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	*Increase the Google Merchandise Store's online sales revenue by 20% within the next 12 months through targeted marketing campaigns and enhanced eCommerce functionality.*
2	*Improve customer retention rate by 10% within 6 months by introducing a loyalty program that rewards repeat purchases and engagement.*
3	*Increase the website's conversion rate by 5% over the next 6 months through improved UX design and personalized user experiences.*

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	*Relevant KPI: Monthly revenue growth percentage.*
2	*Relevant KPI: Customer retention rate percentage.*
3	*Relevant KPI: Website conversion rate.*

Part Two:
A/B Testing Proposal

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

KPI used as basis for the A/B test
Conversion rate
Variable that will have an impact on the KPI
Addition of a shopping cart icon on each product picture to facilitate direct purchases while browsing.
Hypothesis for your A/B Test
Adding a shopping cart icon on each product image could streamline the purchasing process by allowing users to add items to their cart directly from the browsing page, reducing the number of clicks needed and enhancing user convenience. This change is likely to increase engagement and the overall conversion rate as users can make quicker purchase decisions without navigating to individual product pages.

A/B Testing Proposal: Details and results

Details of the A/B test	
Variations being tested:	*Baseline variation: The current version of the product browsing page without shopping cart icons on product images.*
	Test variation: A modified version of the product browsing page with a shopping cart icon overlaid on each product image for direct addition to the cart.
User groups:	*Users will be randomly split into two equal groups. Group A will see the baseline version (no icons), while Group B will see the modified version with shopping cart icons on each product image.*
Data collection tool:	*Google Optimize to track interactions with the new feature and measure changes in conversion rate.*
Length of the test:	*4 weeks.*

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

I would check the conversion rate; a higher rate for the test variation would show that the shopping cart icons improve convenience and boost sales.
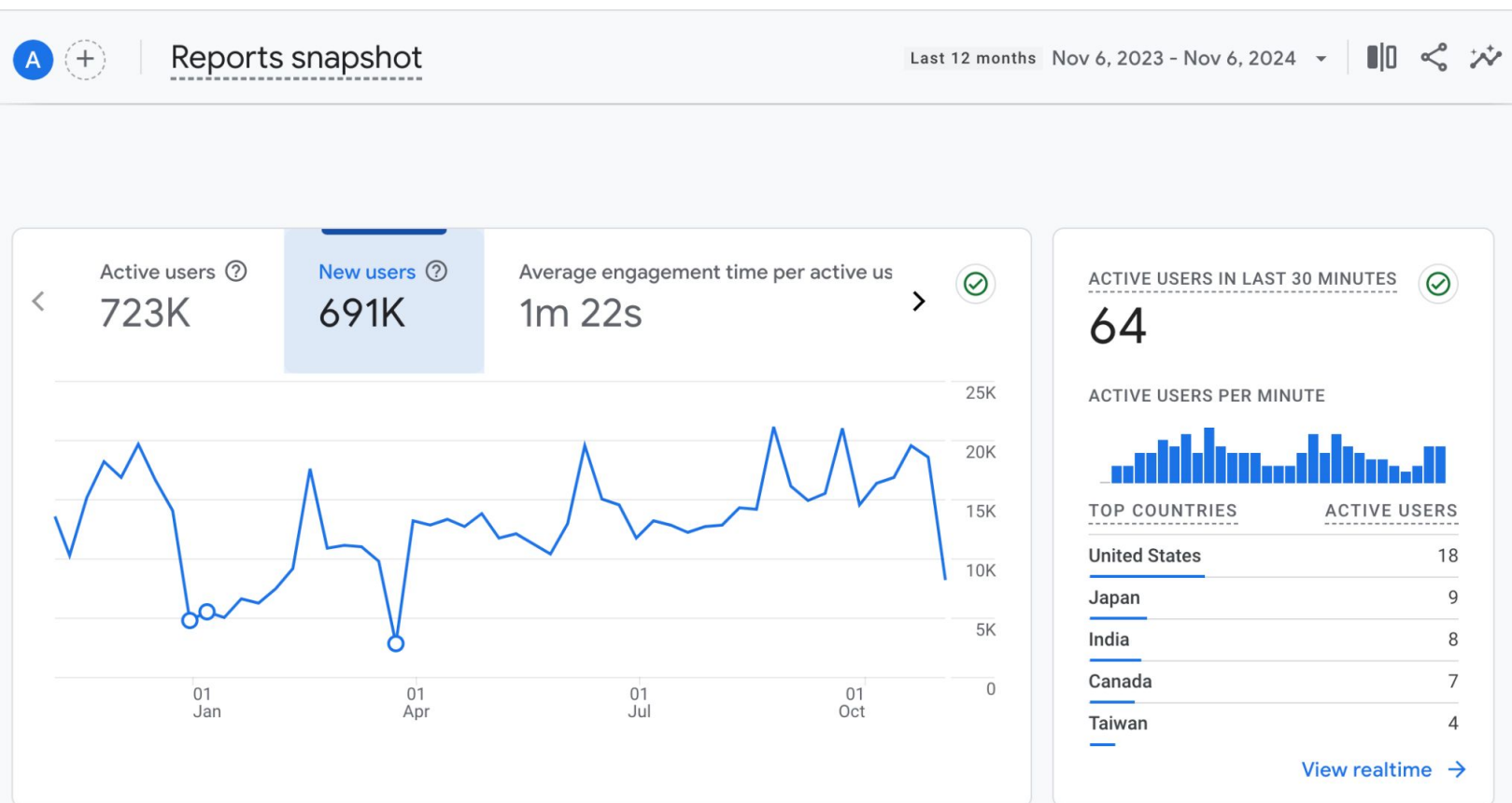
Part Three:
Data Exploration

