

Marketing Data and Technology



Draw Insights from
Marketing Data



Part One: Setting Goals



Identify Key Business Objectives

Key Business Objective: A defined goal or outcome used to plan the desired direction of your company. Write at least 3 but no more than 5 business objectives that support your business model. Each objective should be SMART.

1 *SMART Key Business Objective 1 (required)*

Increase the purchase rate to 25% over the next six months.

2 *SMART Key Business Objective 2 (required)*

Achieve a 50% active customer in the website over the six months

3 *SMART Key Business Objective 3 (required)*

Execute and develop Virtual reality technologies to increase customer confidence in their purchases to increase a click-through rate greater than 3% over the next quarter

4 *SMART Key Business Objective 4 (optional)*

Grow the number of customers on the Google merchandising store 15% over the next 5 months

5 *SMART Key Business Objective 5 (optional)*

Develop a successful content video strategy that achieves 1,000 views per video by the end of the year to the product

Identify Key Performance Indicators

Key Performance Indicator (KPI): A quantifiable metric used to determine how effectively your key business objectives are being met. Ensure that the specific metric is clearly identified.

1 *Key Performance Indicator 1 for Key Business Objective 1 (required)*

KPI: percentage increase in overall the purchase

2 *Key Performance Indicator 2 for Key Business Objective 2 (required)*

KPI: percentage of users who are actively engaging

3 *Key Performance Indicator 3 for Key Business Objective 3 (required)*

KPI: Click-through the (CTR) of the online website

4 *Key Performance Indicator 4 for Key Business Objective 4 (optional)*

KPI: percentage increase in total number of new customer

5 *Key Performance Indicator 5 for Key Business Objective 5 (optional)*

KPI: average number of views per video published as part of the content video strategy



Part Two: A/B Testing Proposal



A/B Testing Proposal: KPI, Variable, and Hypothesis

KPI used as basis for the A/B test

Percentage increase in CTR of the online website over the next quarter

Variable that will have an impact on the KPI

Click-through rate (CTR) of the online website

Hypothesis for your A/B Test

Hypothesis: Implementing a new online strategy will result in a CTR greater than 3% over the next quarter.

Reasoning: The company aims to develop and execute an online services that achieves a click-through rate greater than 3% over the next quarter. By testing a new advertising strategy, the company expects to see a significant increase in CTR compared to the current approach, thereby meeting the target KPI.

A/B Testing Proposal: Details and results



| Details of the A/B test | |
|--------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Variations being tested: | The primary variable being tested is the (CTR) rate of the online website |
| | The change in (CTR) orate |
| User groups: | <p>The user groups involved in the A/B test will be:</p> <p>1- variation A (control group): Users exposed to the current/existing online services strategy</p> <p>2- variation B (test group) users exposed to the new online Service strategy</p> |
| Data collection tool: | The data collection tool will be Google Analytics |
| Length of the test: | The A/B test will be conducted over the duration of the next quarter (3months) |

Describe how you would determine the results of the A/B test

5. Determining the results of the A/B test:

- To determine the results of the A/B test, I would follow these steps:

a. Collect and analyze the CTR data for each variation:

- Calculate the average CTR for Variation A (control) and Variation B (new strategy).
- Compare the CTR between the two variations to determine if there is a statistically significant difference.

b. Evaluate the performance of the new strategy (Variation B):

- If the CTR of Variation B is greater than 3% and significantly higher than Variation A, the new strategy can be considered successful and should be implemented.
- If the CTR of Variation B is not significantly higher than Variation A or does not meet the 3% target, the new strategy should be refined or the current strategy should be maintained.

c. Document the findings and make recommendations:

- Prepare a report summarizing the A/B test results, including the CTR data, statistical analysis, and the recommended course of action.
- Present the findings and recommendations to the relevant stakeholders to inform the next steps in the company's digital marketing strategy.



