SplitMetrics optimize

ASO Benchmarks and Mobile Trends Report

Contents

01 Introduction

Learn about the biggest ASO and mobile game marketing trends, get benchmarks and practical tips that will help your mobile game or app skyrocket.

According to Statista, mobile app revenue in 2021 reached $693 billion (compared to $581.9 in 2020), and is projected to continue to grow.

With a new reality that reigned in 2021 and entailed the evolution of mobile marketing, understanding the latest trends in ASO and app industry benchmarks becomes more than a competitive advantage, but rather a necessity.

This report integrates years of **SplitMetrics** hands-on experience helping our clients make data-driven decisions: validate mobile game concepts and app ideas, select the optimal creatives and right go-to-market strategies.

We created it to give you a view of the market trends along with a deeper understanding of your target audience. This will help you to make informed choices, starting from the choice of concepts to building the right strategy.

We will dig into three popular app categories that fuel the mobile industry growth: **Health & Fitness, Simulation Games and Casino Games** — and provide actionable tips on ASO and mobile creatives for each category.

*"As the market evolves, app marketers have to quickly adjust and provide users and players with experience tailored to their specific needs and expectations. Keeping abreast of ASO trends and knowing what target users are looking for helps to make the best first impression. **A/B testing and concept validation are becoming more important than ever** and constitute a cornerstone for mobile app businesses."*

Max Kamenkov | CEO at SplitMetrics

3 app categories

- **Health & Fitness**
- **Casino games**
- **Simulation games**

2 app stores

- **App Store**
- **Google Play**

600 experiments

via SplitMetrics Optimize

2021

May to September 2021

Below you will find the average **CVR uplift gained by optimization of a specific app page element** on the App Store and Google Play Store. We have analyzed the data not only for 2021, but for the past 5 years.

	Health & Fitness	Health & Fitness	Casino games	Casino games	Simulation games	Simulation games
Screenshot	5.9%	1.2%	5.7%	20.2%	7.9%	6.1%
Icon	6.6%	0.4%	9.4%	5.8%	4.2%	6.6%
Video Preview	2.9%	0.7%	6.4%	●	6.8%	23.8%
Description	1.6%	●	●	●	4.8%	●
Name	11.6%	5.8%	3.1%	●	●	14.2%
Featured Banner	3.6%	●	●	●	4.7%	●

● means that we don't have enough data or testing of the element is uncommon in a particular category.

As you can see, **screenshots are crucial for Casino games on Google Play,** while **for Simulation games, video preview is the determining factor** when players decide whether to download a game or not. Health & Fitness apps, surprisingly, attract users more with their name than with the visuals.

02 Key App Store Optimization Metrics 2021

This report analyzes the behavior of app store users tracked during A/B testing experiments run on the **SplitMetrics Optimize. Some data may therefore differ from the official statistics of the app stores.**

Health & Fitness	App Store	Google play
Median conversion	**17.0%**	**34.7%**
Median engagement	**38.3%**	**50.9%**
Median increase in conversion	**5.5%**	**1.9%**
Avg. time before action	**13.1s** ↑ 10s in 2020	**12.8s** ↑ 9.4s in 2020

SplitMetrics optimize

Casino Games	App Store	Google play
Median conversion	13.3%	14.3%
Median engagement	25.7%	25.2%
Median increase in conversion	7.2%	5.6%
Avg. time before action	14.1s ↓ 15.78 in 2020	17.98s

Simulation Games	App Store	Google play
Median conversion	21.3%	10.8%
Median engagement	42.4%	19.2%
Median increase in conversion	5.1%	7.3%
Avg. time before action	9.22s ↑ 8.61s in 2020	13.2s ↑ 10.9 in 2020

SplitMetrics optimize
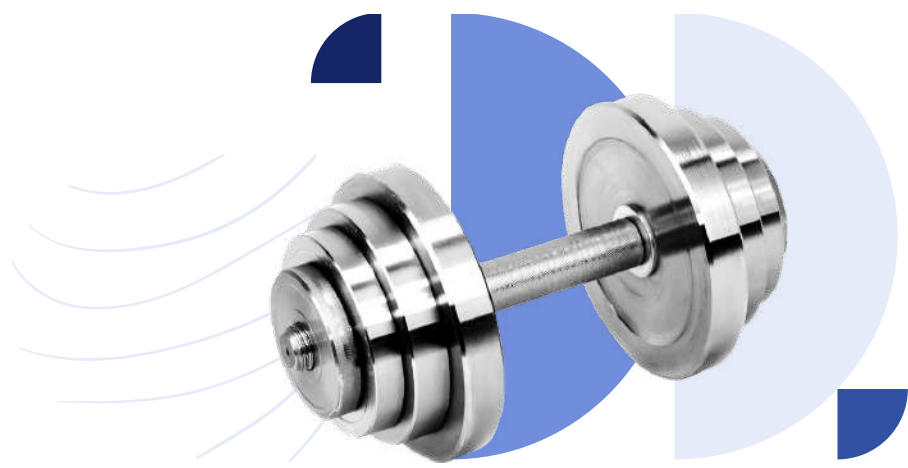
03 Health & Fitness Apps

The Health & Fitness apps' market booms. The coronavirus pandemic has affected the way people do sports or take care of their mental health. Smartphones are handy during the lockdowns when gyms, yoga classes and psychotherapists' offices are closed. At the same time the demand for apps designed for home workouts, meditation & relaxation, and nutrition has skyrocketed, since people want to sustain a healthy and productive life when they stay at home, work from home, do almost everything without leaving home.

State of Mobile report by App Annie confirms that health & fitness apps have shown impressive performance throughout the pandemic period. It states that **in 2020 over 71,000 health & fitness apps were launched globally.**

And now let's have a look at some numbers and find out how the health & fitness market performed this year compared to 2020.

According to Adjust, 2021 wasn't an exception in terms of the New Year's Resolutions spike of January, with installs growing up 10% YoY. Users who already had the necessary health & fitness apps installed on their smartphones, started to actively use them, as the number of sessions increased 57% YoY in January.

Health and Fitness Installs Per Day

Source: Adjust
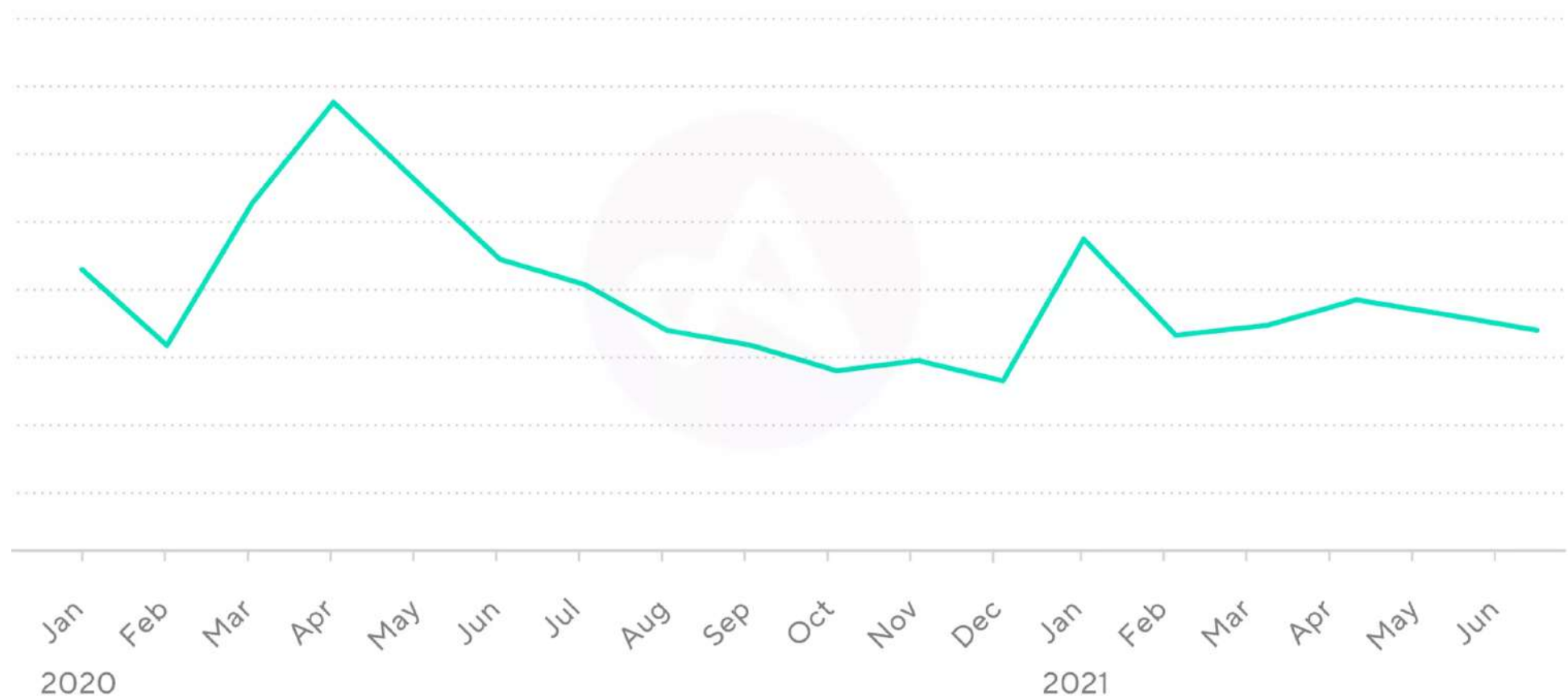
Overall, **sessions in health & fitness apps have increased 31% YoY,** which means that even when gyms are open, many people prefer to exercise at home, since it has already become a habit.

Health and Fitness Sessions Per Day

Source: Adjust
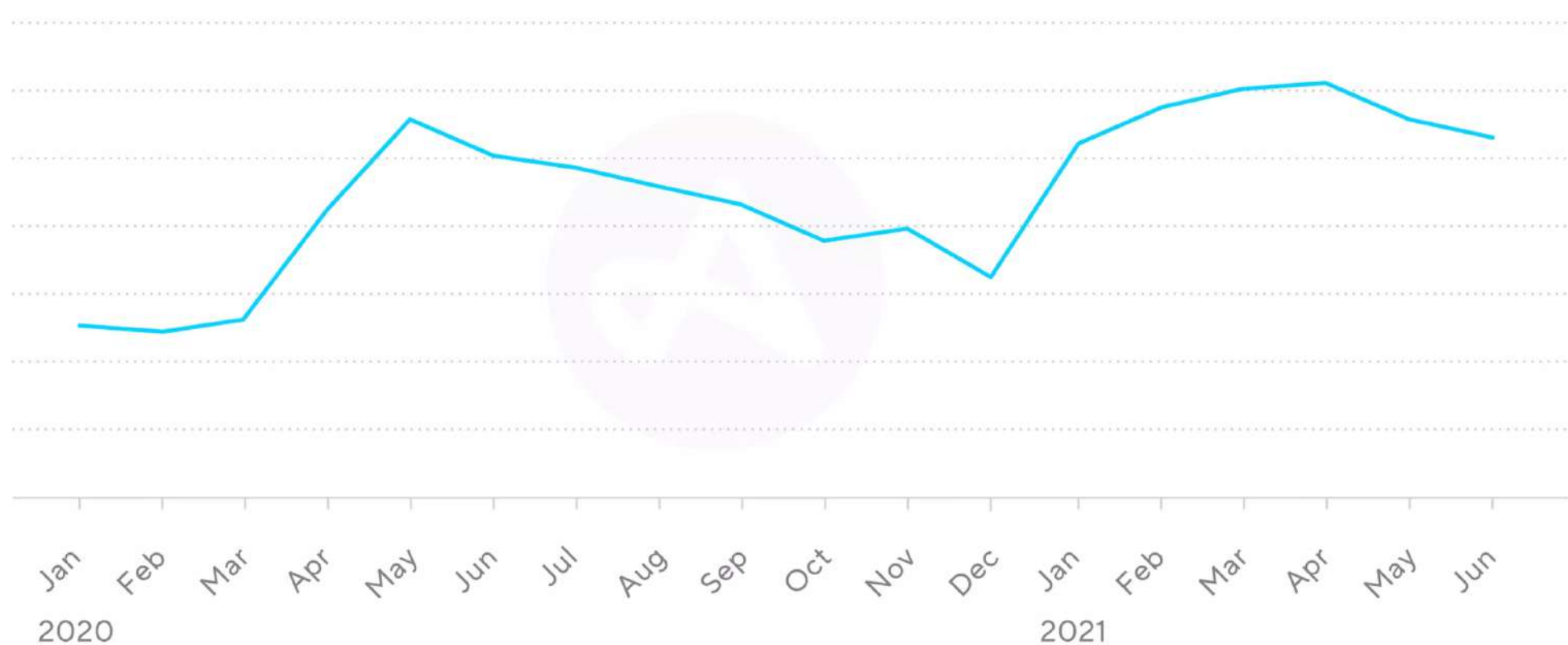
And before we move on to benchmarks and tips for this app category, what about some forecast for Health & Fitness in the next few years? The global fitness app market is projected to reach **$15.96 billion by 2026**, according to a recently published report by Report Ocean.

Icon

App icon has a higher impact on your conversion rates when it appears in the category and search results rather than on the product page (where screenshots and video might play a more decisive role). Therefore, it's important to **analyze the icon in the competitive environment and together with other elements** (screenshots, title, etc.)