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?

August

Which month had the fewest new users?

March

Write some ideas why certain trends are associated with these specific months?

More New Users in August:

- Many people begin preparing for the school year in August, driving increased interest in merchandise related to back-to-school and related promotions.
- With more people on vacation or taking time off, there's more opportunity for browsing online and discovering new products.

Less New Users in March:

- After the holiday season, consumers may be less likely to shop due to budget constraints, leading to fewer new users.
- March typically lacks significant sales events or holidays that would drive increased traffic or interest in shopping.
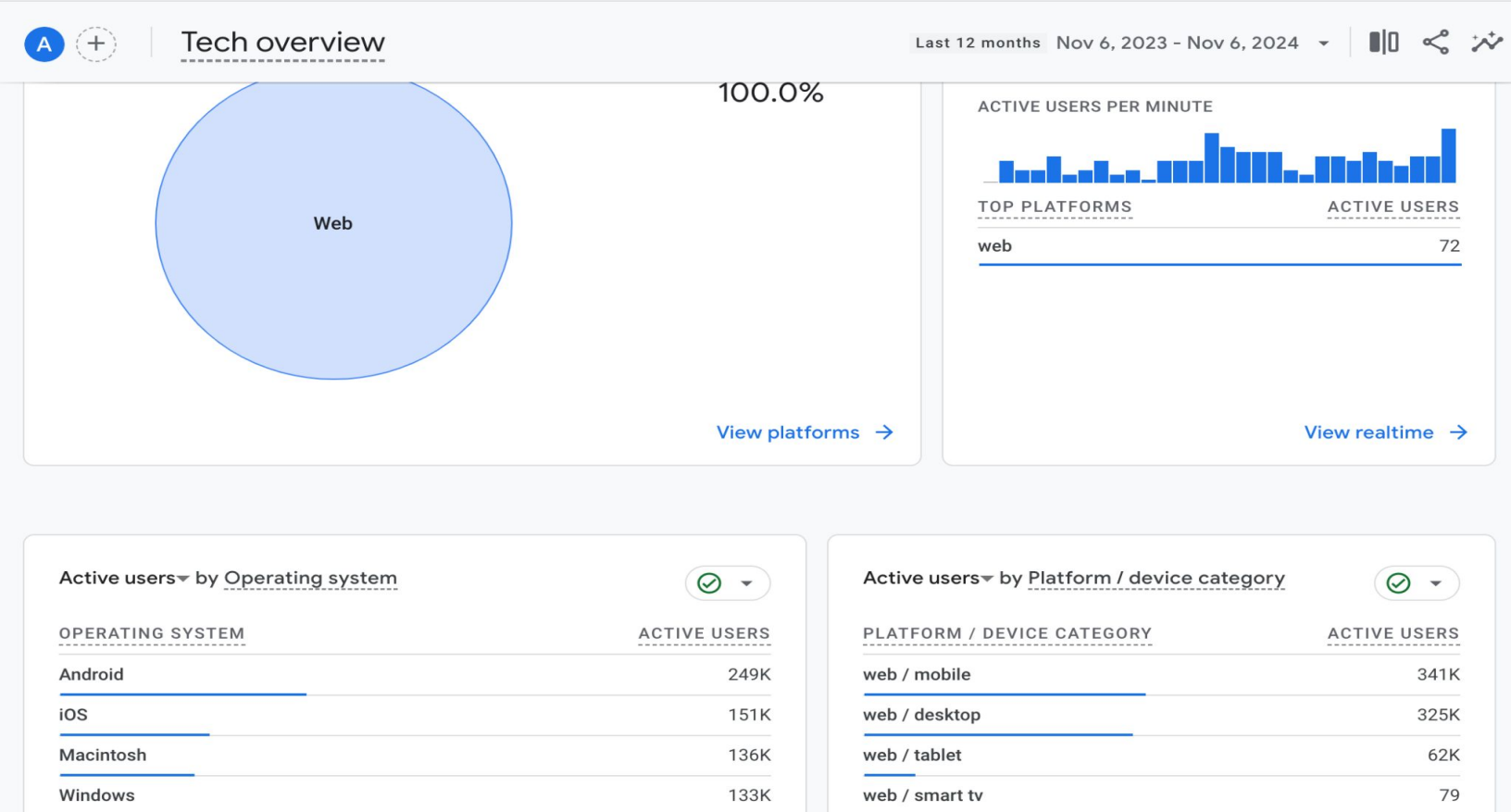
User Tech

