

Japan's Mobile Game Market 2021:

Usage Data and
App Store Optimization
(ASO) Trends



About AppTweak and App Ape

Thank you for downloading this white paper: **Japan's Mobile Game Market 2021**



AppTweak is the leading ASO tool driven by data science. AppTweak empowers mobile leaders - such as Amazon, Jam City, Yelp and Adobe - to grow their apps and games with actionable insights in a simple interface.

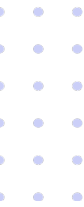
Committed to developing the **most accurate, transparent and easy-to-use ASO tool** on the market, AppTweak supports over 1,500 app developers and game publishers worldwide. AppTweak's all-in-one platform offers ASO Intelligence, Ad Intelligence, App Intelligence and Market Intelligence.

AppTweak has been awarded the "**Best ASO Tool**" by the App Growth Awards community and was recognized as the **6th Fastest-Growing Technology Company** in Deloitte Belgium's Fast 50 competition. Launched in 2014, AppTweak serves customers from all corners of the world, with offices in Brussels, San Francisco, Tokyo and Bengaluru.

App Ape, Japan's no.1 mobile app analytics platform, is a SaaS designed to help entrepreneurs and businesses analyse their **competitors' main KPIs** and stay on top of the **latest mobile trends**.

This marketing tool provides insights into mobile usage indicators, such as active users, demographics, retention, and engagement for both **iOS and Android apps in Japan and South Korea**. More than 5,000 local and global companies are listed as App Ape's clients with a proven track record.

Introduction to This White Paper



This white paper will provide readers with a variety of data surrounding the **Japanese market for mobile games**. Gathered by both AppTweak and App Ape, the data covers topics regarding in-store activity, category performance, the competitive landscape, and consumer trends (Android only).

In places, we present information for all game categories available on the stores. Elsewhere, we specifically focus on the 5 dominant game subcategories based on revenue estimates (iOS) or the proportion of monthly active users (MAU; Android).

In the Appendix, we provide complete information for all subcategories on both the App Store and the Google Play Store.

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1. In-Store Activity
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Although some popular local smartphone vendors, such as DoCoMo, run Google's Android mobile operating system, the Japanese mobile market is generally **dominated by iOS** (68.3% of total users according to DeviceAtlas).

In Part 1 of this white paper, we will examine several aspects of the Japanese mobile landscape for App Store games.

The part will be separated into 3 sections: Factors that pertain to in-store activity; data that allow us to measure the performance of Japanese game subcategories, and an analysis of the competitive landscape.

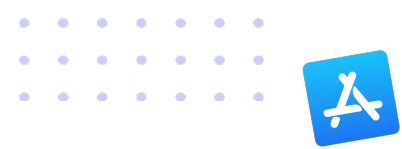


Introduction

There are several in-store elements that can impact the rankings and store performance of games; in particular, the **metadata** added to a product page, the frequency with which that **metadata is updated**, or being **featured** on the stores.

Therefore, it is important for game developers to identify trends and best practices in each game category in order to understand App Store Optimization best practices.

1.1 Top 10 Searched Keywords Per Category



Branded KW

Generic KW

Category: Games (All)

Keyword	Search Volume	Competition	Score
パズル。	71	56	38
パズル!	71	91	36
パズルゲーム!	64	91	34
game	54	78	45
games	38	31	45
puzzle_game	28	25	35
げーむ無料人気パズル	27	89	36
puzule	17	50	36
freegames	16	4	45
無料ゲーム無料ゲームパズル	16	67	39

Category: Adventure

Keyword	Search Volume	Competition	Score
脱出ゲーム	73	67	41
ガルパ	56	76	29
だしゅつゲーム	30	68	37
りずむげーむ無料人気	27	65	28
あどベンチャー無料ゲーム	15	84	45
アドベンチャーア	15	83	42
エマーアドベンチャー	15	71	40
advanture	15	83	37
アドベンチャー脱出無料	15	57	37
rpg無料アドベンチャー	15	70	36

The most popular keywords in 2020 are often terms that received the highest search volumes. The volume – a number between 5 and 100 – is calculated by and received directly from Apple. The higher the search volume, the more often a keyword is searched on the App Store (and the more popular the keyword is).

Here, we provide the **10 most popular keywords** for the Games (All) category on the App Store, alongside the 10 most popular keywords for the 5 major game genres (based on those that drive the highest revenues; pages 16 and 17).

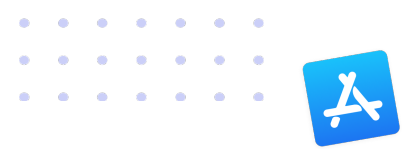
A list of the 50 most popular keywords for the Games category and its subcategories can be found in the Appendix.

Search volume: an indicator between 5 and 100 that represents the popularity of a keyword in App Store searches.

Competition: an indicator between 0 and 100 that represents how difficult it is to rank high for that keyword.

Score: a custom metric built to select the most popular keywords; a high score means that many apps from the selected category rank high for that keyword. The score depends on the number of apps that rank in the top 10 for that keyword and their ranking positions.

1.1 Top 10 Searched Keywords Per Category



Branded KW

Generic KW

Category: Role Playing

Keyword	Search Volume	Competition	Score
ロールプレイング	42	52	27
えろゲーむ無料	37	80	29
playゲーム	19	81	26
roling	15	87	37
ろーるプレイング	15	87	36
ロールブレイグ	15	85	33
おるは	15	59	33
zonble	15	59	29
neomonster	15	68	26
minsters	15	69	26

Category: Strategy

Keyword	Search Volume	Competition	Score
lordsmobile	42	52	27
すとらでじー	15	77	41
おじいのげえむ	15	64	41
strategic	15	86	38
kingofm	15	58	37
kingdown	15	57	35
kinkdom	15	57	35
k ingdom	15	57	35
킹덤러쉬	15	55	34
ストライテジー	14	83	45

From the list of the top keywords for each game category, we see 2 common themes:

First, the **majority of the top keywords are generic** (not brand-related). For example, the keywords “パズル” (puzzle), “ロールプレイング” (role-playing), and “すとらてじー” (strategy) simply describe the type of game. From AppTweak’s research, branded keywords are twice as popular; however, we estimate that **generic keywords drive over half of all App Store traffic**. As a result, we recommend leveraging the potential of generic keywords to drive downloads.

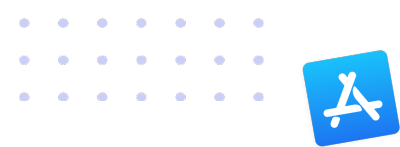
Not only do both Apple and Google discourage apps from adding competitor brands to their metadata, we also find 3 times more generic keywords in our analysis (compared to branded keywords).

Search volume: an indicator between 5 and 100 that represents the popularity of a keyword in App Store searches.

Competition: an indicator between 0 and 100 that represents how difficult it is to rank high for that keyword.

Score: a custom metric built to select the most popular keywords; a high score means that many apps from the selected category rank high for that keyword. The score depends on the number of apps that rank in the top 10 for that keyword and their ranking positions.

1.1 Top 10 Searched Keywords Per Category



Branded KW

Generic KW

Category: Simulation

Keyword	Search Volume	Competition	Score
いんてりあしみゅれーしょん	31	73	37
decoる	25	74	29
decorun	16	78	29
シムレーションゲーム	15	91	43
praymix	15	71	29
prayix	15	71	29
シミュレーションヤギ	14	91	45
シュレーションゲーム	14	77	45
しみゅれーしょんマンガ	14	91	45
カフェシミュレーション	14	79	45

Category: Action

Keyword	Search Volume	Competition	Score
-ゲーム	84	94	29
大五人格	24	59	29
有名なゲーム	19	85	29
しょんぼりアクション	15	90	45
アプリ無料アクション	15	91	44
げーむ無料あくしょん	15	92	38
マリオアクション	15	90	37
あないないばあ	15	84	35
モンスタートラーク	15	40	30
パドルロイヤルゲーム	15	0	30

Although high-volume keywords on the App Store are typically branded, there are a lot of low-volume search terms which, when turned into **long-tail keywords**, represent a big portion of App Store traffic. Furthermore, having your app visible for relevant generic keywords can substantially increase your installs and capture part of the long-tail traffic they generate.

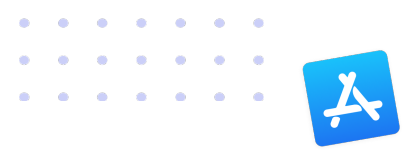
Second, the majority of keywords are in “ひらがな” (hiragana) format, such as “いんてりあしみゅれーしょん” (intellectual simulation). Unlike English, Japanese has 4 types of characters, including **hiragana**, **katakana** and **kanji**, in addition to English alphabets. Hiragana is usually the first keyboard displayed on users' phones, which could be one reason as to why we see that most of the top keywords are in hiragana.

Search volume: an indicator between 5 and 100 that represents the popularity of a keyword in App Store searches.

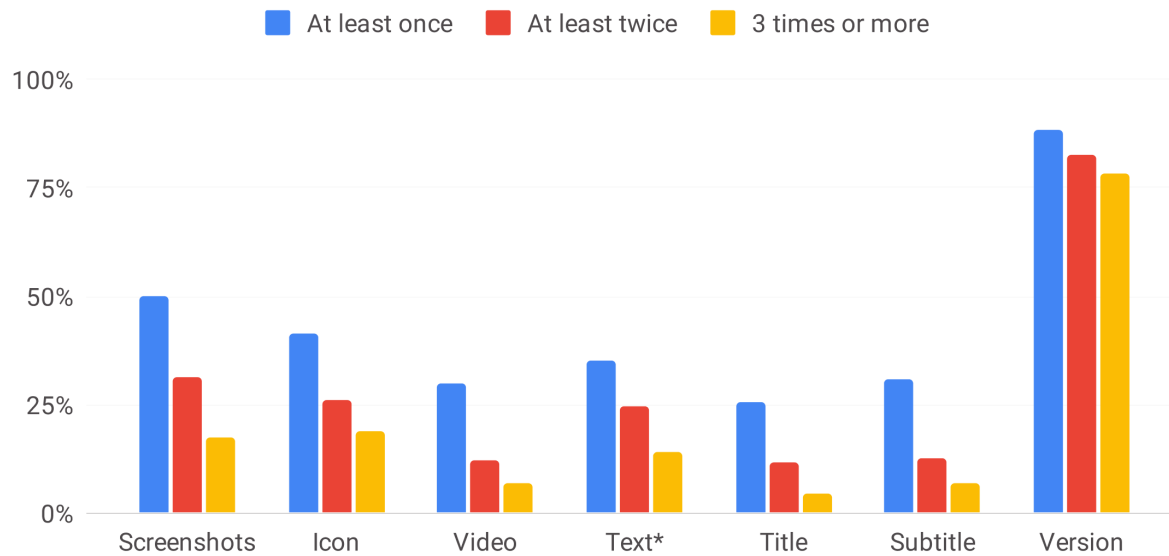
Competition: an indicator between 0 and 100 that represents how difficult it is to rank high for that keyword.

