

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 online sales by 20% within the next quarter.

2 SMART Key Business Objective 2 (required)

25% increases in repeat purchases within the next 12 months.

3 SMART Key Business Objective 3 (required)

Increase monthly active users on the Google Store app by 25% within the next 9 months.

4 SMART Key Business Objective 4 (optional)

increase the number of Arabic-speaking visitors by 15% during 6 months for the Arabic language support as a guidance language.

5 SMART Key Business Objective 5 (optional)

Reduce the return rate due to incorrect size by 15% within the next quarter.



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.

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

- **Monthly sales revenue.**
- Number of transactions and average order value.**

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

- Engagement metrics of loyalty program members usage.**
- Repeat purchase rate.**

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

- Daily active users (DAU) on the app**
- Session duration and frequency**

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

- **Measure the percentage increase in the number of unique visitors who select Arabic as their preferred language on the Google Store.**
- **Conduct surveys to measure the satisfaction rate of Arabic-speaking customers regarding the language support and guidance provided.**

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

- **Collect and analyze customer feedback on the effectiveness and accuracy of the size guidance tools provided on the Google Store.**
- **Measure the percentage of returns specifically attributed to incorrect size.**



Part Two: A/B Testing Proposal



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

KPI used as basis for the A/B test

Engagement metrics of loyalty program members usage.

Variable that will have an impact on the KPI

Mobile Optimization: *Ensuring the program is accessible and functional on mobile devices can increase engagement.*

Hypothesis for your A/B Test

Users who experience the optimized mobile version of the loyalty program will have a significantly higher purchase frequency compared to those who do not



A/B Testing Proposal: Details and results

Details of the A/B test	
Variations being tested:	<ul style="list-style-type: none">• <i>The current version has slower loading times on mobile devices, especially on slower internet connections.</i>
	<ul style="list-style-type: none">• <i>The version has faster loading times on mobile devices, especially on slower internet connections.</i>
User groups:	<ul style="list-style-type: none">• <i>Users who continue to use the current version of the loyalty program with slower loading times. other group provided with faster loading times.</i>
Data collection tool:	<i>Google Analytical.</i>
Length of the test:	<i>3 month.</i>



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

- *Metric used is a purchase frequency.*
- *Best value is faster loading times.*
- *The higher purchase frequency in the test group (faster loading) led to increased user engagement.*