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..

100.0%

Web

ACTIVE USERS PER MINUTE

TOP PLATFORMS	ACTIVE USERS
web	72

View platforms →

View realtime →

Active users ▾ by Operating system	
OPERATING SYSTEM	ACTIVE USERS
Android	249K
iOS	151K
Macintosh	136K
Windows	133K

Active users ▾ by Platform / device category	
PLATFORM / DEVICE CATEGORY	ACTIVE USERS
web / mobile	341K
web / desktop	325K
web / tablet	62K
web / smart tv	79

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.

A ⊕ Traffic acquisition: Session primary channel group (Default Channel Group) ⊘ ▾ ⊕   Last 12 months Nov 6, 2023 – Nov 6, 2024 ▾

Session primary...Channel Group) ▾	Audience name ▾ ✕	↓ Sessions	Engaged sessions	Engagement rate	Average engagement time per session	Events per session	Event count All events ▾
Total		1,135,540 100% of total	634,836 100% of total	55.91% Avg 0%	3m 57s Avg 0%	58.77 Avg 0%	66,737,580 100% of total
1 Direct	All Users	727,247	362,878	49.9%	44s	11.65	8,475,988
2 Direct	Non-purchasers	727,247	362,878	49.9%	44s	11.64	8,468,131
3 Direct	Recently active users	350,928	243,148	69.29%	1m 21s	17.78	6,240,871
4 Organic Search	All Users	218,231	158,872	72.8%	1m 01s	15.17	3,310,319
5 Organic Search	Non-purchasers	218,231	158,872	72.8%	1m 01s	15.16	3,307,681
6 Direct	Engaged Users	209,582	146,512	69.91%	2m 04s	26.04	5,456,852
7 Organic Search	Recently active users	165,473	125,694	75.96%	1m 13s	17.11	2,830,848
8 Organic Search	Engaged Users	88,731	69,011	77.78%	2m 01s	25.92	2,299,811
9 Direct	Likely 7-day purchasers	75,085	40,263	53.62%	1m 07s	15.32	1,150,224
10 Cross-network	All Users	59,665	37,332	62.57%	49s	11.41	680,852

User Acquisition

Which channel groups had the highest and lowest engagement rates?

With 77.78% ,Organic Search by engaged Users have the highest engagement rate, while Direct non-purchasers traffic have the lowest engagement rate with 49.9%.

Which channel groups had the highest and lowest total revenue?

The lowest Revenue is Organic Search by Non Purchasers.

The highest revenue is Direct traffic by recently active users.

What do these metrics mean, based on your experience?

The high engagement rate for Organic Search by Engaged Users (77.78%) indicates strong interest and relevance in search results, while the low engagement for Direct Traffic by Non-Purchasers (49.9%) suggests a lack of targeted content or conversion opportunities. The low revenue for Organic Search by Non-Purchasers shows that organic traffic isn't converting well into sales. In contrast, the high revenue from Direct Traffic by Recently Active Users reflects that familiar, re-engaged customers are more likely to make purchases.

