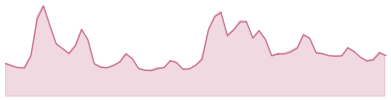
HIghrise User Acquisition Cohort Analysis

By Celine Ji..

During the 2-month window from Apr, 2024 to May 2024, Highrise spent $588.2K in user acquisition, the Avg. CPI is $6.5.

Total Impressions
64,394K
38,525.1K By TikTok
22,817.5K By Google

Total Installs
664.4K
574.1K Organic Installs
90.3K Non-organic Installs



Total CR Payer D1
2.4K
1.8K Organic Payer
0.5K Non-organic Payer

iOS Installs Seems to Stay Under the Cliff as Android Shines, but Revenue Tells a Different Story

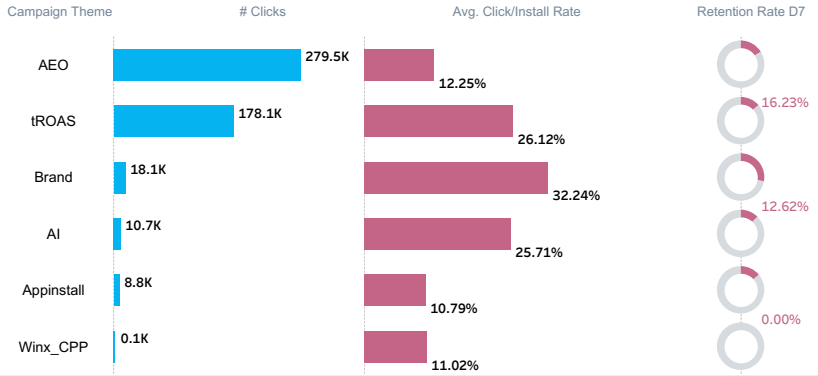
- While, Ad Revenue being similar among OS system, iOS users achived a total of **$114.4K IAP Revenue**, exceeding Andriod users by **118.6%**.

- With comparative amount of clicks, Android achieved **209.6% Click-to-install%**, while iOS stays in the shadow with **59.12%**

Which OS are Our Engaging Prospects Using?

OS	% Clicks	# Clicks	# Retention
Android	51%	250K	D1: 107.2K D7: 37.8K Sticked Users 35.3%
iOS	46%	227K	D1: 27.6K D7: 9.9K Sticked Users 35.9%
Unspecified	4%	18K	D1: 1.6K D7: 0.7K Sticked Users 41.8%

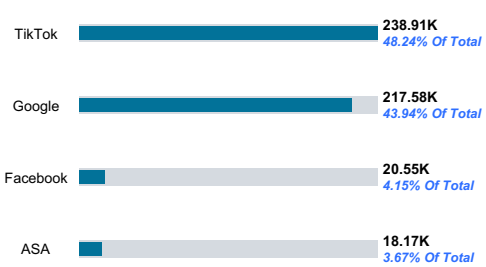
What are the Most Engaging Campaign Theme?



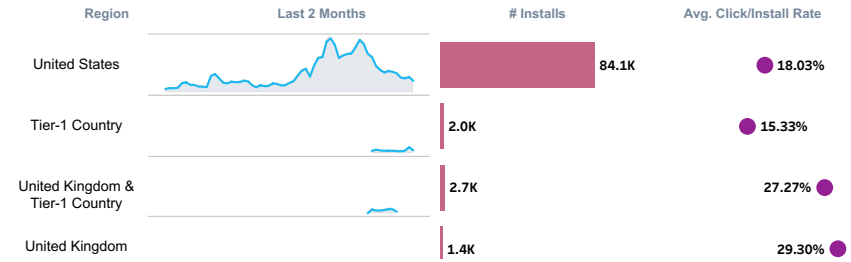
Regarding Similar Engaging Capabilities Between Google and TikTok, Google Ads, Know for Precise-Targeting, achieving 27.4% Click-to-install Rate, as TikTok Perform Relatively Poorly with 9.41% CTI.

UK, despite the limited Ad Spend, has the highest Click/Install Rate of 29.3%.