Part Three: Data Exploration

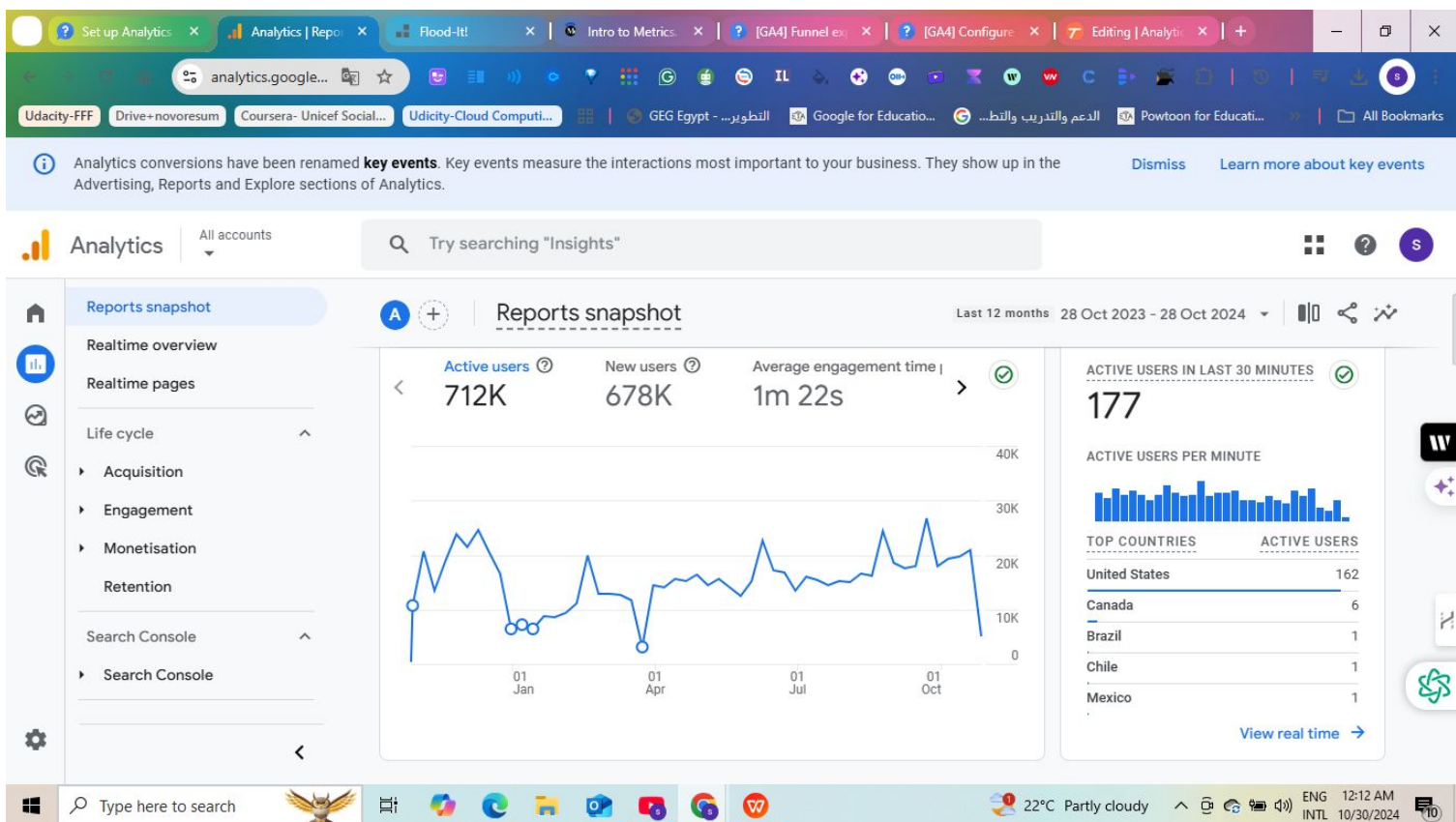


Reports Snapshot

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?

01-07 Sept

Which month had the fewest new users?

31 Mar-06 Apr

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

Fewest new user counts to identify potential causes, e.g., seasonal events and most new users may cause marketing campaigns.