Part Three: Data Exploration

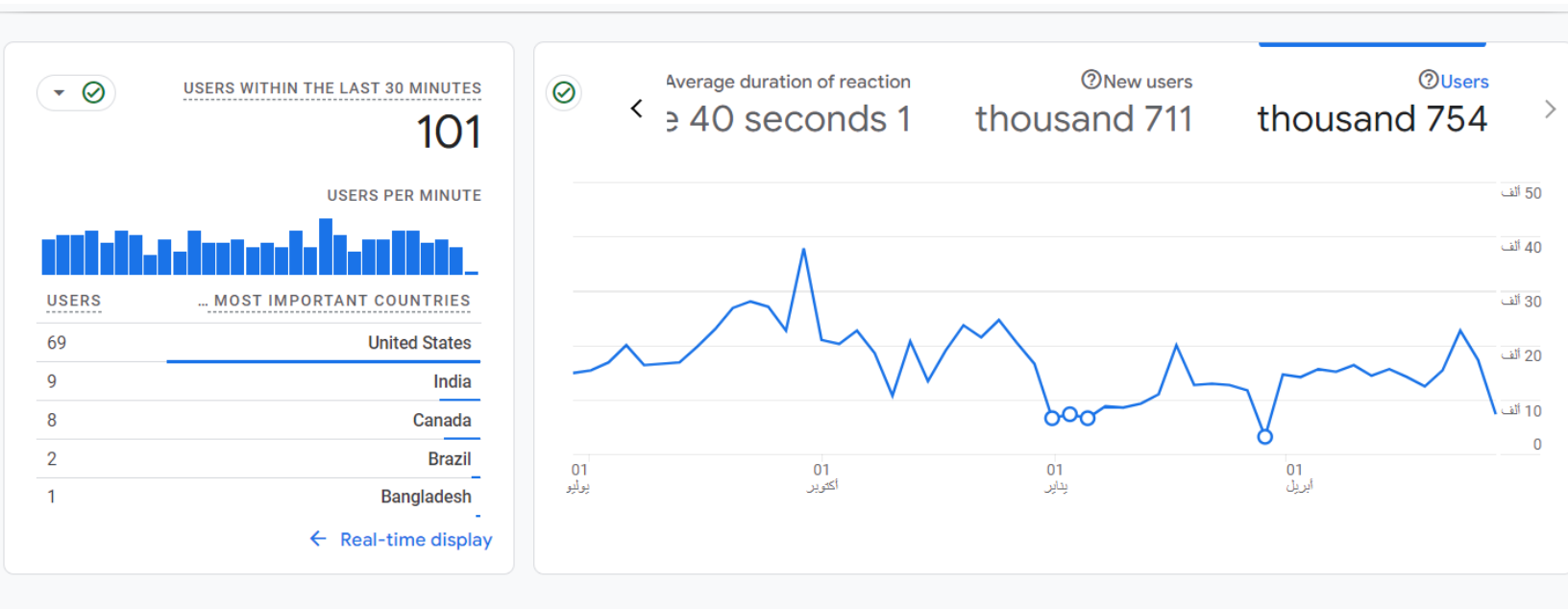


Reports Snapshot

From the Reports Snapshot, select a twelve month time period you would like to explore.

Ensure that the following are visible in the screenshot:

- Timeframe
- New users
- Axis values





Reports Snapshot

Which month had the most new users?

The month October during a period 25 SEP-1 OCT

Which month had the fewest new users?

The month March during a period 26 March-1 April

Write some ideas why certain trends are associated with these specific months? **I do not think that there is only one reason, but largely student research that requires reports. The reason for this may be that when the There are many possible reasons for having new users**

Insert your idea(s) here about why these months have the lowest/highest amount of new users.

I think that the fact that there are more new users during a period of time is due to different situations, research, or even international news