Score: a custom metric built to select the most popular keywords; a high score means that many apps from the selected category rank high for that keyword. The score depends on the number of apps that rank in the top 10 for that keyword and their ranking positions.

1.2 Metadata Update Frequency



Metadata Update Frequency (iOS, 2020)



Metadata elements updated at least one, two, or three (or more) times throughout the year

	At least once	At least twice	3 times or more
Screenshots	50.2%	31.3%	17.4%
Icon	41.6%	26.0%	18.7%
Video	30.0%	12.0%	6.9%
Text*	35.0%	24.7%	14.2%
Title	25.5%	11.6%	4.5%
Subtitle	30.7%	12.9%	6.9%
Version	88.4%	82.8%	78.3%

Regularly updating your store metadata promotes a sustainable level of app visibility and helps to drive downloads. However, there is no single update frequency that will ensure your game's visibility keeps increasing (or remains stable) over time.

In 2020, **half of the apps on the App Store updated their screenshots** at least once. The app title was changed less frequently, with only a quarter of apps updating this element at least once.

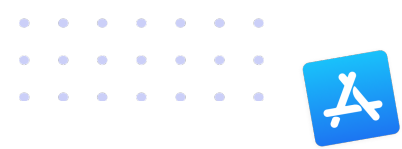
The **app icon and screenshots were the most regularly updated elements** on the App Store in 2020, with 18.7% and 17.4% of apps (respectively) updating these creatives at least 3 times during the year.

Finally, almost **80% of apps updated their version** at least 3 times throughout the year.

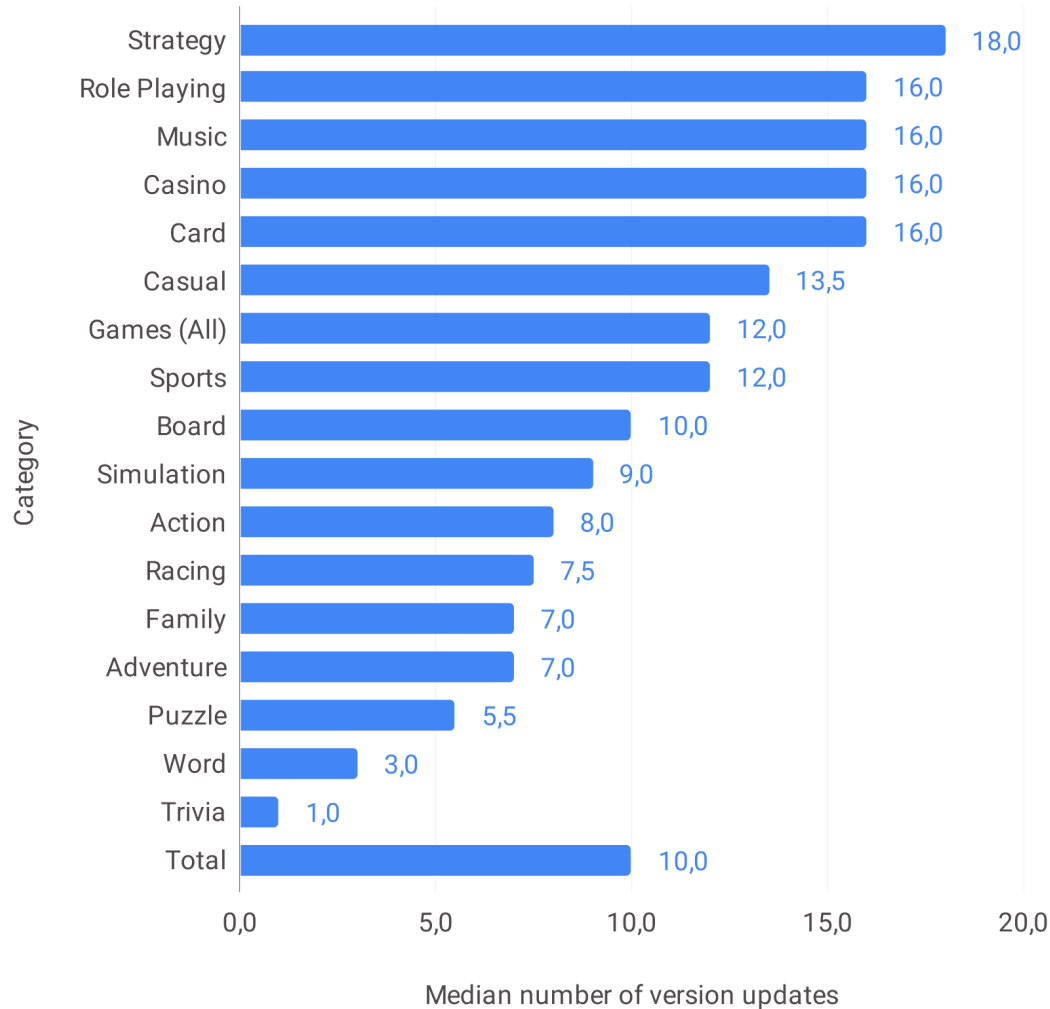
466 apps (followed from January 1st to December 31st, 2020).

***Text:** Either title or subtitle.

1.2 Metadata Update Frequency



Number of Version Updates (iOS, 2020)

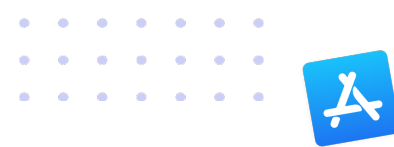


On the App Store, games in the **Strategy, Role Playing, Music, Casino, and Card** categories were **most active** in version updates.

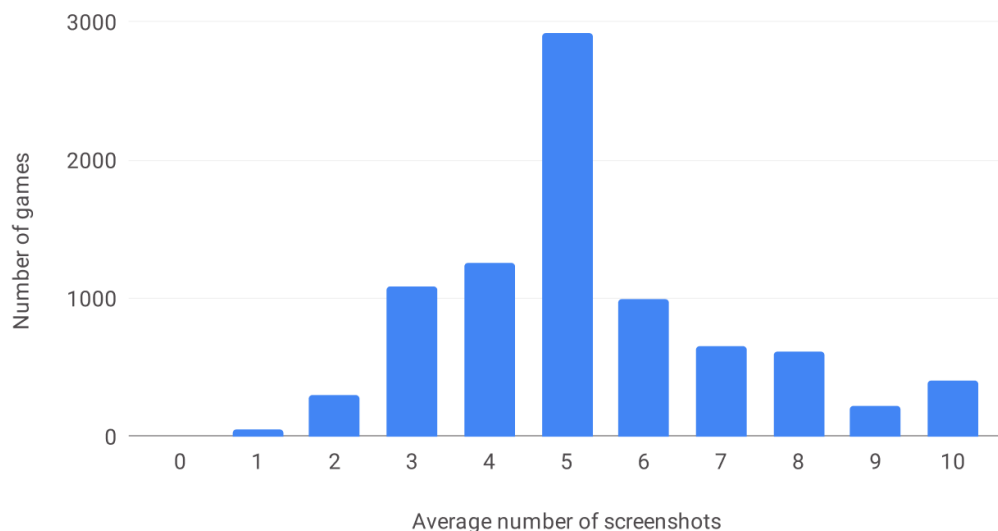
For these categories, the median number of updates was either 16 or 18 times, higher than the median number of version updates in the Games (All) category (12 times).

The **Trivia, Word, and Puzzle** categories were the **least active** in terms of version changes in 2020.

1.3 Creatives Per Category

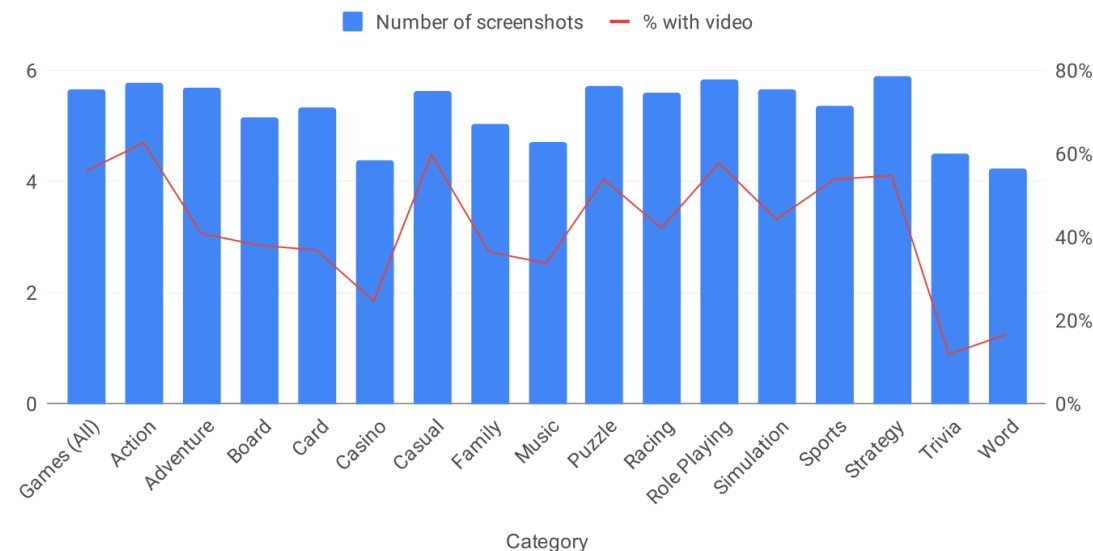


Average Number of Screenshots for Games (iOS, 2020)



While it is often recommended to use all 10 screenshot spaces on the App Store to fully exhibit your app, the **vast majority of games incorporate only 5 screenshots** on their product pages. However, this practice slightly varies between individual subcategories: On average, games in the **Casino, Trivia, and Word categories include fewer screenshots** than other game categories.

Category Analysis: Number of Screenshots Per Game and % of Games with a Video (iOS, 2020)



Regarding videos, disparities between categories are much more pronounced than for screenshots. For instance, games in the **Trivia and Word categories rarely incorporate a promotional video**, while over half of **Action, Casual, and Role Playing games do**.