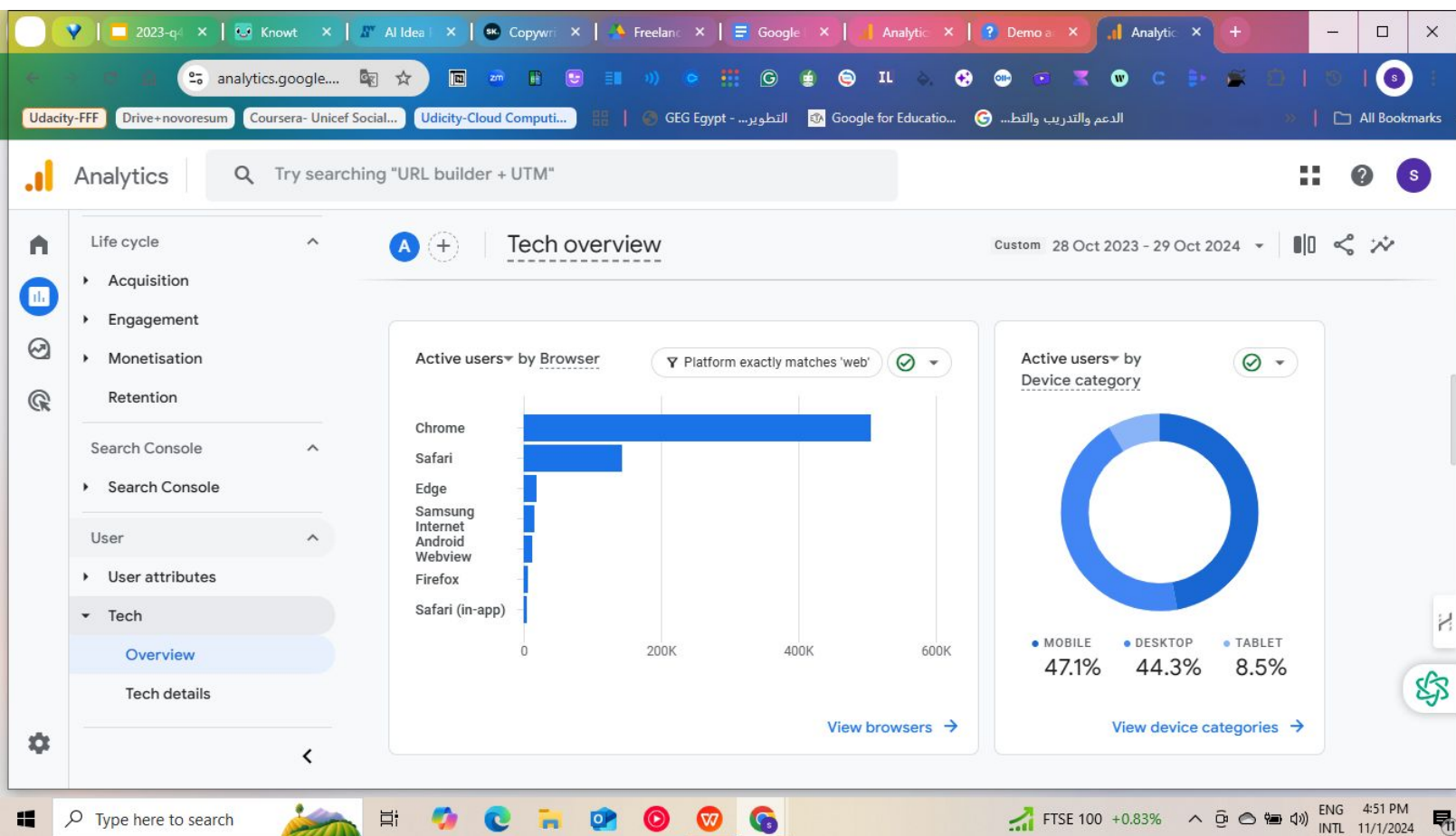
User Tech

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

For the twelve month period you've chosen, provide a screenshot showing a 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





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

The screenshot shows the Google Analytics interface with the following elements visible:

- Browser Tabs:** Multiple tabs are open, including '2023-q4...', 'Knowt', 'AI Idea P...', 'Copywrit...', 'Freelance...', 'SMART o...', 'Analytics', 'Demo ac...', and another 'Analytics' tab.
- Search Bar:** The search bar contains the text 'Try searching "compare conversions from organic vs direct channels"'. The search results show 'Traffic acquisition: Session primary channel group (Default channel group)'.
- Left Sidebar:** The sidebar shows the 'Acquisition' section expanded, with 'Traffic acquisition' selected. Other options include 'Overview', 'User acquisition', 'User acquisition cohorts', 'Engagement', 'Monetisation', and 'Retention'.
- Main Content Area:** The main content area displays a table titled 'Traffic acquisition: Session primary channel group (Default channel group)'. The table has columns for 'Sessions', 'Engaged sessions', 'Engagement rate', 'Average engagement time per session', and 'Ev'. The data is filtered for 'Total' and shows the following values:

	Sessions	Engaged sessions	Engagement rate	Average engagement time per session	Ev
Total	1,123,994	629,044	55.97%	52s	14
1 Direct	714,471	357,691	50.06%	44s	1
2 Organic Search	215,107	157,276	73.12%	1m 02s	1
3 Cross-network	62,464	40,060	64.13%	48s	1
4 Referral	47,606	33,951	71.32%	1m 19s	1
5 Unassigned	31,703	879	2.77%	1m 18s	4
6 Email	26,892	21,522	80.03%	1m 53s	2

The bottom of the screenshot shows the Windows taskbar with the search bar, taskbar icons, and system tray area.



User Acquisition

Which channel groups had the highest and lowest engagement rates?

Organic shopping had the highest engagement, and ***Paid search*** had the lowest engagement.