User Tech

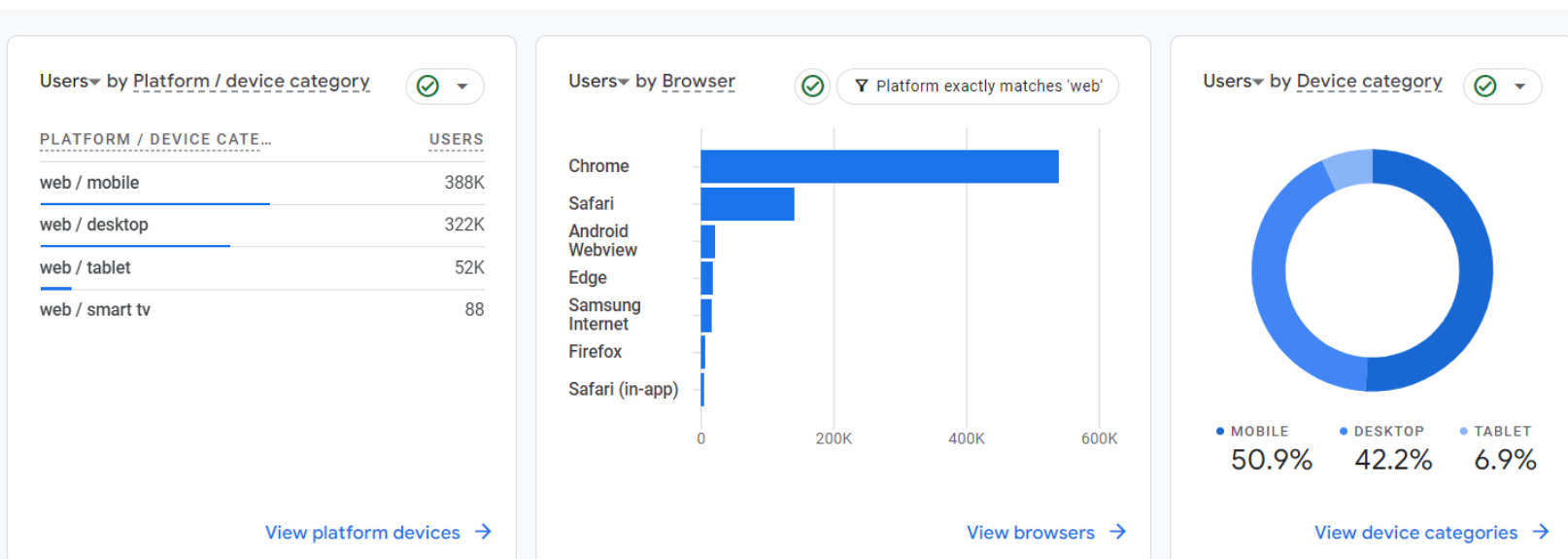
Please go into the User → Tech → Tech overview report for the following:

For the twelve month period you've chosen, provide a screenshot showing percentage chart (donut charts) of All Users that came from mobile, desktop, and tablet devices.

Ensure that the following are visible in the screenshot:

- Device Category
- Donut chart showing % breakdown by device

Note that the time frame selected does not need to be visible in the screenshot..





User Acquisition

For this section, if you are using your own business's Google Analytics data but do not have eCommerce capabilities established, please use the Google Analytics demo data provided from the Google Merchandise store.

Take a screenshot that shows the Engagement rate of the different acquisition channels over a 12 month period.

Ensure that the following are visible in the screenshot:

- Channel group
- Users
- Engagement Rate

Note that the time frame selected does not need to be visible in the screenshot, but will be reflected by the number of users.

Try searching "Data Streams"

User acquisition: First user primary channel group (Default Channel Group) Last 12 months Jun 25, 2023 - Jun 25, 2023

| First user prim...Channel Group) | New users | Engaged sessions | Engagement rate | Engaged sessions per user | Average engagement time | Event count All events | Key All ev |
|----------------------------------|--------------------------|--------------------------|------------------|---------------------------|-------------------------|-----------------------------|------------|
| | 710,975 100% of total | 820,399 100% of total | 69.15% Avg 0% | 1.09 Avg 0% | 1m 40s Avg 0% | 20,962,870 100% of total | 1,93 1C |
| 1 Direct | 415,197 | 488,514 | 62.09% | 1.08 | 1m 49s | 13,607,969 | 1,1 |
| 2 Organic Search | 145,467 | 167,301 | 81.18% | 1.13 | 1m 34s | 3,971,247 | 3 |
| 3 Cross-network | 111,725 | 113,743 | 81.89% | 1.00 | 1m 07s | 1,732,330 | 1 |
| 4 Referral | 20,361 | 22,996 | 80.58% | 1.11 | 1m 30s | 541,120 | |
| 5 Organic Social | 6,935 | 9,799 | 82.67% | 1.39 | 2m 51s | 297,188 | |
| 6 Email | 5,567 | 12,287 | 83.9% | 2.11 | 5m 10s | 415,559 | |
| 7 Paid Search | 4,305 | 4,126 | 50.55% | 0.84 | 17s | 47,717 | |
| 8 Organic Shopping | 477 | 551 | 87.05% | 1.15 | 1m 28s | 9,648 | |
| 9 Affiliates | 421 | 511 | 84.46% | 1.21 | 36s | 10,844 | |



User Acquisition

Which channel groups had the highest and lowest engagement rates?