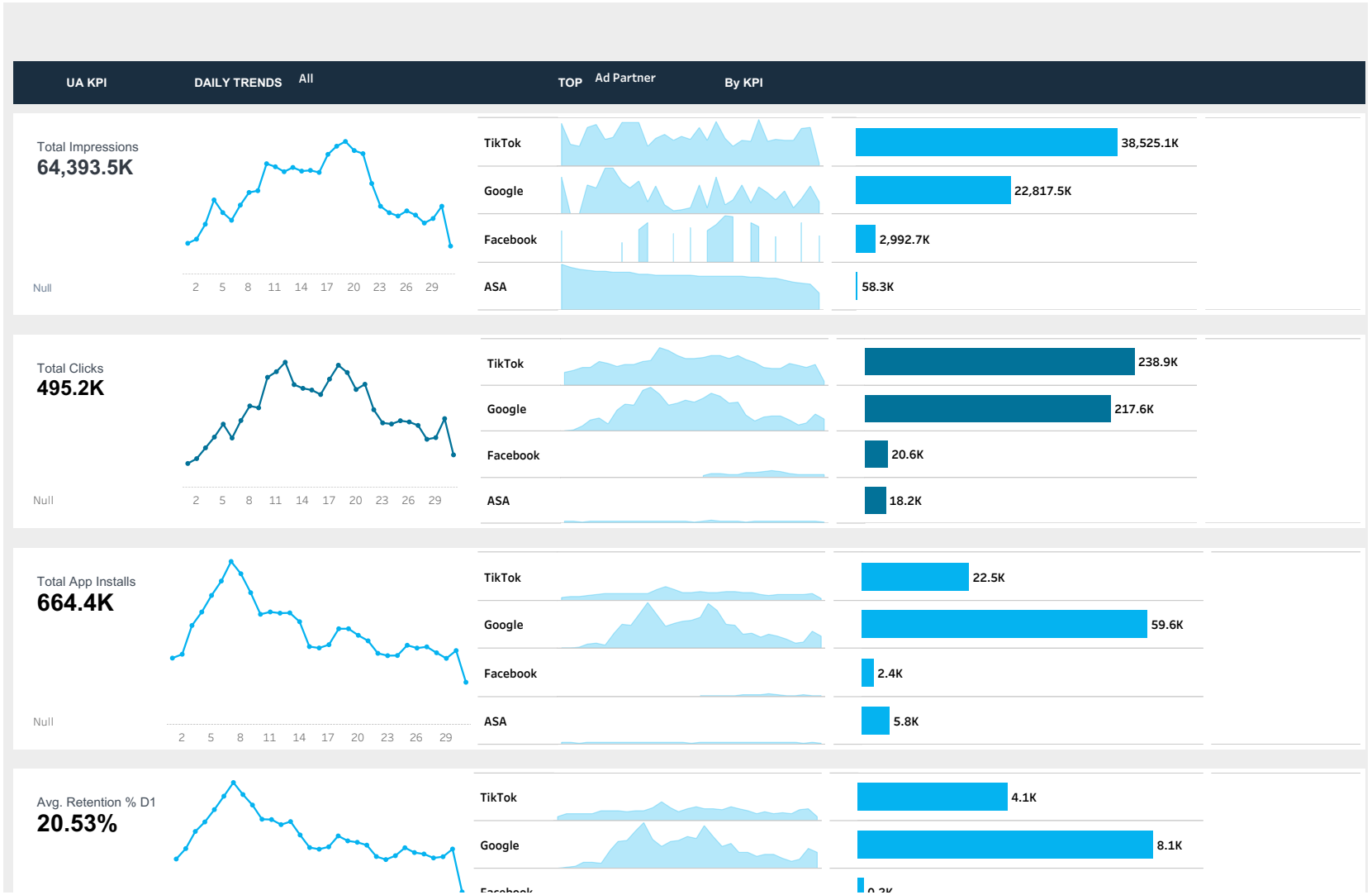
Which Ad Partner Send the Most Clicks?



Which regions bring the most CLICKS?



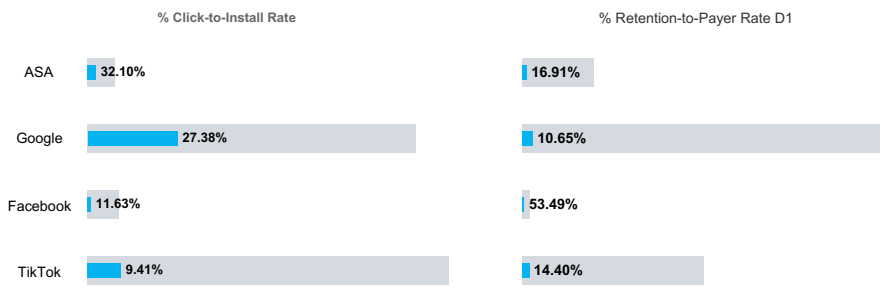
Overview | KPI Evaluation | Ad Partner | Monetization | Recommendations | Notes.&Assumptions



Performance Deep Dive On Ad Partners All

compare performance by selecting period window.