1

Looking at an icon alone does not explain the purpose of the app or its functionality. The only information we can get is by reading the logo, and this is considered to be a poor practice. Try designing and testing **functional icons** instead. **One-colored icons work better for health-fitness apps. Use bright colors to attract attention** (but keep in mind that the icon should correspond to the screenshots color scheme).
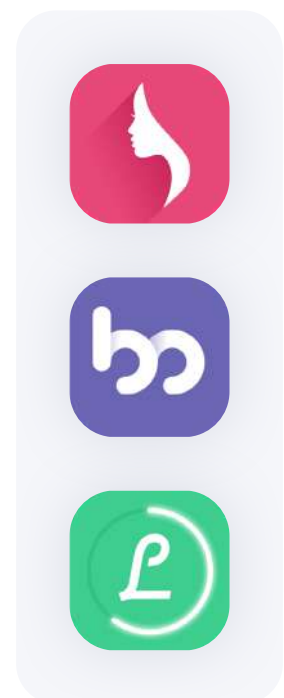
Image source: the App Store

2

The environmental topic is quite popular nowadays. Icon should convey the main idea of the app to help your users associate it with intermittent fasting more quickly.

Average Improvement **34%**

Image source: the App Store

3

For the App Store, you can try creating a 3D icon. The icon should use large forms, easily recognizable in a small format display. You may increase the size of the logo on the icon.
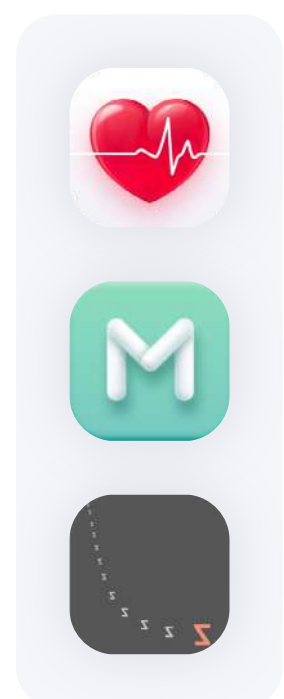
Image source: the App Store

Screenshots

Screenshots are one of the most impactful elements on the app page. The first screenshot plays the most important role for conversion. **The majority of installs an app gets are made after viewing the first screenshot.** The first three screenshots play the most important role in the portrait orientation.
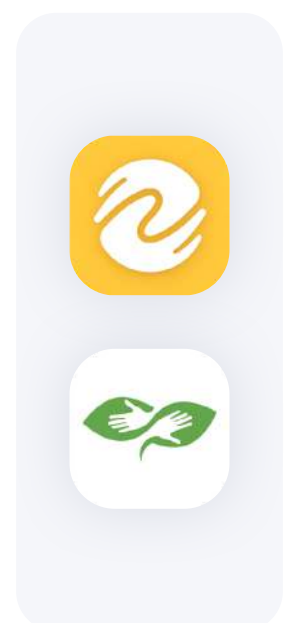
Landscape screenshots work well when it comes to direct installs; vertical screenshots work well for installs after screenshot scrolls. It's a good idea to depict social proof, but it's better to avoid a panoramic view.

1

Captions will be more visible on the smartphone screen. You can put an emphasis on the main phrases in order to highlight the key features of your app.
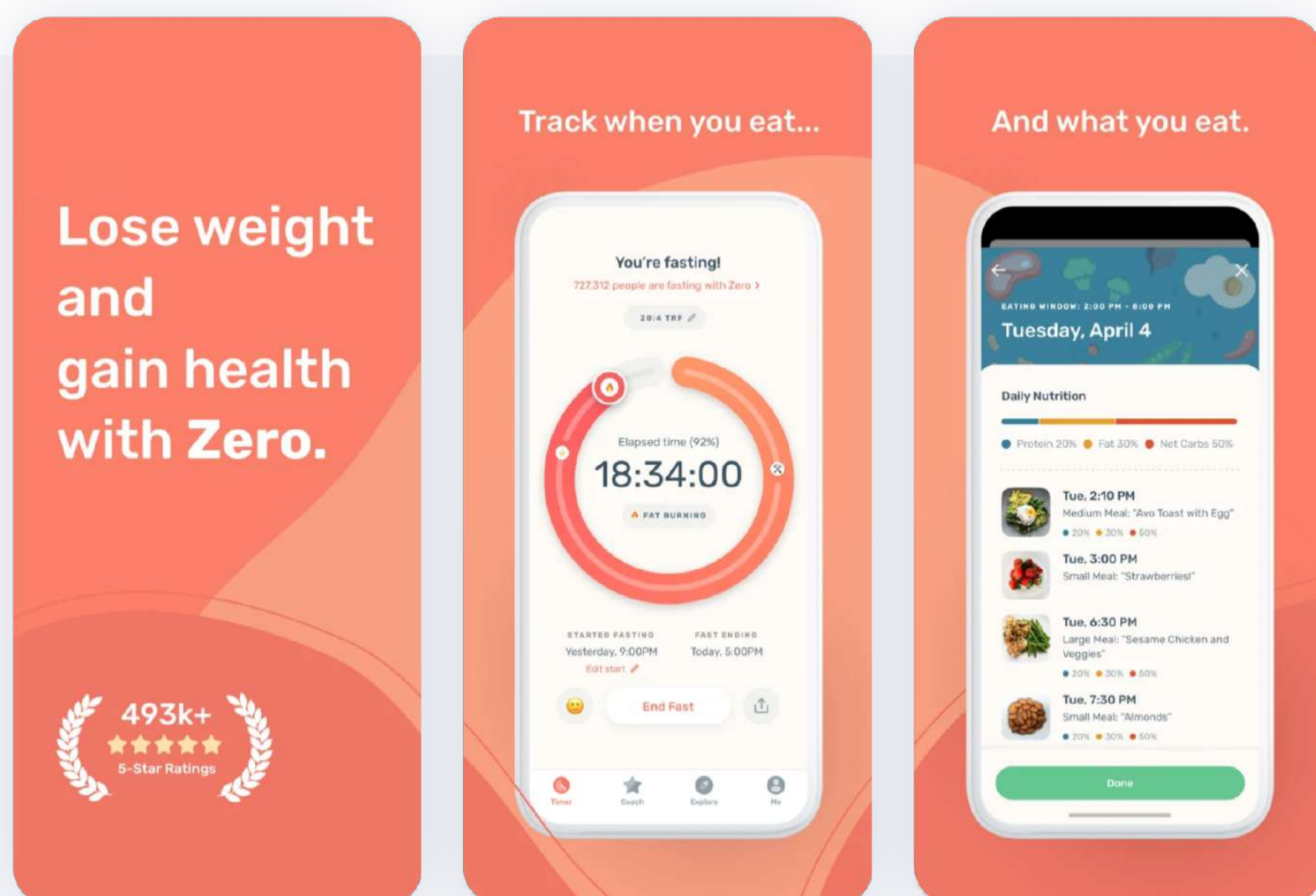
Image source: the App Store

2

Try to place a split screenshot on the second position. The first screenshot plays the most important role for the conversion rate because the major part of installs of an app comes after viewers see the first screenshot. So it would be useful to add social proof & CTA to describe an app. Then show the main features of an app.

> **Tip:** Be careful when choosing devices depicted on your screenshots in order not to be banned on the Google Play Store.

Image source: the App Store

"Follow trends and integrate them into your products and app store creatives. The Pantone Color Institute has just named PANTONE 17-3938 Very Peri the color of the year. This new shade of blue is definitely worth testing for your Health & Fitness app screenshots. This tip also falls into mobile gaming trends."

Maria Koltsyna, ASO Specialist at SplitMetrics Agency

3

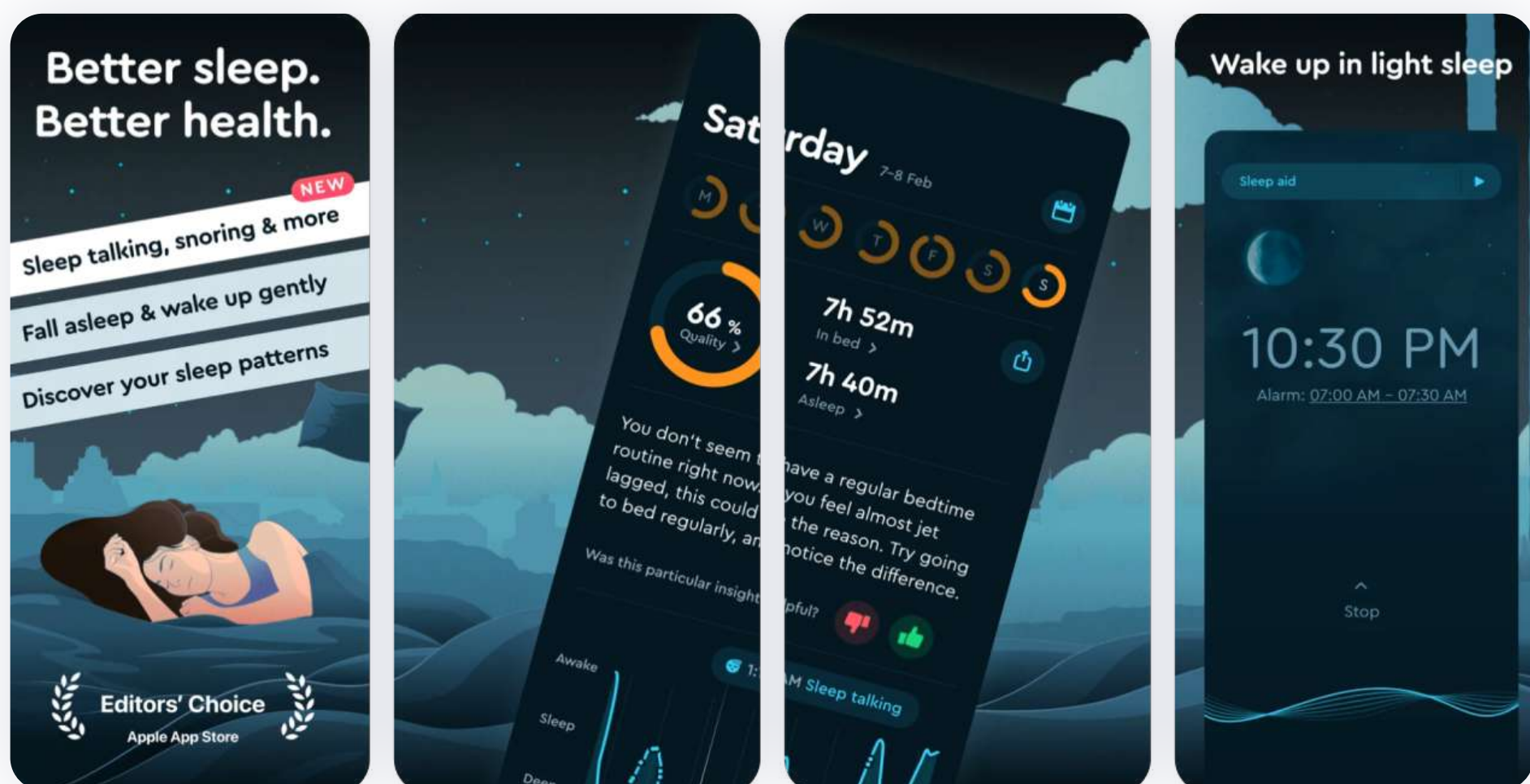**You can use screenshots in different colors to catch customers' attention.**

According to our data, only **~50% of users scroll through the first visible screenshots** making it extremely important to display the majority or at least the core functionality of an app in the first two screenshots. Only around **7% of users see the 5th screenshot**.

You can also change the order of the screenshots and test different variations to understand what features do the customers like most of all.

We recommend adding no more than 7 screenshots and putting all of the information about the app there, emphasizing it in the first and second screenshots.

7% of users see the 5th screenshot

Image source: the App Store

4

Show app's interface & a person using the app in action on the first (or first two) screenshots. Add a person (from your target audience) with some vivid emotion (satisfaction, interest, pleasure). Or you may also depict the user's hand holding the device.

Note: *if you choose to place a hand on the screenshot – note that it should be drawn. Because for a real human hand, your app could be rejected on the App Store. All this can give the users a sense of trust (we can see other real people using this app).*
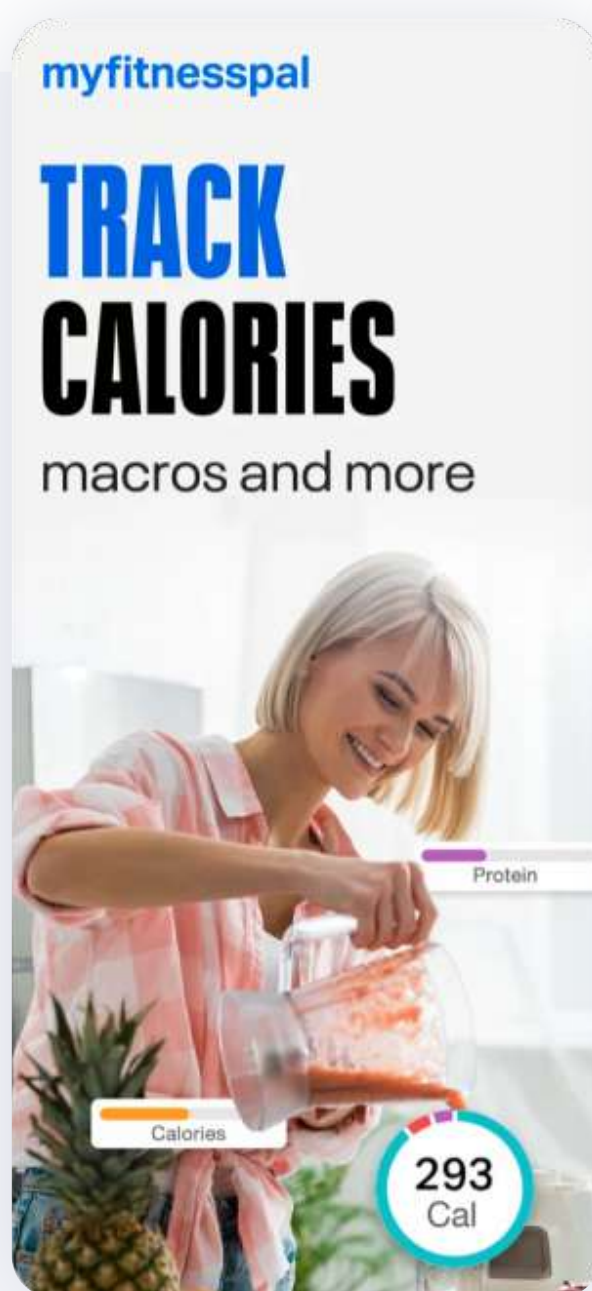

Image source: the App Store

5

Use the first screenshot to list all the main features the app has. When the first screenshot differs from others, it catches attention.

