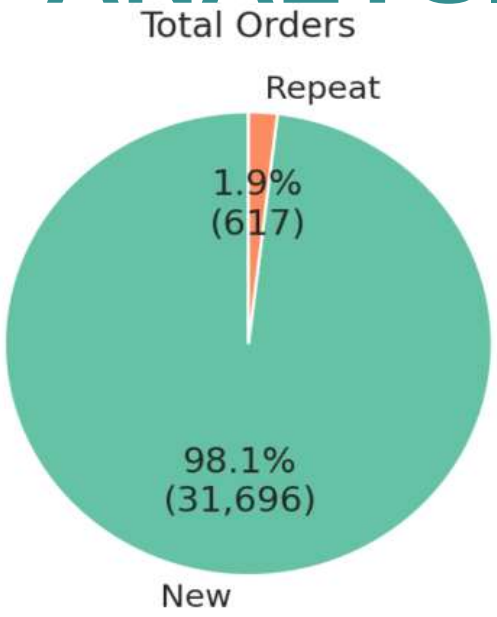
INSIGHTS

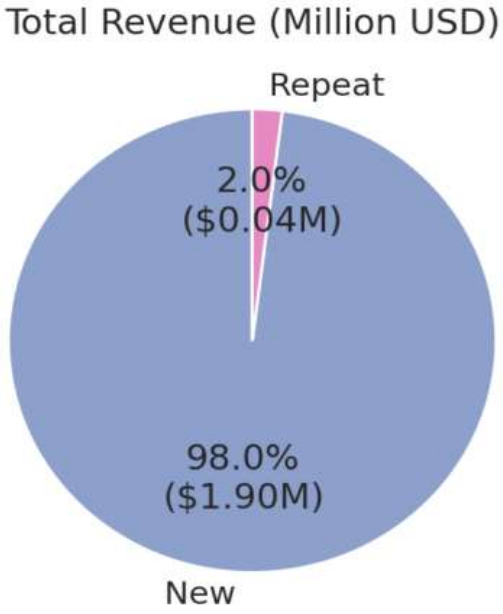
- Dip in Mid-Year: Both buyer types see a noticeable drop between March and May, bottoming out in April.
- Strong Recovery in Q4: Sessions surge in November and December (peak holiday season), especially for one-time buyers (~46.5K sessions).
- Every month, one-time buyer sessions outpace repeat sessions by a wide margin. Largest gap in **November**, reinforcing heavy reliance on new traffic during peak seasons.

✓ RECOMMENDATION

- Analyze which channels, promotions, or touchpoints led to the Q4 surge—replicate them in Q2–Q3. Extend seasonal campaigns into January to sustain momentum.
- Loyalty programs, personalized offers, and automated post-purchase journeys can flatten the mid-year dip. Consider customer segmentation to tailor retention strategies more effectively.
- Investigate potential causes: Was there a drop in ad spend, market activity, or user experience issues?
- Introduce subscription models, bundles, or rewards to increase repeat purchase frequency.
- Educate buyers post-purchase with content that nudges repeat visits (e.g., care tips, how-tos, early access).

PURCHASE BEHAVIOUR ANALYSIS





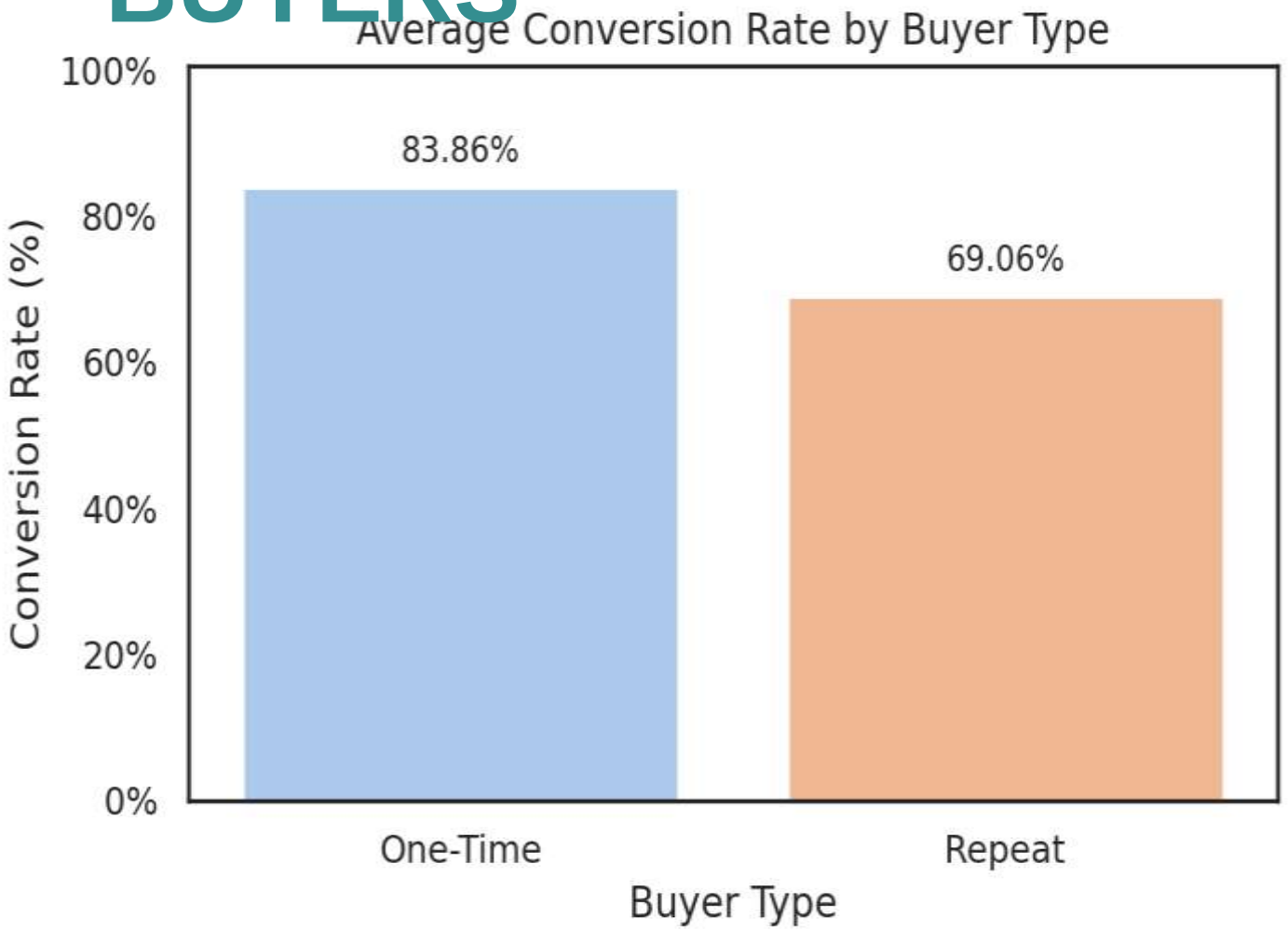
INSIGHTS

- New buyers account for the vast majority of transactions — 98.1% of total orders and 98.0% of revenue, highlighting strong acquisition performance.
- However, repeat buyers, though only 1.9% of total orders, contribute a slightly higher Average Order Value (AOV) of $61.97 vs $59.95.
- This gap, while small, suggests that repeat buyers are more valuable per transaction and may represent a higher Lifetime Value (LTV) if nurtured.

✓ RECOMMENDATION

- Launch a Retention Strategy: Introduce loyalty programs and tiered discounts for second/third purchases.
- Send personalized follow-up emails post-purchase (e.g., reorder reminders, thank you gifts).
- Segment & Re-engage: Identify buyers who've made 1 purchase and have been inactive for 30–60 days.
- Run retargeting campaigns via email, SMS, or social ads to nudge them back.
- Enhance Post-Purchase Experience: Surprise elements like handwritten notes, referral codes, or exclusive early access can increase emotional stickiness and return rates.
- A/B Test Offers for Repeat Conversion: Try bundles or "Buy again and save" incentives to drive second orders from the large new buyer pool.

CVR BY ONE TIME AND REPEAT BUYERS



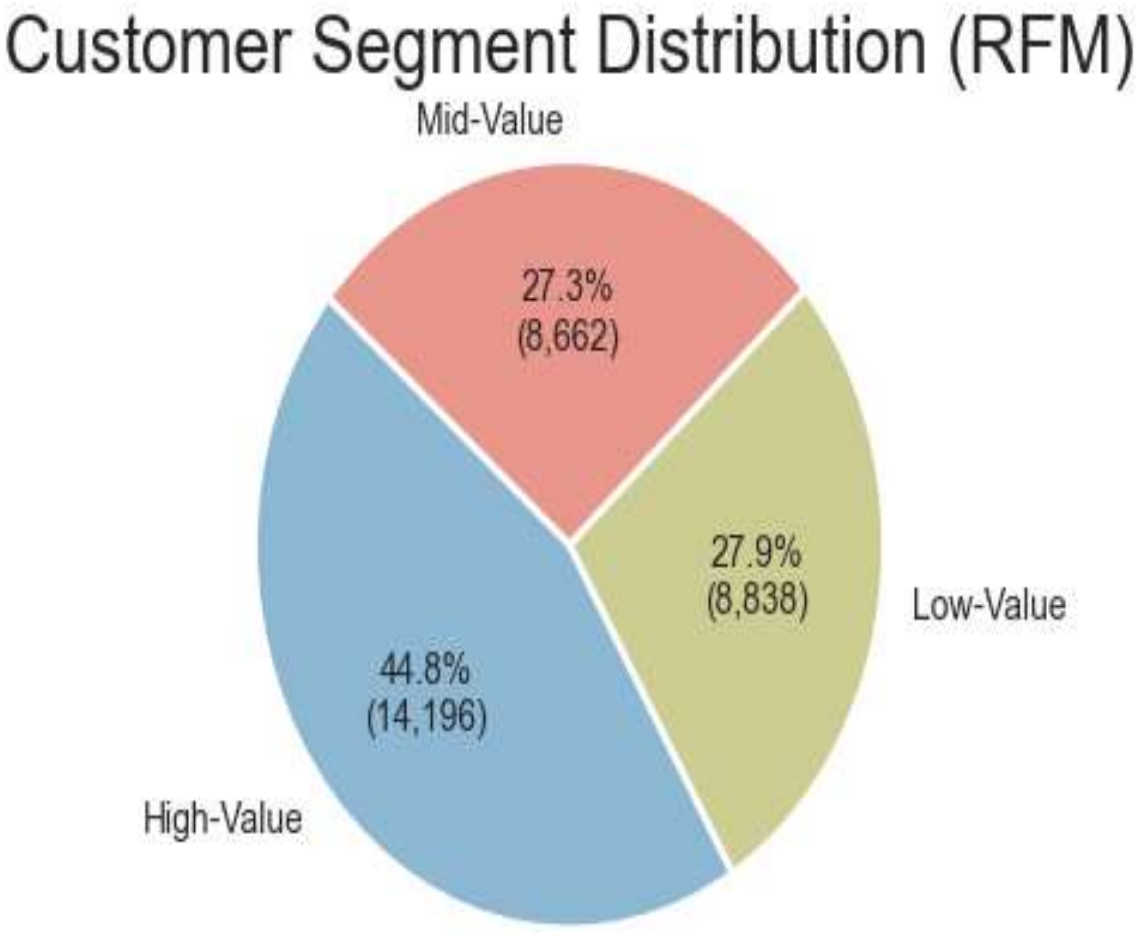
INSIGHTS

- One-time buyers have a significantly higher conversion rate (83.86%) compared to repeat buyers (69.06%).
- This suggests that while first-time offers and acquisition campaigns are strong, returning users may face friction or reduced incentive to convert again.
- The drop in repeat conversion rate points to a retention experience gap post-purchase or a need to re-engage more effectively

✓ RECOMMENDATION

- Audit Repeat Buyer Journey: Analyze session behavior of returning users — are they dropping off earlier or at checkout?
- Improve ease of reordering (e.g., “Buy Again” button, saved preferences, simplified login).
- Re-Engagement Triggers: Implement cart reminders or restock alerts targeted only to previous customers.
- Offer tailored incentives (e.g., “10% off your 2nd order” or “Exclusive product just for you”).
- Dynamic Personalization: Customize homepage experience for logged-in users (e.g., “Welcome back, here’s what you might like”).
- Showcase previous orders and recommended add-ons based on their purchase history.
- Test and Monitor: A/B test landing page variants or email creatives specifically for repeat segments to lift conversion by 5–10%

NUMBER OF CUSTOMERS BY RFM SEGMENTATION



RFM Score	Segments
>=7	High Value
>=4	Mid Value
Less than 4	Low Value

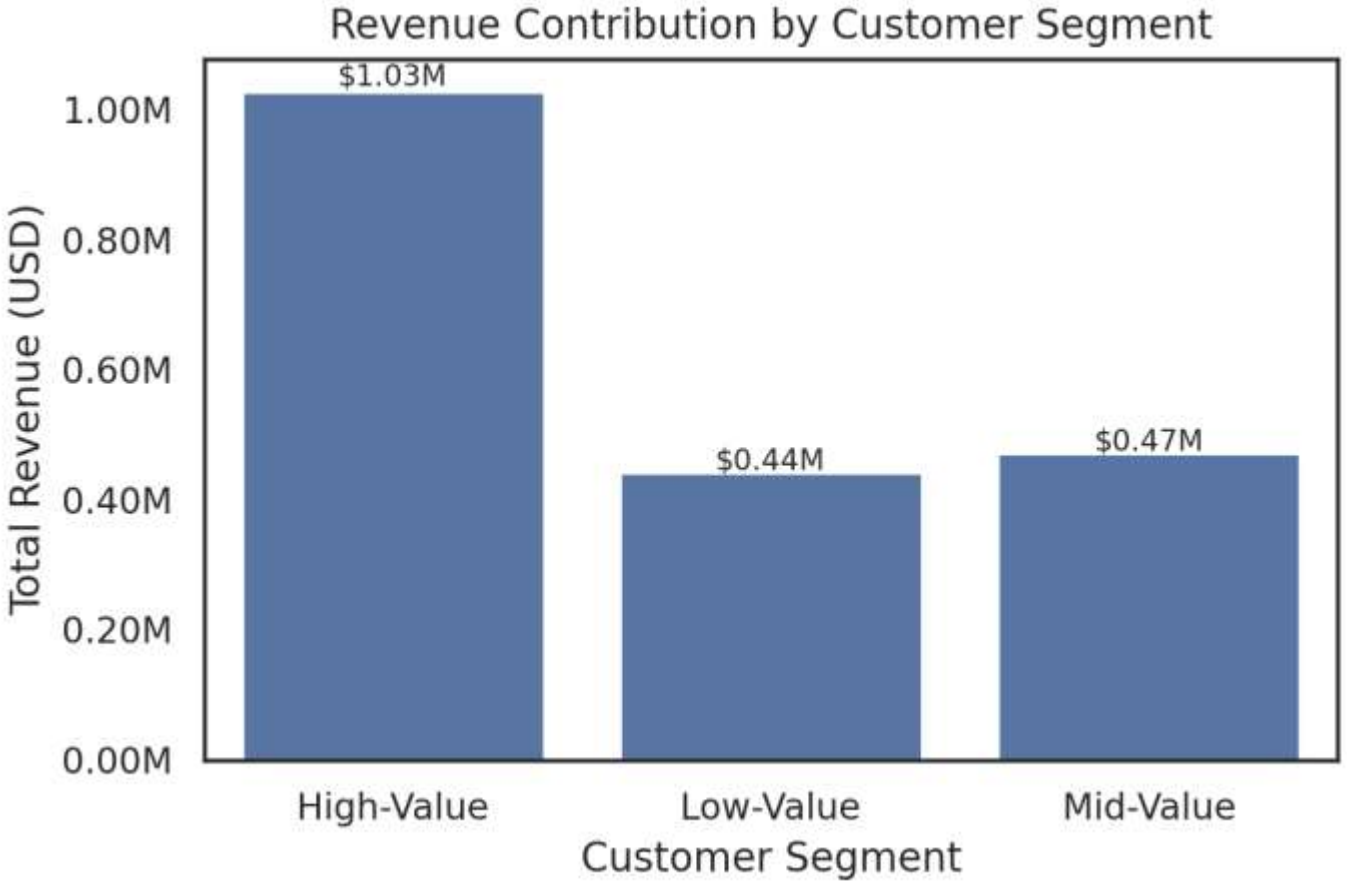
INSIGHTS

- High-Value Customers Dominate the Base. 44.8% (14,196 customers) fall under High-Value.
- These are your most profitable and engaged customers.
- Low-Value Segment is Significant. 27.9% (8838 customers) are in the Low-Value segment.
- This represents customers with lower frequency, Recency, and spend.
- Mid-Value Segment is Smallest. 27.3% (8662 customers) are tagged as Mid-Value.
- This middle group may need targeted nurturing to avoid churn or to upgrade them to High-Value