1.4 Featurings

Count of Apps That Were Featured X Times

Category	Featured 1 day	Featured 2 days	Featured 3 days	Featured 4 days	Number of apps	Weighted featuring
Overall	161	74	12	3	250	357
Adventure	49	21	2	0	72	97
Action	50	17	3	1	71	97
Puzzle	36	20	5	0	61	91
Role Playing	46	16	2	0	64	84
Casual	22	16	3	1	42	67
Strategy	29	13	1	0	43	58
Simulation	27	8	3	1	39	56
Family	5	5	2	1	13	25
Sports	15	4	0	0	19	23
Card	7	4	0	1	12	19
Racing	4	5	1	0	10	17
Board	1	3	0	1	5	11
Music	5	3	0	0	8	11
Word	0	2	0	0	2	4
Trivia	2	0	0	0	2	2
No Subcategory	1	0	0	0	1	1

Being featured on the App Store is a fantastic opportunity to boost an app's visibility, increase its outreach and drive downloads. As Apple editors want to promote apps that can generate a lot of traffic on the store, featured games are typically those with a high potential to satisfy store visitors' user experience.

In 2020, most of the games that were featured in App Store 'Today' tab were in the **Adventure or Action categories**. Puzzle and Role Playing games were also featured a lot, while **Music, Word, and Trivia games were featured the least**.

In general, **games were typically only featured for one day** in 2020; however, in some cases, these featurings continued for 2, 3, or even 4 days. It should also be noted that the **number of games featured for more than one day decreased exponentially**. For example, 50 apps from the Action category were featured for one day in 2020 while only 17 were featured for 2 days, 3 were featured for 3 days, and only one game was featured for 4 days.

Note: Weighted considering 250 distinct featured apps, with a total of 357 days on the 'Game of the Day' story. Numbers do not necessarily sum up vertically because one app can be part of multiple subcategories.

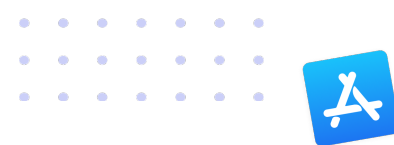


Introduction

There are several important metrics to consider when measuring the performance of a game's category. As multiple subcategories may be relevant to a single game, factors like **conversion rate benchmarks** or **revenue estimates** can help game publishers decide the best category (or categories) for their product.

Furthermore, it is important to know how **seasonality** (trends in the stores that occur at specific, regular intervals) can impact a category's performance throughout a year, month, or week.

2.1 Conversion Rate Benchmarks Per Category



A game's **conversion rate (installs/page views)** is the percentage of users that download the game after viewing its page. This metric is predominantly used to help members of the ASO community understand how well an app or game's page convinces users to download the product.

In 2020, the **Racing category had the highest conversion rate**, convincing over 22% of those who viewed Racing games' store pages to install the games. This figure is almost double the average conversion rate across all game subcategories. Other categories that converted users well were: Board, Word, and Sports games.

On the other hand, the **Card category had the lowest conversion rate** (3.6%), followed by the Role Playing and Strategy categories.

The metric '**impressions to page views**' is also known as the **click-through rate (CTR)**; the percentage of users that see the app somewhere in the App Store and 'click through' to view its page). While the **Casino category had the highest CTR**, games in the Trivia category encouraged the lowest percentage of store visitors to click through.

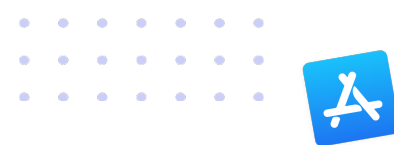
Finally, the **install rate (installs/impressions)** is the percentage of users that download a game directly from the App Store search or Browse results, without clicking through to its page first. The install rate tells game publishers how well their product stands out in the search/Browse results; in 2020, the **Word category performed the best** at this, while the Trivia category performed the worst.

iOS, Japan (2020)

Category	Page views to installs	Impressions to page views	Impressions to installs
Racing	22.7%	6.7%	1.5%
Board	17.0%	11.6%	2.0%
Word	16.9%	18.2%	3.1%
Sports	16.5%	10.3%	1.7%
Puzzle	11.4%	9.7%	1.1%
Simulation	11.2%	9.6%	1.1%
Trivia	9.6%	2.5%	0.2%
Family	9.0%	11.5%	1.0%
Casual	8.9%	10.5%	0.9%
Action	8.3%	8.8%	0.7%
Adventure	6.8%	6.9%	0.5%
Casino	5.8%	19.8%	1.2%
Strategy	5.4%	9.2%	0.5%
Role Playing	4.7%	7.1%	0.3%
Card	3.6%	13.0%	0.5%
Average	10.5%	10.4%	1.1%

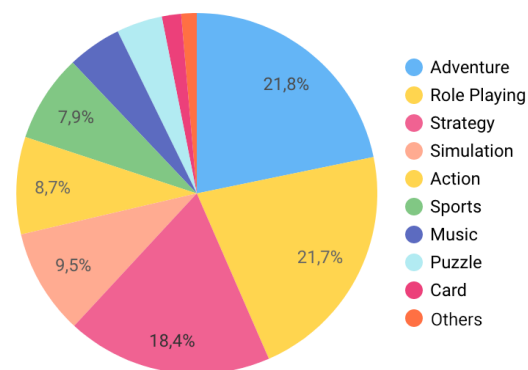
Note: Conversion rate benchmarks are based on AppTweak's integration data. If over 75% of the data used to calculate these benchmarks belongs to one publisher (only one integration), the data is not shown to respect client confidentiality.

2.2 Revenue Estimates Per Category



Revenue Estimates for Free Apps on iOS (2020)

	Category Name	Total Yearly Revenue (Estimate)
1.	Adventure	2 839 967
2.	Role Playing	2 832 712
3.	Strategy	2 403 925
4.	Simulation	1 235 913
5.	Action	1 136 976
6.	Sports	1 027 092
7.	Music	632 948
8.	Puzzle	536 534
9.	Card	224 847
10.	Racing	59 608
11.	Family	55 687
12.	Casino	46 053
13.	Board	13 783
14.	Casual	5 815
15.	Word	394
16.	Trivia	46

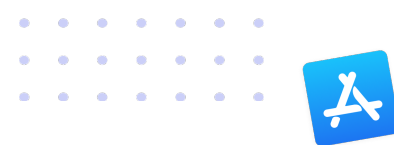


When discussing the estimated revenue generated by different categories, it is important to make a distinction between free and paid games: While free games generate revenue through more indirect manners such as in-app purchases or subscriptions, paid games require users to purchase the game itself before being able to install it.

Looking at free games on the Japanese App Store, games in the **Adventure, Role Playing, and Strategy** categories drove the **highest revenue** in 2020.

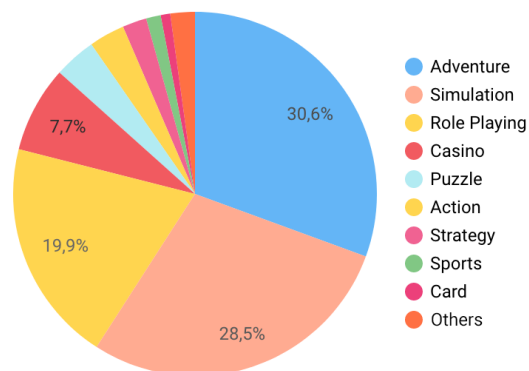
Contrastingly, games in the **Trivia and Word** categories drove the **least revenue**.

2.2 Revenue Estimates Per Category



Revenue Estimates for Paid Apps on iOS (2020)

	Category Name	Total Yearly Revenue (Estimate)
1.	Adventure	26 038
2.	Simulation	24 290
3.	Role Playing	16 905
4.	Casino	6 526
5.	Puzzle	3 177
6.	Action	2 701
7.	Strategy	1 831
8.	Sports	1 105
9.	Card	725
10.	Casual	687
11.	Racing	475
12.	Music	337
13.	Board	152
14.	Family	150
15.	Word	44
16.	Trivia	14

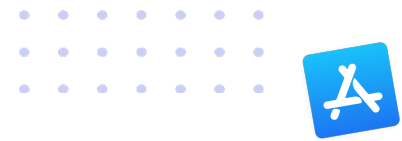


The **Adventure** and **Role Playing** categories performed similarly well in driving revenue from paid games, as did paid games in the **Simulation** category.

Paid games in the **Trivia** and **Word** categories again generated the least revenues on the Japanese App Store in 2020.

In general, paid games consistently drove less revenue than free games.

2.3 Seasonality



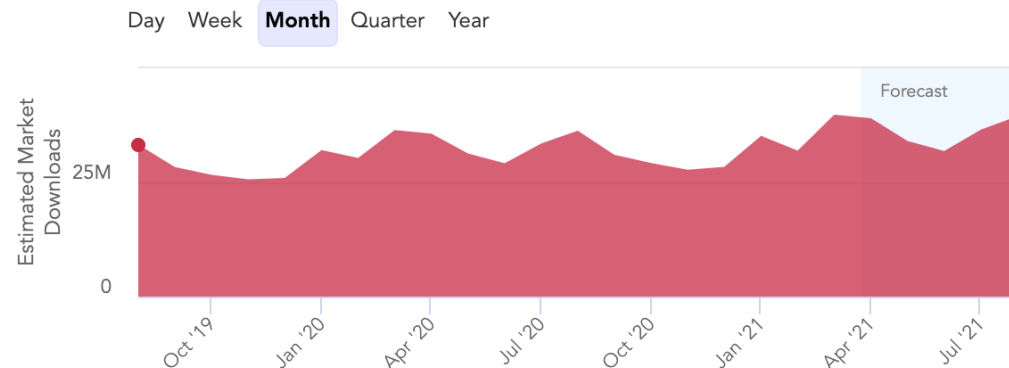
Games (All)

Key Metrics

GROWTH PER YEAR	▲13.9%
TOP MONTH	April ▲16.0%
WORST MONTH	December ▼16.3%
TOP DAY	Friday ▲5.2%
WORST DAY	Monday ▼4.5%



Market Trend



AppTweak's App Market Seasonality feature uses millions of data points on app downloads to identify seasonality trends across categories and countries. In particular, the data shows whether a category generates more downloads during weekdays or weekends, and which month of the year drives the most installs.

Looking at the Games (All) category on iOS, we estimate that the market is growing year by year. **Downloads typically reach a peak in April**, with the least downloads generally driven in December. On a daily basis, **Fridays are the best days** for the Games category and Mondays are the worst.