Do not forget to use **social proof & expert opinion.** Social proof messages are one of the strongest influential techniques that can be used in marketing to increase conversion.

You can display anything from mentioning the potential of your app by a well-known source to the statistics on how many people lost weight with your app (and show their progress). The idea is to show that your app is useful, helping many people or is appreciated by a thought leader.

It's very important to convince users that they will get daily support, customized guidance, expert advice – we recommend adding such kinds of evidence to the screenshots.

> **Note:** This tip works better for the App Store.
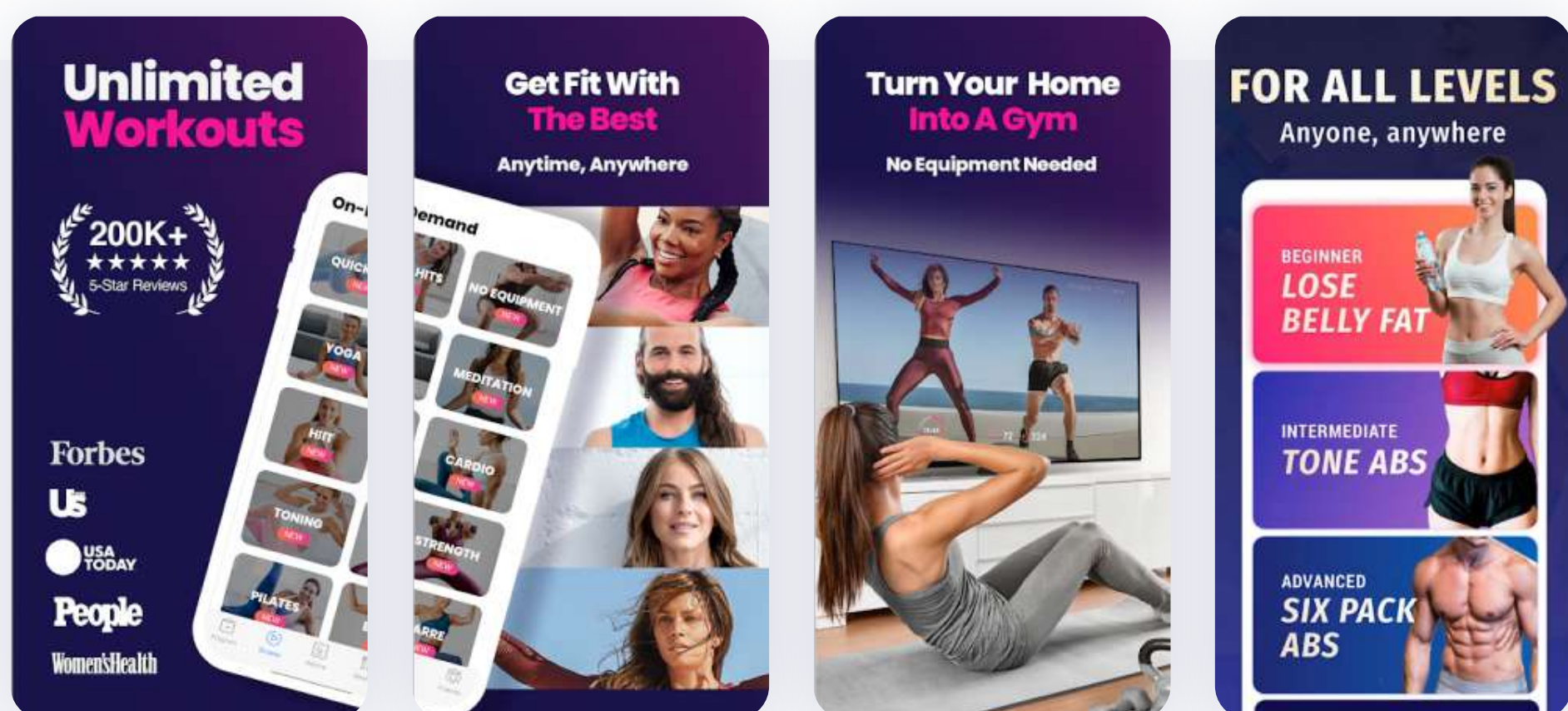
Image source: the App Store

6

Try to display user reviews on the screenshots. This can give people a sense of trust and may increase CR. But you should remember that customer **reviews can be used in marketing materials only if permission from the reviewer is granted.**

Image source: the App Store

7

Personalized screenshots. Making your screenshot images related to the people who might be interested in your app gives a huge CR boost. Add pictures of people in the background using the app to display how the app helps them.

Tip: *Adding "#1" to the first screenshot catches the attention of users.*

Image source: the App Store, Google Play

8

A human character works better than an animated one. The same is true for the real screenshots from your app.
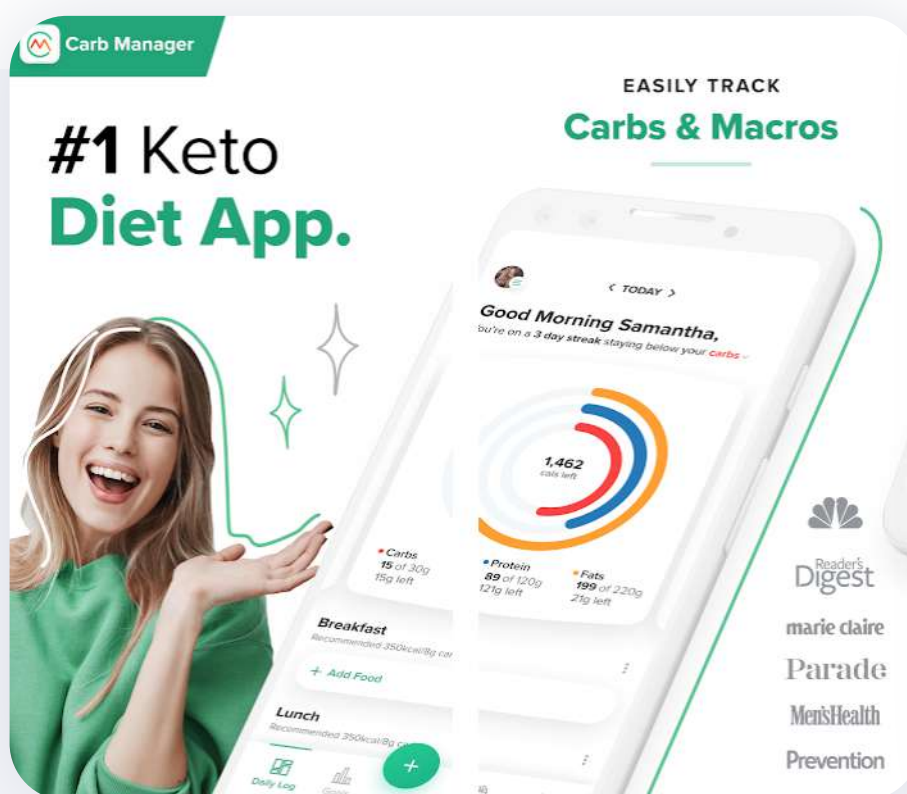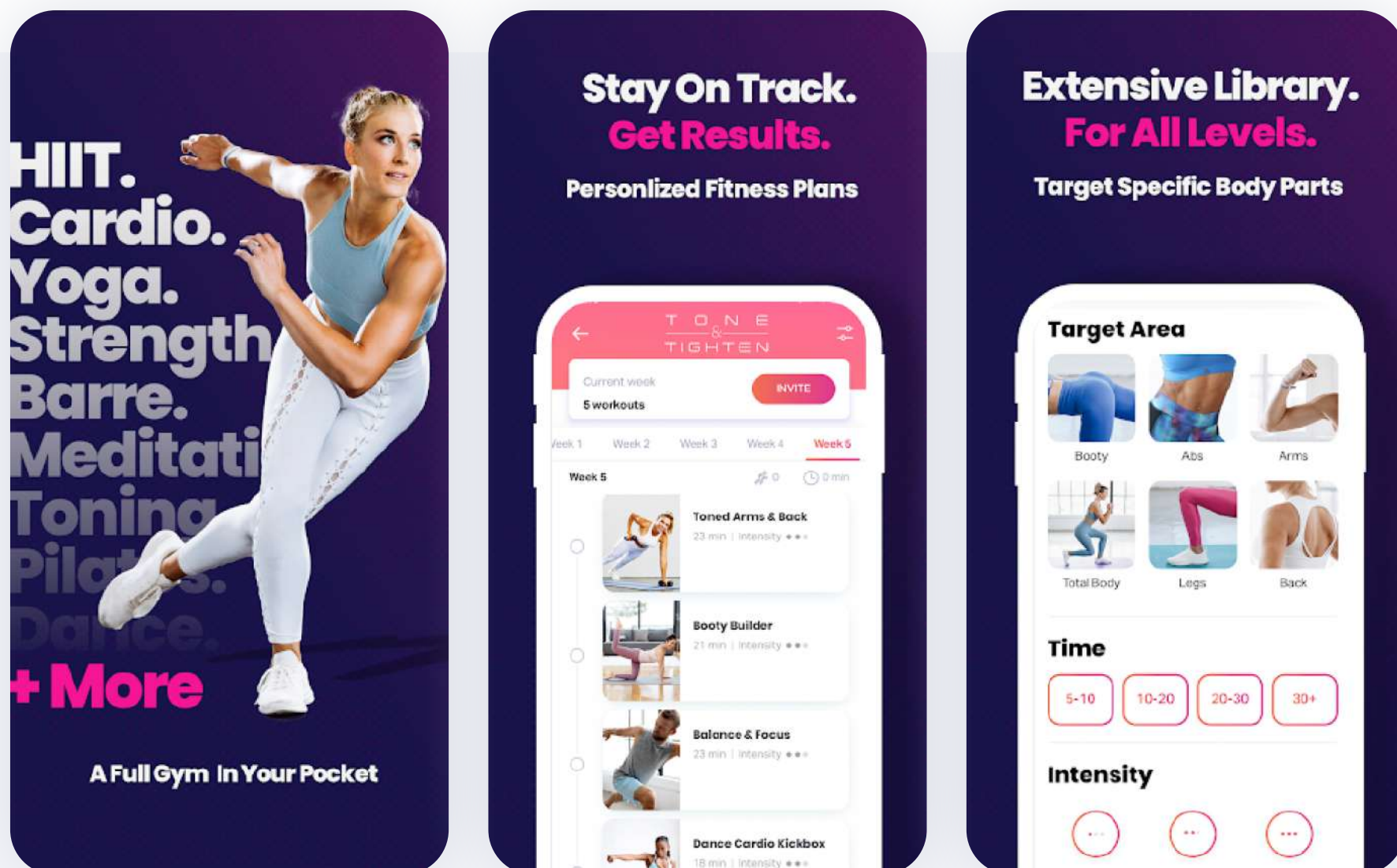

Image source: Google Play

> **Tip:** *Place people on your screenshots so that their **gaze would fall on the CTAs, key captions or the Get button.** The same works for the head or the body turned towards your call-to-action. This technique (also applied to the screenshots above) has resulted in the **increase of engagement and conversion rates.***

9

Create and test a set of banner-like screenshots in a full-screen orientation removing the device frames. The image should take 100% of a screenshot and the captions should fit into the image in a natural and logical way. **We saw CR increase up to 36% after applying this change for apps in your category.**

Video Preview

Video preview is one of the first things users see and it has a high impact on your conversion rates. It is very important to show an app in use. **Players watch the videos to make the final choice in favor of the app.** Therefore, the first 3-5 seconds of the video are of the utmost importance (if you do not hook the viewers and do not get your point across in the first seconds, you risk losing their attention).

1

Video Preview with a detailed feature description can be used to catch user attention. Don't forget to use CTA (you can start a video with main CTA) and show how the app works, how it can be used.

> *Tip:* *For non-gaming apps, you can show people who represent the target audience.*

> **Variation with an app preview for a health & fitness app, one of the SplitMetrics Optimize clients, received a 9% conversion uplift.**
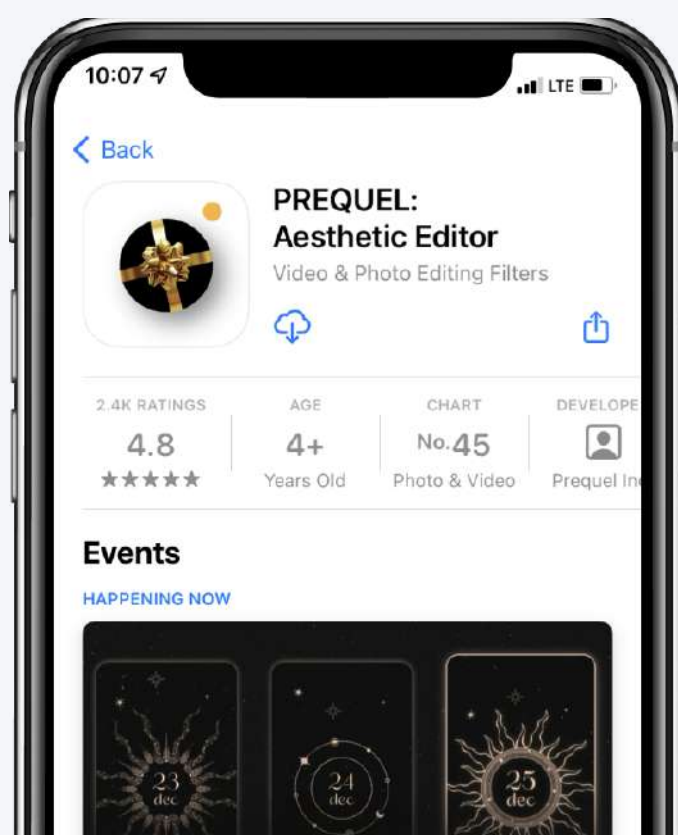
Prequel

Prequel got 75% improvement with A/B testing of video on **SplitMetrics Optimize.**

Want to achieve similar results?