✓ RECOMMENDATION

- Focus on Retaining High-Value Customers. Implement exclusive loyalty perks, early access offers, or premium services.
- Prioritize support and satisfaction surveys for this segment. Upsell & Cross-sell to Mid-Value Customers
- Run campaigns targeting mid-tier customers with personalized offers.
- Encourage repeat purchases via bundle deals, personalized recommendations, and targeted reminders.
- Activate Low-Value Customers. Run re-engagement campaigns (e.g., limited-time discounts, personalized win-back emails).
- Analyze common drop-off points or product preferences to tailor communications.
- Prioritize Segmentation in Strategy. Use RFM segments to personalize marketing campaigns across email, ads, and app notifications.
- Track migration of customers from Low to Mid to High-Value over time to evaluate success

REVENUE CONTRIBUTION BY SEGMENTS



INSIGHTS

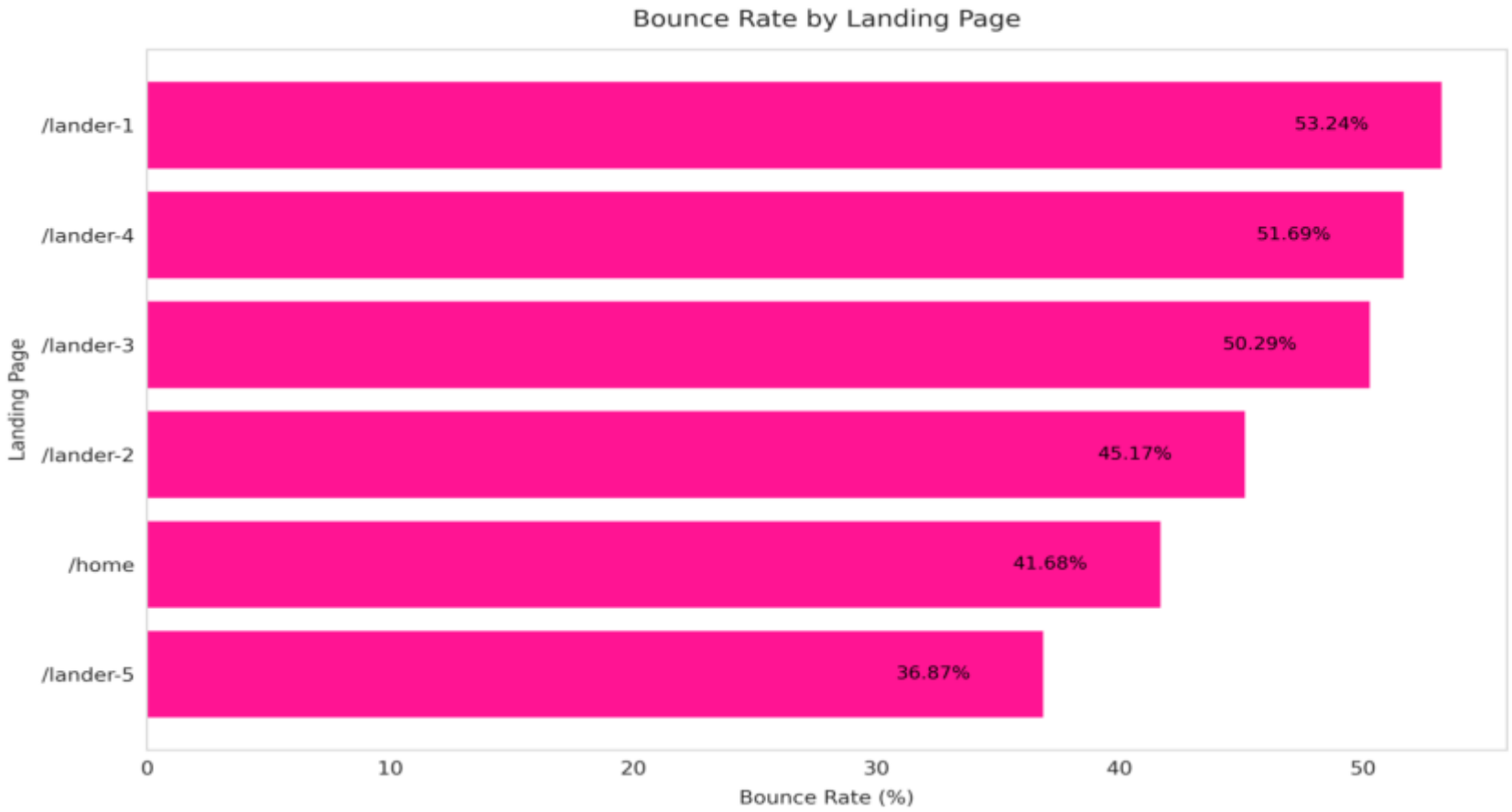
- High-Value Customers Drive Majority Revenue. Contribute $1,03M, nearly 50%+ of total revenue.
- They are your most profitable segment despite being 45% of the customer base.
- Low-Value Customers Contribute Significantly
- Generate $0.53M, more than the mid-value segment.
- Indicates that although classified as low-value (by frequency/Recency/spend), they still represent a revenue opportunity.
- Mid-Value Segment Underperforming. Contribute only $0.38 M.
- his segment represents a growth gap, as their revenue contribution is lower than expected, given their count.

✓ RECOMMENDATION

- Protect & Grow High-Value Revenue. Prioritize retention with VIP programs, exclusive offers, and personalized experiences.
- Consider loyalty tiers, referral incentives, or early access benefits to sustain this segment.
- Re-evaluate Low-Value Classification. Since they contribute more revenue than mid-value customers: We should recheck segmentation thresholds.
- Launch targeted upsell/cross-sell campaigns for low-value customers to move them to mid or high-value.
- Re-engage and Nurture Mid-Value Segment as this is the most underperforming group.
- We should target them with: Frequency-boosting offers, Abandoned cart reminders, Personalized purchase suggestions.
- Segment-Based Revenue Strategy: Implement segment-specific marketing strategies:
  - High-Value: Retain and reward.
  - Low-Value: Activate further.
  - Mid-Value: Focus on conversion acceleration

WEBSITE PERFORMANCE ANALYSIS

BOUNCE RATE BY LANDING PAGE



INSIGHT

There's a clear disparity in user engagement based on where users land:

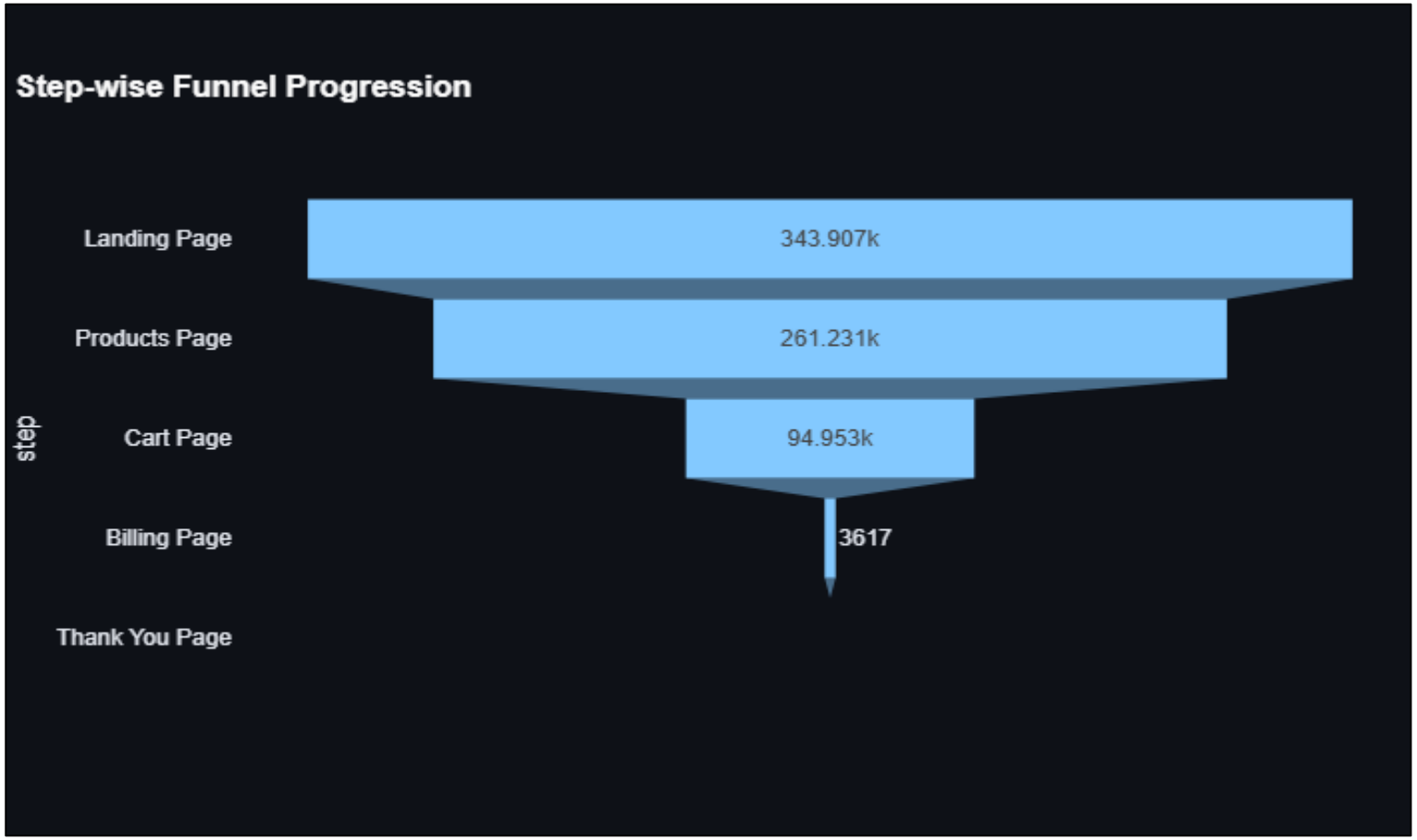
- /lander-1 has the highest bounce rate at 53.24%, followed closely by /lander-4 (51.69%) and /lander-3 (50.29%).
- On the other hand, /lander-5 performs the best, with a significantly lower bounce rate of 36.87%.
- Even the /home page outperforms most landers, which raises questions about the effectiveness of some designed campaign pages.

✓ RECOMMENDATION

Focus on improving or replacing high-bounce landing pages:

- Analyze /lander-1, /lander-3, and /lander-4 using heatmaps, click maps, and user session recordings to identify friction points.
- Simplify page layouts, clarify value propositions, and test faster-loading designs.
- Ensure ad messaging aligns with the content of the landing page to prevent user drop-off.
- Replicate the structure of /lander-5 across other landers in A/B tests—it may contain best practices driving retention.

FUNNEL PROGRESSION



Insight

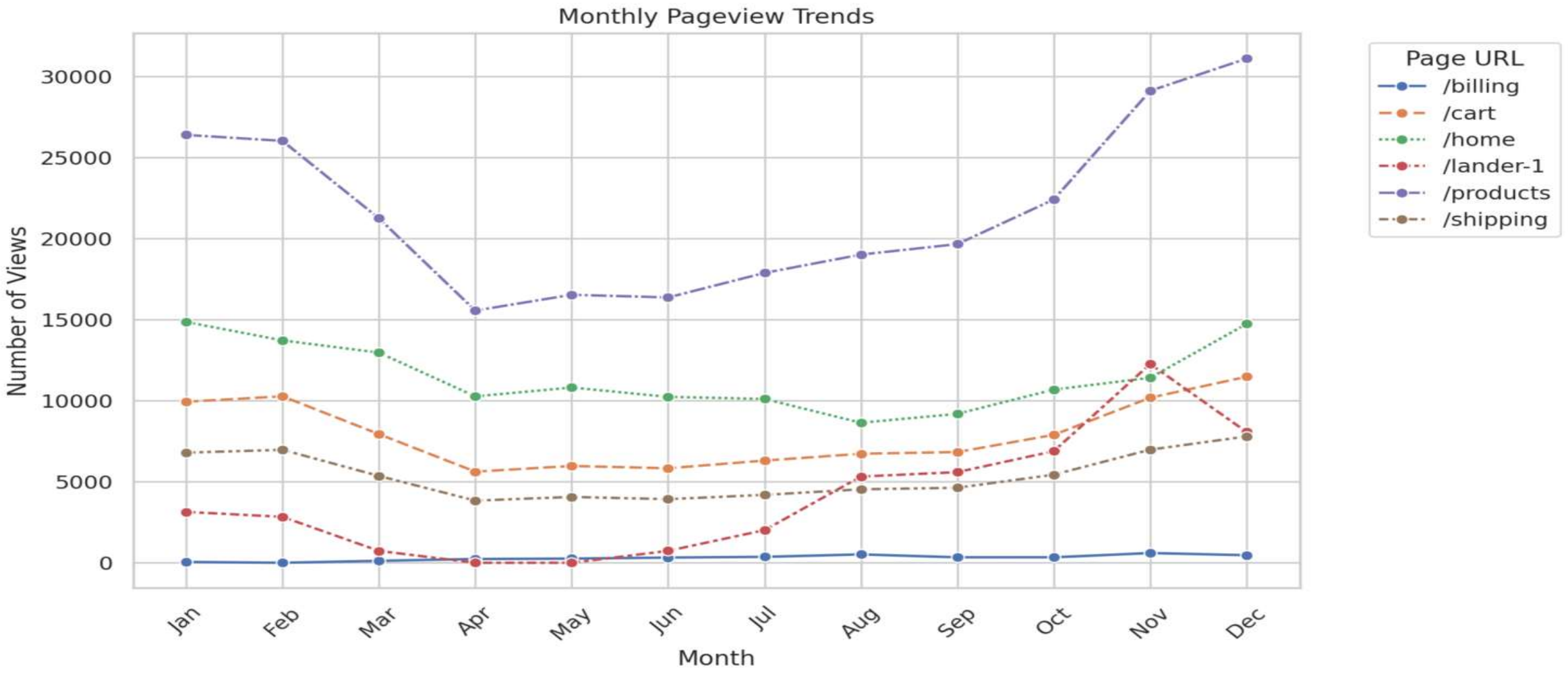
Funnel clearly shows where users are slipping away:

- Out of 343.9k landing page visitors, only 3617 reach the Thank You page.
- While ~95k make it to the Cart Page, only ~3.8% proceed to Billing—the steepest drop in the entire journey.
- This signals a critical leak at the Billing Page, where nearly 96% of high-intent users abandon the purchase.

✓ RECOMMENDATION

- Run usability tests on the billing page (mobile + desktop). Identify friction points like confusing forms, surprise costs, login walls, or slow load times.
- Simplify checkout: reduce form fields, auto-fill where possible, and offer guest checkout.
- Add more payment options: Local wallets, UPI, one-click checkout, or Pay Later can reduce hesitation.
- A/B test Billing Page 2.0 against the current version and track lift in conversion.