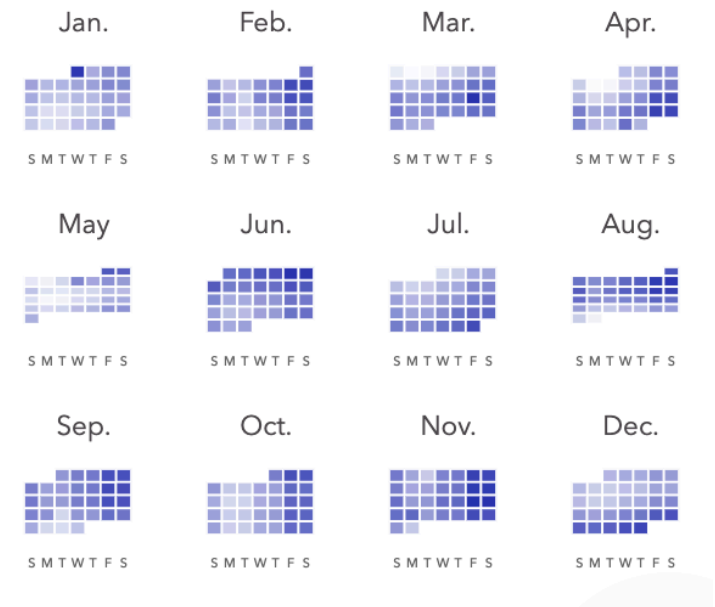
2.3 Seasonality



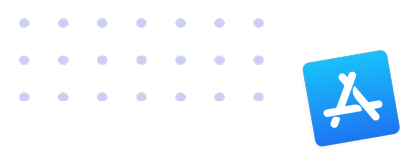
Games (All)



Yearly trend



2.3 Seasonality



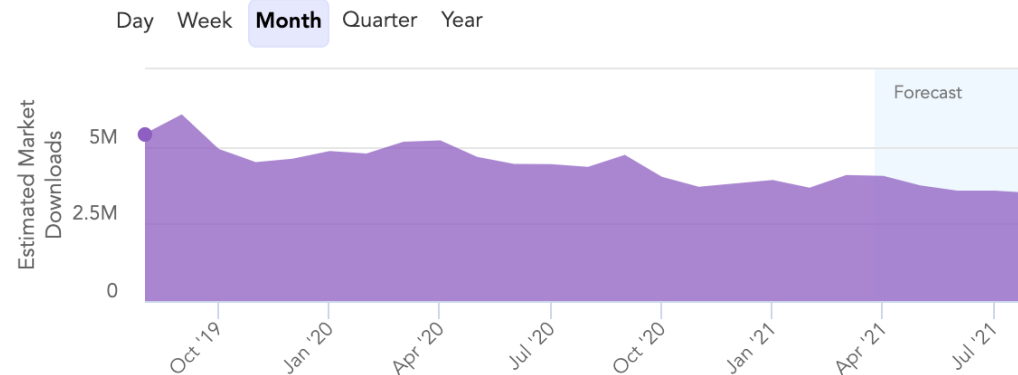
Adventure

Key Metrics

GROWTH PER YEAR	▼11.2%
TOP MONTH	September ▲16.0%
WORST MONTH	November ▼13.9%
TOP DAY	Friday ▲5.3%
WORST DAY	Tuesday ▼6.9%



Market Trend



Turning to the Adventure category for iOS games, we estimate that the category is experiencing a **declining growth** per year. Its **best month for downloads is typically September**, whereas its worst month is November.

Similarly to the Games (All), Role Playing, Strategy, and Simulation categories, the **most downloads are driven on Fridays**, and the least downloads are generated towards the start of the week (Tuesdays).

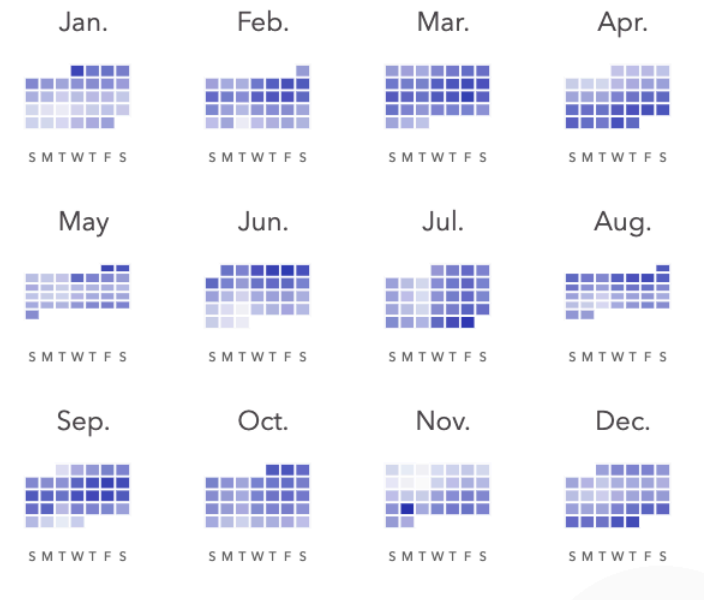
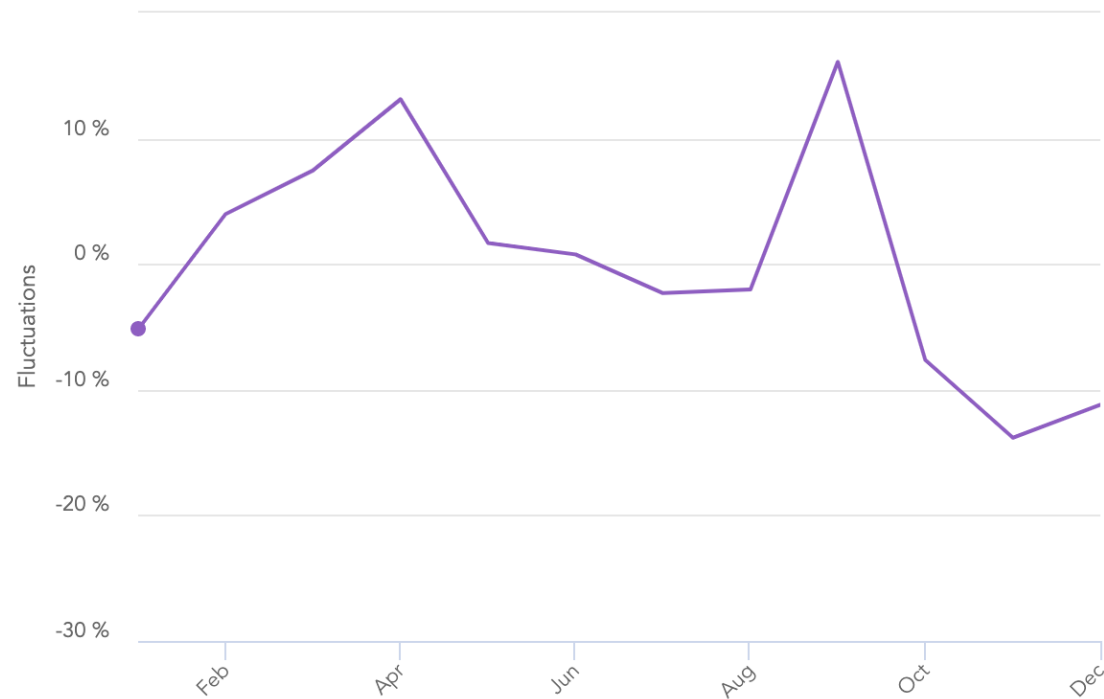
2.3 Seasonality



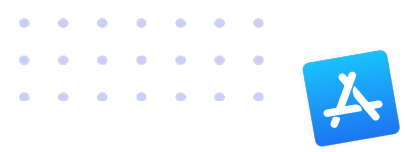
Adventure



Yearly trend



2.3 Seasonality



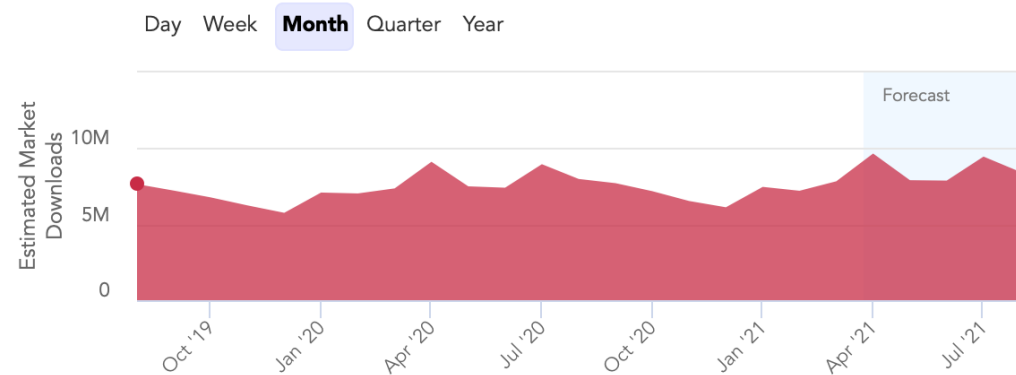
Role Playing

Key Metrics

GROWTH PER YEAR	▲11.9%
TOP MONTH	April ▲24.4%
WORST MONTH	December ▼23.6%
TOP DAY	Friday ▲8.8%
WORST DAY	Sunday ▼7.2%



Market Trend



The Role Playing category is also growing year by year. Similarly to the Games (All) category, the **most downloads for this genre are generated in April**, while the least downloads are driven in December. Once again, the **best days for this category to drive installs are Fridays**, while the category's worst days are Sundays.