BOOK A DEMO

2

However, keep in mind that **if your app belongs to another category,** adding video preview to your app store product page might decrease conversion.

| Versions		Audience	Installers (current)	Installers (scaled)	Performance Confidence interval: 90%
— Current version	👁	80,0 %	48 447	60 558	●
— Screencast	👁	20,0 %	12 062	60 310	-2,2 % +1,5 %

Google Play test result for Vezet, SplitMetrics Optimize client

C 🏆 Variation A — 👁 Preview — 🏆 Winning Variation 🏆

Click to Install Rate ❓ **10.2%** ±1.3%	**Visitors** ❓ **964**	**Clicks to Install** ❓ **98**
Engagement Rate ❓ **19.3%**	**Time to Click to Install** ❓ **11.34s**	**Avg. Time on Page** ❓ **3.97s**

Improvement ❓ N/A

Variation B — 👁 Preview

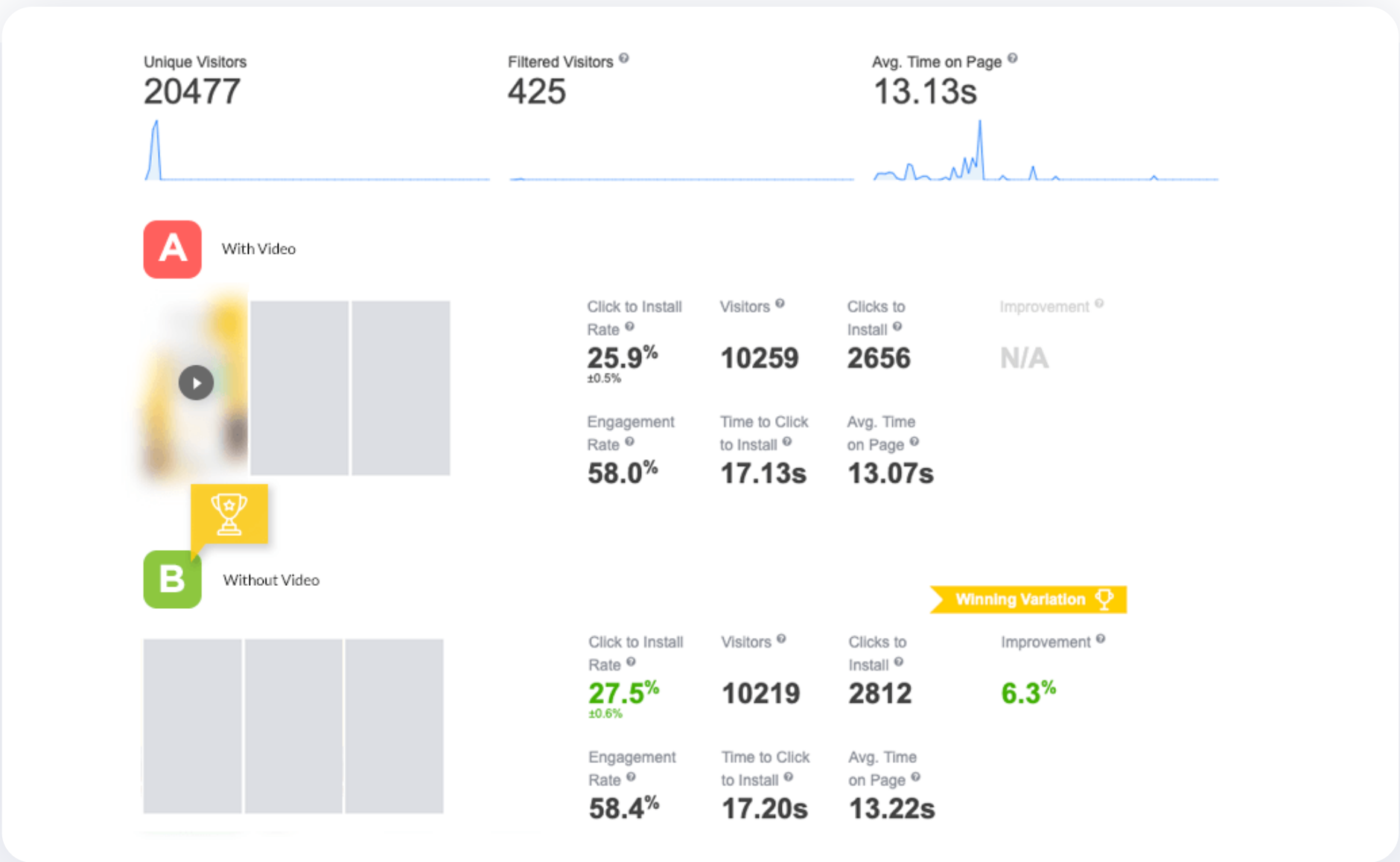|		
Click to Install Rate ❓ **8.5%** ±1.2%	**Visitors** ❓ **974**	**Clicks to Install** ❓ **83**
Engagement Rate ❓ **24.5%**	**Time to Click to Install** ❓ **16.19s**	**Avg. Time on Page** ❓ **7.53s**

Improvement ❓ **-16.2%**

App Store test result for Vezet, SplitMetrics Optimize client
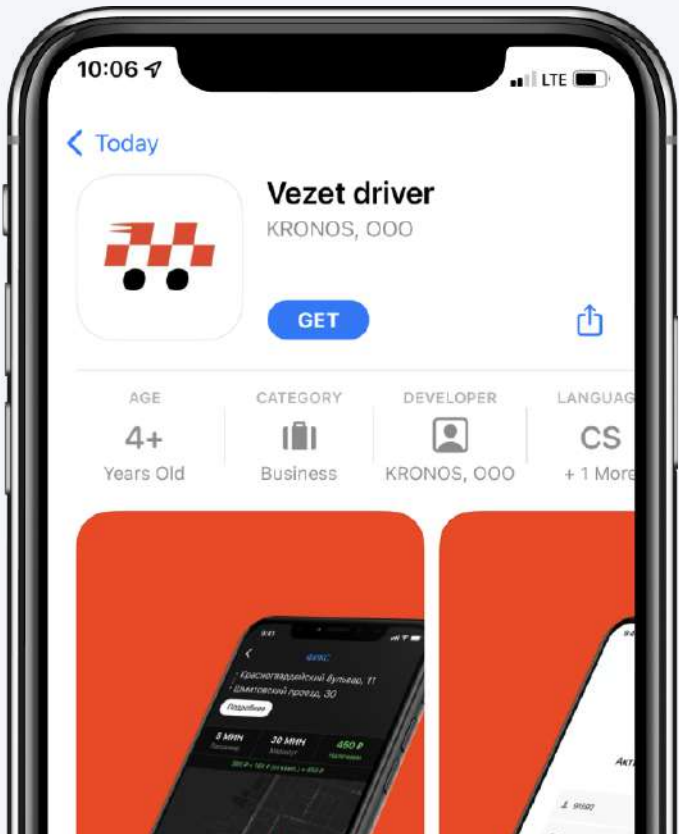
VEZET 🏁

Vezet ridesharing app **increased CTI conversion rate** with **SplitMetrics Optimize.**

Want to optimize your app's or game's conversion?

BOOK A DEMO

Unique Visitors	Filtered Visitors	Avg. Time on Page
20477	425	13.13s

A With Video

Click to Install Rate	Visitors	Clicks to Install	Improvement
25.9% ±0.5%	10259	2656	N/A

Engagement Rate	Time to Click to Install	Avg. Time on Page
58.0%	17.13s	13.07s

B Without Video

Winning Variation

Click to Install Rate	Visitors	Clicks to Install	Improvement
27.5% ±0.6%	10219	2812	6.3%

Engagement Rate	Time to Click to Install	Avg. Time on Page
58.4%	17.20s	13.22s

Experiment run via SplitMetrics Optimize

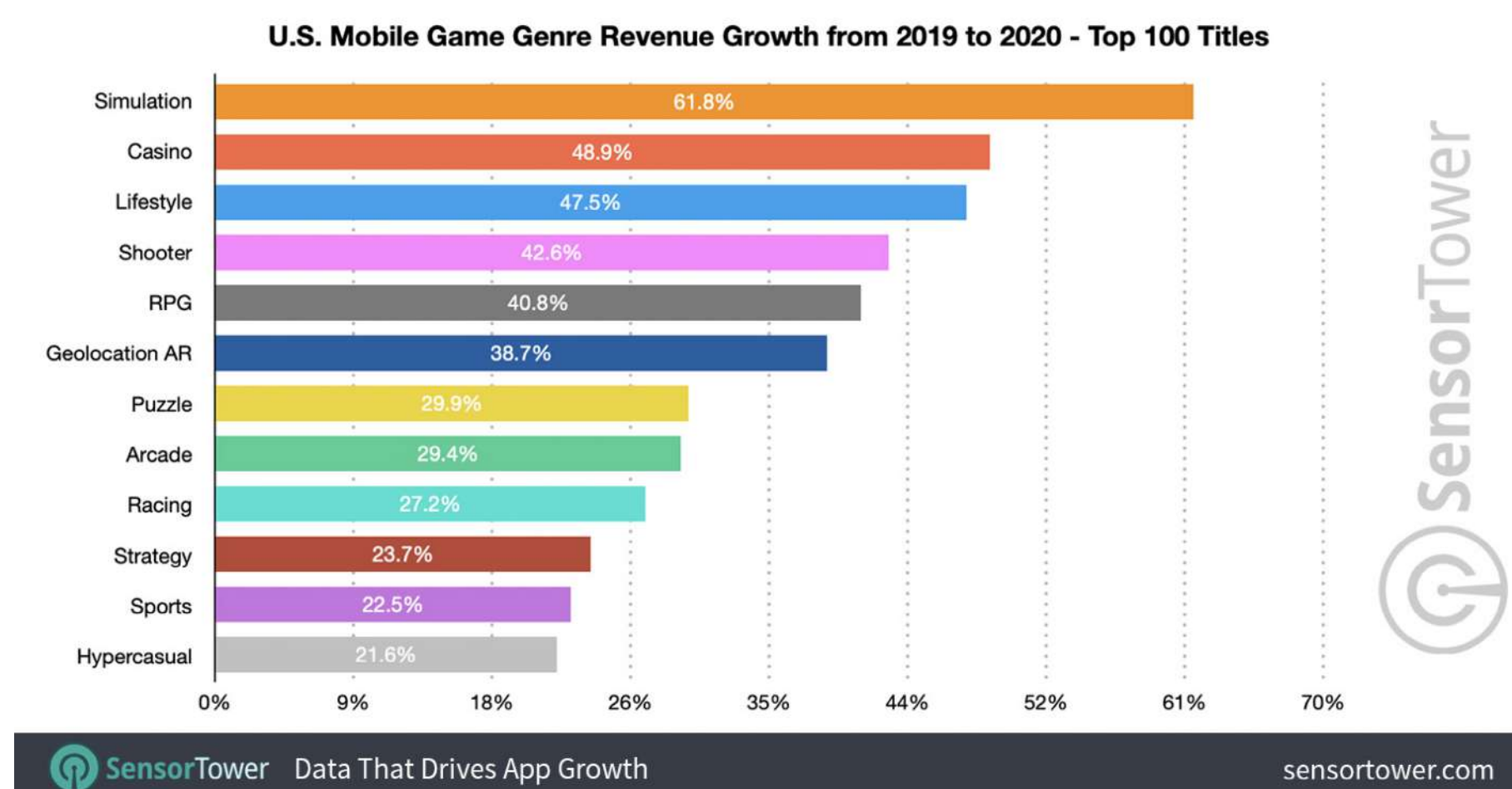**Before making any changes to the app page, especially adding a video, first run A/B tests.**

04 Simulation Games

Simulation games are one of the most popular categories in mobile gaming. They replicate activities of real life, such as building cities, fishing, cooking or operating some businesses.

This is also one of the fastest growing mobile gaming genres. Sensor Tower revealed that player spending dedicated to simulation games increased by 61.8% year-over-year. Top 100 revenue-generating simulation games grossed $2 billion in 2020.

U.S. Mobile Game Genre Revenue Growth from 2019 to 2020 - Top 100 Titles

Genre	Growth
Simulation	61.8%
Casino	48.9%
Lifestyle	47.5%
Shooter	42.6%
RPG	40.8%
Geolocation AR	38.7%
Puzzle	29.9%
Arcade	29.4%
Racing	27.2%
Strategy	23.7%
Sports	22.5%
Hypercasual	21.6%

SensorTower   Data That Drives App Growth   sensortower.com

NANOBIT
PUT EXTRA INTO ORDINARY

**Nanobit** managed to get an **18% conversion rate uplift** for their popular mobile game.

Want to boost your mobile game downloads?

GET INSIGHTS

In their Q1 2021 Market Snapshot Report, GameRefinery indicated that the mobile games market in Q1 2021 looked very similar to Q4 2020 and revealed that simulation games stayed in top in the U.S.

The success of this mobile gaming genre might be due to uncertain times when people need a change of pace without leaving their home, enjoy simple things and plunge into the worlds where coronavirus doesn't exist.

Statista predicts that this trend for simulation games will continue.