MONTHLY PAGEVIEW TRENDS



🔍 INSIGHTS & ✓ RECOMMENDATIONS

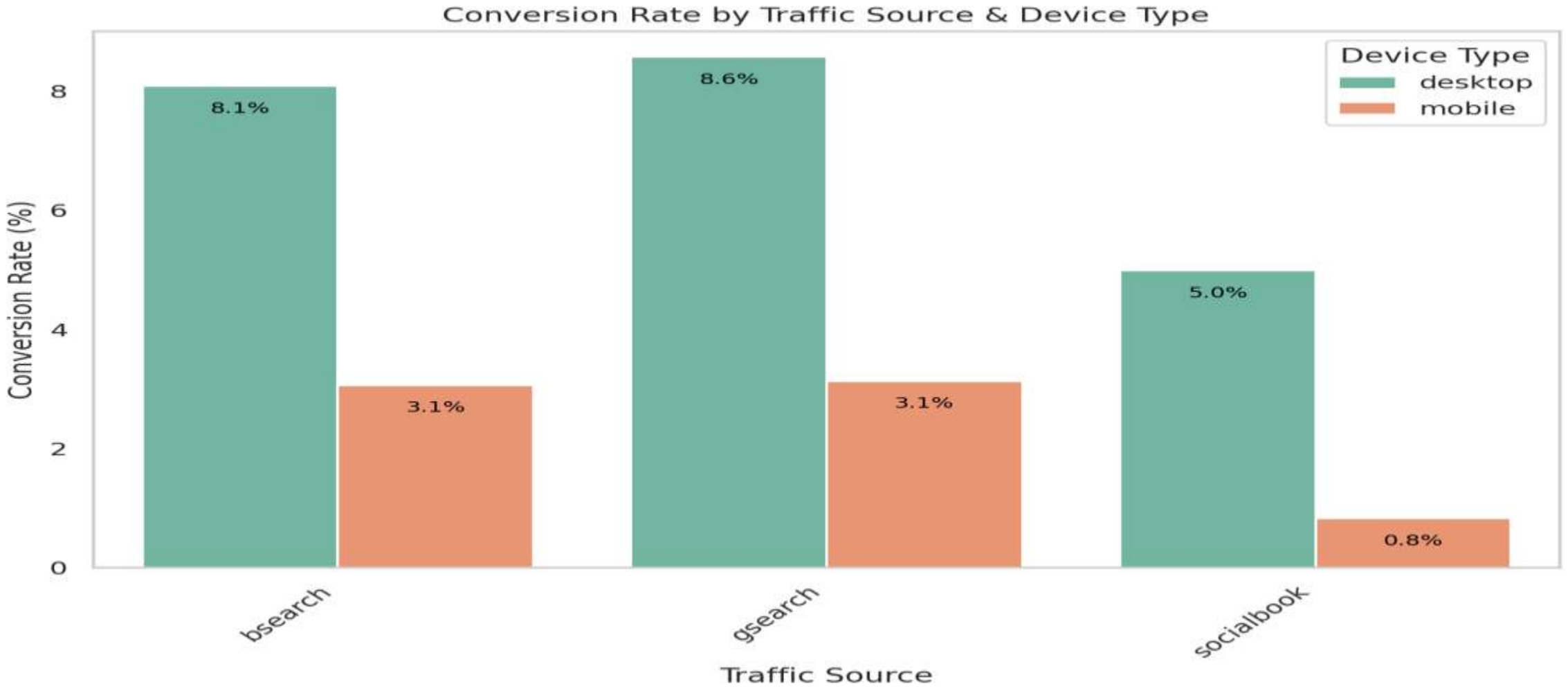
Insight

- The /products page consistently dominates views and shows a strong Q4 spike — climbing from ~22k in October to 31k in December.
- Despite this traffic surge, views to critical checkout steps like /cart, /shipping, and /billing remain relatively flat.
- /lander-1 also shows a sharp uptick in November, indicating potential success from a campaign or test — but it doesn't translate into proportional cart or billing views.

RECOMMENDATION

- Investigate friction between product exploration and checkout (e.g. cart button placement, pricing visibility, or load times).
- Run funnel A/B tests post-product page: Try different CTA placements, simplified checkout, or persistent mini-cart UI.
- Retarget high-intent users from /products using email or ads if they don't reach /cart or /billing within 24 hrs.

💻 SESSION SEGMENTATION BY TRAFFIC SOURCE & DEVICE



INSIGHT

1. Desktop traffic is converting 2–6x better than mobile

i) Desktop conversion rates:

- gsearch: 8.6%
- bsearch: 8.1%
- socialbook: 5.0%

i) Mobile conversion rates:

- gsearch & bsearch: 3.1%
- socialbook: 0.8%

2. gsearch (Google Search) delivers the highest desktop conversion rate

- gsearch desktop converts at 8.6%, the best across all source-device pairs.
- Google search is bringing in high-quality, high-intent users on desktop.

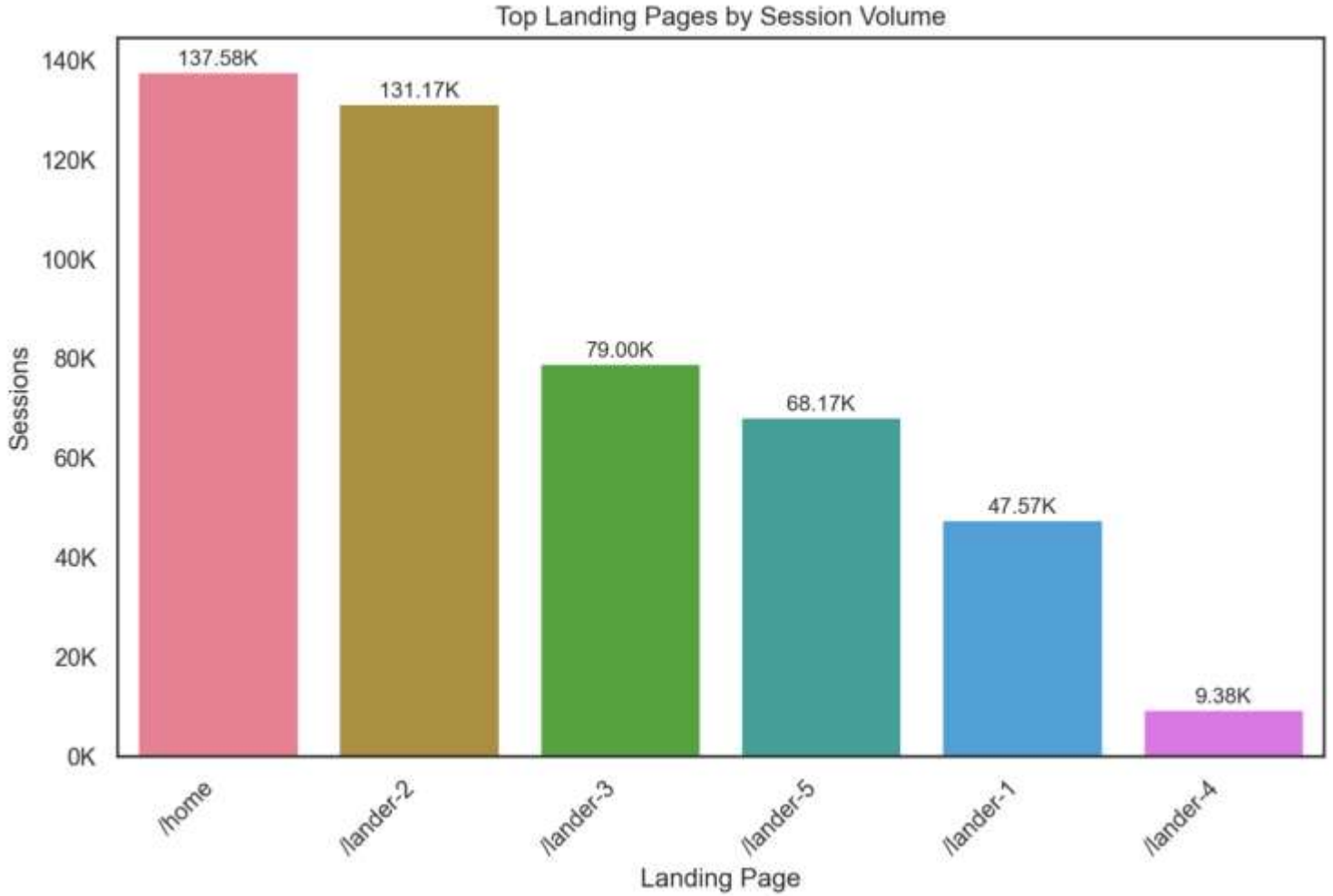
3. socialbook mobile traffic is underperforming badly

- Mobile conversion rate from socialbook is just 0.8%.
- This could be due to poor targeting, misaligned creatives, or a poor mobile site experience post-click.

✓ RECOMMENDATION

- Improve mobile UX: audit navigation, speed, and checkout flow on mobile.
- A/B test mobile-specific landing pages for top traffic sources.
- Create mobile-first ad creatives that match mobile behavior patterns.
- Increase ad investment in Google search campaigns targeting desktop.
- Clone winning keyword strategies from desktop into mobile with mobile-optimized ads.
- Analyze search intent to further refine landing pages and ad messaging.
- Clean up mobile funnel for social campaigns: reduce steps to convert.
- Test new ad formats (e.g., mobile video, short-form stories) with better hooks and CTAs.
- Refine audience targeting for mobile campaigns—focus on higher-intent segments.

TOP LANDING PAGES BY SESSION COUNT



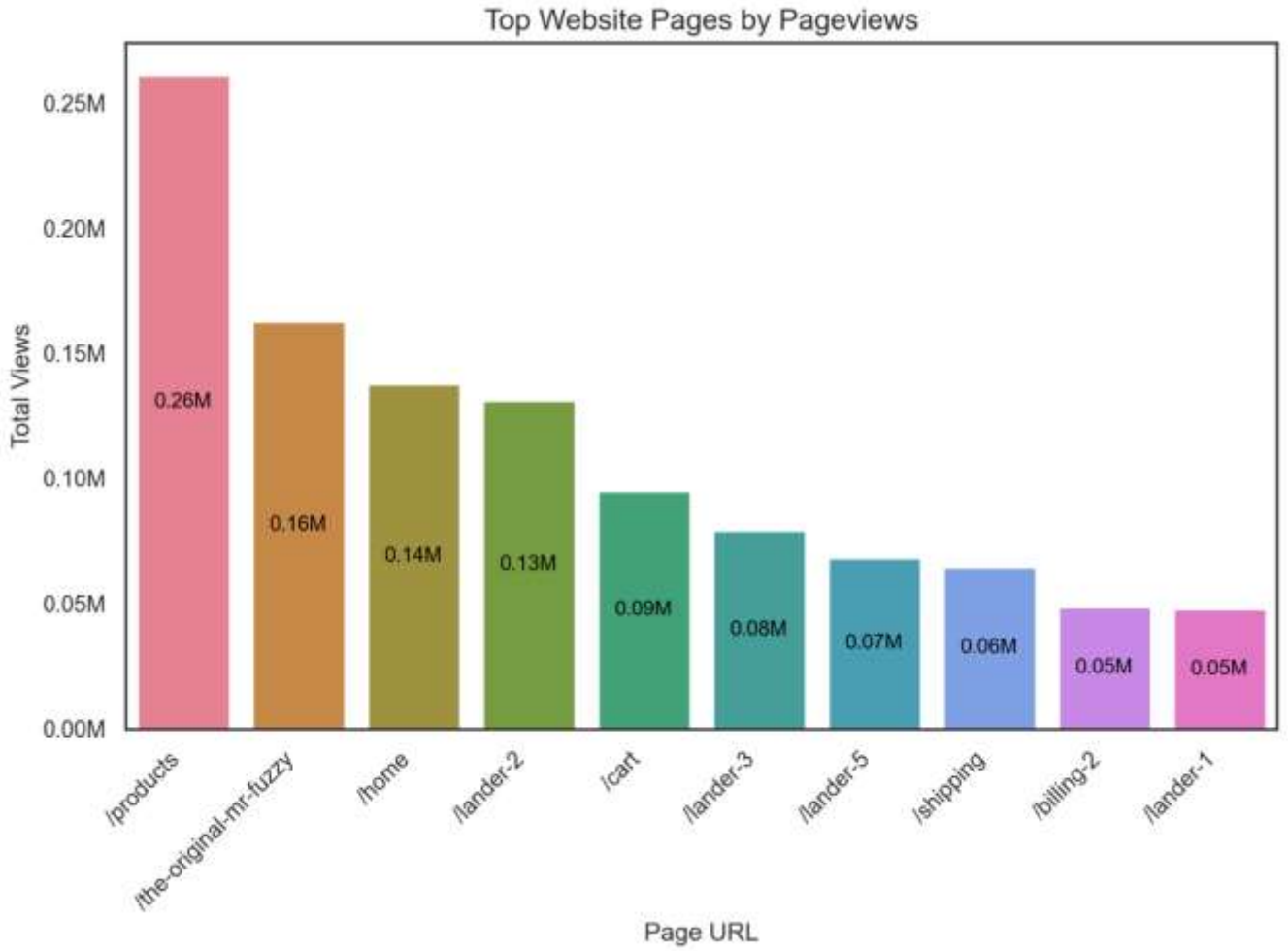
INSIGHT

- /home and /lander-2 dominate traffic, with 137,576 and 131,170 sessions respectively — these are your core entry points.
- /lander-3 and /lander-5 have solid mid-tier traffic at 79,000 and 68,166 sessions, indicating regular use but lower exposure.
- /lander-1 receives moderate traffic (47,574 sessions) — may be campaign-specific or used for specific segments.
- /lander-4 has very low session volume (9,385 sessions) — underutilized or poorly promoted.

✓ RECOMMENDATION

- Prioritize /home and /lander-2 for optimization: They set the tone for user experience. Improve messaging, speed, and funnel depth.
- Experiment with /lander-3 and /lander-5: Their traffic justifies A/B testing offers, visuals, or CTA structures.
- Reassess /lander-4: If it's still relevant, promote it more or redesign it for better appeal. If not, consider retiring it.
- Segment landing page use by intent: Use high-traffic pages for awareness; drive high-CVR traffic to pages like /lander-5 (based on earlier data).

TOP 10 WEBSITE PAGES BY VIEWS



INSIGHT

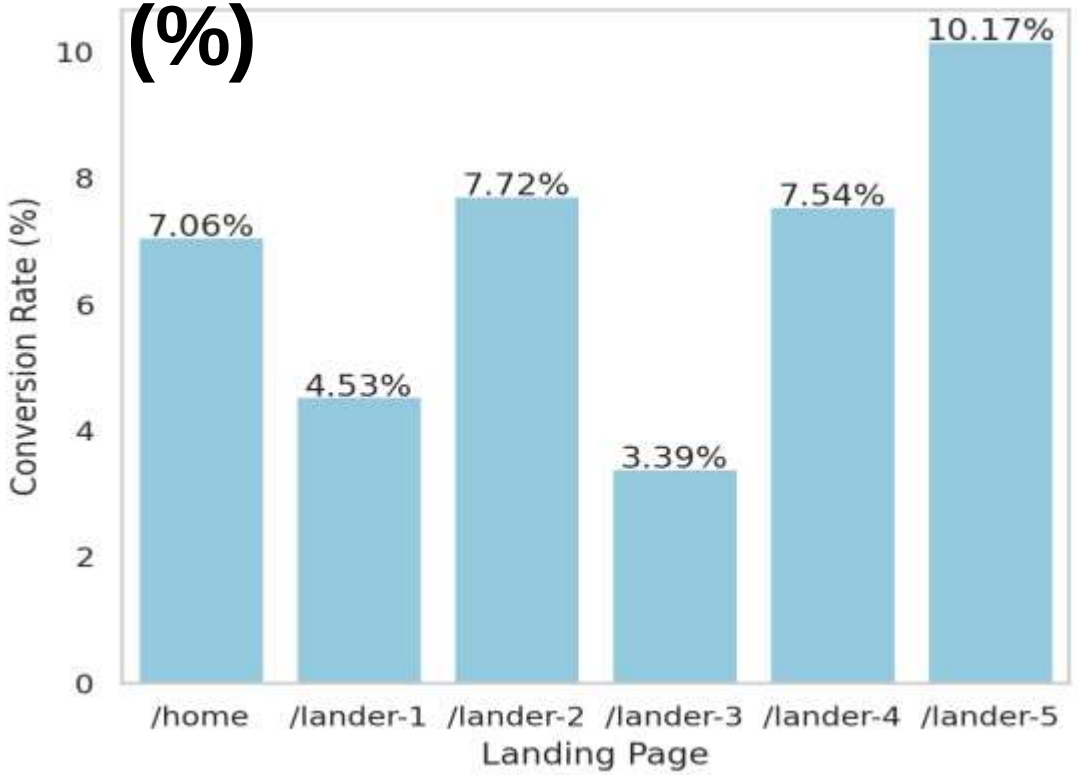
- /products is by far the most viewed page, with 261,231 pageviews — more than 50% higher than the next page.
- The product detail page /the-original-mr-fuzzy follows with 162,525 views, showing strong product-specific interest.
- /home and /lander-2 also receive high engagement (~130K each), confirming their role as key entry points.
- Checkout-related pages like /cart (94,953), /shipping (64,484), and /billing-2 (48,441) are seeing steady traffic — these are critical in the purchase funnel.
- /lander-3 and /lander-5 have decent engagement (79K and 68K views), suggesting mid-funnel usage.