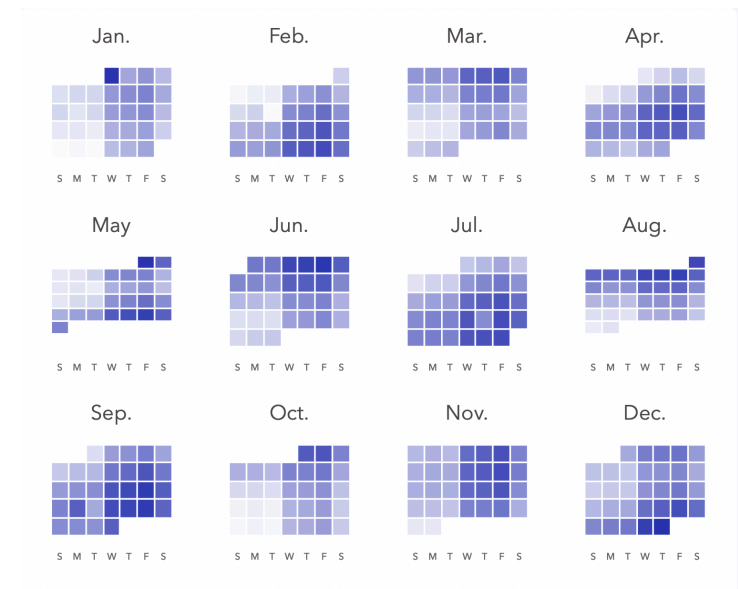
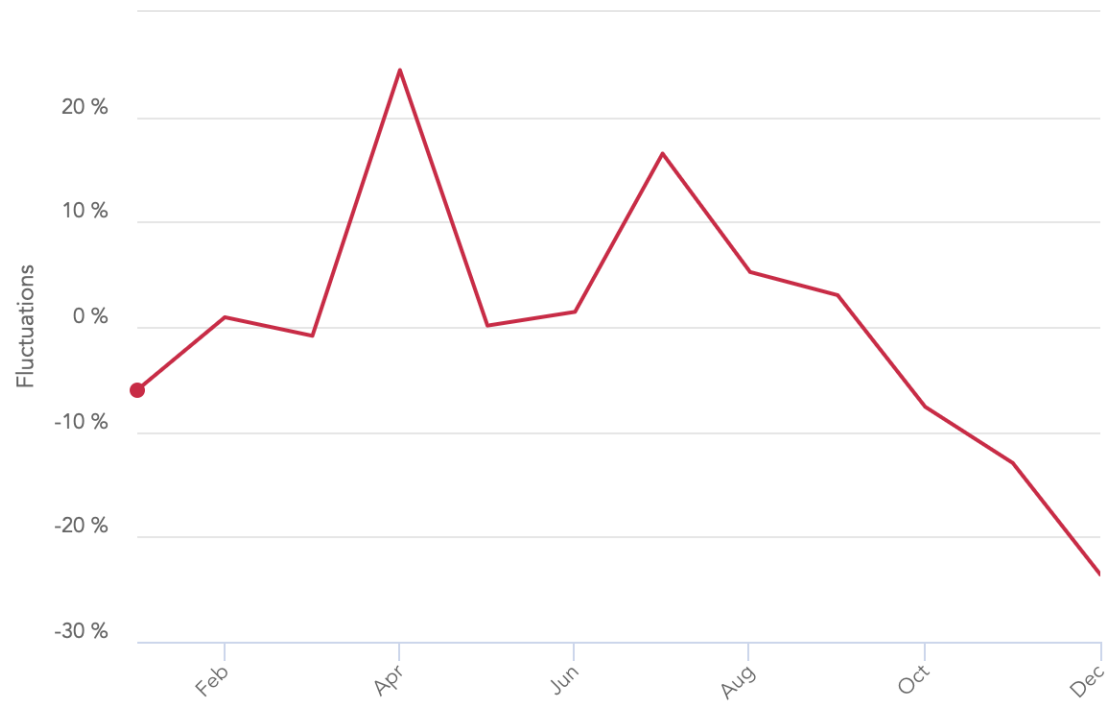
2.3 Seasonality

Role Playing

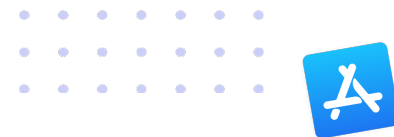


apptweak

Yearly trend



2.3 Seasonality



Strategy

Key Metrics

GROWTH PER YEAR ▲26.2%

TOP MONTH January ▲18.1%

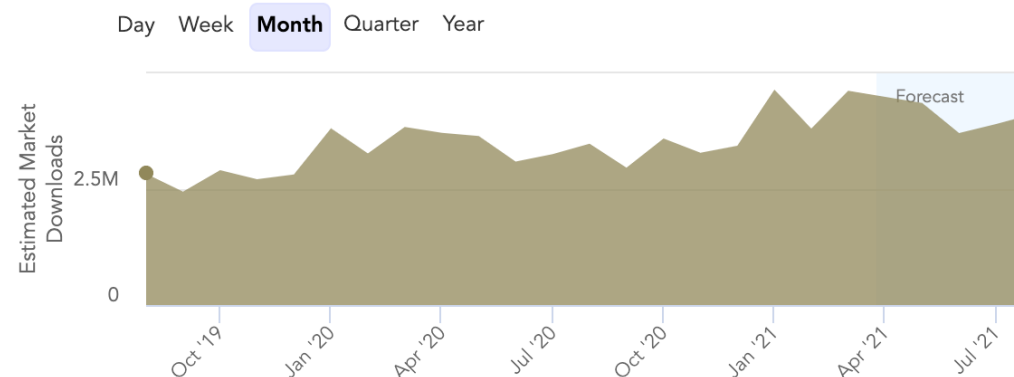
WORST MONTH September ▼16.4%

TOP DAY Friday ▲9.9%

WORST DAY Tuesday ▼8.0%

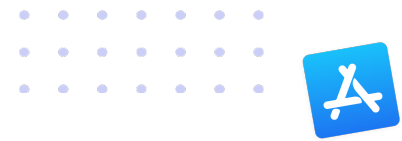


Market Trend



We estimate that the Strategy category is experiencing the **most year-on-year growth** among the 6 major categories presented. While **January is its best month for downloads**, September is its worst. The trend of **Fridays being the best days** to generate downloads continues for the Strategy category; and once again, the fewest installs are generally driven towards the start of the week (Tuesdays).

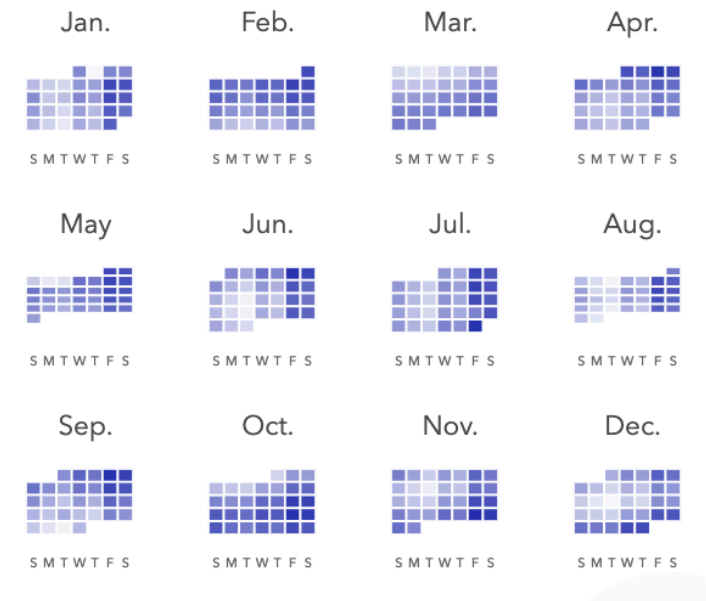
2.3 Seasonality



Strategy



Yearly trend



2.3 Seasonality



Simulation

Key Metrics

GROWTH PER YEAR ▲0.2%

TOP MONTH August ▲19.4%

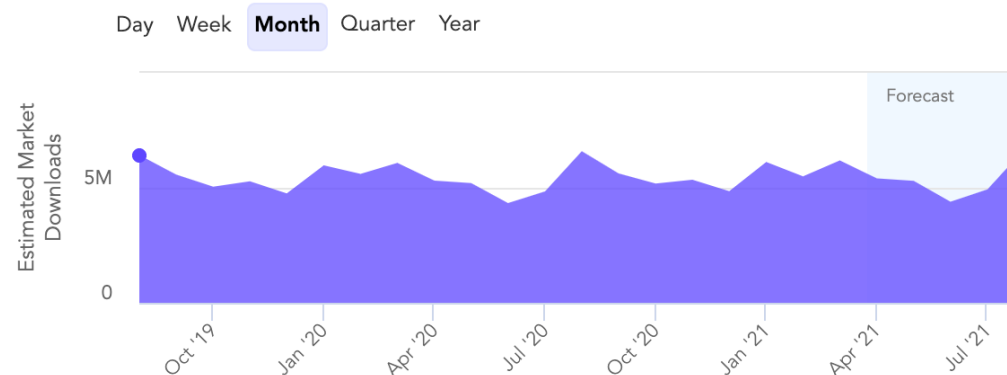
WORST MONTH June ▼19.9%

TOP DAY Friday ▲4.7%

WORST DAY Tuesday ▼3.1%

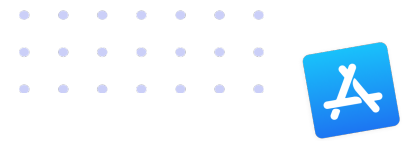


Market Trend



The Simulation category is only slightly experiencing yearly market growth. The genre's **top month for downloads is August**, with its worst month being June. Similarly to the majority of categories presented here, the category drives the **most downloads on Fridays** and gains the least downloads on Tuesdays.