REVENUE BY SEGMENT   **REVENUE CHANGE**   Source: Statista

DOWNLOADS   Source: Statista
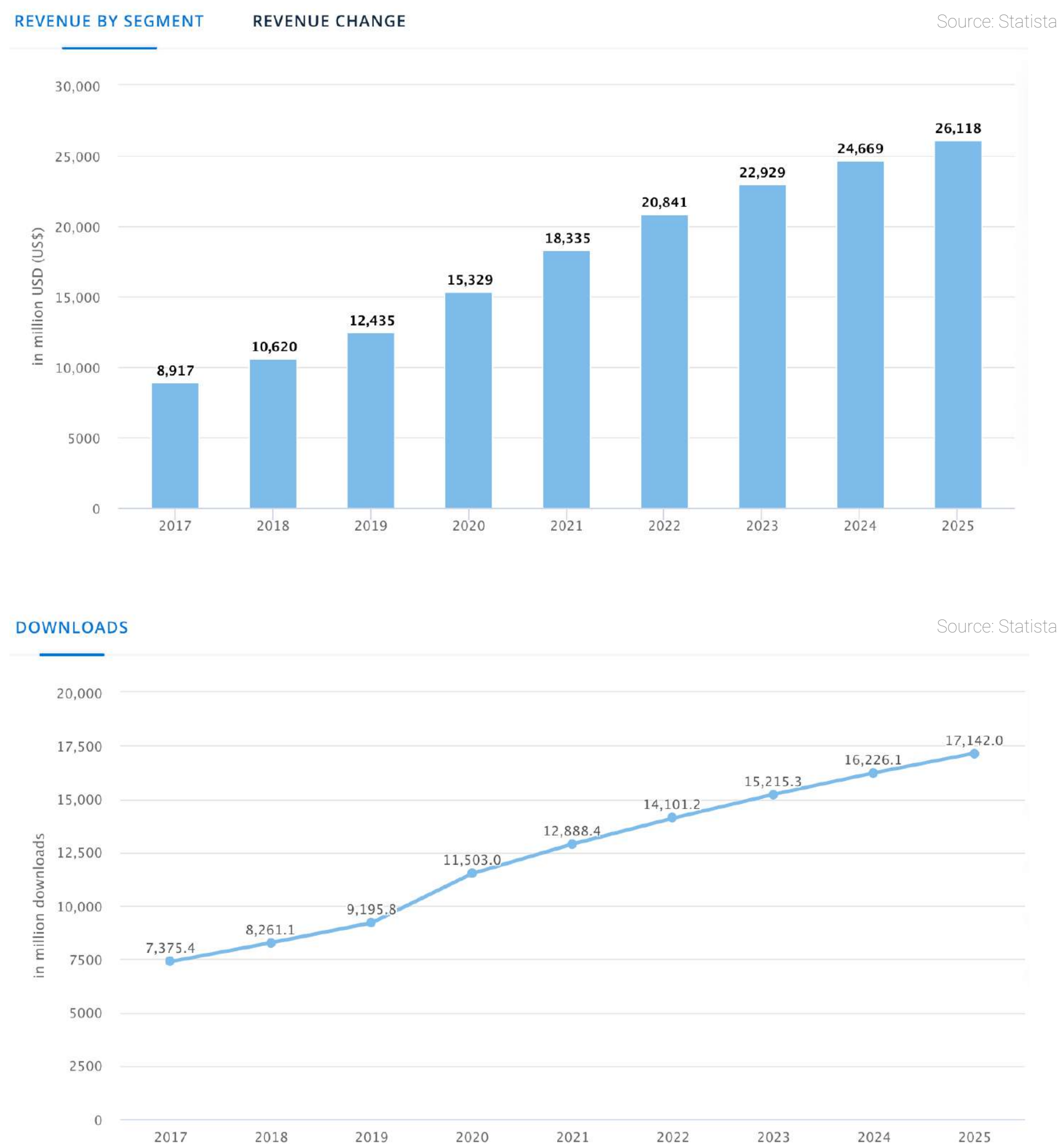
Udonis has shared recent data on user retention for simulation games. Let's take a look at the day 1 retention statistics.
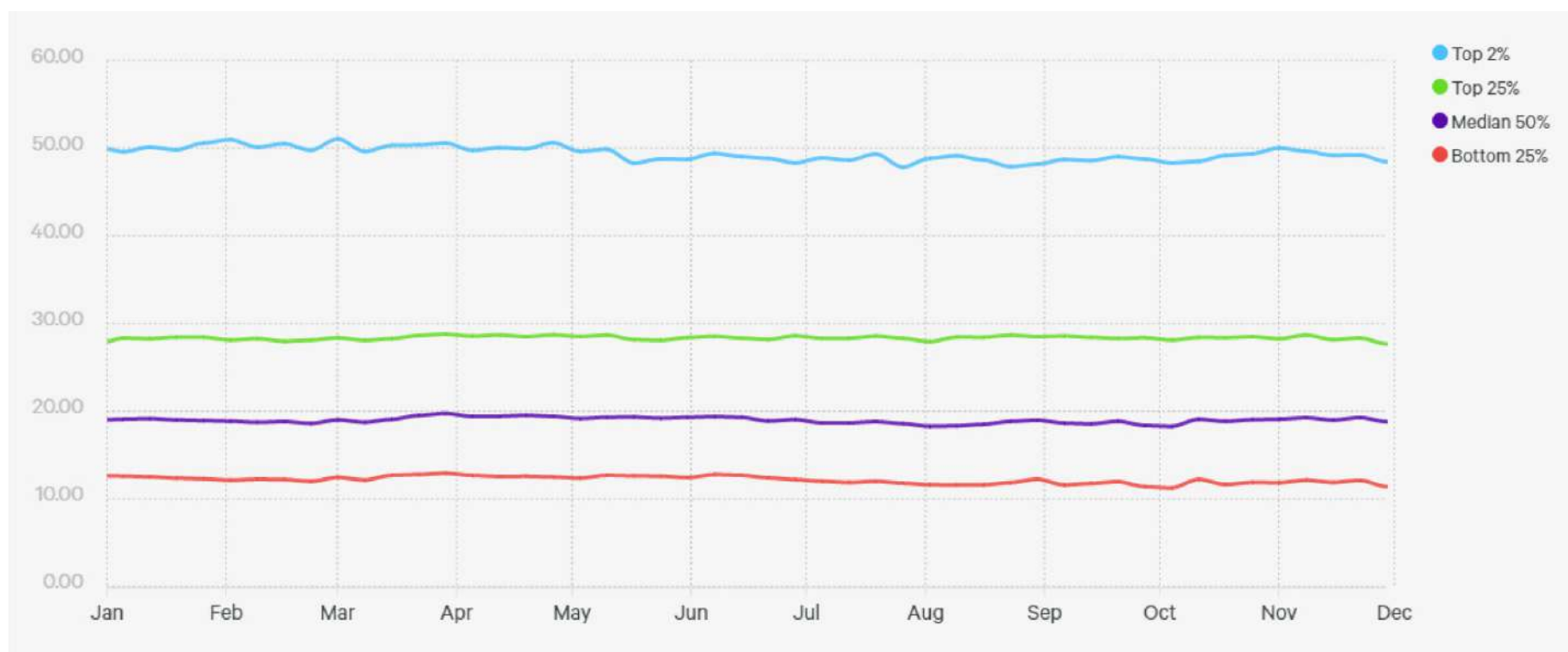
On the graph you can see that for the **top 2%** of simulation games, day 1 retention was between 47.81% in July and 51.06% in March. For the **top 25%** of simulation games, day 1 retention was even in November (27.66%) and in March (28.79%).

Day 1 retention for the simulation games that were in the **median 50%** category ranged from 18.25% in October to 19.76% in March. **Bottom 25%** of simulation games retained players at day 1 retention from 11.25% in October to 12.93% in March.

This KPI shows how many players return after 1 day of playing a simulation game.

> **Tip:** *Pay attention to day 1 retention to understand the first impression of players in regard to your game. If this indicator is too low, one of the reasons can be a dissonance between your app store creatives and the game itself.*

Icon

1

Visualize the main character or object on the icon, make it minimalistic. The major color of the icon should be corresponding to the game's main color.
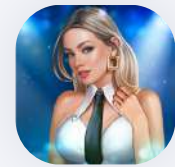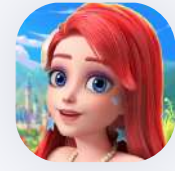
2

Characters with mouth open, smile or grin and occupying the most part of the icon tend to show good performance. It's better to avoid using many small elements.
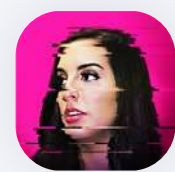
3

Show the plot from the perspective of players. Simulate the players' position on the icon.

4

Try different orientation for objects on the icon. You may also place an object of a different size among objects of the same size, since size disparity is another stimuli that attracts the attention of users.

You can also try to adopt the top trends in your category (popular TV shows, series), but keep in mind that trendy images are time-limited.
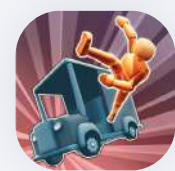
5

Human brain distinguishes objects in sharp contrast to the other things surrounding them. Use bright colors & glare-free images.
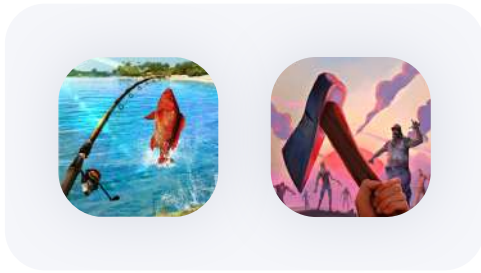

Image source: the App Store,Google Play

6

Keep preparing for the holidays. Test creatives with holiday symbols and update your product page.
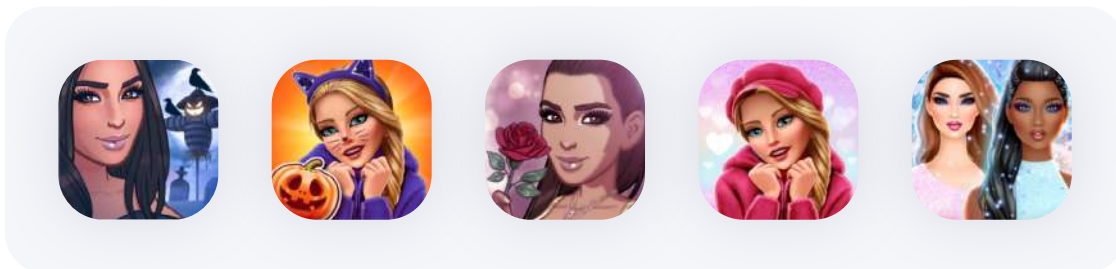

Image source: the App Store

*"**Holiday icons usually show better results in simulation games as opposed to some other, more 'core' genres.** Don't be afraid to test and implement, even if on paper the results don't look too good.*

The 'Squid Game' hype train was huge, but simply slapping some familiar character art on your icons isn't going to work for much longer. If you want to stay in the game and get more consistent positive results, you need to find your own voice. On one hand, you can leverage those visuals with similar games in the genre. On the other, you must find your own distinct visual style."

Jevgen Tarasenko, Head of ASO at Tilting Point

Screenshots

1

Variations with gameplay elements perform better. Try adding more gameplay elements to the screenshot.

It's important to show the most important features that gain customer attention and display CTA in a bright color that catches the eye.

Test the hypothesis: use a character in different roles (princess/beggar), visualize character progress.

> **Tip:** *Vertical screenshots perform better when games are aimed for horizontal use and vice versa.*
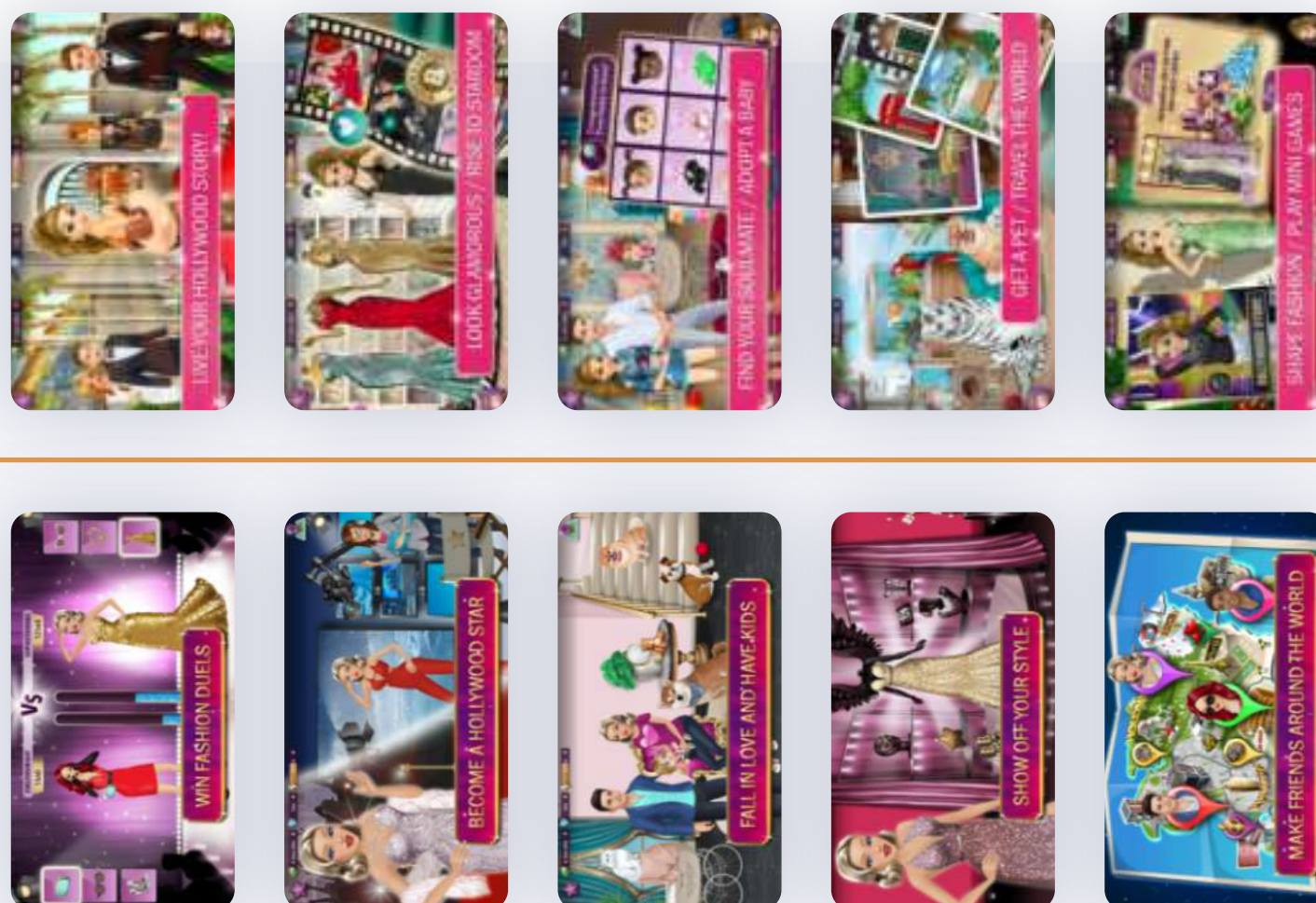