Which channel groups had the highest and lowest total revenue?

Direct channel groups had the highest total revenue, and **Paid other** channel groups had the lowest total revenue.

What do these metrics mean, based on your experience?

- The observation that direct channel groups had the highest total revenue indicates that customers are more likely to make purchases through direct interactions, such as online or in-person sales.
- On the other hand, the low total revenue from paid other channel groups raises the possibility that marketing initiatives in these domains are ineffective or are not producing a high return on investment.
- Businesses optimize their marketing strategies by focusing on their most profitable channels.



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

The screenshot displays the Google Analytics interface for the 'E-commerce purchases: Item name' report. The report shows data for the period from 28 Oct 2023 to 29 Oct 2024. The table lists items with their names, items viewed, items added to cart, items purchased, and item revenue. The top item is 'Super G Timbuk2 Recycled Backpack' with 13,631 items viewed, 500,000 items added to cart, 224 items purchased, and \$23,825.00 in revenue. The second item is 'Google Campus Bike' with 11,232 items viewed, 5,687 items added to cart, 624 items purchased, and \$28,138.00 in revenue. The third item is 'Android Classic Collectible' with 10,564 items viewed, 6,557 items added to cart, 937 items purchased, and \$14,168.00 in revenue. The fourth item is 'Chrome Dino Warm and Cozy Accessory Pack' with 7,960 items viewed, 1,606 items added to cart, 293 items purchased, and \$3,379.60 in revenue. The fifth item is 'Google Sensory Support Event Kit' with 6,840 items viewed, 394 items added to cart, 82 items purchased, and \$4,072.50 in revenue. The sixth item is 'Android Glow-in-the-Dark Collectible' with 6,015 items viewed, 2,420 items added to cart, 544 items purchased, and \$10,021.20 in revenue. The seventh item is 'Google Black Cat T-Shirt' with 5,600 items viewed, 2,121 items added to cart, 505 items purchased, and \$28,627.40 in revenue.

	Item name	Items viewed	Items added to cart	Items purchased	Item revenue
Total		495,220 100% of total	8,022,754,552,524,542,000 100% of total	110,288 100% of total	\$1,430,096.84 100% of total
1	Super G Timbuk2 Recycled Backpack	13,631	500,000,001,002,929	224	\$23,825.00
2	Google Campus Bike	11,232	5,687	624	\$28,138.00
3	Android Classic Collectible	10,564	6,557	937	\$14,168.00
4	Chrome Dino Warm and Cozy Accessory Pack	7,960	1,606	293	\$3,379.60
5	Google Sensory Support Event Kit	6,840	394	82	\$4,072.50
6	Android Glow-in-the-Dark Collectible	6,015	2,420	544	\$10,021.20
7	Google Black Cat T-Shirt	5,600	2,121	505	\$28,627.40



Part Four: Segmentation



Audience Segment: Demographics

The screenshot shows the Google Analytics interface. The left sidebar has a menu with 'User attributes' expanded, showing 'Demographic details' as the selected option. The main content area is titled 'Demographic details: Language'. It features a table with columns: 'Language', 'Active users', 'New users', 'Engaged sessions', 'Engagement rate', and 'Engaged sessions per active user'. The table lists data for 'Total' and six language categories: English, Spanish, Chinese, Korean, (other), and Japanese. The 'Total' row shows 29,002 active users, 23,742 new users, 31,021 engaged sessions, a 67.43% engagement rate, and 1.07 engaged sessions per active user. The 'English' row shows 24,987 active users, 20,349 new users, 27,047 engaged sessions, a 68.2% engagement rate, and 1.08 engaged sessions per active user. The 'Spanish' row shows 1,162 active users, 1,021 new users, 994 engaged sessions, a 52.37% engagement rate, and 0.86 engaged sessions per active user. The 'Chinese' row shows 920 active users, 772 new users, 967 engaged sessions, a 64.12% engagement rate, and 1.05 engaged sessions per active user. The 'Korean' row shows 584 active users, 485 new users, 566 engaged sessions, a 61.12% engagement rate, and 0.97 engaged sessions per active user. The '(other)' row shows 560 active users, 1 new user, 1 engaged session, a 100% engagement rate, and <0.01 engaged sessions per active user. The 'Japanese' row shows 285 active users, 240 new users, 236 engaged sessions, a 59.9% engagement rate, and 0.83 engaged sessions per active user.