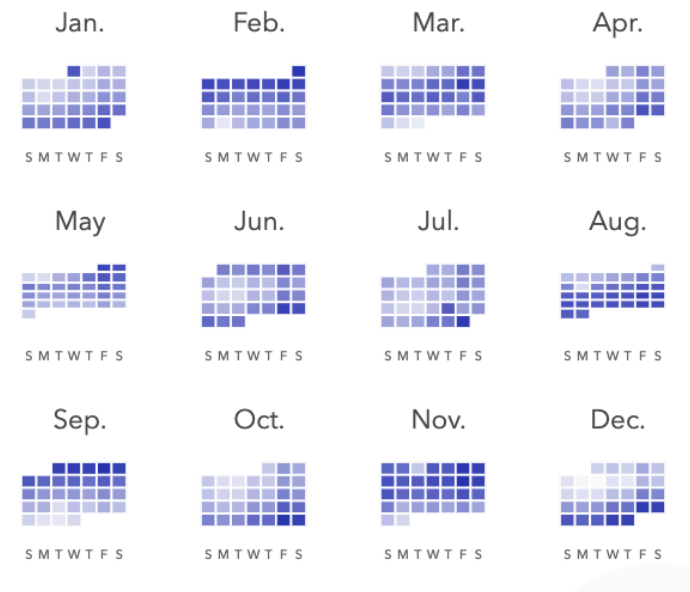
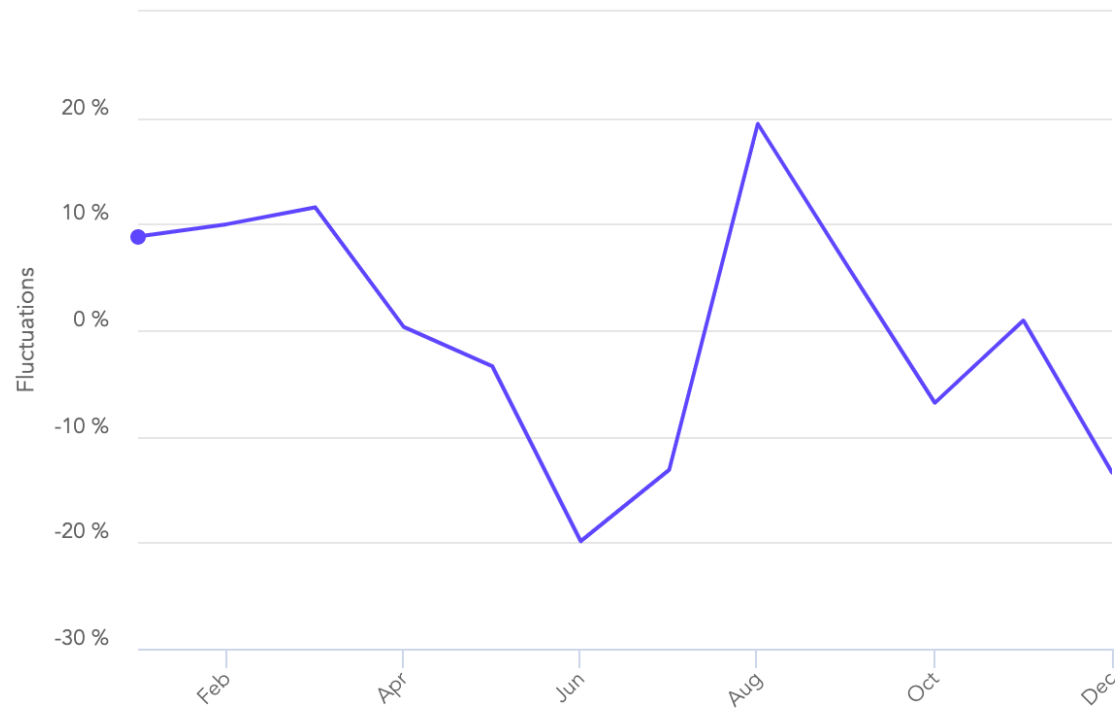
2.3 Seasonality



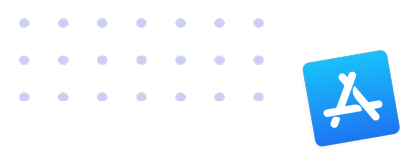
Simulation

apptweak

Yearly trend



2.3 Seasonality



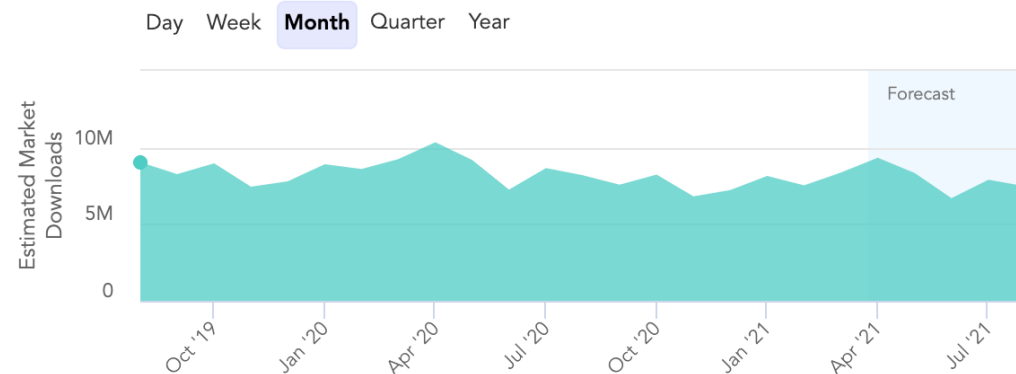
Action

Key Metrics

GROWTH PER YEAR	▲0.9%
TOP MONTH	April ▲23.7%
WORST MONTH	November ▼15.8%
TOP DAY	Saturday ▲6.5%
WORST DAY	Tuesday ▼6.4%



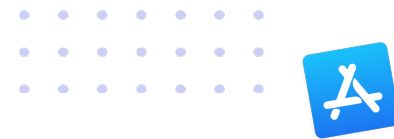
Market Trend



Finally, the Action category is also only slightly experiencing yearly growth. As for the Games (All) and Role Playing categories, this genre drives the **most downloads in April**; however, the least amount of downloads are driven in November.

Deviating from the 'Friday' trend, the **most downloads to this category are generated on Saturdays**. More generally, the category remains aligned with others, seeing its best days towards the end of the week and its worst days towards the start (Tuesdays).

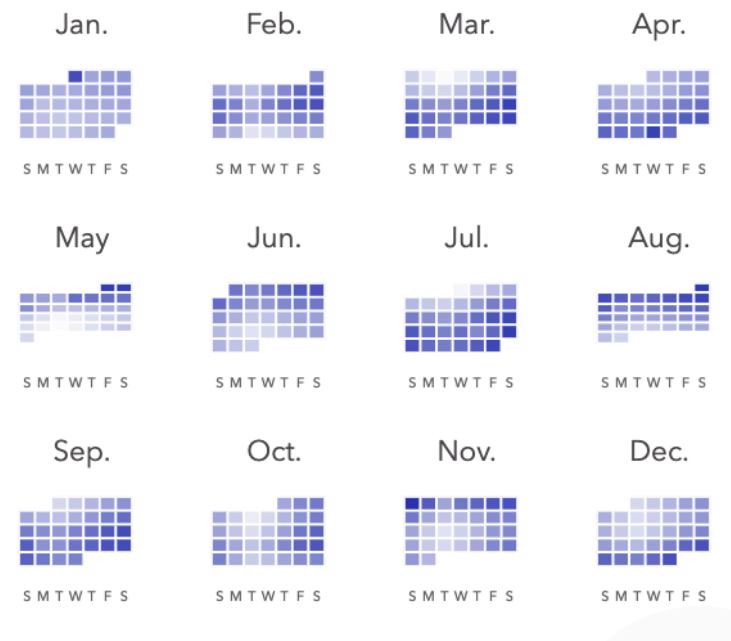
2.3 Seasonality



Action

apptweak

Yearly trend





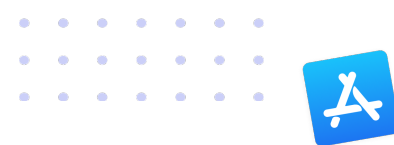
Introduction

Competition is a pivotal element of any game publisher's App Store Optimization strategy. In particular, volatility represents the amount of movement that takes place among a category's top 100 apps.

A very volatile category indicates a high amount of competition, while more stable categories suggest a lower amount of competition.

It is also important to understand the **game publishers that dominate the App Store** to better understand the industry leaders at the forefront of Japan's game market.

3.1 Category Volatility



In general, **games in the most competitive categories remain in the top 100 for a shorter period**. On the App Store, games in the Games (All), Simulation, Casual, and Adventure categories ranked in the top 100 for less than 60 days on average.

On the other hand, games in the Music, Card, Casino, and Trivia categories ranked in the top 100 for over 100 days on average. As a result, the data suggests that the **Games (All) category is the most competitive genre** and the **Music category is the least competitive**.

Top 100 in 2019 vs 2020

44%

On both the App Store and Google Play Store, 44% of all apps that ranked in the top 100 in 2020 were already ranking in the top 100 in 2019.*

Average Number of Days in Top 100

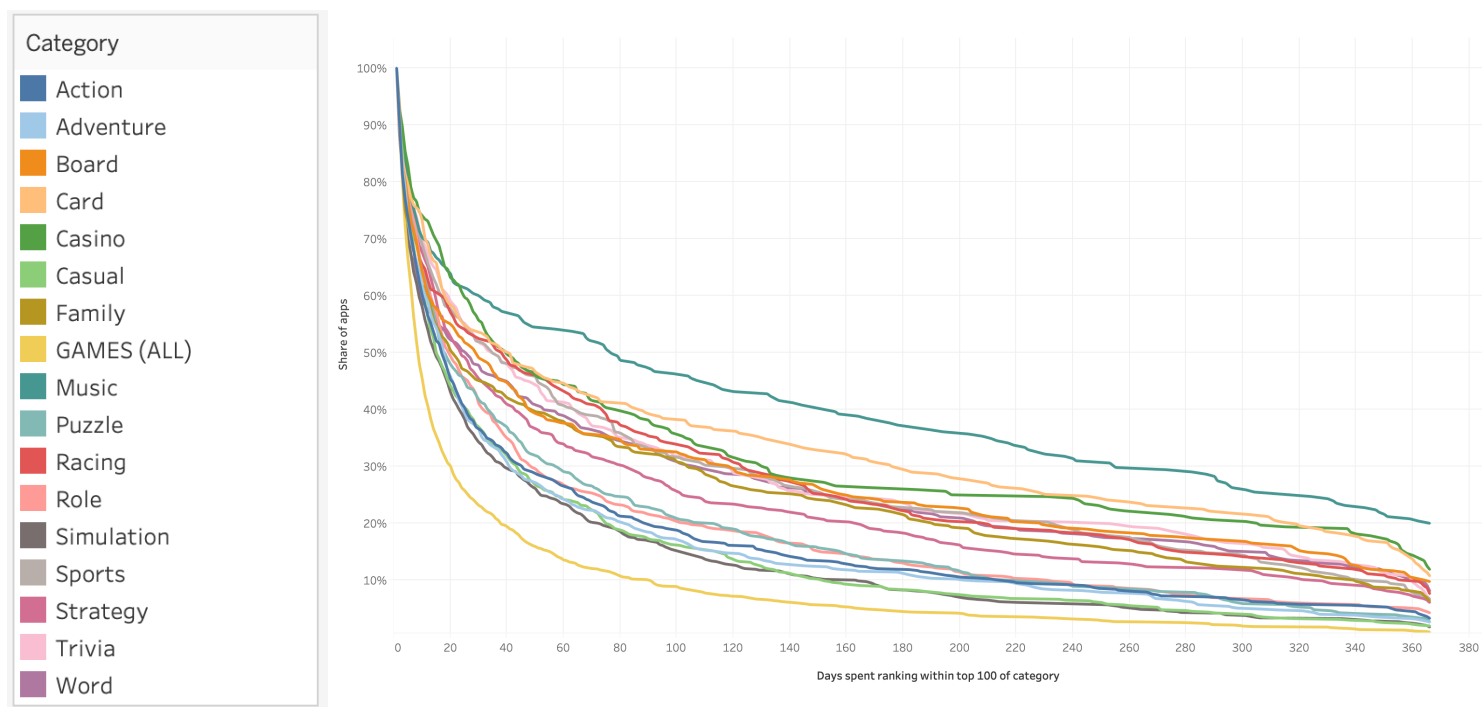
Category	Days
All	34
Music	144
Card	119
Casino	114
Trivia	101
Board	99
Racing	99
Sports	99
Word	96
Family	89
Strategy	82
Puzzle	65
Role Playing	65
Action	60
Adventure	56
Casual	52
Simulation	50
Games (All)	32

Note: Among all apps that ranked in the top 100 for at least one day in 2020.