Image source: Nanobit game's variations tested via SplitMetrics Optimize

2

Try to use captions in different colors, highlight one word that seems the most important, and describes the game feature.
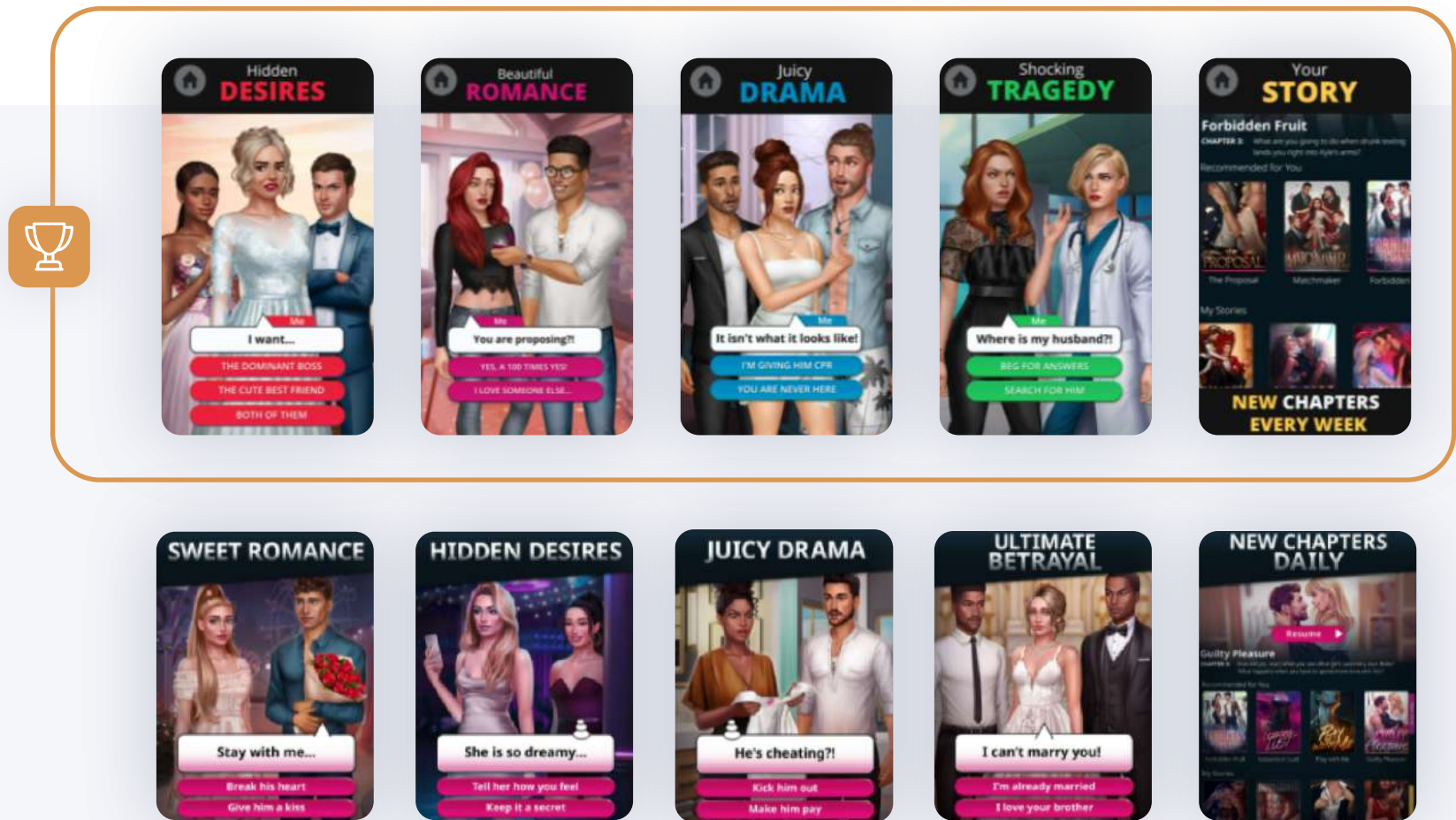

Image source: Nanobit game's variations tested via SplitMetrics Optimize

3

CTA shown in different colors works great, 5 screenshots were more successful than 8 screenshots.
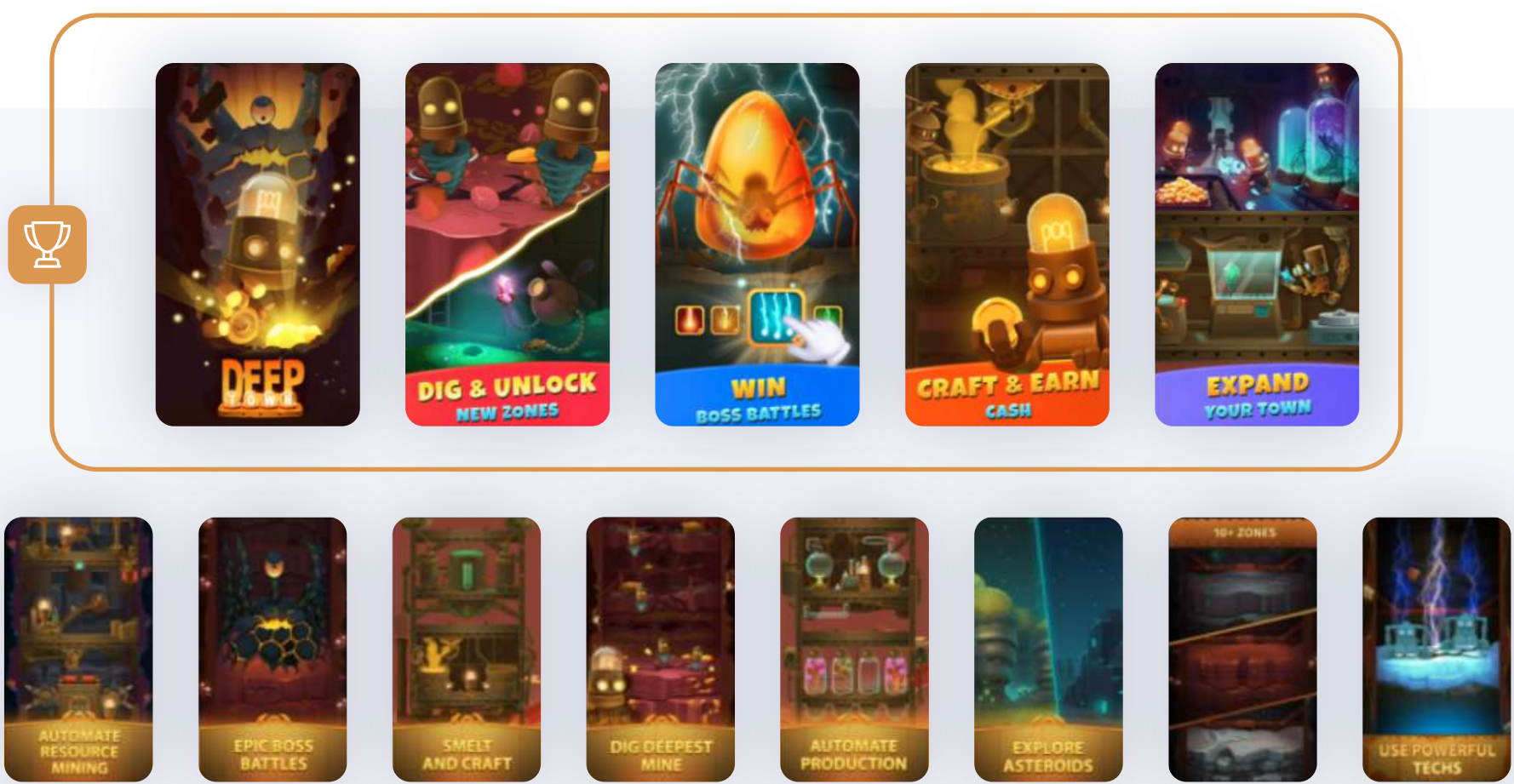

Image source: variations from a game by Rock Bite Games tested via SplitMetrics Optimize

Video Preview

Screenshot gallery without video in the first position collects more installs than with video.

And a total view rate is higher on a variation without video (45% vs 32% in one of our experiments).

> *Tip:* It makes sense to run an A/B experiment with/without video.

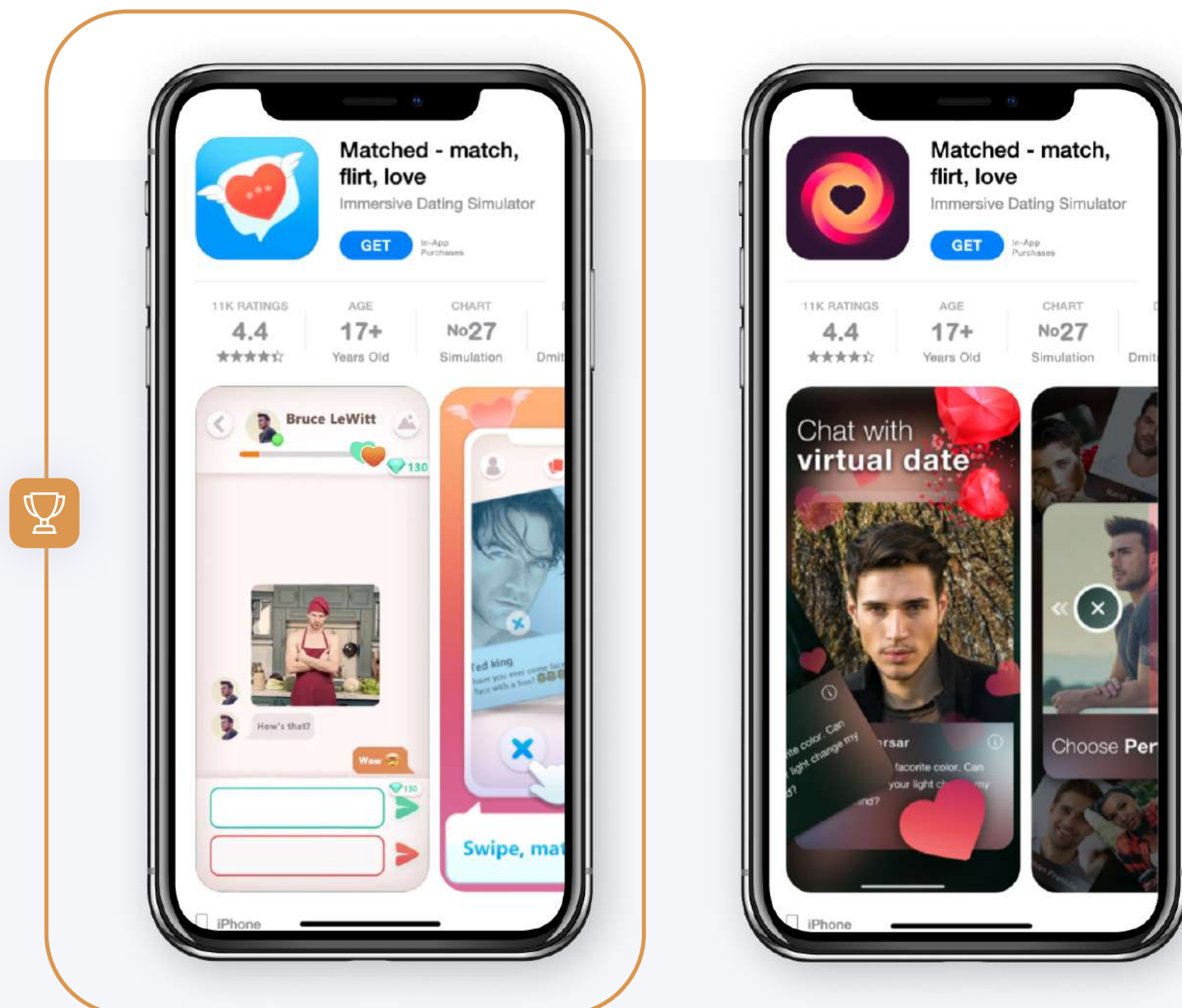**Use video to show gameplay.** Focus more on bright colors (for example, blue is one of the most popular colors).