✓ RECOMMENDATION

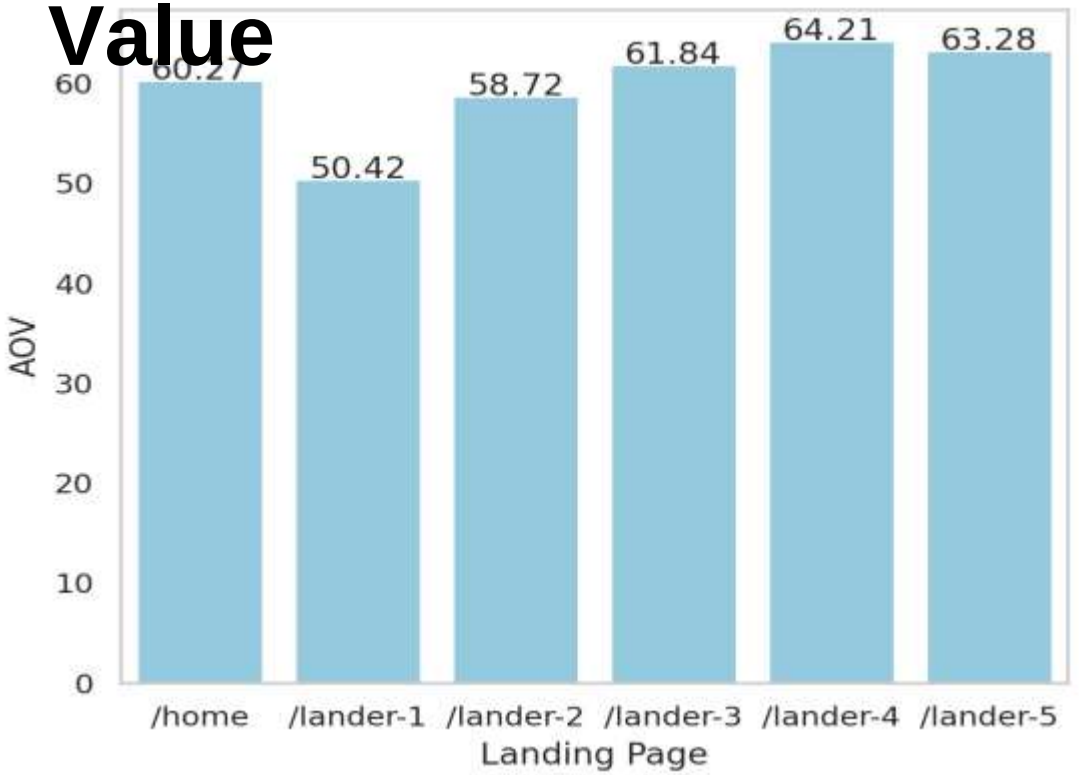
1. Optimize /products for conversions: It's your highest traffic page — add clear CTAs, filters, and promotions to move users deeper into the funnel.
2. Highlight /the-original-mr-fuzzy in campaigns: It's clearly popular — consider bundling, upselling, or creating similar high-demand product pages.
3. Improve UX on checkout flow pages (/cart, /shipping, /billing-2): Even small friction here could be costing conversions — focus on speed, trust elements, and mobile usability.
4. Test different content on /lander-3 and /lander-5: With solid traffic, they're good candidates for running experiments.
5. Cross-analyze with CVR data: For high-traffic pages like /home and /lander-2, even a small lift in conversion rate will move the needle.

LANDING PAGE ANALYSIS

Conversion Rate (%)



Average Order Value



INSIGHT

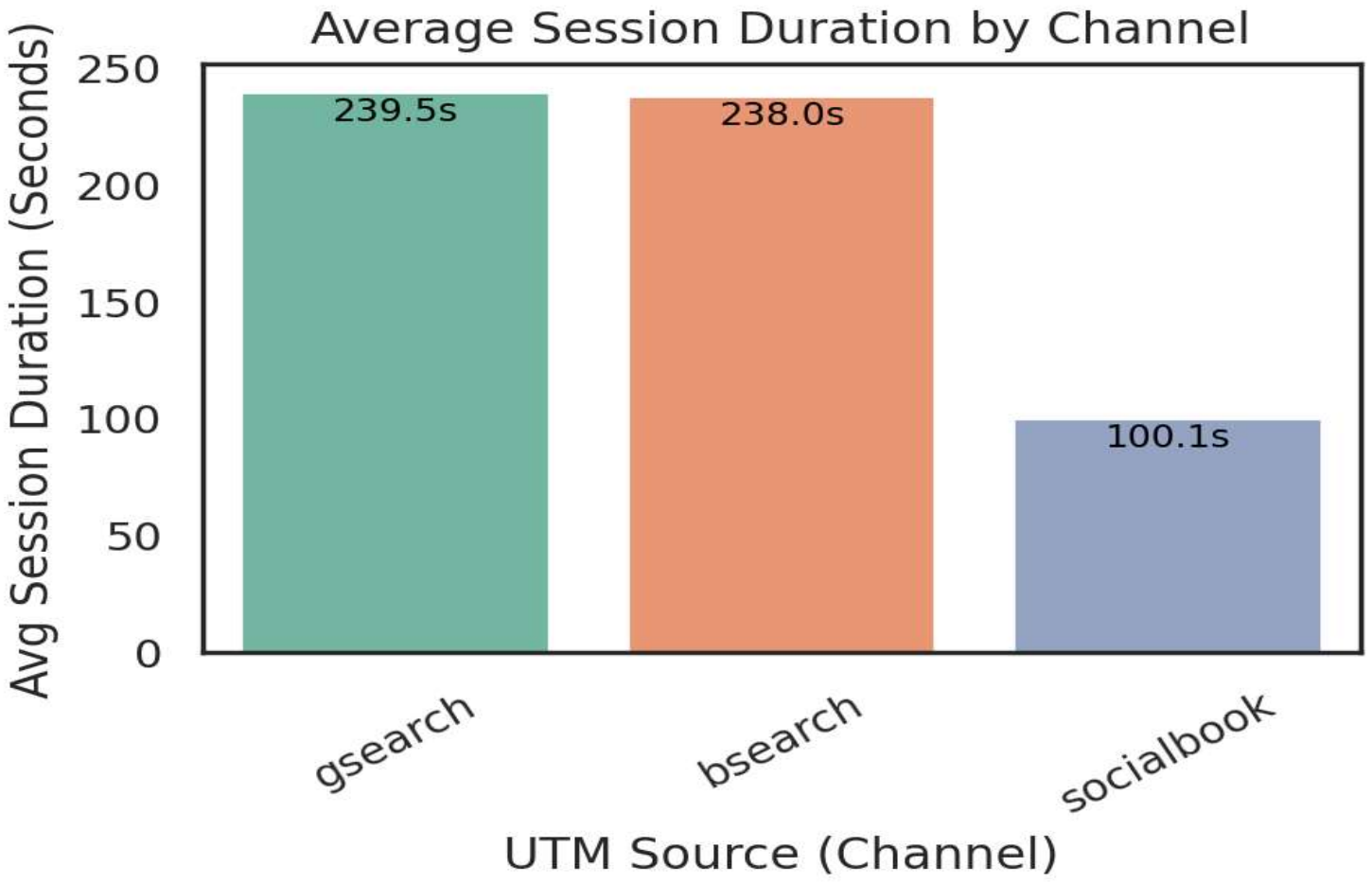
- /lander-5 stands out with the highest CVR (10.17%) and a strong AOV ($63.28) — this is your top revenue-generating entry point.
- /lander-4 has the highest AOV ($64.21) and a solid CVR (7.54%) — but gets very low traffic (just 9K sessions earlier). It's a hidden gem.
- /lander-2 performs well across both: 7.72% CVR and $58.72 AOV — consistent and scalable.
- /home performs decently with 7.06% CVR and $60.27 AOV — justified given its large traffic volume.
- /lander-3 is confusing: low CVR (3.39%) but high AOV ($61.84) — users who convert spend well, but too few convert.
- /lander-1 is weakest overall: 4.53% CVR and lowest AOV ($50.42).

RECOMMENDATION

- Prioritize /lander-5 in paid and organic campaigns — it's delivering both volume and value. Expand its reach and test variants.
- Boost traffic to /lander-4: High AOV + high CVR + low sessions = big untapped opportunity. Promote it more or A/B test scaled versions.
- Keep /lander-2 as a stable performer: Use for balanced campaigns where consistency matters.
- Redesign /lander-3: There's strong buyer intent among converters, but most users drop off. Fix friction, rework layout or offer clarity.
- Audit /lander-1: Low conversion and spend. Either overhaul or retire from active marketing rotation.

CHANNEL PORTFOLIO MANAGEMENT

□□ AVERAGE SESSION DURATION BY CHANNEL



🔍INSIGHT

➢ gsearch & bsearch users stay the longest

- gsearch: 239.5s
- bsearch: 238.0s
  Both drive high intent traffic. These users are sticking around and engaging — strong signals of interest or conversion consideration.

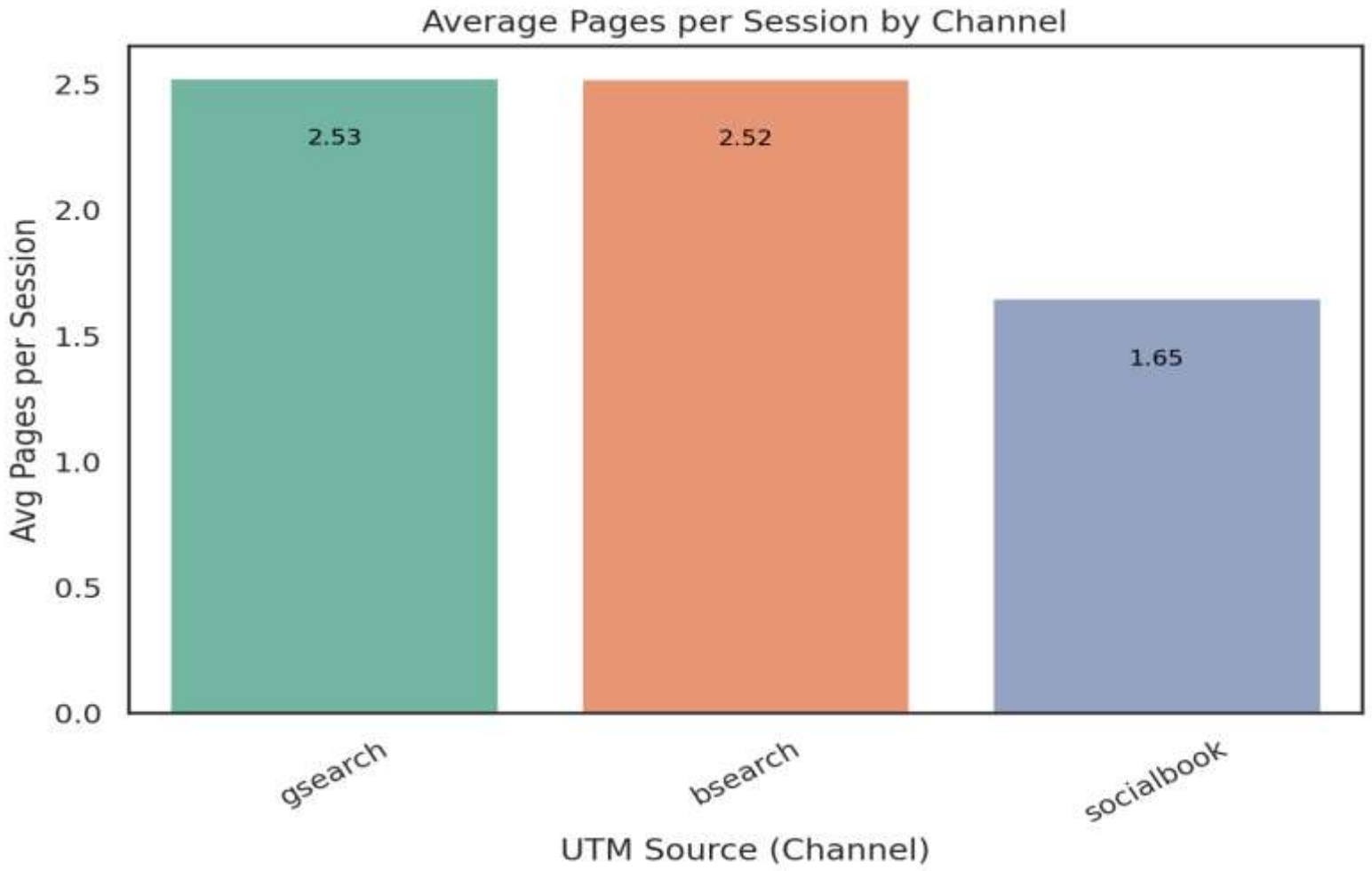
➢ socialbook underperforms significantly

- Just 100.1s average session time — that's 58% lower than search channels.
  This traffic is likely low-quality or landing on the wrong page.

✓ RECOMMENDATION

- ➢ Double down on gsearch & bsearch
- Increase ad spend or SEO efforts here — they bring engaged traffic.
- A/B test new creatives or landing pages to push session time even higher (e.g., educational content or product demos).
- ➢ Fix or filter socialbook traffic
- Short sessions mean bounce-prone or misaligned traffic.
- Audit:
  - What pages are socialbook users landing on?
  - Are those pages mobile-optimized?
  - Does the messaging match the ad/promo?
- Options:
  - Pause campaigns temporarily
  - Re-target more relevant audiences
  - Test better landing pages with clearer CTAs

AVERAGE PAGES VIEWED PER SESSION BY CHANNEL



INSIGHT

- gsearch and bsearch users are the most engaged
  - gsearch: 2.53 pages
  - bsearch: 2.52 pages
    These users browse more deeply, indicating stronger interest and better navigation experience.
- socialbook traffic drops off quickly
  - Only 1.65 pages per session, which matches its low session duration.
    This shows weak engagement — users aren't exploring much beyond the landing page.

✓ RECOMMENDATION

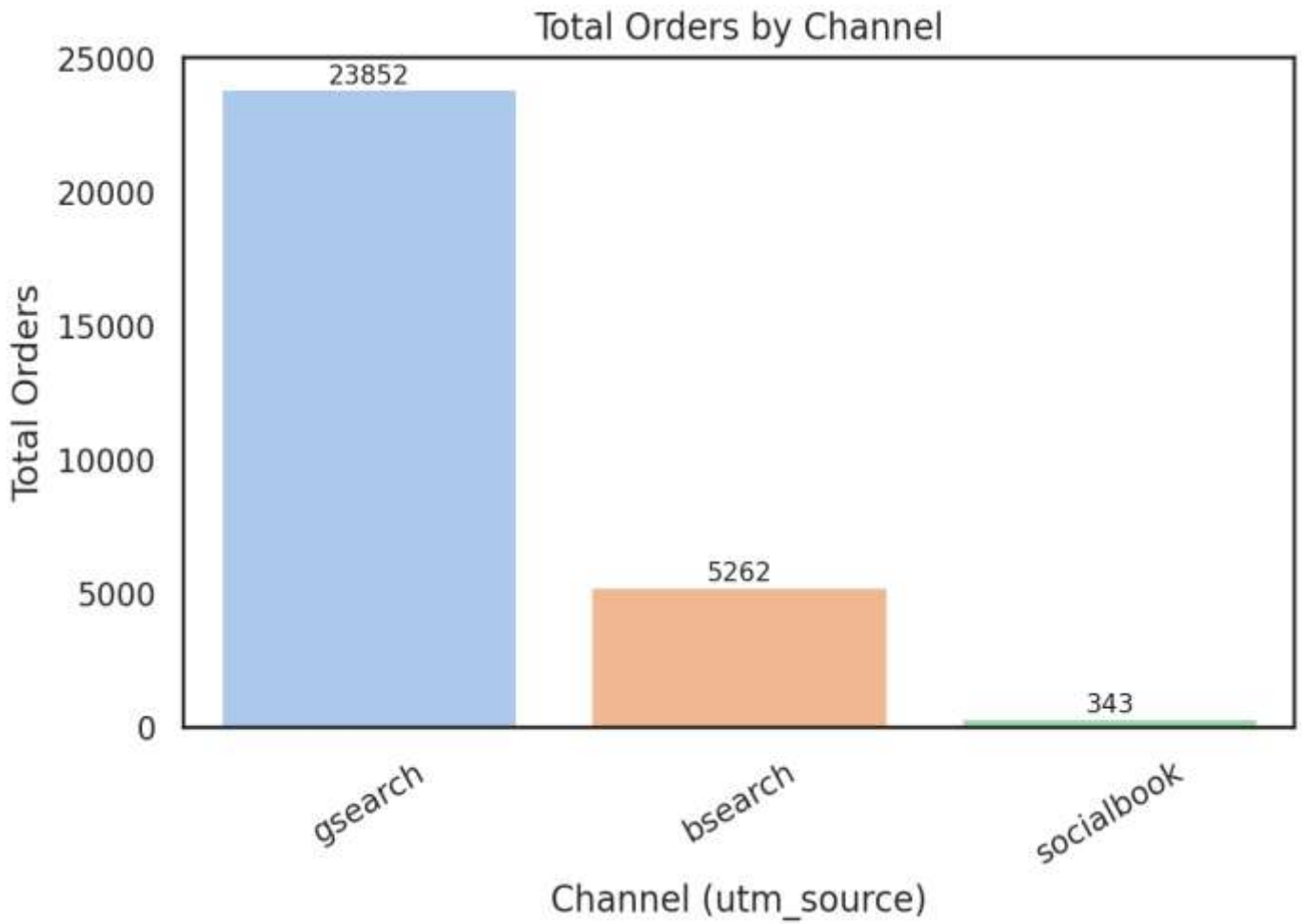
➢ Maximize gsearch and bsearch campaigns

- Ensure these users land on high-converting, well-linked pages (e.g. category → product → cart).
- These channels show both quality time and depth, so scale budgets and test additional keywords or audience segments.