Which Ad Partner Drive Highrise's Ability to Convert Leads?



Highlights

- Users acquired through Facebook Ads are most likely to make a purchase on D1 after installs, although the Avg. CPC is the highest as $2.24.

- While TikTok Ads is excelllent for engaging with a younger segments with interactive user experiences, but it's short in front of Google Ads' intend-based targeting strategy and the lowest CPC of $0.89.

- Apple Search Ads and TikTok shares the similar CPC rate of $1.14 and $1.37 respectively, but Apple Outperformed TikTok Ads by 241% in Click/Install Rate.

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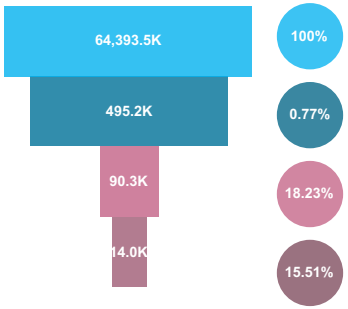
Number of Monetization-able Opportunities

Impressions
# of times an ad is displayed on a user's screen, regardless of the uniqueness of userid.

Clicks
# of times users click on an ad, and being redirected to Highrise installation page.

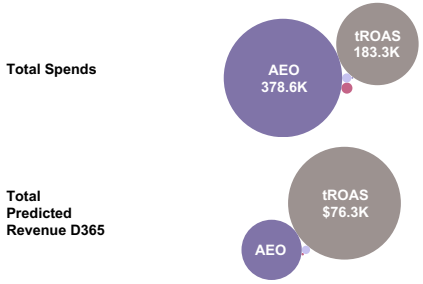
App Installs
# of times HIghrise is installed on users'device

Retention D1
On the 1st day post-install, the number of users who has interacted with Highrise

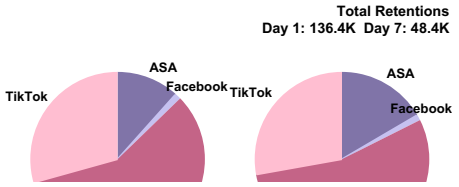


Top Campaign Theme Opportunites

By Spend vs. Predicted Revenue on D365



Where do Highrise's Frequent Users Most Likely Come From?



Campaign ROAS

Investigating Monetization Potentials and Hybrid Revenue Stream

DAILY TRENDS BY All

compare performance by selecting period window.

Total Spends
588.2K

Total Ad Net Revenue
28.5K

Total IAP Net Revenue
186.5K

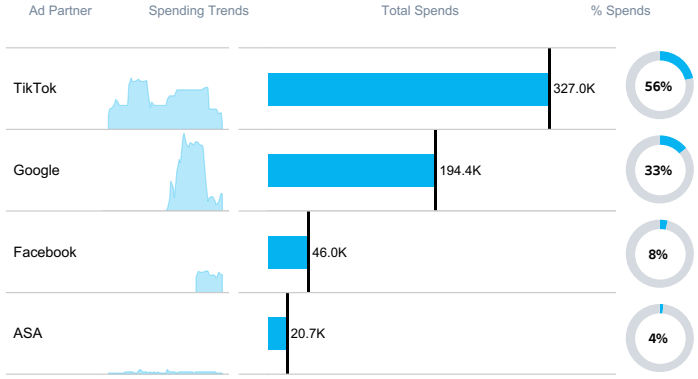
Total Returns D1
10.1K

Highlights

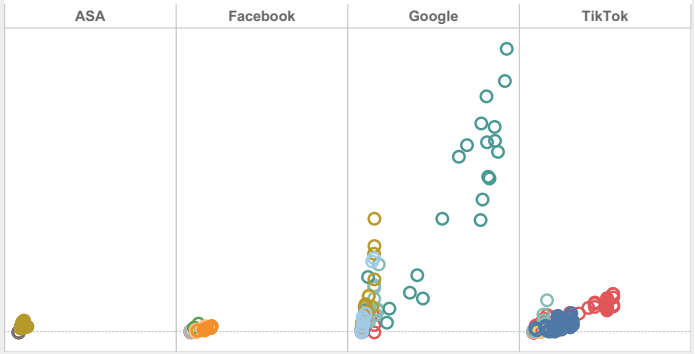
- Comparing to Apr, IAP Revenue Drops By -20.1% as Ad Revenue Climbs By 33% in May.