*Out of 14,169 apps on the App Store.

3.1 Category Volatility

Share of Apps Ranking at Least X Days in Category (2020)



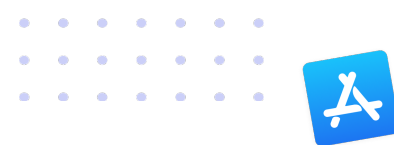
This chart shows the number of apps that ranked for a certain amount of days in each category's top 100 in 2020. To compute this, we considered all apps that ranked for at least one day in each category in 2020 and calculated how long each remained in the top charts.

For example, 100% of apps ranked in the top 100 for at least one day, but **less than 50% ranked in the top 100 for 80 days or more**. For both iOS and Android, the share of games ranking in the top 100 for the Games (All) category over a given period decreases much more rapidly than for other categories.

Looking at games that ranked in the App Store's top 100 over at least 300 days in the year, we can distinguish 3 groups among categories: First, the **most stable were the Music, Card and Casino categories**. Next, games in the Board, Word, Racing, Sports, Family, Trivia, and Strategy categories were relatively stable.

Finally, the remaining categories had a much lower share of games ranking in the top 100 over 300 days per year.

3.2 Top Game Publishers



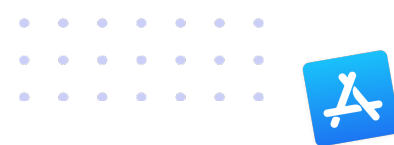
Games (All)

	Publisher	Total Yearly Downloads (Estimate)
1.	Voodoo	15 355 757
2.	MASK APP LLC	6 907 933
3.	Playrix	6 541 298
4.	BANDAI NAMCO Entertainment Inc.	5 829 082
5.	Nintendo Co., Ltd.	4 909 783
6.	LINE Corporation	3 998 878
7.	SQUARE ENIX	3 456 785
8.	NetEase Games	3 044 491
9.	Lion Studios	2 813 217
10.	Zynga Inc.	2 803 705
11.	SEGA CORPORATION	2 693 903
12.	Amanotes Pte. Ltd.	2 496 572
13.	KONAMI	2 477 842
14.	Aniplex Inc.	2 424 620
15.	Good Job Games	2 261 313
16.	Peak Games	2 238 391
17.	Crazy Labs	2 212 053
18.	Unico Studio LLC	2 077 054
19.	SayGames LLC	2 027 130

Adventure

	Publisher	Total Yearly Downloads (Estimate)
1.	Voodoo	5 735 016
2.	MASK APP LLC	4 534 818
3.	Jammsworks Inc.	3 253 180
4.	NetEase Games	2 116 925
5.	Aniplex Inc.	1 936 766
6.	BANDAI NAMCO Entertainment Inc.	1 894 437
7.	SEGA CORPORATION	1 561 783
8.	SQUARE ENIX	1 194 352
9.	daichi simada	1 191 712
10.	Sixjoy Hong Kong Limited	904 868
11.	Epic Games	806 344
12.	Craft Egg Inc.	767 024
13.	Bushiroad Inc.	762 510
14.	UUUM CO., LTD.	744 836
15.	miHoYo Limited	731 491
16.	Idea Factory Plus Co., Ltd	703 867
17.	BeeworksGames	684 250
18.	chie ono	683 430
19.	Nexters Global LTD	645 334

3.2 Top Game Publishers



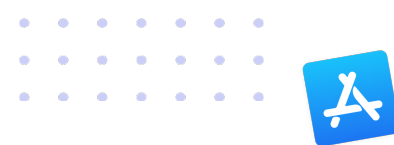
Action

	Publisher	Total Yearly Downloads (Estimate)
1.	Voodoo	8 070 724
2.	BANDAI NAMCO Entertainment Inc.	2 343 555
3.	Nintendo Co., Ltd.	2 216 883
4.	Playgendary Limited	1 982 709
5.	MarkApp Co. Ltd	1 893 692
6.	KONAMI	1 821 552
7.	LINE Corporation	1 723 663
8.	Activision Publishing, Inc.	1 567 654
9.	XFLAG, Inc.	1 352 007
10.	SUPERSONIC STUDIOS LTD	1 342 539
11.	UUUM CO., LTD.	1 222 137
12.	NetEase Games	1 192 626
13.	SayGames LLC	1 124 182
14.	Supercell	1 077 656
15.	InnerSloth LLC	1 015 630
16.	COLOPL, Inc.	992 943
17.	Bytedance Pte. Ltd	940 743
18.	PUBG Corporation	908 554
19.	Azur Interactive Games Limited	894 154

Role Playing

	Publisher	Total Yearly Downloads (Estimate)
1.	SQUARE ENIX	3 507 996
2.	BANDAI NAMCO Entertainment Inc.	2 916 375
3.	Aniplex Inc.	2 359 194
4.	YOOZOO (SINGAPORE) PTE. LTD.	1 691 411
5.	NetEase Games	1 595 300
6.	XFLAG, Inc.	1 490 981
7.	GungHo Online Entertainment, Inc.	1 267 172
8.	SEGA CORPORATION	1 210 323
9.	Voodoo	1 115 603
10.	LILITH TECHNOLOGY HONG KONG LIMITED	1 086 419
11.	DeNA Co., Ltd.	1 070 152
12.	Niantic, Inc.	986 032
13.	Sixjoy Hong Kong Limited	913 626
14.	Crazy Labs	893 699
15.	CAPCOM	872 271
16.	miHoYo Limited	731 491
17.	LINE Corporation	707 797
18.	ZigZaGame Inc.	671 256
19.	Sumzap Inc.	662 522

3.2 Top Game Publishers



Strategy

	Publisher	Total Yearly Downloads (Estimate)
1.	MarkApp Co. Ltd	1 809 870
2.	NetEase Games	1 644 235
3.	LILITH TECHNOLOGY HONG KONG LIMITED	1 086 419
4.	晨 黄	1 049 986
5.	Niantic, Inc.	986 032
6.	ponos corporation	850 926
7.	Riot Games	761 040
8.	Yostar, Inc.	732 200
9.	ZigZaGame Inc.	684 168
10.	N3TWORK Inc.	665 388
11.	Supercell	650 972
12.	UUUM CO., LTD.	646 731
13.	CAMEL GAMES LIMITED	568 865
14.	TOP GAMES INC.	566 627
15.	YOTTA GAMES PTE LTD	503 788
16.	111%	498 584
17.	Qmax Inc.	446 809
18.	Digital Things	421 599
19.	NHN PlayArt 株式会社	397 008

Simulation

	Publisher	Total Yearly Downloads (Estimate)
1.	Playrix	6 541 298
2.	Nintendo Co., Ltd.	2 509 831
3.	MASK APP LLC	2 298 700
4.	Crazy Labs	1 824 399
5.	Sammy Networks Co., Ltd.	1 640 102
6.	Voodoo	1 591 437
7.	daichi simada	1 321 335
8.	CommSeed Corporation	1 318 771
9.	BANDAI NAMCO Entertainment Inc.	1 316 207
10.	SQUARE ENIX	1 176 840
11.	Lion Studios	1 159 266
12.	InnerSloth LLC	1 015 630
13.	ponos corporation	706 324
14.	SayGames LLC	700 822
15.	Kwalee Ltd	605 469
16.	HABBY	603 214
17.	LINE Corporation	569 941
18.	EXNOA LLC	556 485
19.	Electronic Arts	500 164

Understanding the Japanese Game Market for Android



1. Consumer Usage Trends
2. In-Store Activity
3. Measuring Category Performance
4. Analyzing the Competitive Landscape

While iOS is the dominant operating system on the Japanese market, **Android devices are also very popular** and hold a 2nd place position among smartphone consumers. As a result, game developers should understand Japanese trends, behaviors and consumer preferences on Android.

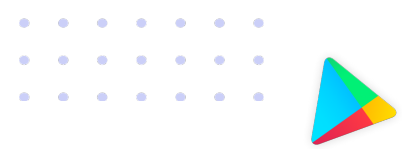
In Part 2 of this white paper, we will examine several aspects of the Japanese mobile landscape for Android games. This part is separated into 4 sections: Consumer usage trends; factors that pertain to in-store activity; data that allow us to measure the performance of Japanese game subcategories; and an analysis of the competitive landscape.



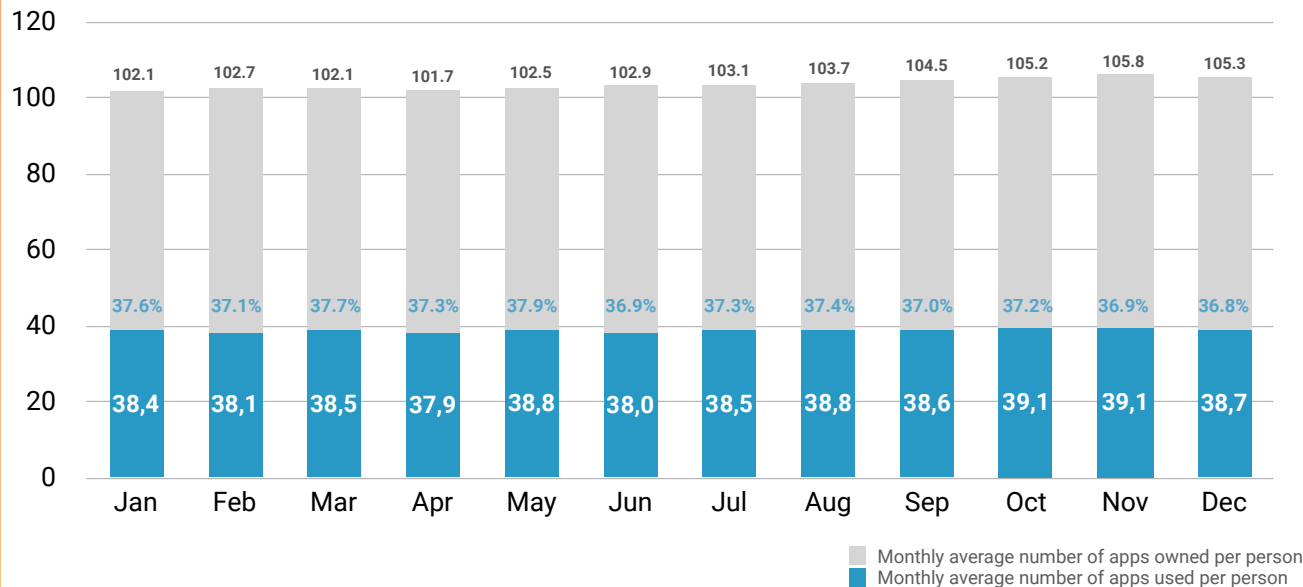
Introduction

In this section, we will examine the consumer viewpoint of Japan's game market; to succeed in the industry, it is important for game developers to **understand their target market**. In particular, we will first discuss the average number of **apps that are both owned and used** per person in Japan. Next, we will identify the **demographic** composition of users for the 6 main Games categories on the Google Play Store in 2020.