➢ Fix the socialbook user experience

- Test new landing pages with better content structure, more internal links, or stronger CTAs.
- Prioritize mobile optimization — social traffic is usually mobile-heavy.
- If targeting is too broad, consider refining audience filters or ad messaging.

TOTAL ORDERS BY CHANNEL



INSIGHT

- gsearch is the top revenue driver
  - With 23,852 orders, gsearch dominates all other sources.
  - This aligns with its strong engagement metrics (session duration, pages/session, conversion rate).
- bsearch contributes but underperforms
  - Only 5,262 orders — despite high engagement, it's not converting at the same scale.
  - Possibly due to differences in intent or offer relevance.
- 3. socialbook is nearly irrelevant
  - Just 343 total orders, the lowest by far.
  - Poor engagement (lowest pages/session and duration) is clearly translating to weak conversions.

✓ RECOMMENDATION

➢ Double down on gsearch

- Reinvest ad spend here. Consider new keyword sets or product-focused campaigns.
- Use RLSA (remarketing lists for search ads) to push higher-value users toward conversion.

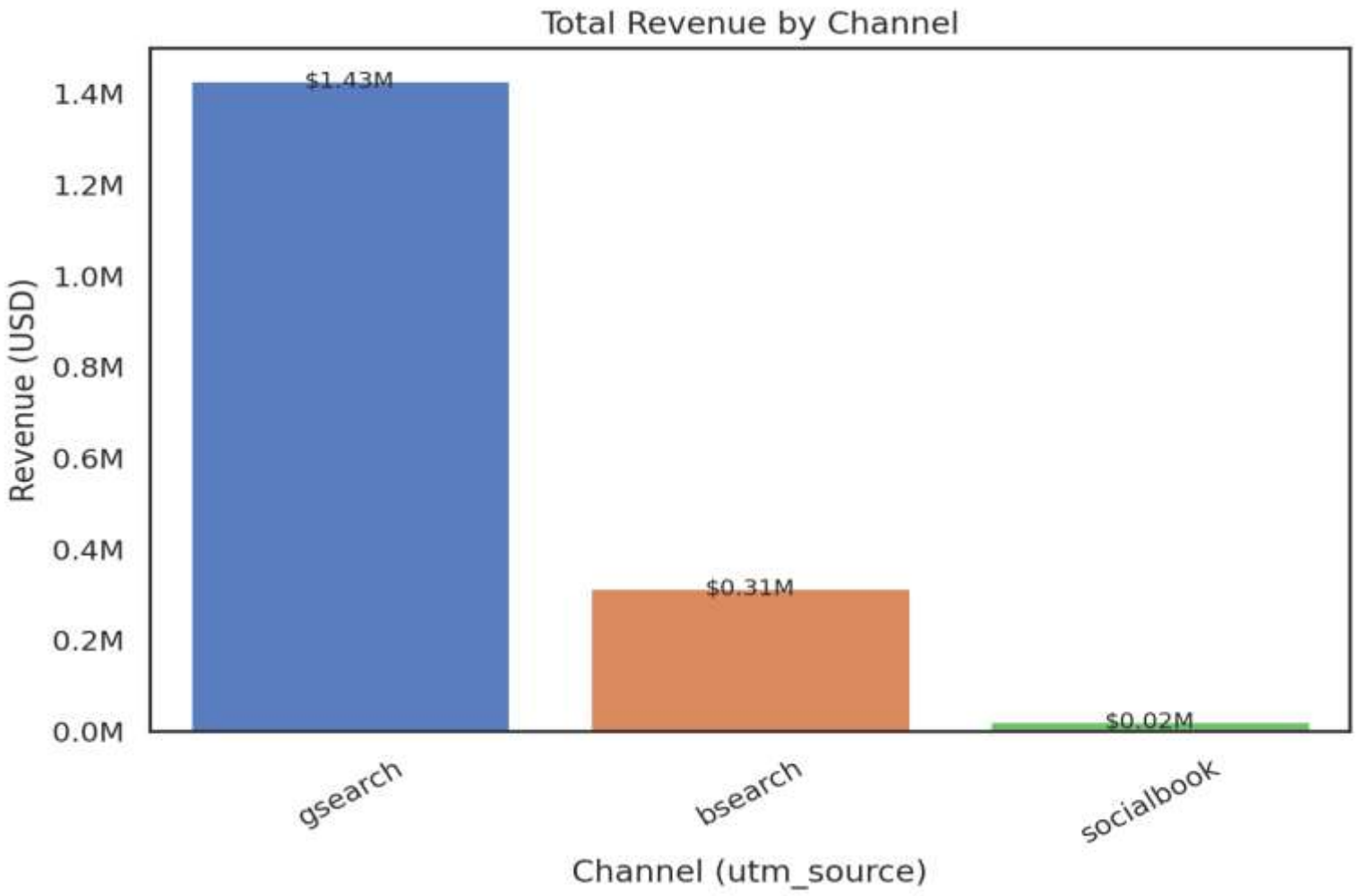
➢ Optimize bsearch performance

- Run A/B tests on bsearch ad copy, landing page alignment, or checkout experience.
- Look for friction points — cart drop-off or promo code abandonment could be hurting conversions.

➢ Consider pausing or overhauling socialbook

- Low ROI at this scale. Pause for now unless retargeting is cost-effective.
- If continuing, rebuild from the ground up — new creatives, CTAs, tighter targeting.

💰 TOTAL REVENUE BY CHANNEL



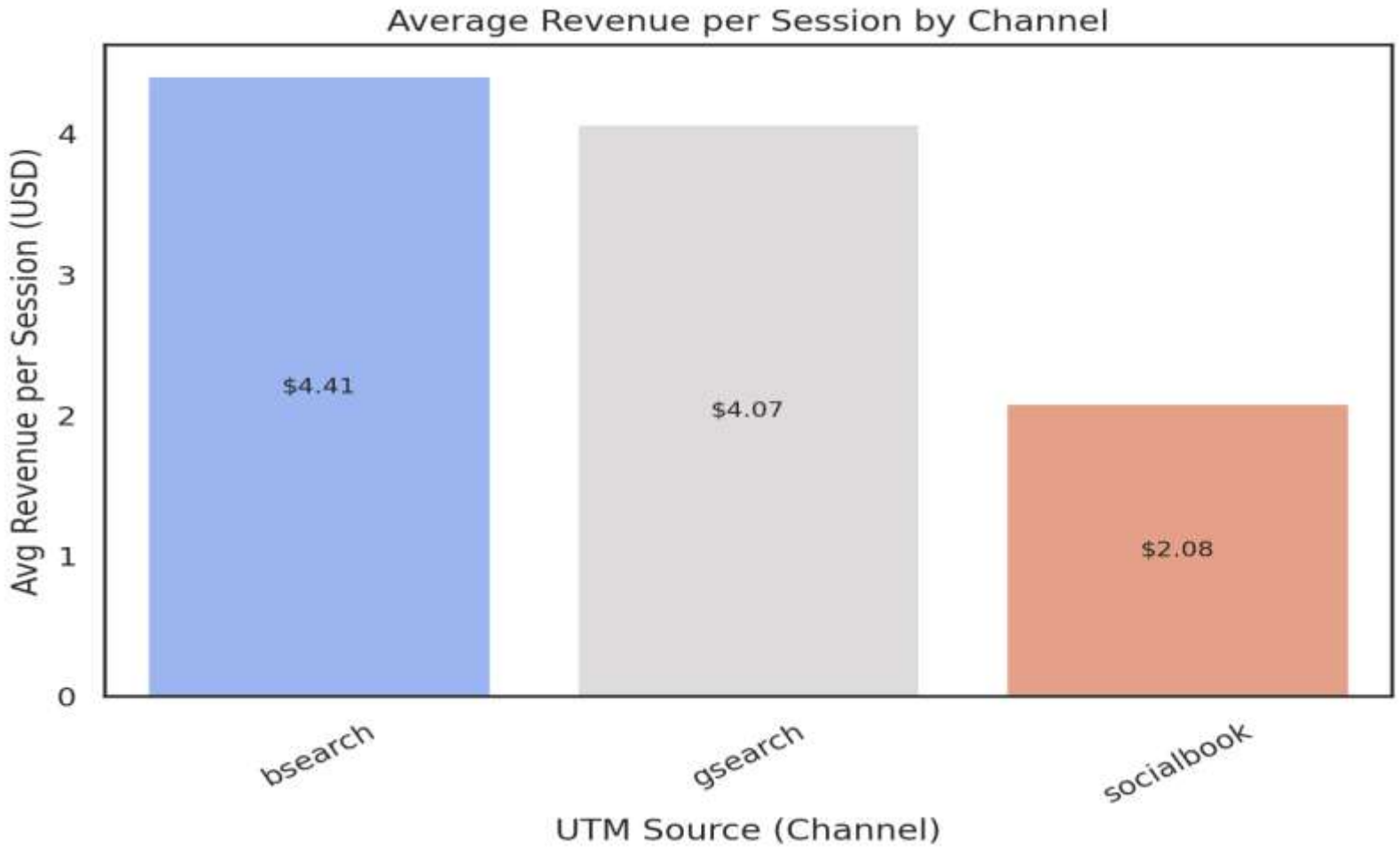
🔍INSIGHT

- Gsearch generated $1.43M, accounting for the vast majority of revenue.
- It's nearly 5x higher than Bsearch, and 70x higher than Socialbook.
- Bsearch contributed only $0.31M.
- Conversion may be weaker, or audience intent less commercial compared to Gsearch.
- Just $0.02M revenue—practically negligible.
- This channel may have been experimental or not well-optimized.

✓ RECOMMENDATION

- ➢ Double down on Gsearch.
- Allocate more budget to Gsearch campaigns. Test further ad creatives and keyword variations to sustain or boost returns.
- ➢ Re-evaluate Bsearch strategy.
- Run A/B tests on ad copy and landing pages.
- Consider reducing spend unless ROAS improves.
- ➢ Pause or pivot Socialbook.
- If this is organic: revisit content strategy and targeting.
- If paid: stop campaigns until a clearer value path emerges.

AVG REVENUE PER SESSION BY CHANNEL



INSIGHT

- Despite lower total revenue, Bsearch brings in the most value per session at $4.41.
- This suggests the audience is high-intent, but the channel might not be scaling.
- $4.07 per session + massive volume = the real revenue driver.
- Efficient, scalable, and predictable.
- At $2.08 per session, it's far behind the others.
- This could be due to low-intent traffic or poor targeting.

✓ RECOMMENDATION

- Test scaling Bsearch.

  Try expanding reach with broader keywords or display targeting, while maintaining this high session value.
  Don't ignore a channel just because total revenue is low — it may be underutilized.

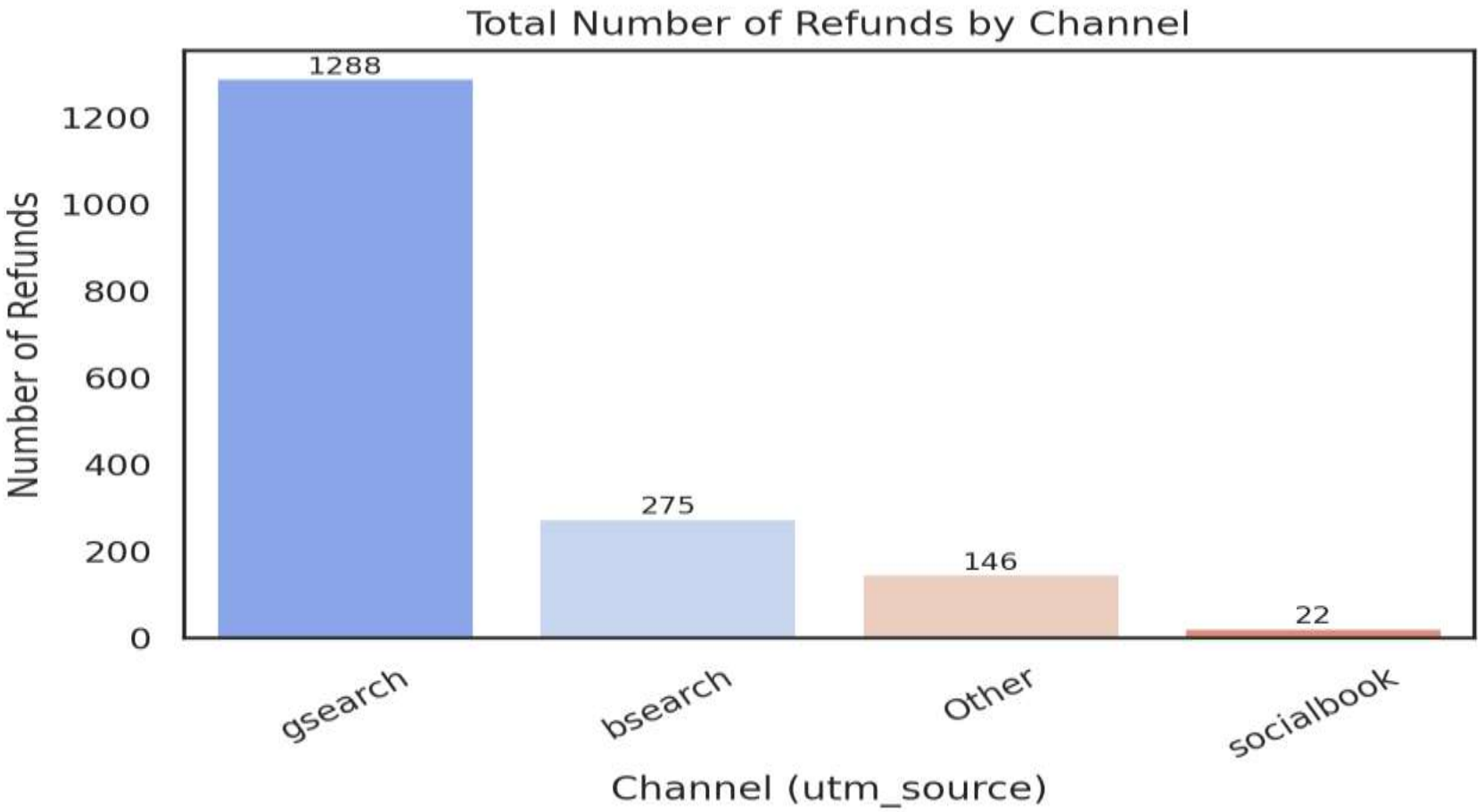
- Optimize for margin.

  Since volume is strong, find efficiencies—tighten keyword bids, improve landing page speed, and consider adding LTV-based audience exclusions to prevent overspending.

- Audit and reposition.

  If Socialbook is organic, refocus content around conversion triggers.
  If it's paid, try retargeting audiences or switch to more conversion-prone segments (e.g., cart abandoners, engagers).