The highest Organic shopping , the lowest paid search

Which channel groups had the highest and lowest total revenue?

The highest Organic search , the lowest Affiliates

What do these metrics mean, based on your experience?

Write your answer here in 1-3 sentences

We need to focus on improving the services of the most used channels to satisfy the majority of users. We should add features that are useful for the most used channels in order to satisfy the largest segment of customers



Monetization

For this section, if you are using your own business's Google Analytics data but do not have eCommerce capabilities established, please use the Google Analytics demo data provided from the Google Merchandise store.

During the twelve month period you've selected, provide a screenshot that shows the Item name that contributed the highest number of unique purchases and the item name that was responsible for the largest percentage of revenue? (Screenshot(s) only; no annotation required.)

Ensure that the following are visible in the screenshot:

- Item names
- Number of items purchased
- Item revenue

| June 25, 2023 - June 25, 2024 Last 12 months | | | | | Purchases in e-commerce | | Snapshot of reports | |
|----------------------------------------------|------------------------------|------------------------------------------------|------------------------------|------------------------------------------|----------------------------|--|--------------------------|--|
| | | | | | Real time | | Life cycle | |
| | | | | | Acquisition | | Overview | |
| | | | | | User acquisition | | Gain visits | |
| | | | | | User acquisition modules | | Psychological connection | |
| | | | | | Achieving financial profit | | Overview | |
| | | | | | Purchases in e-commerce | | Purchase journey | |
| | | | | | | | | |
| Commodity profits | Purchased goods | Items added to the shopping cart | Displayed goods ↓ | Item name | | | | |
| \$ 1,468,205.79 of the total 100% | 109,389 of the total 100% | 8,022,914,152,609,394,000 of the total 100% | 776,253 of the total 100% | | | | | |
| \$ 58,175.00 | 561 | 500,000,001,007,761 | 31,162 | Super G Timbuk2 Recycled Backpack | 1 | | | |
| \$ 22,011.00 | 476 | 24,299 | 22,705 | Google Campus Bike | 2 | | | |
| \$ 24,721.20 | 1,137 | 65,640 | 12,018 | G25gle Birthday Tee | 3 | | | |
| \$ 3,667.50 | 78 | 587 | 10,751 | Google Sensory Support Event Kit | 4 | | | |
| \$ 24,495.00 | 403 | 202,709 | 8,494 | Google 25th Birthday Hoodie | 5 | | | |
| \$ 2,835.20 | 184 | 2,505 | 8,367 | Android Classic Collectible | 6 | | | |
| \$ 5,634.00 | 75 | 1,048 | 7,726 | Google Recycled Black Backpack | 7 | | | |
| \$ 2,394.00 | 209 | 1,202 | 7,449 | Chrome Dino Warm and Cozy Accessory Pack | 8 | | | |
| \$ 0.00 | 0 | 6,477 | 7,063 | Google Eco Tee Black | 9 | | | |
| \$ 4,782.00 | 183 | 16,056 | 7,045 | Chrome Dino Collectible Figurines | 10 | | | |



Part Four: Segmentation

Segmentation: Instructions



Segmentation helps provide clarity, insight, and confidence in data by making it more specific and actionable.

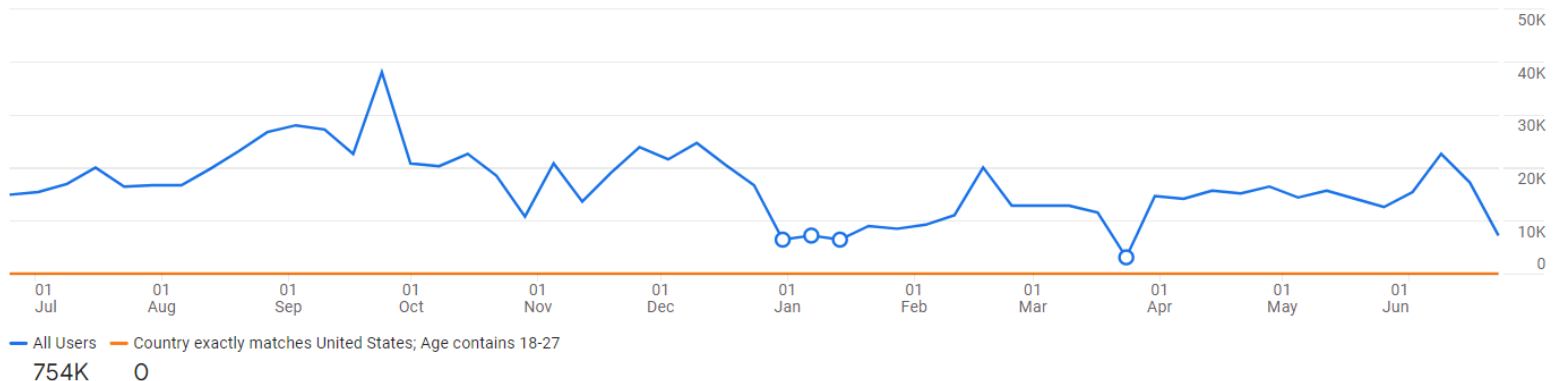
To demonstrate your knowledge:

- Identify and show **two different audience segments** compared to All Users. Create the following custom segments:
 - One segment based on **Audience Demographics**
 - One segment based on **Technology**
- **Take screenshots showing each of your segments applied to the data and write down what values you used.**

Reports snapshot

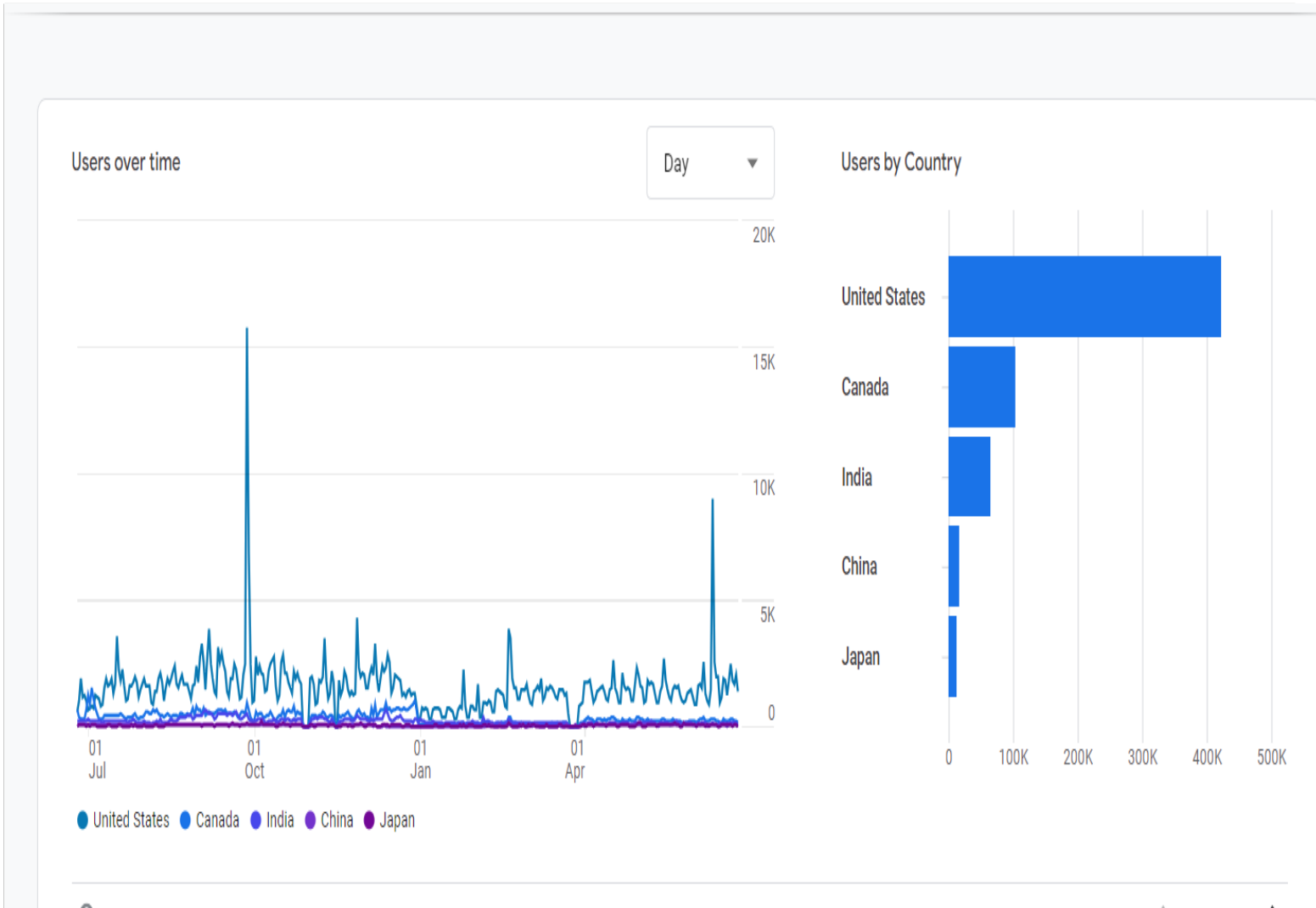


Users ? New users ? Average engagement time ? Total revenue ?