- Total Returns on D1 Increased by 83.9% in May, Comparing to Apr, 2024.

- Comparing the Lastest Week's Performance with the Previous Week, All Revenue Sources has Decreased as the Spends Increase by 31.3%.



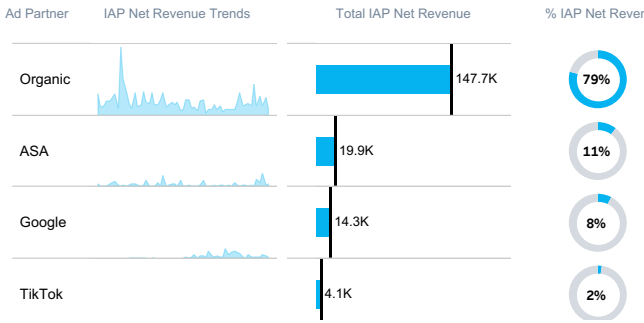
Measure Installs vs. Spends Across All Campaign Cohorts



Where do Highrise's High-value Users Come From?

- While 79% of IAP Revenue came from organic media, Apple Search Ads is the most likely profitable Ad Partner with **$19.9K IAP Revenue and only 4% of the total Ad Spends.**

- Google generated **$14.3K IAP Revenue** by spending **Nearly HALF** on UA campaign than TikTok.



What Does the Scatter Plot Tell

WAY TO GO !