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

Ecommerce purchases: Item name — Last 12 months Nov 6, 2023 – Nov 6, 2024

	Item name	Items viewed	Items added to cart	Items purchased	Item revenue
☑	Total	508,100 100% of total	8,022,754,552,523,552,000 100% of total	115,759 100% of total	$1,486,876.33 100% of total
☑ 1	Super G Timbuk2 Recycled Backpack	13,042	500,000,000,002,075	215	$22,925.00
☑ 2	Google Campus Bike	11,091	5,883	665	$29,953.00
☑ 3	Android Classic Collectible	10,837	6,621	947	$14,326.40
☑ 4	Chrome Dino Warm and Cozy Accessory Pack	7,989	1,611	295	$3,407.60
☑ 5	Google Sensory Support Event Kit	6,653	375	82	$4,072.50
☐ 6	Android Glow-in-the-Dark Collectible	6,312	2,514	578	$10,617.60
☐ 7	Google Black Eco Zip Hoodie	5,839	2,100	514	$29,118.00
☐ 8	Google Cloud Unisex Onyx Zip Hoodie	5,032	1,084	283	$16,104.60
☐ 9	Google Recycled Black Backpack	4,929	1,093	106	$7,830.00
☐ 10	Chrome Dino Dark Mode Collectible	4,764	1,278	147	$3,888.00

Part Four: Segmentation
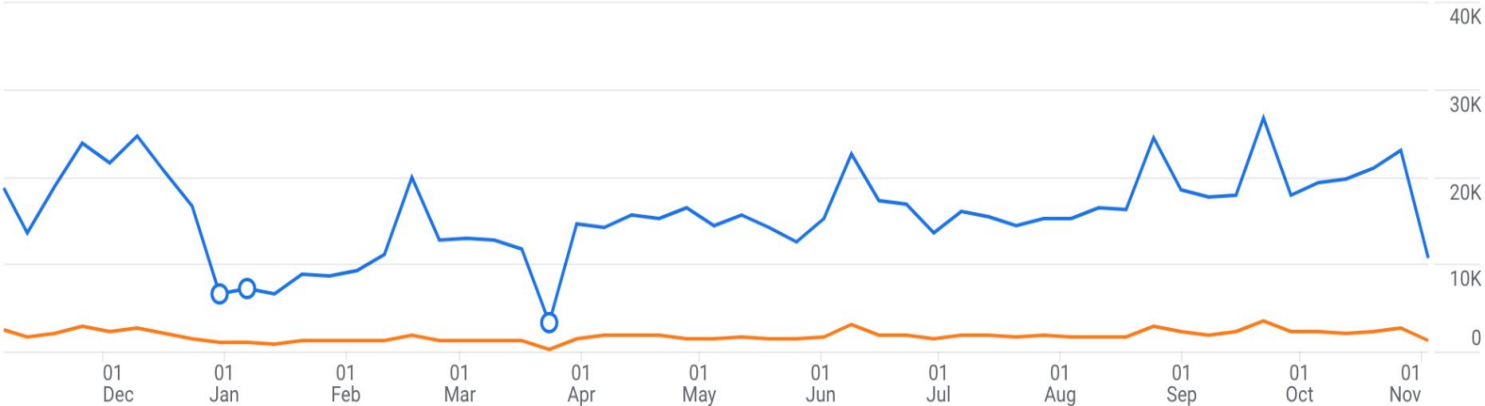
Audience Segment: Demographics

| A | All Users | X | | A | Age exactly matches 1... | X | | Add comparison + | | Last 12 months Nov 6, 2023 - Nov 6, 2024 |

Reports snapshot

Active users ⑦ **New users** ⑦ **Average engagement time per active user** ⑦ **Total revenue** ⑦

— All Users — Age exactly matches 18-24

723K 83K

| **Values used:** | Age: Exactly matches 18-24 |

Audience Segment: Technology

Reports snapshot

Active users ⍰ | New users ⍰ | Average engagement time per active user ⍰ | Total revenue ⍰