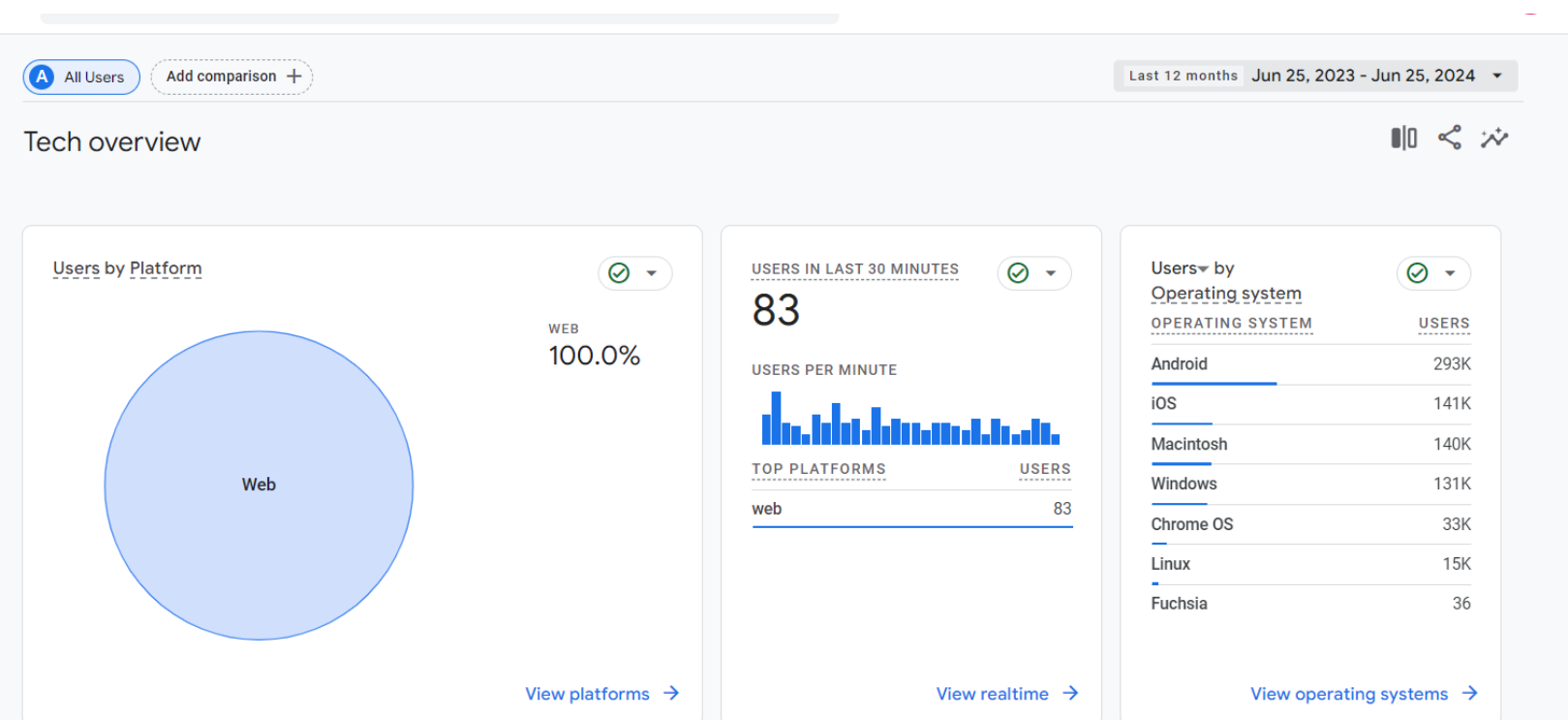
Audience Segment: Demographics



| | |
|--------------|------------------------------------------------------------------------------------------|
| Values used: | Age exactly matches 18-27 because based on United States the largest age group is adults |
|--------------|------------------------------------------------------------------------------------------|