↩ TOTAL REFUNDS BY CHANNEL



INSIGHT

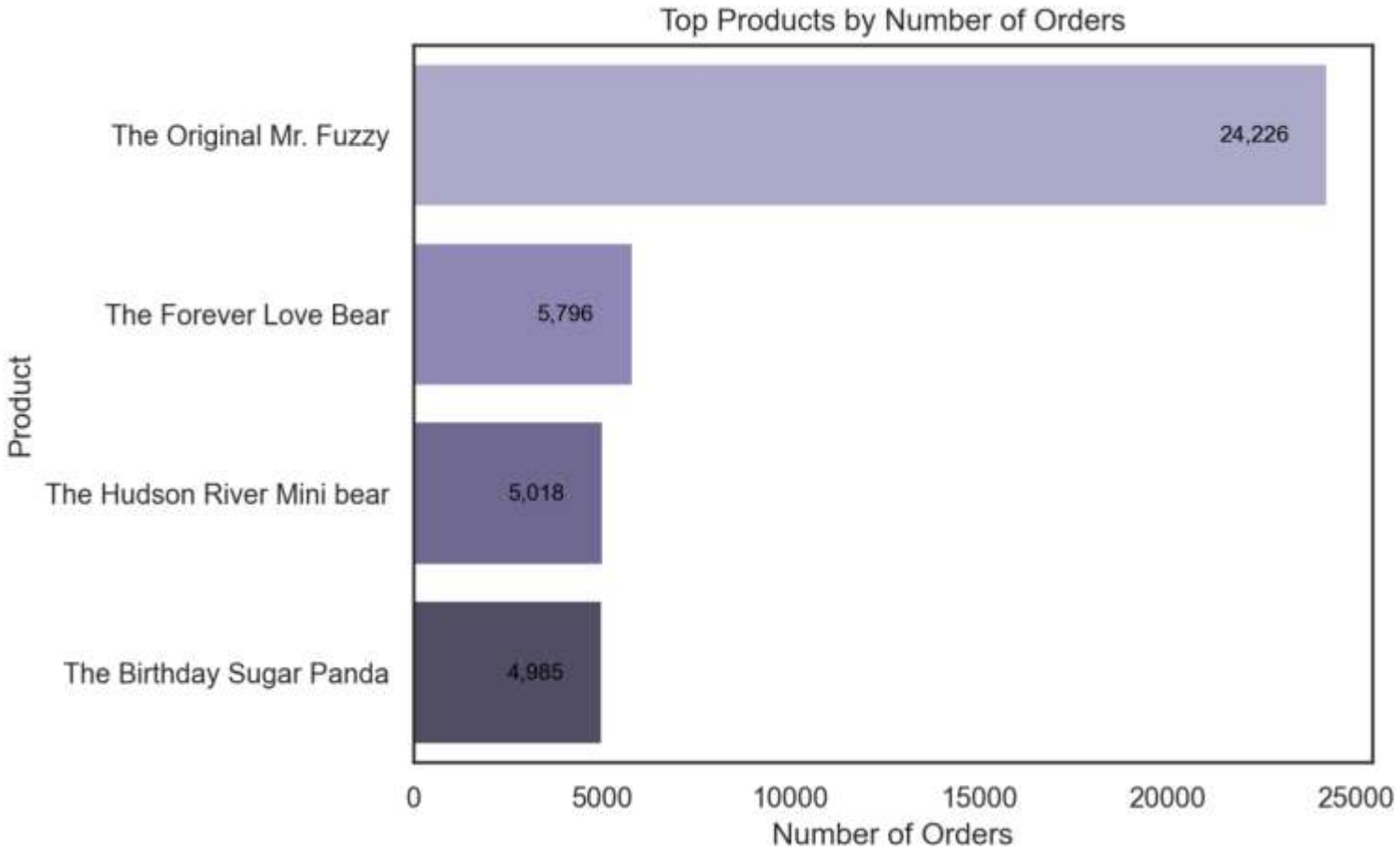
- Gsearch generates $1.43M, but has the highest refunds (1,288). Avg. rev/session is solid at $4.07.
- Bsearch revenue is lower ($0.31M), but highest efficiency at $4.41/session and fewer refunds (275).
- Socialbook very low revenue ($0.02M) and lowest session value ($2.08). Refunds are minimal (22), but traffic is low.
- “Other” refunds at 146 with unclear revenue contribution.

✓ RECOMMENDATION

- Audit refund drivers. Optimize ad targeting and landing pages. Reduce refund-heavy SKUs.
- Scale this channel. Expand budget cautiously — it’s giving strong ROI with less churn.
- Pause or reposition. Only test for retargeting or niche campaigns — not worth top-funnel spend.
- Break it down. Separate into email, affiliate, etc. to assess which sub-channel is underperforming.

PRODUCT ANALYSIS

TOP PRODUCTS BY ORDER



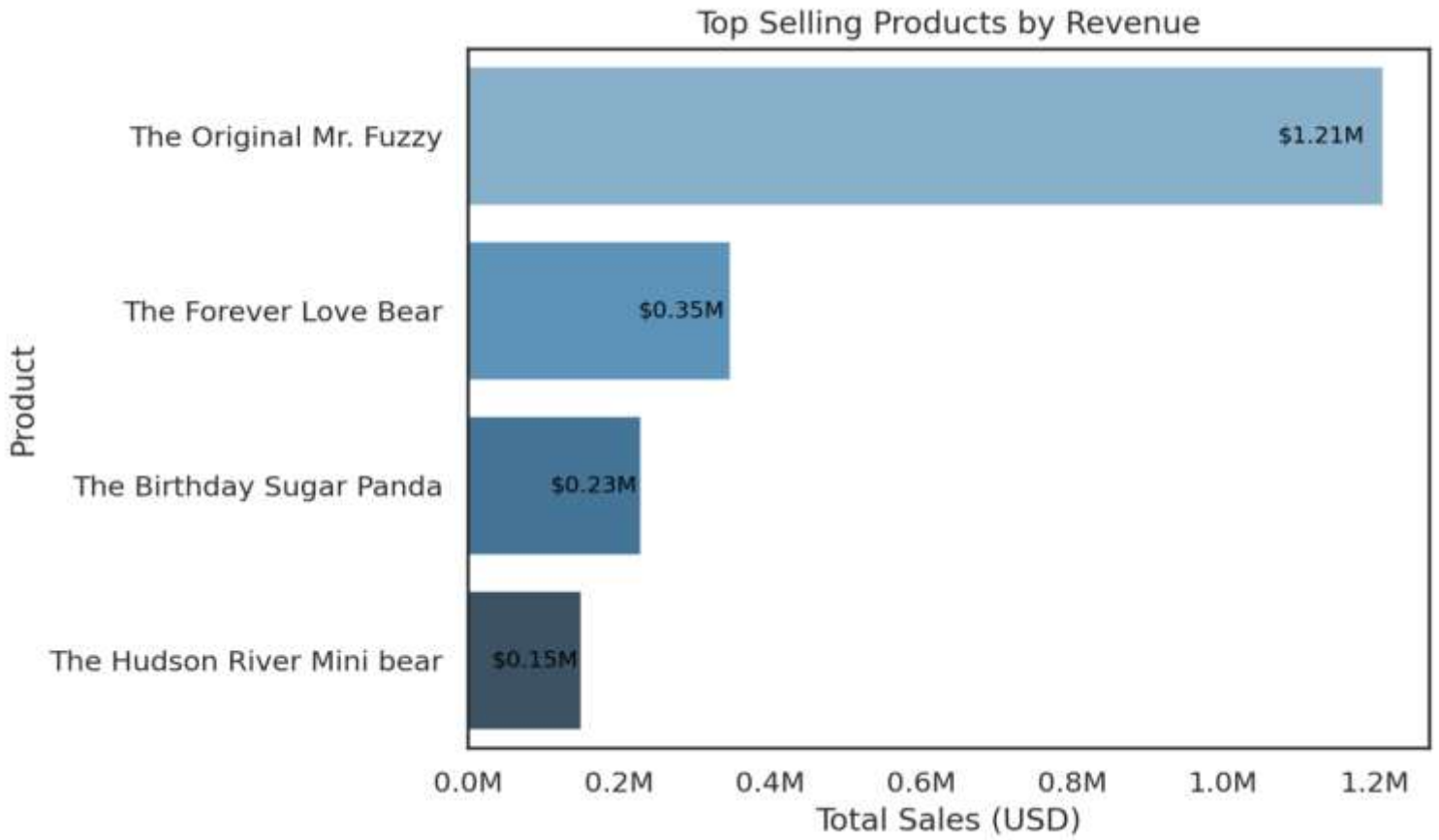
INSIGHT

- The Original Mr. Fuzzy dominates with 24,226 orders, vastly outperforming all other products.
- The other three products —
- Forever Love Bear (5,796 orders)
- Hudson River Mini Bear (5,018 orders)
- Birthday Sugar Panda (4,985 orders) — have similar but much lower order volumes, roughly one-fifth of Mr. Fuzzy's total.
- The gap indicates Mr. Fuzzy has broad appeal, strong demand, or excellent positioning in the market.

✓ RECOMMENDATION

- Leverage Mr. Fuzzy as a flagship product in marketing and bundling strategies — use its brand strength to boost visibility of other bears.
- Upsell opportunities: Offer product combos (e.g., *"Buy Mr. Fuzzy, add Mini Bear at 30% off"*) to increase exposure and sales of lower-order items.
- Re-evaluate visibility of lower-performing products (Mini Bear, Sugar Panda) — test repositioning or personalized recommendations during checkout.
- A/B test product placements on-site and in promotions to understand why Mr. Fuzzy converts better — apply learnings to improve conversion on others.

TOP PRODUCTS BY REVENUE



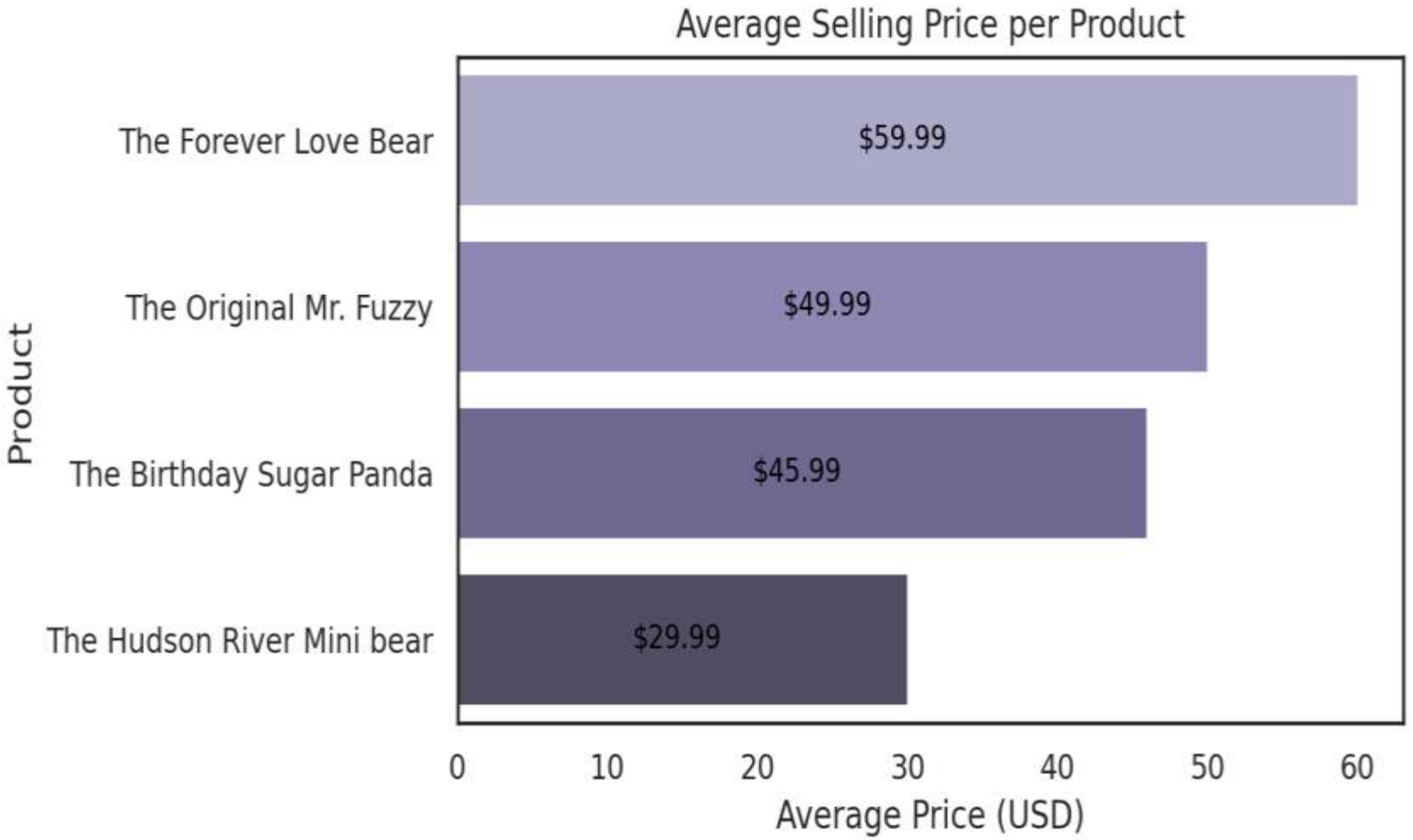
INSIGHT

- *The Original Mr. Fuzzy* dominates with $1.2M, 4x more than any other product.
- *Forever Love Bear* ranks 2nd with $0.3M
- *Birthday Sugar Panda* at $0.2M revenue,
- *Mini Bear has the lowest revenue(1.15%) suggesting marketing or visibility gap.*

✓ RECOMMENDATION

- **Bundle Smart:**
  - Pair Mini Bear with Mr. Fuzzy or Love Bear to drive up revenue with a high-satisfaction, low-refund product.
- **Optimize Quality:**
  - Improve Sugar Panda's quality or manage buyer expectations to reduce refund rate and protect its rising Q4 sales.
- **Seasonal Campaigns:**
  - Run Valentine's push for Love Bear, and Q4 bundles around Mr. Fuzzy and Mini Bear.
- **Relaunch Campaign:**
  - Position *Mini Bear* as a "Hidden Gem" with strong satisfaction to boost mid-year performance.

💰 AVERAGE PRICE PER PRODUCT



🔍INSIGHT

- ➢ Forever Love Bear ⟶ $59.99
  - ⟶ Highest-priced product; customers are willing to pay premium
- ➢ Original Mr. Fuzzy ⟶ $49.99
  - ⟶ Mid-high price tier, but didn't appear in top orders or revenue
- ➢ Birthday Sugar Panda ⟶ $45.99
  - ⟶ Strong balance of price and volume; ideal for gifting
- ➢ Hudson River Mini Bear ⟶ $29.99
  - ⟶ Lowest price; explains why it's high in orders but lower in revenue

✓ RECOMMENDATION

- Push Forever Love Bear for high-AOV campaigns

→ Use it in gift bundles, paid ads, and premium product collections

- Test discounts or bundles on Mr. Fuzzy

→ Decent price, but low traction — needs visibility or repositioning

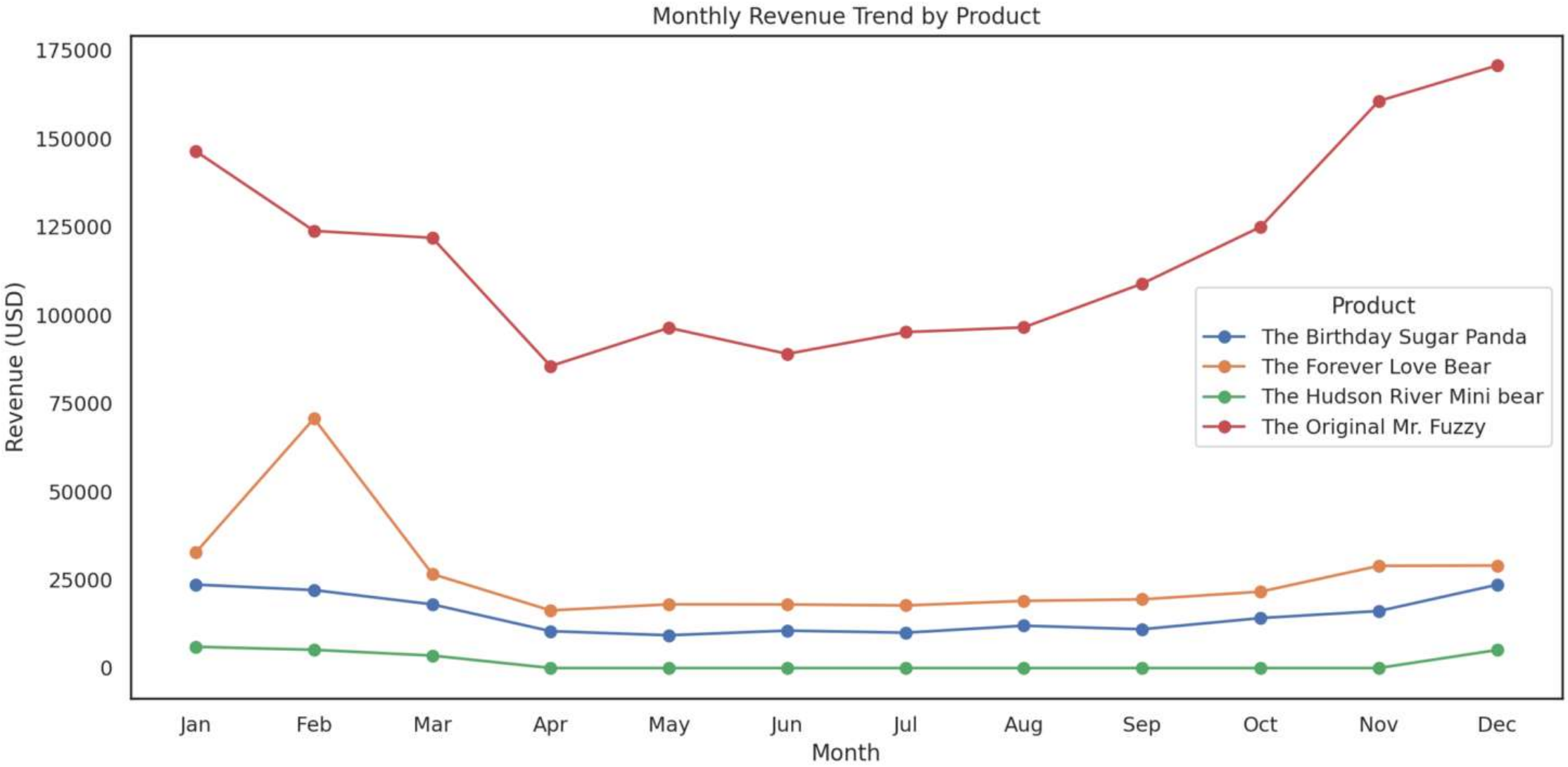
- Leverage Sugar Panda in birthday flows

→ Competitive price, high emotional value — tailor email or ad campaigns

- Bundle Mini Bear with higher-priced items

→ Raise cart value by pairing it with premium SKUs

MONTHLY REVENUE TREND BY



INSIGHT

➢ Refund Rate Risk

- Birthday Sugar Panda has the highest refund rate (6.04%) – potential quality or expectation mismatch.
- Mini Bear has lowest refund rate (1.28%) – strong customer satisfaction.