Language	Active users	New users	Engaged sessions	Engagement rate	Engaged sessions per active user
Total	29,002 100% of total	23,742 100% of total	31,021 100% of total	67.43% Avg 0%	1.07 Avg 0%
1 English	24,987	20,349	27,047	68.2%	1.08
2 Spanish	1,162	1,021	994	52.37%	0.86
3 Chinese	920	772	967	64.12%	1.05
4 Korean	584	485	566	61.12%	0.97
5 (other)	560	1	1	100%	<0.01
6 Japanese	285	240	236	59.9%	0.83

Values used:

The values used to create the segment are "Age exactly matches '45-54' AND Gender exactly matches 'female' OR 'male'"



Audience Segment: Technology

Analytics

Try searching "compare conversions from organic vs direct channels"

Custom 28 Oct 2023 - 29 Oct 2024

Tech details: Browser

Plot rows Search... Rows per page: 10 Go to: 1 1-10 of 23

	Browser	Active users	New users	Engaged sessions	Engagement rate	Engaged sessions per active user	Average engagement time per active user
<input checked="" type="checkbox"/>	Total	339,809 100% of total	331,389 100% of total	223,113 100% of total	52.04% Avg 0%	0.66 Avg 0%	39s Avg 0%
<input checked="" type="checkbox"/>	1 Chrome	185,519	181,789	142,346	58.98%	0.77	51s
<input checked="" type="checkbox"/>	2 Safari	118,087	114,857	64,154	42.16%	0.54	27s
<input checked="" type="checkbox"/>	3 Samsung Internet	14,622	14,329	5,979	30.09%	0.41	17s
<input checked="" type="checkbox"/>	4 Android Webview	11,150	10,983	5,630	45.41%	0.50	21s
<input checked="" type="checkbox"/>	5 Safari (in-app)	4,188	4,135	2,439	51.37%	0.58	23s
<input type="checkbox"/>	6 Android Browser	1,447	1,444	843	58.3%	0.58	0s

Values used:

The values used to create the segment, Platform exactly matches 'web' AND Device category exactly matches 'mobile' OR 'smart TV'



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	\$0.000	\$0.000	0
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	\$13.000	\$21.125	1,625
Google Merch Madness: Score Big on Tech Essentials	\$0.000	\$0.000	0
Unlock the Power of Google: Shop the Best in Tech	\$7.000	\$12.250	1,75
Totals	\$30.000	\$49.375	



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?

1. Campaign Cuts: **spend less**

- Since Google Merch Madness has the lowest ROAS (0.4), which results in a \$2,000 revenue loss, it is removed.
- Tech Trends: Discover the Latest Google Gear is also cut, resulting in a loss of \$3,000 in revenue.

2. Campaign Increases: **spend more**

With the funds (total of \$10,000) from the cuts:

- Increase Unlock the Power of Google: Shop the Best in Tech from \$2,000 to \$7,000. With ROAS of 1.75, it's estimated that revenue could increase significantly (to around \$12,250).
- Increase Gear Up with Google: Your One-Stop Tech Shop from \$8,000 to \$13,000. This campaign can bring in up to \$21,125, maintaining a high ROAS.



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 ApplePay.

UX change: **eCommerce Changes**

- ❑ *Enhanced Mobile Shopping Experience: Optimize the website for mobile users by ensuring it is responsive, loads faster, and uses a mobile-friendly navigation layout.*

Other eCommerce change or addition:

Loyalty Programs

- ❑ Develop a loyalty program that rewards customers for their purchases, reviews, and referrals. This can increase customer retention and encourage higher spending.



1	Augmented Reality (AR)
	Implement AR technology to allow customers to visualize products in their own environment before making a purchase.
2	Chatbots and Conversational AI
	Chatbots powered by AI can interact with customers in real-time, answering questions, guiding them through the purchasing process, and providing personalized recommendations.