Audience Segment: Technology



Values used:

Content relevance , practical value we should highlight how our product or service can provide tangible benefits to improve the lives of our Android using audience



Part Five: Analysis and Suggestions



Google Merchandise Store data

You can find the results of the Google Merchandise Store campaigns below.

| Campaign Name | Cost | Revenue | ROAS |
|----------------------------------------------------|----------|----------|-------|
| Tech Trends: Discover the Latest Google Gear | \$5,000 | \$3,000 | 0.6 |
| Shop with Google: Unleash Your Digital Lifestyle | \$5,000 | \$8,000 | 1.6 |
| Google Gadgets Galore: Elevate Your Tech Game | \$5,000 | \$8,000 | 1.6 |
| Gear Up with Google: Your One-Stop Tech Shop | \$8,000 | \$13,000 | 1.625 |
| Google Merch Madness: Score Big on Tech Essentials | \$5,000 | \$2,000 | 0.4 |
| Unlock the Power of Google: Shop the Best in Tech | \$2,000 | \$3,500 | 1.75 |
| Totals | \$30,000 | \$37,500 | |

Business Sales Growth



Based on the data provided, how might the campaigns be realigned and improved to potentially achieve a 20% YOY sales growth **without additional cost**? You can assume that the data will remain consistent over the projected time frame. Please reference specific data to support your answer, such as metrics and campaigns.

You could get the answer by asking yourself: Which campaign would I spend less, and which would I spend more?

based on the information provided in the image:

1. Optimize Marketing Spending to Achieve 20% Growth without Increased Cost:- The "Google Merch Madness" campaign has the lowest ROAS at 0.4, so consider reducing or reallocating the \$5,000 spent on this campaign to higher-performing ones. - The "Unlock the Power of Google" campaign has the highest ROAS at 1.75, so increase its budget by reallocating funds from lower-performing campaigns. - Reallocating the \$5,000 from "Google Merch Madness" to "Unlock the Power of Google" could increase total revenue by \$3,500 without increasing the overall marketing budget, helping to achieve the 20% growth target.

2. eCommerce Changes to Improve the Business:- Optimize the website for mobile experience, as the majority of the target audience uses Android devices. - Implement a product recommendation engine to cross-sell and upsell related products. - Enhance the checkout process to reduce cart abandonment. - Incorporate user-generated content, such as reviews and testimonials, to build trust. - Leverage data analytics to gain insights and enable more personalized marketing and merchandising.

3. Emerging Technologies to Help the Business: - Utilize AI/ML for the product recommendation engine, pricing/promotions optimization, and customer service automation. - Integrate AR features to allow customers to virtually try on or visualize products. - Optimize the website and mobile experience for voice-based interactions to cater to the growing trend of voice-enabled shopping.

By implementing these recommendations, the business can achieve the 20% growth target,

eCommerce improvements



Looking at your website pages or the [Google Merchandise Store](#) website and current eCommerce experience, identify one change to the eCommerce UX and one additional eCommerce option you would recommend implementing.

Example: One way to improve eCommerce capabilities would be to add the option of a digital wallet with the option to securely store and manage cards that have been used for payment, along with the option of using PayPal or Apple Pay

. Based on the Google Merchandise website the improvement will be
UX change:

Optimize for Mobile Experience: The image shows a range of Google merchandise products, indicating that the target audience likely uses Android devices. To cater to this, I would recommend optimizing the website and shopping experience for mobile devices to ensure a seamless and user-friendly experience for customers browsing and purchasing on their smartphones.

Other eCommerce change or addition:

Implement Augmented Reality (AR) Feature: One additional eCommerce option I would recommend is to integrate augmented reality (AR) capabilities. This would allow customers to virtually try on or visualize the products, such as the water bottle or notebook.



Technology

It is time for some exploration! You need to find 2 emerging marketing technologies that you could use in a technology stack. For each one, you need to describe why you would use that tool.

1 *Technology name*

Implement Augmented Reality (AR) Feature

Description of why you would use it

This can enhance the shopping experience and increase customer confidence in their purchase decisions

2 *Technology name*

Predictive analytics

Description of why you would use it

Can help the eCommerce business gain valuable insights into customer behavior to know which suits them will