➢ Sales & Revenue Drop – Mini Bear

- Units fell from 192 to 109 (–43%) post-launch.
- Revenue mirrored decline despite low refunds ⟶ visibility or promotion issue, not product flaw.

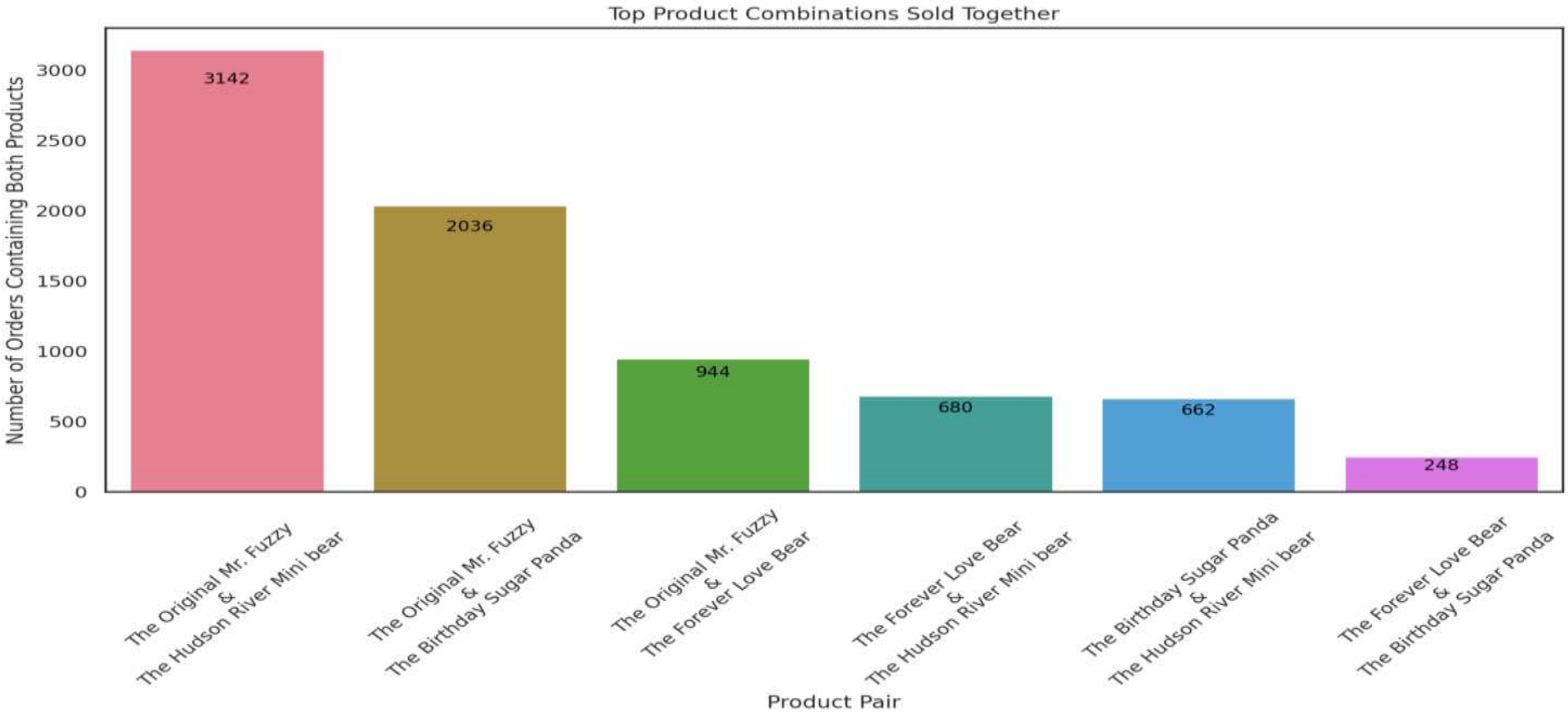
➢ Seasonal Trends & Performance

- Forever Love Bear spikes in Feb (~$71K) ⟶ leverage Valentine's demand.
- Mr. Fuzzy rebounds strongly in Q4, peaking at ~$172K in Dec.
- Sugar Panda shows Q4 recovery despite quality concerns.

✓ RECOMMENDATION

- Bundle low performers (e.g., Mini Bear with Love Bear or Mr. Fuzzy).
- Target seasonal campaigns:
  - Valentine's ⟶ Love Bear
  - Holidays ⟶ Mr. Fuzzy, Mini Bear
- Improve Sugar Panda quality to retain Q4 momentum.
- Relaunch Mini Bear with new marketing – highlight low refund rate as trust builder.

🔁 TOP PRODUCT COMBINATIONS (CROSS SELL)



INSIGHT

- Mr. Fuzzy + Hudson River Mini Bear

Most popular combo (3,142 orders) — customers love this bundle

- Mr. Fuzzy + Birthday Sugar Panda

Strong synergy (2,036 orders) — likely bought as gifts

- Mr. Fuzzy + Forever Love Bear

944 orders — people are mixing premium + mid-tier products

- Mini Bear appears in 4 combos

Acts as a frequent add-on item across bundles

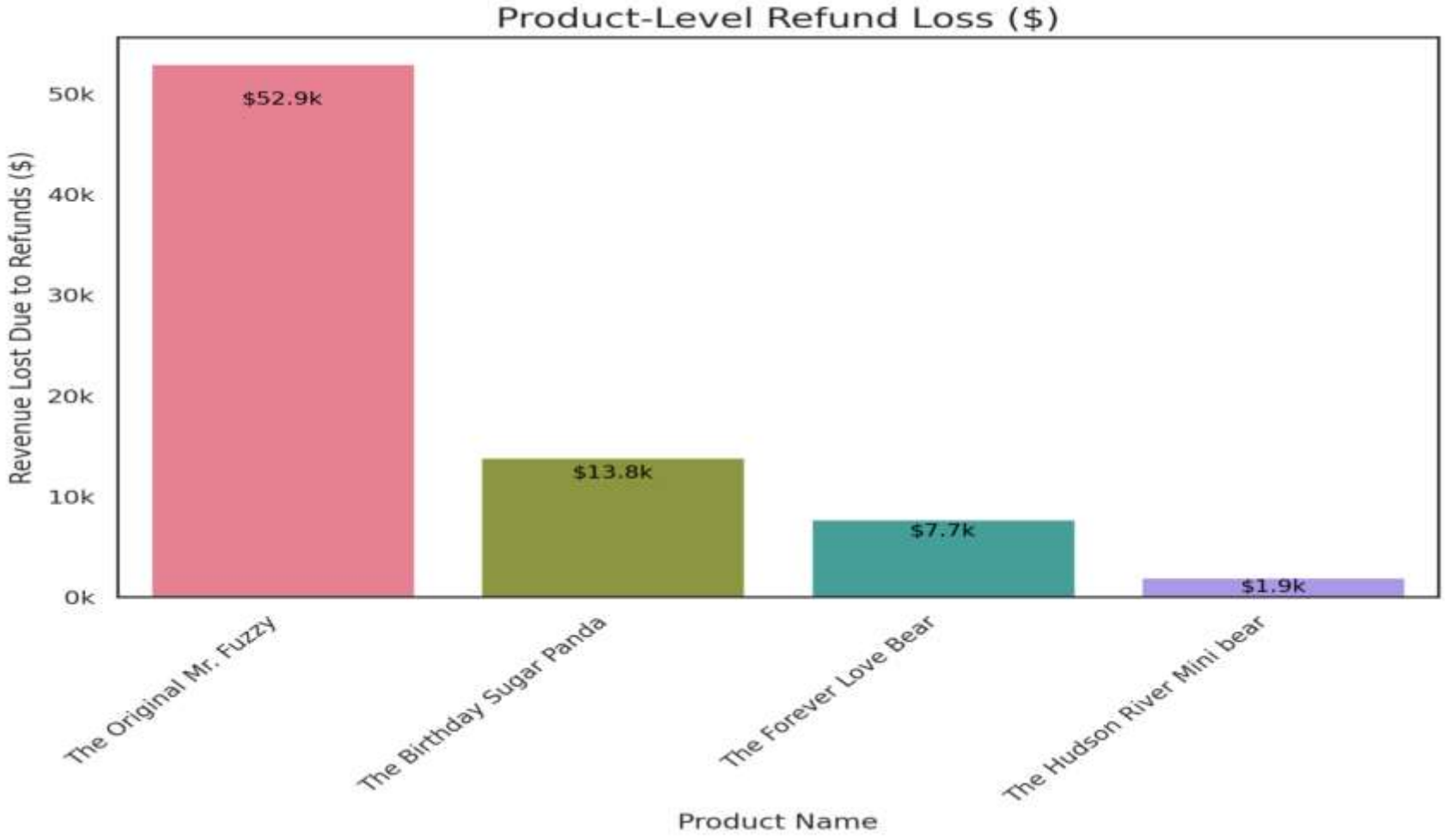
- Love Bear + Sugar Panda is least common (248)

Possibly serving different gifting occasions or demographics

RECOMMENDATION

- Create pre-packed bundles for top 2-3 combos
  → Save users time, increase AOV, and upsell easily
- Feature bundles on PDPs (Product Detail Pages)
  → "Customers also bought this" logic for Mr. Fuzzy and Mini Bear
- Test discounted cross-sells
  → Offer 10–15% off when combining top pairs at checkout
- Use combo insights in paid ads
  → Highlight most popular bundles in gift-oriented campaigns
- Design seasonal packs using best-selling pairs
  → For holidays, Valentine's Day, and birthday

REFUND AMOUNT LOSS BY PRODUCT



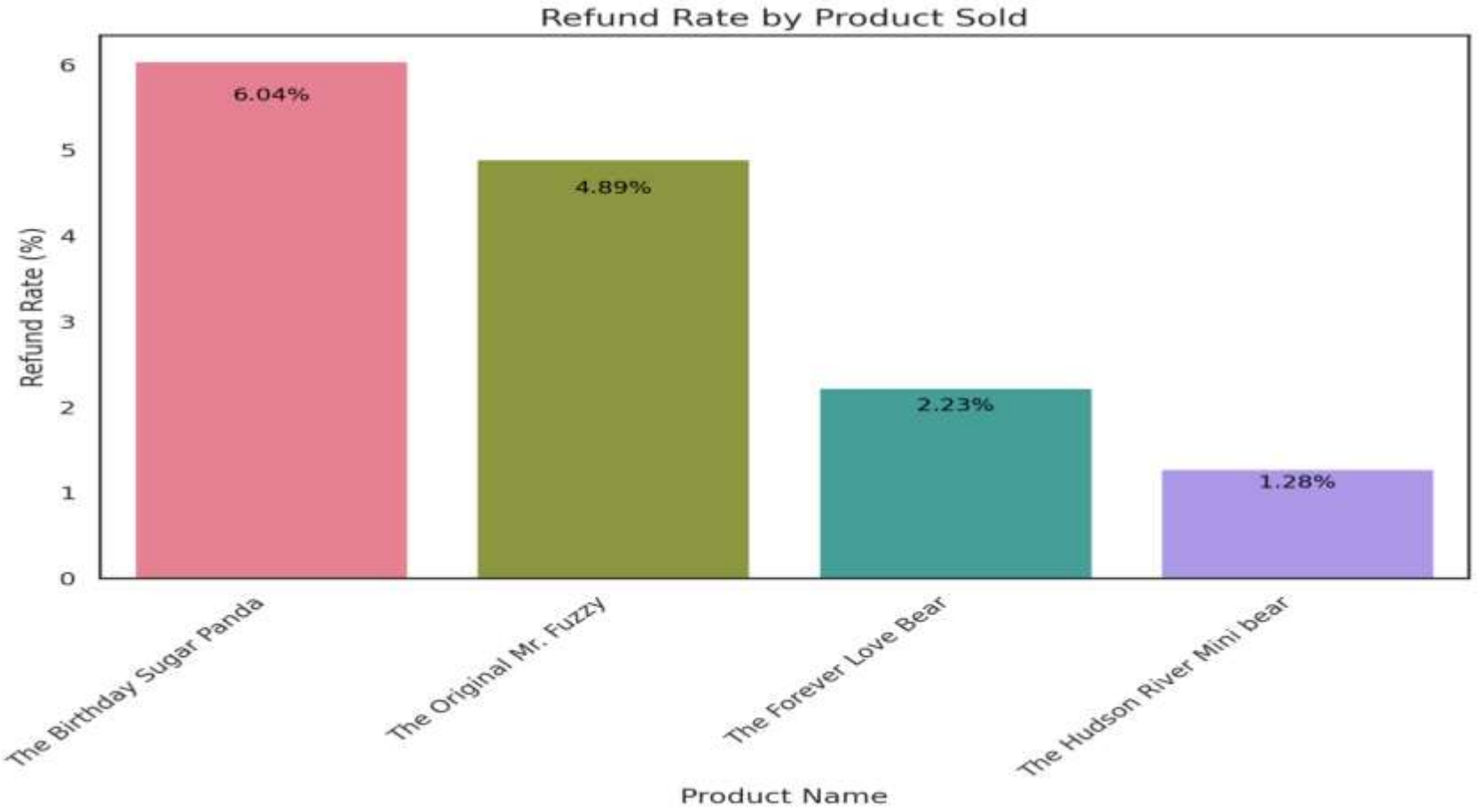
INSIGHT

- Mr. Fuzzy is bleeding revenue
- $52.9K lost due to refunds — over 60% of total refund losses
- Birthday Sugar Panda and Forever Love Bear also show notable refund issues
- $13.8K and $7.7K lost respectively
- Hudson River Mini Bear has minimal refund loss
- Only $1.9K — may indicate product quality or customer fit is strong

✓ RECOMMENDATION

- Investigate Mr. Fuzzy refund reasons
  - Check for quality issues, misleading photos, sizing confusion, etc.
- Improve product detail page for Mr. Fuzzy
  - Add better photos, videos, and clearer expectations (size, texture, use case)
- Prompt post-purchase feedback
  - Especially for Mr. Fuzzy buyers — early signals can reduce returns
- A/B test packaging or delivery experience
  - If logistics are causing dissatisfaction, that could impact refund rates
- De-emphasize in bundles until issue is addressed
  - High refunds could drag down other product performance
- Replicate what's working with Mini Bear
  - Study what makes it "sticky" and low-risk, apply those insights to others

REFUND RATE (%) BY PRODUCT



INSIGHT

- The Birthday Sugar Panda has the highest refund rate at 6.04%, far above the others.
- The Original Mr. Fuzzy follows at 4.89%.
- The Forever Love Bear and The Hudson River Mini Bear have significantly lower refund rates, at 2.23% and 1.28%, respectively.