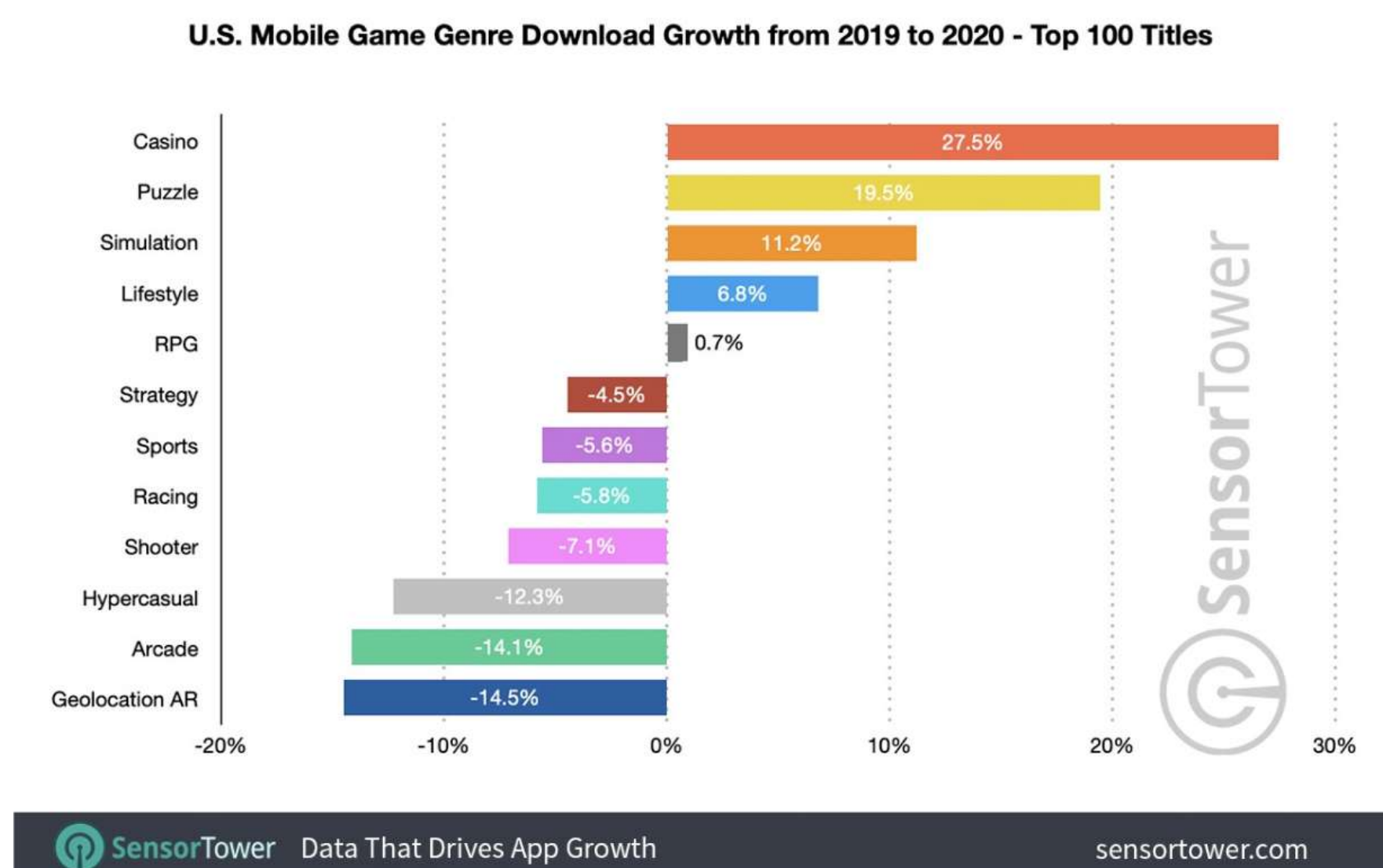Image source: Embria's variations tested via SplitMetrics Optimize

05 Casino Games

Since the start of the pandemic, Casino games have managed to reach unprecedented levels in every respect.

Amid the COVID-19 pandemic in 2020, the global mobile gambling market was estimated at $79.5 billion and is forecast to reach $250.4 Billion by 2027, growing at a CAGR of 17.8% over the period 2020-2027.

Casino titles generated $4.5 billion in user-spending revenue in 2020 and became one of the fastest-growing mobile game genres by revenue.

SensorTower reveals that Casino games is the undoubted leader in terms of downloads, with installs increasing by 27.5% year-over-year in 2020 to 163 million for the top 100 most downloaded games in this category. Slots appeared to be the most popular subgenre.

U.S. Mobile Game Genre Download Growth from 2019 to 2020 - Top 100 Titles

Genre	Growth
Casino	27.5%
Puzzle	19.5%
Simulation	11.2%
Lifestyle	6.8%
RPG	0.7%
Strategy	-4.5%
Sports	-5.6%
Racing	-5.8%
Shooter	-7.1%
Hypercasual	-12.3%
Arcade	-14.1%
Geolocation AR	-14.5%

SensorTower — Data That Drives App Growth — sensortower.com

Icon

1

Speaking about slots, **do not depict 777 on casino game icons.** Average improvement per category – 10%. Purple & red colors work great for this category, test a few different color variations of the icon.

Create a test with different kinds of icon outline design. The icon outline will help to make the app stand out from the competition, attracting and engaging users.
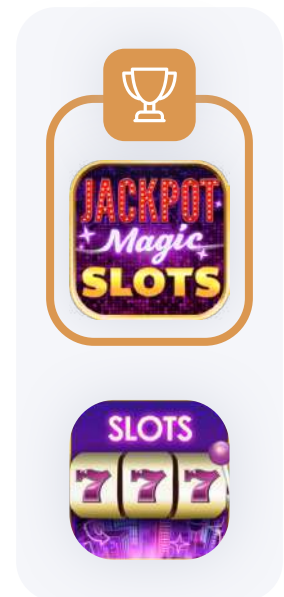
2

Test adding the dollar symbol ($) to your icon to visualize the main app's functionality. We recommend running this experiment in Search, as icons have the greatest impact on conversion there.
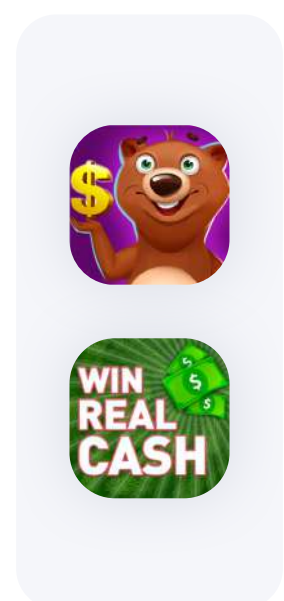
3

Test an icon with branded design. Brand on the icon may help you show users the main feature of the app. Additionally, moving the app's name to the icon frees up characters in the title to use other important keywords. Branded design of an icon will help users to associate the app with the app's brand more quickly. This is particularly relevant to game publishers with multiple titles in portfolio.
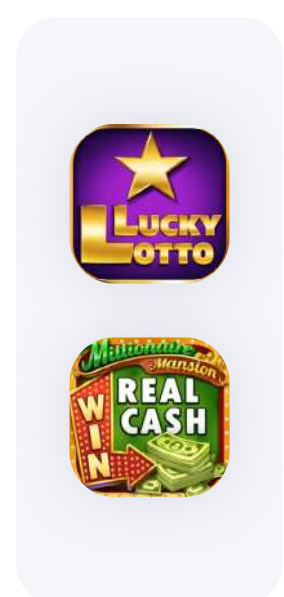
SplitMetrics
optimize

4

Add "2021-2022" or "new" to the icon. This will allow you to grab the user's attention, create a time-appropriate effect and stand out from the competitors.

This tip is seasonal and works best in December and January.

💡 ***Note:*** ***This tip applies to the App Store, rather than to Google Play.***
According to one of the latest updates of the Google Play guidance and policies, it's prohibited to use the inscription that includes such words and symbols, as #1, New, Free, Update and others, so be careful with "2021-2022" on this store.

5

Shining rays on the background of the icon. Test the display of shining rays coming from key elements of the icon. We recommend doing this experiment in Search for the greatest impact on CR.
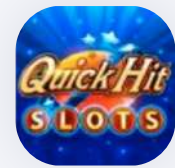
6

Golden glowing effect. We noticed that an icon with glowing effect or another gradient performs better. This will make your app more visible on the search page.

SplitMetrics optimize

Screenshots

1

Test various design options for screeshots' background and captions. According to our data, **less than 2% of users read the entire description.** Displaying additional and eye-catching captions with app's features and functionality can lead to install rate increase.

2

You can try to show the money prize on the 1st screenshot. Highlight the most important caption word to catch attention.

Most of the apps from this category have **landscape screenshots,** and it's definitely a trend. It's a good idea to **show main characters** & part of the **gameplay,** and **bonuses** users can get during the game.
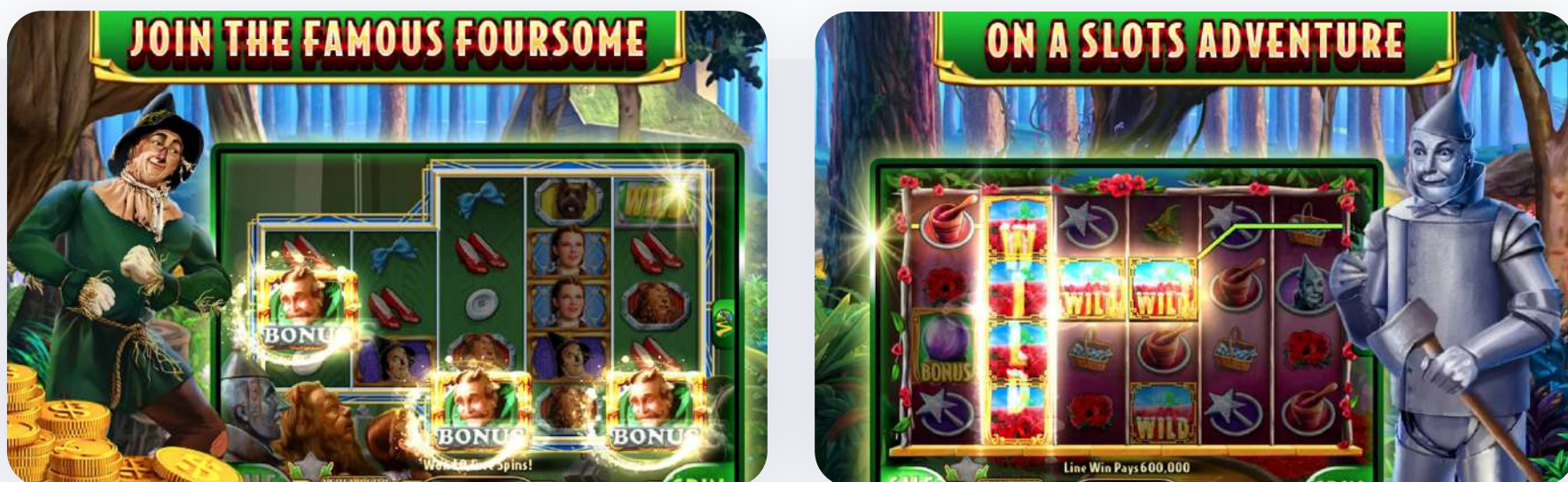

Image source: the App Store, Google Play

The Ultimate Guide to Screenshots

Get the App Store screenshots requirements, styles, tips & optimization best practices.

GET THE GUIDE

3

Think about moving captions to the top of screenshots. As users' first glance falls on the top of the screenshots, we suggest moving captions to the top of each screenshot. It will help your users spend less time before capturing main ideas of the app. According to our data, almost 50% of users leave the app page after 3 seconds, which means that they don't have time or desire to enlarge the images. **Large and clear features help your users to see what your app has to offer straight away and if their expectations are met, then you will see conversion increase.**

Try to highlight the verbs to help a user identify the main idea in the screenshot, without having to explore the image. You can also highlight your call-to-action with a different color. All this may increase CR.

Test different screenshots in order to **put the highest converted asset first.** Note that only 9% of users scroll past the first two screenshots.
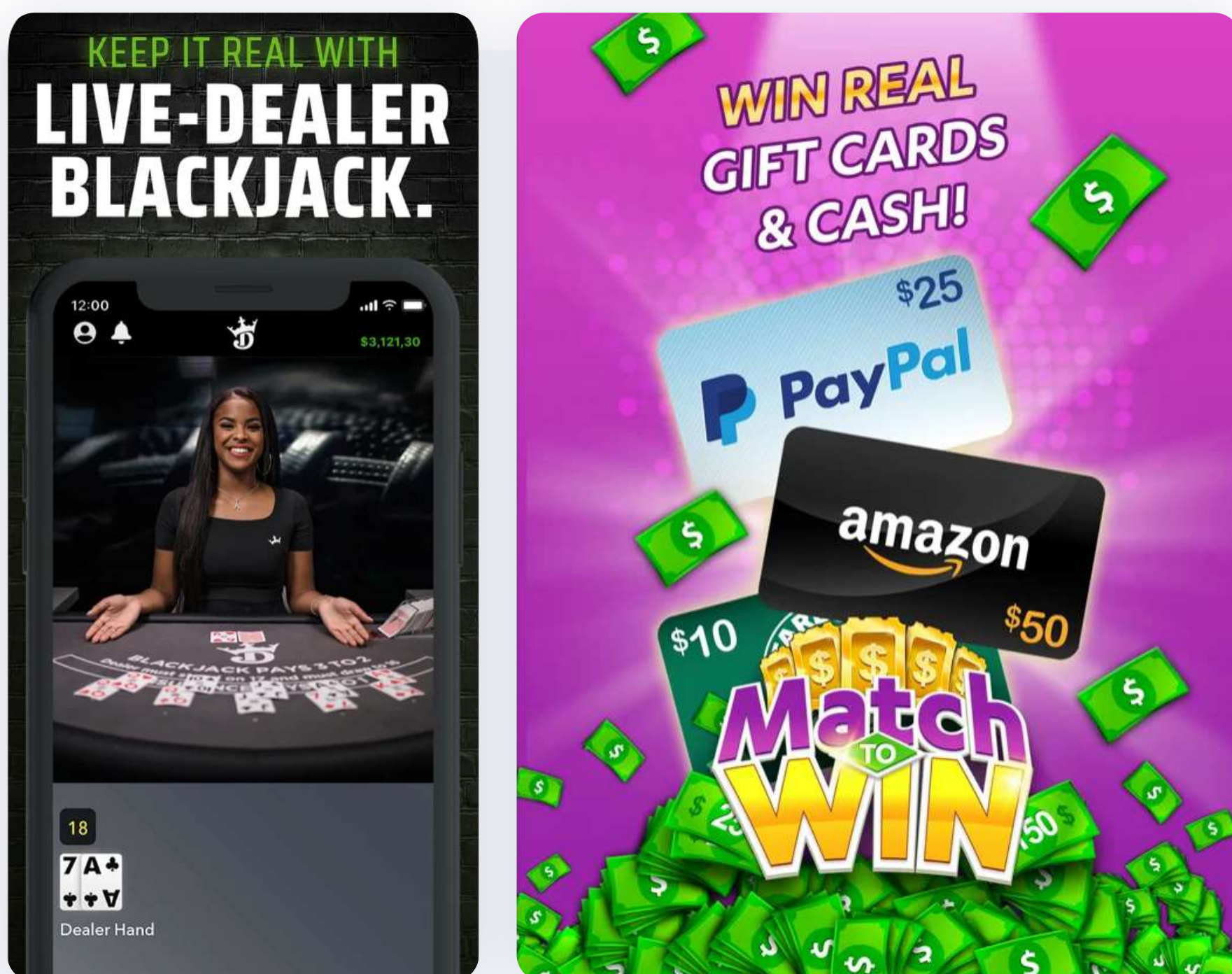