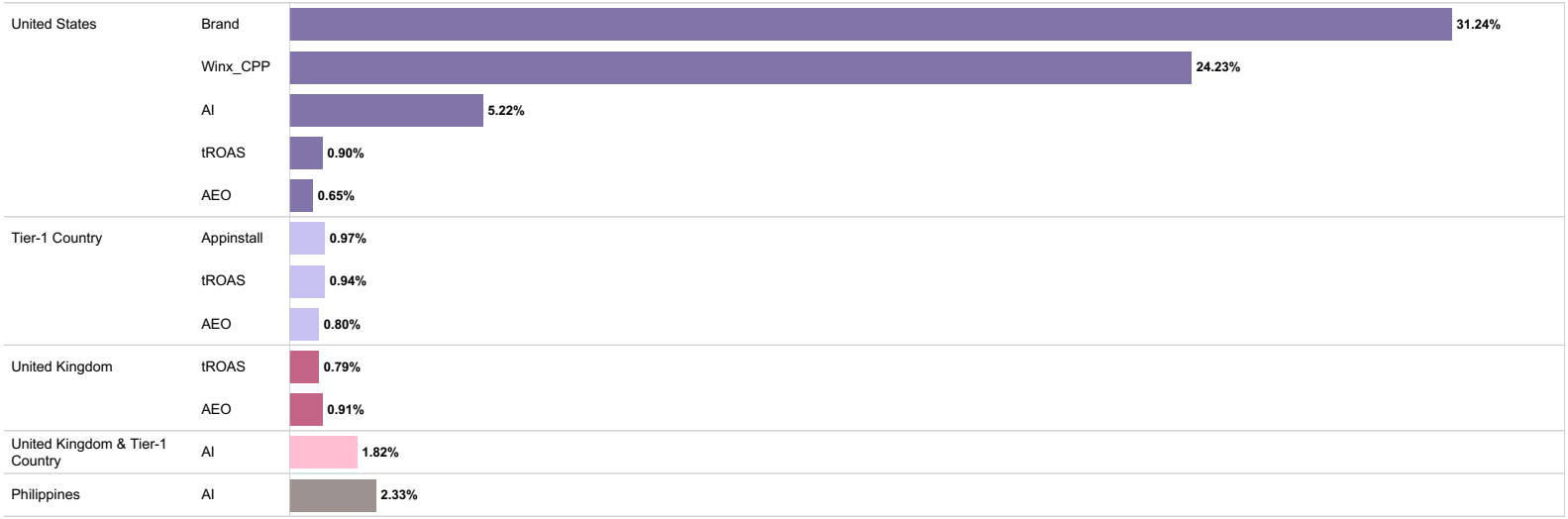
GOOGLE ADS

UA Campaign Optimization Recommendations

Priorotizing UA Metrics that Matters the Most

OUTCOME KPI INSIGHTS	Shifting Ad Budget to UA Channel That are Most Effecient Google > ASA > TikTok > Facebook	Looking at OS Users and Their Region Altogather If the campaign objective is for expanding user base, invest more on Andriod cohort; if monetization is the purpose, focus more on iOS users,
ACQUISITION: CLICK-TO-INSTALL %	Looking at the CTI, along with CPC and CPI per Ad Partner, Google Ads in all regions leads the game with the lowest CPC should be consider first when launching retargeting campaigns.	Android Users has siginificantly outperformed iOS cohorts across all regions. In the most heavily invested region, US, Android cohort has exceeded iOS cohorts by 187%, in click/install %.
RETENTION: RETENTION % D7	Obseving Day 7 Retention, Apple Search Ads largely outperformed the others. Although Apple Ads' CPI being the highest, it can be effective in targeting high-value users in the long run.	Android users in the UK region have the higher retention%, while in the US, iOS users are more likely to stay engaging with the App
MONETIZATION: CR.PAYER% D1	When launching campaigns that target high-user users, ASA and Facebook Ads can also be a great option to choose from, with its highest respeective CR.payer% of 1.98% and 0.96%.	In Highrise' current largest market, US, iOS users are more likely to make a purchase on D1 after installs, with 0.66% payer%, followed by 0.5% for Andriod Users. Regarding the lower installas rate among IOS users, Highrise should make it balance between acquiring high-value users and expanding user base.

Tailoring to Demographic Interests on Campaign Theme/Focus



HOUSEKEEPING NOTES

Data Assumptions

Variable	Definition Assumptions
Impressions/Clicks/Installs	The number of Ad views/clicks/installs on the launch day
ROAS D1/D3/D7 (D0 is the day of install)	Cohorted Return on Ad spend, revenue generated per unit of ad spend. Revenue/Spend on day 1 since the launch of the campaign (in decimals)
Revenue D365(predicted)	Predicted cohort revenue on Day 365 since the campaign launch, not counting the revenue in the days before
Retention D1/D7	Cohorterd rate of users who continue to use Highrise over #day. Eg. On day 1 post-install, the number of unique users who opened the app/ installation counts (in decimal)
IAP Net Revenue	In-app purchase revenue from selling any products or services
Ad Net Revenue	includes revenue generated by hosting ads and displaying them

Data Preprocessing Process Overview

Cleaning Steps Taken *(refer to Jupyter Notebook for details)*

1. Removal of duplicated rows and rows missing all metrics performance data
2. Process 'Campaign_Name' column by splitting attributes into Ad Partner, OS Type, Region, and Campaign Keywords with functions, and manually update rows with special formats.
3. Correct inconsistent values for all categorical variables. Eg. ios is changed to iOS.
4. Check the percentage of missing values for all numerical variables. 45% of the remaining rows are missing data with ROAS in dataset_1.
5. Inspect the percentage of rows with null values by ad partner and OS type.
6. Given the different data dimensions between SKAN data and sheet 1 data, and SKAN should be providing more accurate tracking, the following logic is applied:
    a. Since there are only 310 valid entries in SKAN data, and half of the rows are missing SKAN Retention D2 data, the analysis ignores this metric.
    b. Given there are 226 records in SKAN-data, that match with data in sheet 1 on `'Campaign_Type'`, `'Ad_Partner'`, `'OS_Type'`, `'Region'`, `'Campaign_Keyword'`,`'Date'`, the following actions have been taken:
        i. IF records match on condition, sheet1's `'Spend'`, `'Impressions'`, `'Clicks'`, `'Installs'`, are replaced by data in SKAN data, if the corresponding value in SKAN data is not null.
        ii. IF records match on condition, `m_ROAS D1, m_ROAS D7 in` SKAN data are merged, and other cells are filled with null.
7. Output the cleaned_dataset as xlsx. and pickle file
    a. Output data frame structure: `[646 rows x 22 columns]`