✓ RECOMMENDATION

➢ Investigate High Refund Rate Products

- Action: Conduct a root cause analysis for "The Birthday Sugar Panda" and "The Original Mr. Fuzzy."
- How: Review customer complaints, quality control reports, and product packaging vs. actual product.

➢ Improve Product Quality or Expectations

- If issues are quality-related, improve manufacturing standards.
- If issues are expectation-related, adjust product descriptions or imagery on the website to align better with reality.

➢ A/B Test Product Improvements

- Test improved versions of these products in smaller markets to monitor refund trends before a full-scale change.

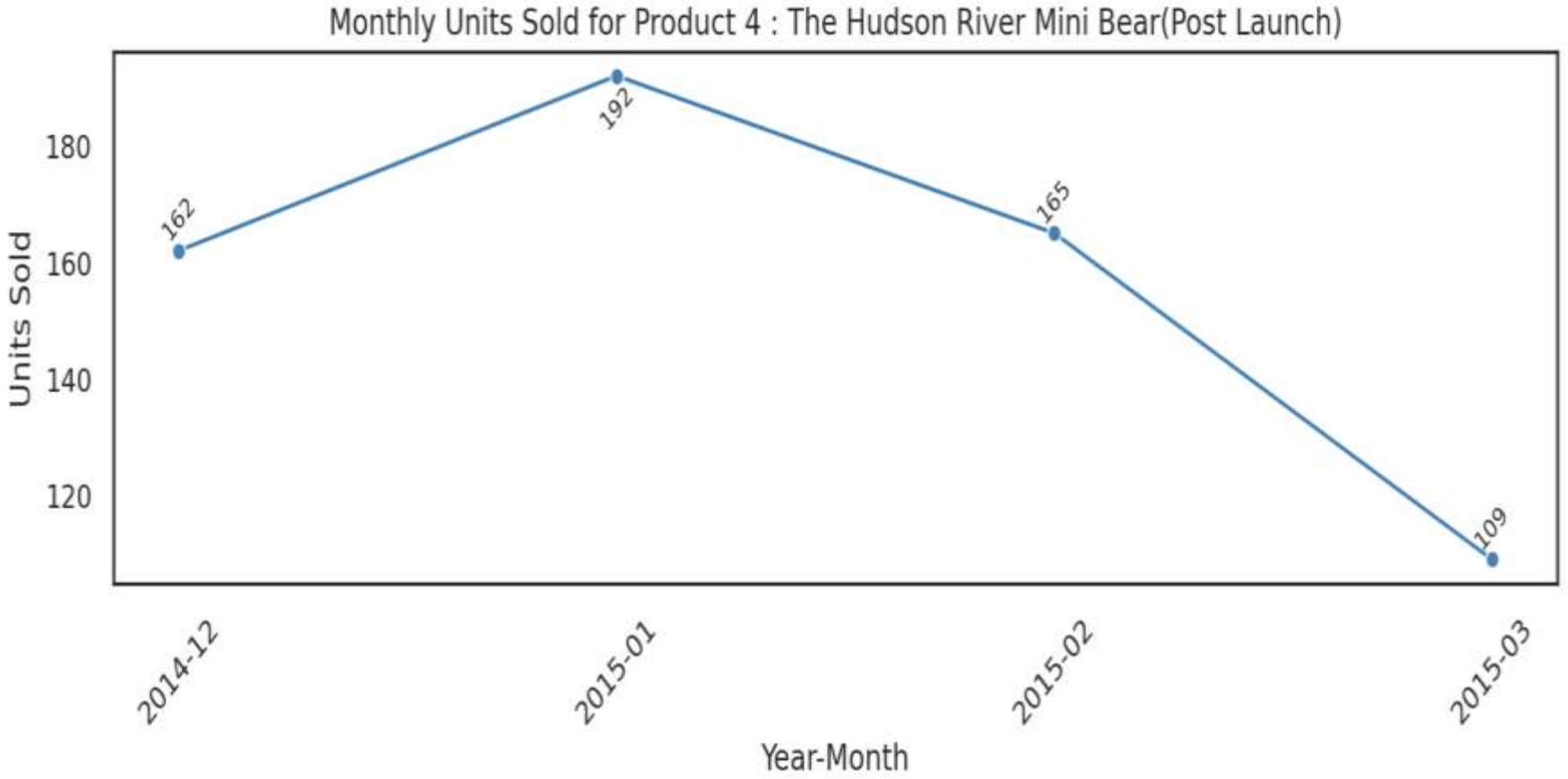
➢ Engage Customers for Feedback

- Launch a quick survey targeting customers who refunded these products to gather qualitative insights.

➢ Consider Temporary Pause or Discount

- If refund rates remain high after interventions, consider temporarily pausing the sale of the problematic product or offering it at a discount with a clear disclaimer until the issue is resolved.

MONTHLY UNITS SOLD FOR PRODUCT 4



INSIGHT

- Initial growth from 162 units (Dec 2014) to a peak of 192 units (Jan 2015).
- Followed by a sharp decline to 165 (Feb) and then 109 (Mar 2015) — a 43% drop from the peak in just two months.
- Despite its low refund rate (1.28%), sales are dropping steeply, suggesting the issue isn't product quality but perhaps waning interest or poor marketing sustainment.

✓ RECOMMENDATION

➢ Boost Marketing & Visibility

- Launch a targeted campaign to revive interest—social media teasers, influencer reviews, seasonal promotions.

➢ Review Post-Launch Strategy

- Examine whether product placement, pricing, or promotional activity dropped after January.
- Consider bundling with higher-performing products (like "Forever Love Bear") to drive complementary sales.

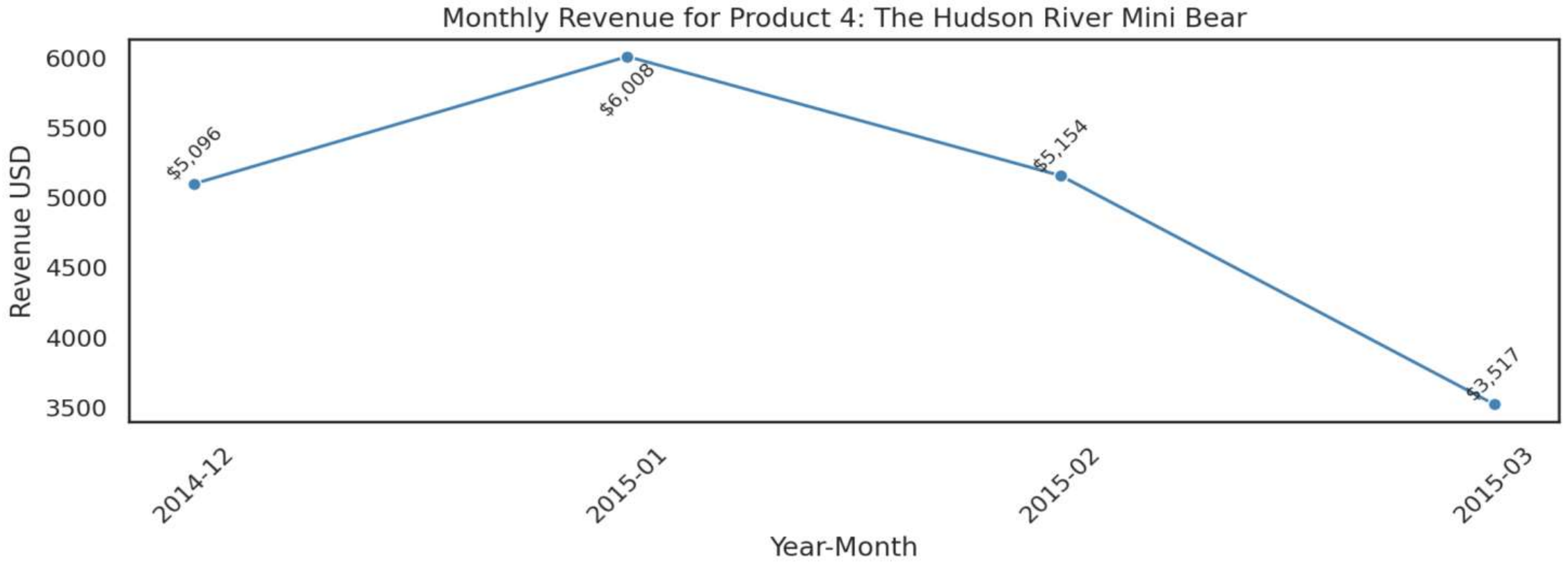
➢ Highlight Low Refund Rate

- Promote the high customer satisfaction (only 1.28% refunds) in marketing to build trust and differentiate it from competitors.

➢ Explore New Markets

- Test The Hudson River Mini Bear in different customer segments or regions using geo-segmented campaigns.

💰 MONTHLY REVENUE TREND FOR PRODUCT 4



INSIGHT

➢ Refund Rate:

- Lowest among all products: 1.28%
- Customer satisfaction appears strong, signaling minimal product-related dissatisfaction.

➢ Units Sold (Post Launch):

- Strong launch: 162 (Dec) ⟶ 192 (Jan)
- Then a sharp decline: 165 (Feb) ⟶ 109 units (Mar)
- 43% drop in two months, indicating slipping demand, not quality issues.

➢ Monthly Revenue:

- Peak in Jan: $6,008
- Fell to $3,517 in March, a 41% revenue loss, directly tied to the fall in sales volume.

RECOMMENDATION

➢ Reignite Market Momentum

- Launch a follow-up campaign with messaging like:

"Loved by many, returned by few — The Hudson River Mini Bear is back!"

- Use testimonials, reviews, and the 1.28% refund rate as social proof.

➢ Segment-Based Promotions

- Reintroduce the product via:
- Bundle offers (e.g., with popular bears like "Forever Love Bear")
- Seasonal themes (e.g., back-to-school, holiday gifting)

➢ Monitor, Adjust, and Optimize

- Track marketing ROI vs. sales in real-time dashboards.
- Introduce a limited-edition version or collector packaging to test if novelty increases demand.

Bhawya Kumar (Team Leader)

DATA ANALYST
Areas of Expertise:

- Data Analytics
- Data Visualization
- Operation Analytics
- Digital Analytics
- Dashboarding

Bhawya Kumar is a results-driven Data Analytics Professional with ~6 years of experience in Banking Operations, IT development, and data analytics. At NatWest Group (RBS), she transitioned from Operations to an IT Full Stack Developer, consistently delivering data-driven solutions that optimized business processes and improved customer experience.

Professional Experience

- Led SQL-based automation of customer transaction tracking systems, cutting resolution time by 30%
- Developed VBA tools for employee tracking, testing, and communication automation
- Delivered insights using Python, Power BI & Excel to improve user engagement and process efficiency
- Led complaint resolution teams, improving customer satisfaction and compliance
- Created dynamic dashboards and models for sales, customer segmentation, and fraud detection
- Analyzed customer credit scores to assess lending eligibility
- Acted as an oversight for KYC and account opening processes.
- MI reporting daily for the volumes

Academic Credentials

- Master of Arts(English)

GAURAV NAILWAL (MoM SPOC)

Data Scientist

Areas of Expertise:

- Data Analytics
- Business Analytics
- Machine Learning
- Business Intelligence

Gaurav Nailwal is proficient in Data analytics , Text Mining , Machine Learning with knowledge of Predictive and Forecasting models. Currently working as a Data Analyst intern at Scaletrix.ai , designing interactive dashboard to track business growth.

Professional Experience

- Designed and implemented **predictive models** to analyze customer churn, purchase behavior, and campaign performance.
- Built **forecasting models** for sales and inventory planning using time series techniques (ARIMA).
- Performed **text mining** and sentiment analysis on customer feedback using NLP methods like **TF-IDF**, word embeddings, and topic modeling.
- Developed interactive **dashboards in Power BI and Tableau.**
- Automated ETL workflows using **SQL scripts** to clean, transform, and load data from multiple sources.
- Packaged and deployed ML models using **Mlflow.**

Academic Credentials

- Bachelor of Science in Mathematics (Swami Sharddhanand College, Alipur, Delhi)

PARUL TIWARI (TECH SPOC)

Data Analyst

Areas of Expertise:

- Data Analytics
- Data Visualization
- Business Analytics
- Digital Analytics
- Marketing Strategy
- Market Research

Parul Tiwari is a results-driven Data Analyst with hands-on experience in Data Visualization, Business Analytics, and Digital Analytics. She has applied her skills in real-world scenarios through her internship at *Scaletrix.AI* , contributing to data-driven solutions, dashboard development, and performance analysis across marketing and website engagement metrics.

Professional Experience

As a certified data analytics professional currently interning with *Scaletrix.AI*, I've begun building a strong foundation in real-world data analysis and business intelligence. My early experience includes working on two diverse, hands-on projects:

- **Retail Store Analysis**: Conducted sales and customer behavior analysis to uncover key patterns in product performance, store-wise revenue contribution, and seasonal demand trends. Built interactive dashboards using Power BI for executive insights.

- **Mitron Bank Data Analysis**: Performed segmentation, credit card usage behavior analysis, and channel adoption trends. Designed business KPIs and delivered data-backed insights to support marketing strategy.

These experiences have sharpened my skills in Power BI, SQL, and business problem-solving, while giving me exposure to Digital Analytics, Business Analytics, and end-to-end dashboard design for stakeholder reporting.

Academic Credentials

- Master of Commerce (Marketing)

WEEKLY MILESTONES (1/3)

Deliverable 2 – Week 1

TEAM MEMBERS	13th June	16th June	17-Jun	18th June	19th June
Bhawya	Business Overview	Overview of Digital Analytics	Digital Spend optimization	PPT Review and Presenatations	Buffer
Garurav	Digital Diagnostics	Data collection techniques	Digital Spend optimization	PPT Review and Presenatations	Buffer
Parul	Campaign Performance	The Role of /Objectives of digital analytics	Digital Spend optimization	PPT Review and Presenatations	Buffer
Preksha	Behavioural Segmentation	What kind of tools are available to handle digital data?	Digital Spend optimization	PPT Review and Presenatations	Buffer

WEEKLY MILESTONES (2/3)

Deliverable 3 – Week 2 – 27th June

TEAM NAME	20th June	23rd June	24th June	25th june	26th June	27th June
Bhawya	EDA	EDA	EDA	PPT	Review of EDA and Presentation	Buffer Day
Gaurav	EDA	EDA	EDA	PPT	Review of EDA and Presentation	
Parul	EDA	EDA	EDA	PPT	Review of EDA and Presentation	
Preksha	EDA	EDA	EDA	PPT	Review of EDA and Presentation	

Week 3 – 4th July

TEAM NAME	30th June	1st July	2nd July	3rd July	4th July
Bhawya	Stakeholder Dashboard + Link to App	Stakeholder Dashboard	PPT	Review of dashboard	Buffer Day
Gaurav	Stakeholder Dashboard + Link to App	Stakeholder Dashboard	PPT	Review of dashboard	
Parul	Investor Dashboard + Link to App	Investor Dashboard	PPT	Review of dashboard	
Preksha	Investor Dashboard+ Link to App	Investor Dashboard	PPT	Review of dashboard	

WEEKLY MILESTONES (3/3)

Week 3 – 11 July

TEAM NAME	7th July	8th July	9th July	10th July	11th July
Bhawya	GITHUB REPO/STREAMLIT WEB APP	STREAMLIT WEB APP	DEPLOYMENT	DEPLOYMENT	Buffer Day
Gaurav	STREAMLIT WEB APP	STREAMLIT WEB APP	DEPLOYMENT	DEPLOYMENT	
Parul	STREAMLIT WEB APP	STREAMLIT WEB APP	DEPLOYMENT	DEPLOYMENT	
Preksha	STREAMLIT WEB APP	STREAMLIT WEB APP	DEPLOYMENT	DEPLOYMENT	

Week 4 – 17th July

TEAM NAME	14th July	15th July	16th July	17th July	18th July
Bhawya	Final Presentations	Presentation Review	Presentation Review	Mock Presentation	Deliverables
Gaurav	Final Presentations	Presentation Review	Presentation Review	Mock Presentation	
Parul	Final Presentations	Presentation Review	Presentation Review	Mock Presentation	
Preksha	Final Presentations	Presentation Review	Presentation Review	Mock Presentation	

THANK YOU