Image source: the App Store

4

Social proof message. We recommend adding social proof to the first or second screenshot. Social proof messages are one of the strongest influential methods that can be used in marketing to increase conversion. **The idea is to show that your app is useful, helps many people, or is appreciated by influencers.**

> **Note:** *Try to display user reviews on the screenshots. This can give people a sense of trust and may increase CR. But you should remember that* ***customer reviews may be used in marketing materials only if permission from the reviewer is granted.***
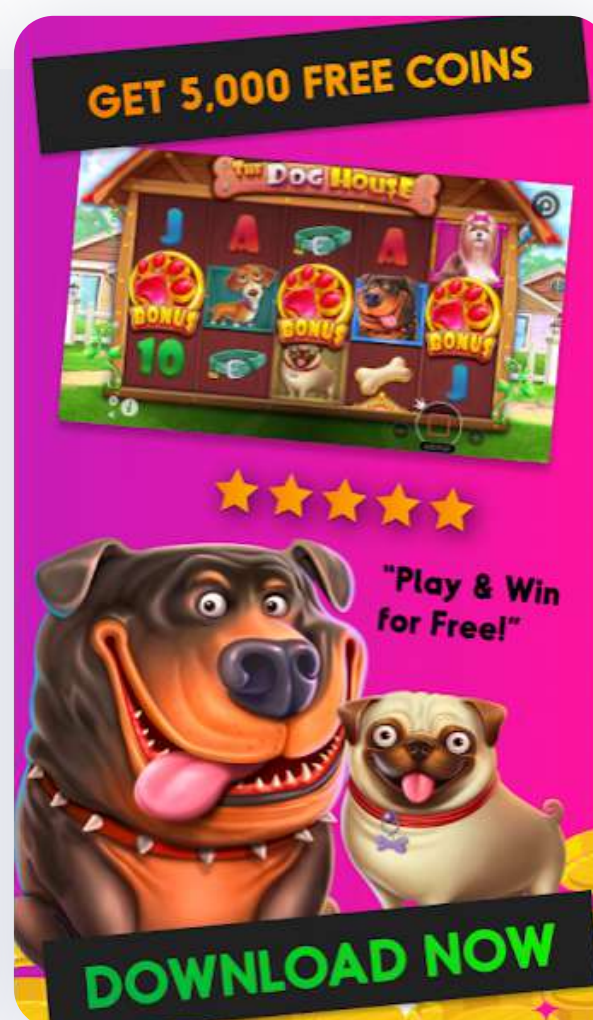

Image source: the App Store

5

Show authentic people with the emotion of victory in real life. Add people of different nationalities to the screenshots. This will help to reach different target groups. Add phrases like "real winners daily" or "wow" to the first or second screenshot. It can make your app more trustworthy for players.
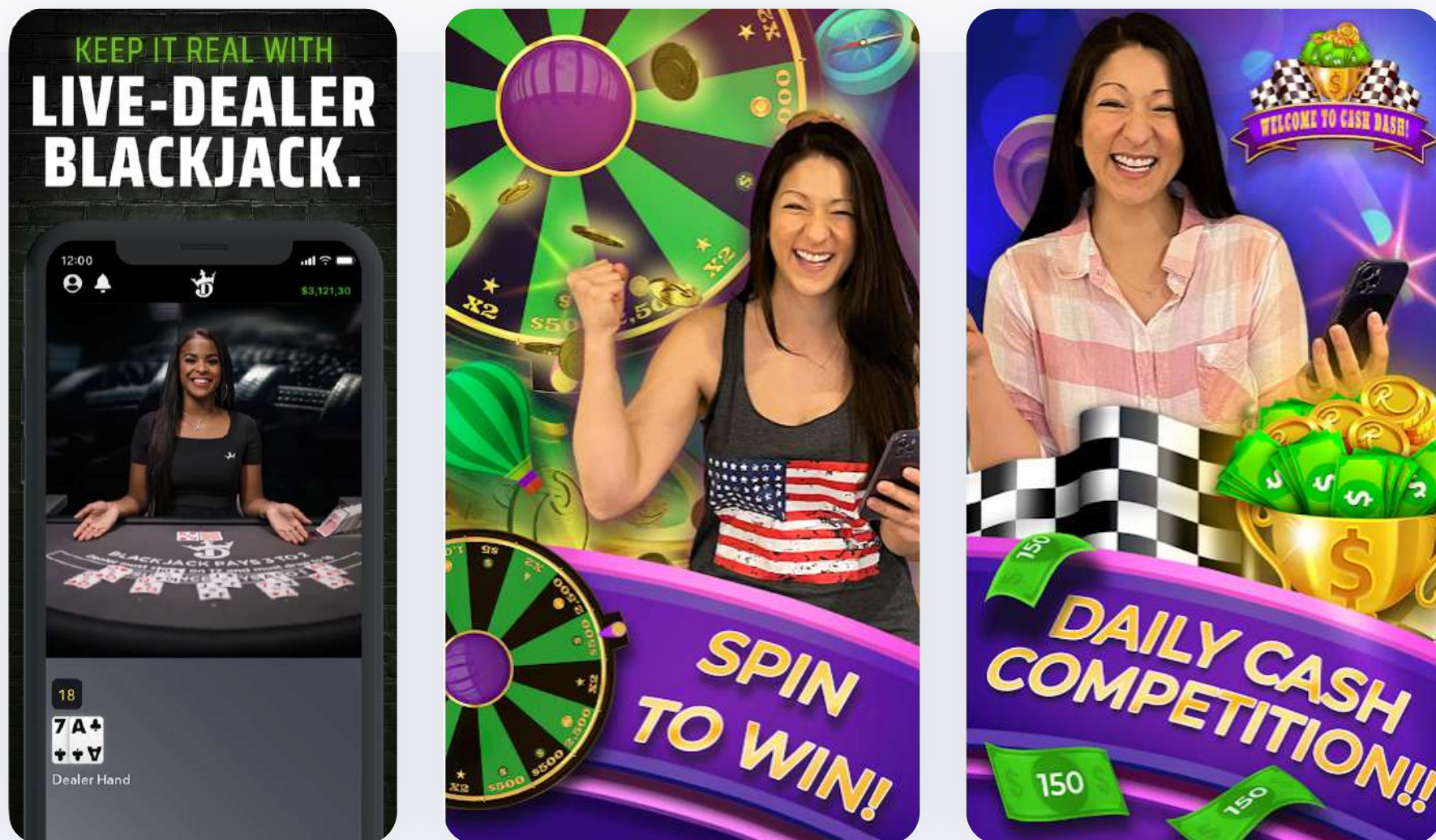

Image source: the App Store

6

Background. Refine the backgrounds: add an associative texture. Background elements of all screenshots must form a single picture, separated by screenshots. Linking the screenshots in the background can also increase people's curiosity to scroll to the following images.

Image source: the App Store

7

Don't use cover-like screenshot in the first position, and try to add characters on screenshots. Test landscape screenshots. **The average number of screenshots for this category — 6.**
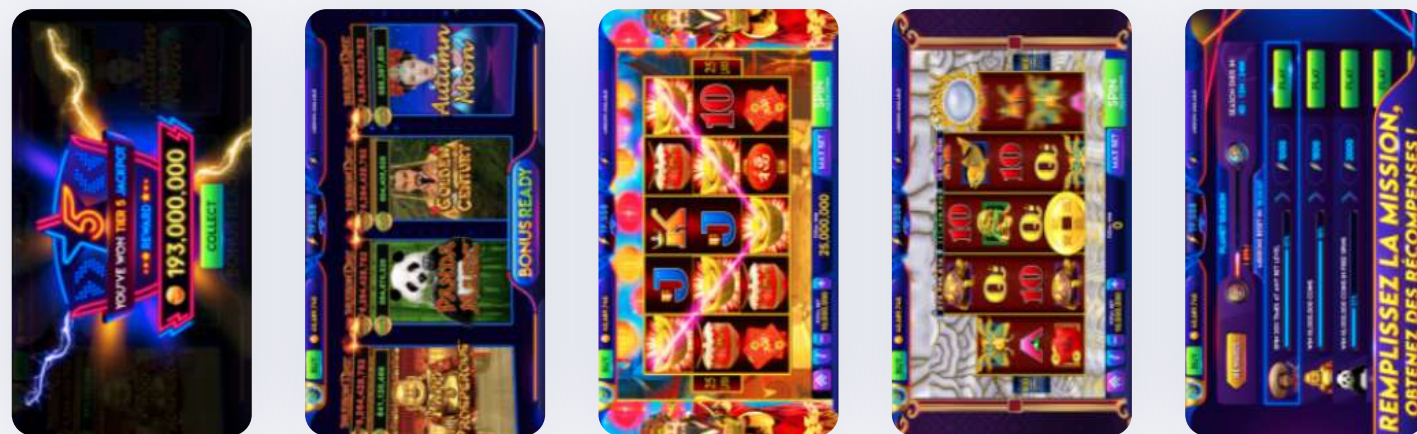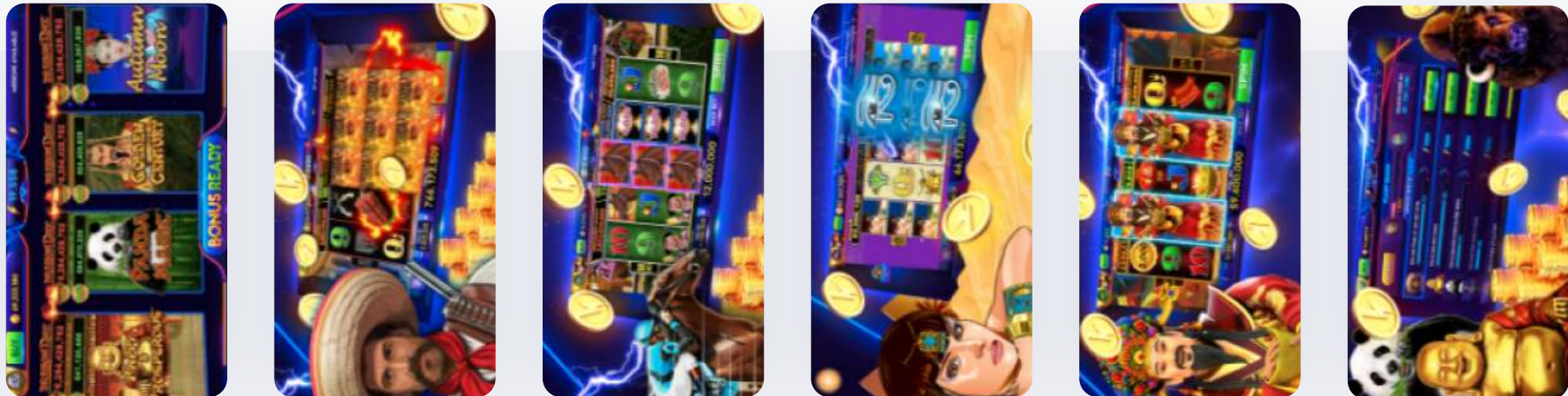

Image source: Product Madness' variations tested via SplitMetrics Optimize

Featured banner

Try to depict golden coins on the featured banner and place characters in the middle

Image source: Product Madness' variations tested via SplitMetrics Optimize

Video Preview

1

Rearrange the order of frames. Test the order in which the app's main features are displayed. For example, players might be quicker attracted to the "win real money" frame first of all.

2

The video will be displayed before the screenshots. Such video automatically starts playback when a users is viewing the screenshots. In such a way, the video will catch users' attention faster.

Show 3-4 the most valuable features (unique features, or in a better solution) demanded in the market. Then show these features with the captions: Caption (feature description) -> video plot; caption -> video plot.

Image source: the App Store

SplitMetrics optimize

SplitMetrics Optimize

30K+
concept validation
experiments

63%
average
conversion uplift

World-famous companies entrust
SplitMetrics Optimize with
building a strong optimization
strategy & A/B testing

✓ **Take data-driven
decisions at prelaunch**

Validate any ideas of your future
mobile app or game. Cut the risks
based on real-users choice.

✓ **Improve your web-to
app campaigns**

Test custom emulated pages for
specific audiences to create the
most converting UA flow.

✓ **Test every app element**

Test design, characters or new
features without the risk of losing
your positions in the app store.

✓ **Test against competitors**

Track your app's conversion in
search results when displayed
next to your rivals with Search &
Category test.

✓ **Make the most of your
app product page**

Optimize your app page to it's
most converting version – grow
conversions and decrease CPI.

✓ **Choose the right
go-to-market strategy**

Compare different messages &
learn if a new positioning strategy
resonates with your audience.

REQUEST A DEMO   hello@splitmetrics.com