	All Users	Age exactly matches 18-24	Mobile traffic
	723K	83K	341K
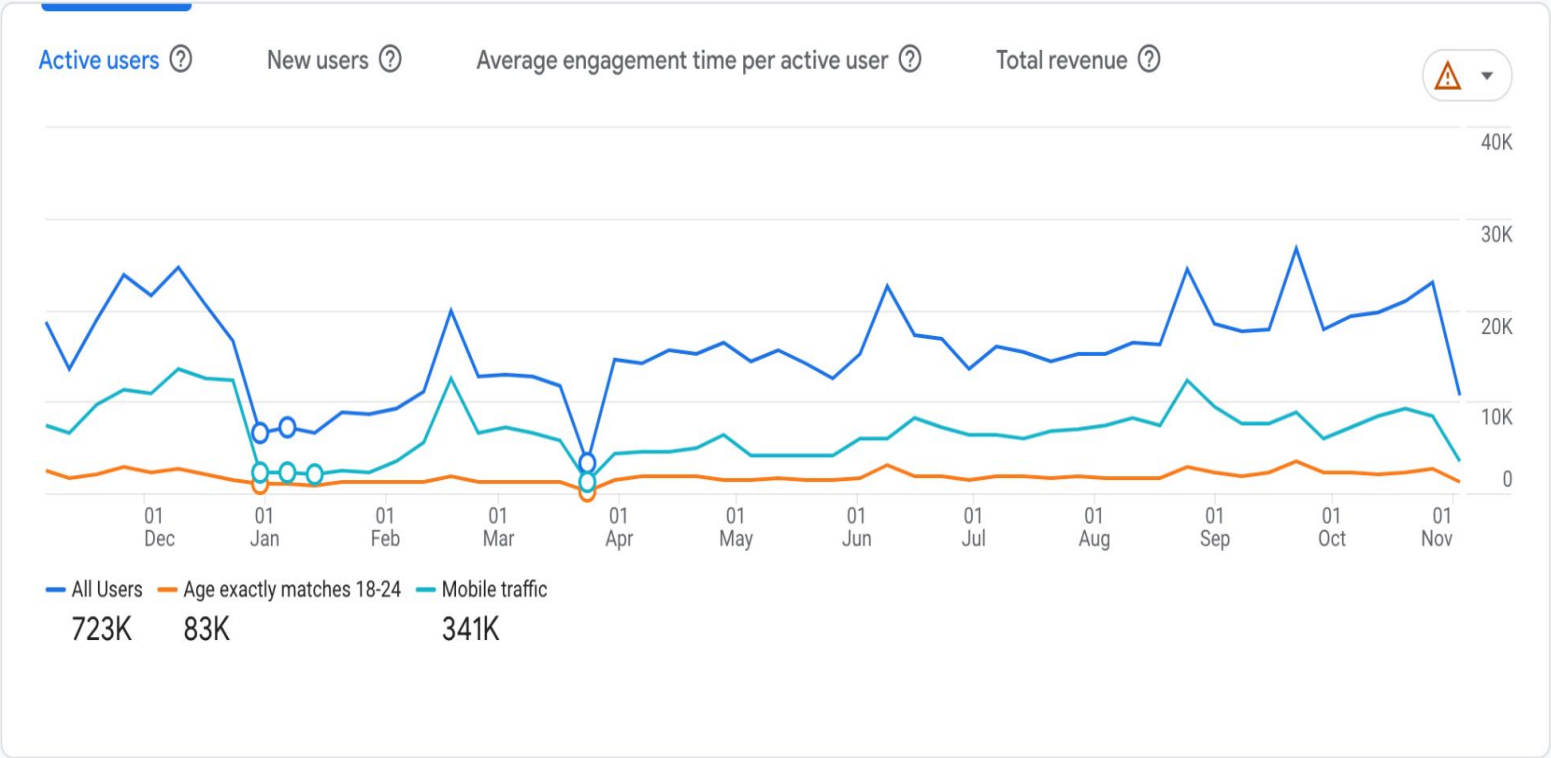
Values used:	Mobile traffic: Exactly matches Mobile

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?

By redirecting funds from lower ROAS "Tech Trends" (0.6)and "Google Merch Madness" (0.4)which are underperforming to higher ROAS campaigns such as ,"Unlock the Power of Google" (1.75) and "Gear Up with Google" (1.625), the store can potentially reach a 20% revenue increase to hit the $45,000 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.

On the eCommerce UX side, One way to improve eCommerce capabilities would be to Add a persistent shopping cart icon with a visual indicator (i.e. item count) that stays visible as users browse the site. This enhances convenience and allows users to keep track of their items without needing to navigate away from product pages.

Another eCommerce change could be Introducing a "Save for Later" feature that allows users to bookmark products for future consideration. This option can encourage return visits and reduce cart abandonment by giving customers more flexibility in their shopping experience.

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	*AI-Powered Chatbots .*
	AI-powered chatbots can greatly enhance customer engagement and support. These chatbots can provide 24/7 assistance, answer common customer inquiries, and guide users through the purchasing process, contributing to higher conversion rates and improved user satisfaction.
2	*Augmented Reality (AR) .*
	AR technology would allow customers to virtually try on items like clothing or accessories, giving them a better sense of how products will look and fit before purchase reducing return rates and enhancing customer confidence in buying decisions.