1.1 Average No. of Apps Owned & Used Per Person



Average Number of Apps Owned and Used Per Person

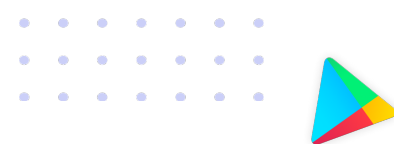


Due to the coronavirus pandemic, 2020 was an interesting year for lifestyle trends and mobile preferences. In 2020, **Japanese mobile users had an average of about 103 apps** on their smartphones, out of which around 39 were actually used. Compared to the previous year, the **average number of apps owned by Japanese consumers increased** by about 10, whereas the number of apps used saw a much smaller increase (less than 1 app on average).

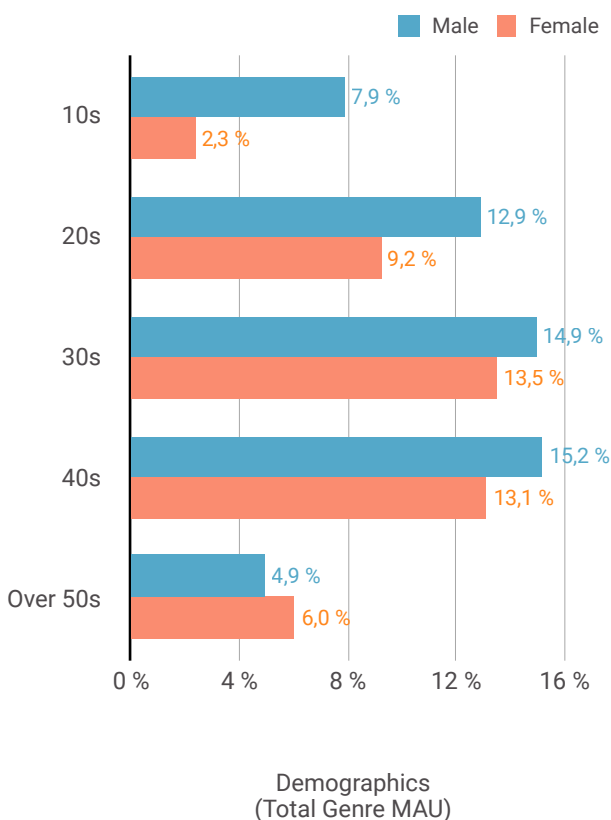
November reached a peak in the total average number of apps owned and used per user. However, the **highest usage rate was recorded in May** (37.9%). The lowest total average number of apps owned and used was observed in April. Finally, the data does not show significant fluctuations in app ownership or usage rates. Due to the influence of 'stay home' orders and lockdown restrictions, we see that **seasonality factors were less pronounced** in smartphone use as the figures appeared stable throughout the year.

In general, the average number of apps owned appears to increase year by year. In 2019, the overall average was around 94 apps; in 2020, this average rose to 103.4. Furthermore, while 2019 saw a gradual increase in the number of apps owned at the start of the year compared to the end, these numbers started high in 2020 and were maintained throughout the year.

1.2 Demographics Per Category



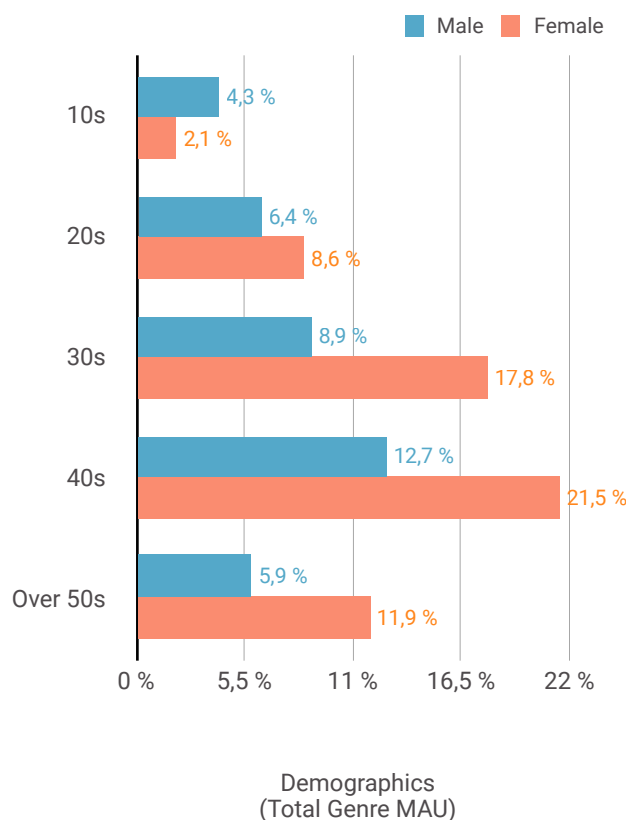
Games (All)



The dominant consumer demographic for the Games (All) category is **men in their 30s and 40s**, while the category is used the least by women in their 10s.

Additionally, the **number of female players has increased** compared to 2019.

Puzzle

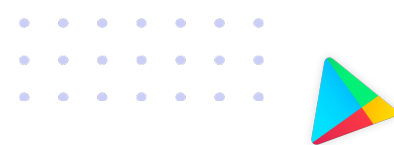


As in 2019, **women in their 30s and 40s** are the main users of games in the Puzzle category.

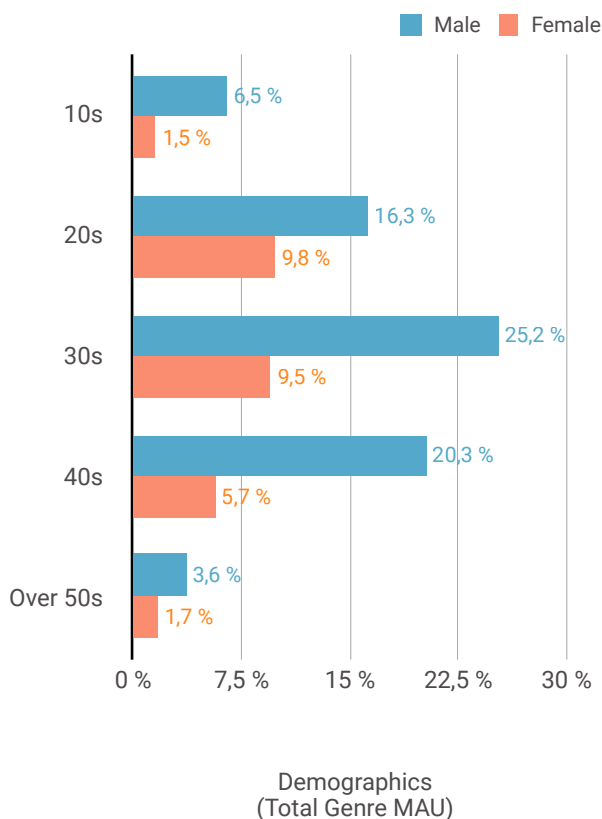
Furthermore, both men and women in their 50s play Puzzle games more actively than they play the 5 other genres presented here.

However, **Puzzle games are less popular among men**, representing the lowest proportion of men in their 10s, 20s, and 30s compared to the 5 other game categories.

1.2 Demographics Per Category



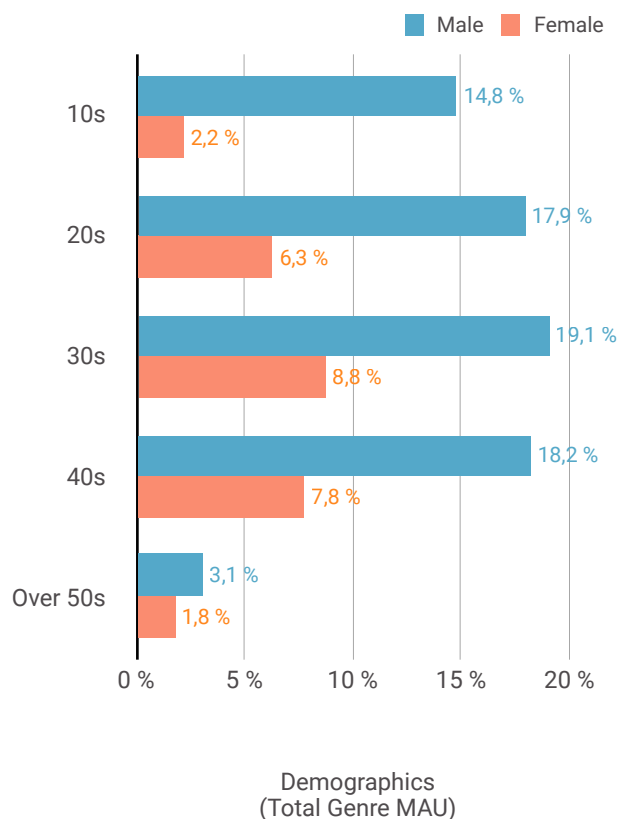
Role Playing



The main users of Role Playing games are **men in their 30s and 40s** (as in 2019), while the Role Playing category is less popular among **women younger than 20 and over 50**.

Furthermore, out of the 5 other game subcategories presented, women in their 40s are represented the least in the Role Playing category. Combining both men and women, the Role Playing category is the **most popular genre among users in their 20s and 30s**.

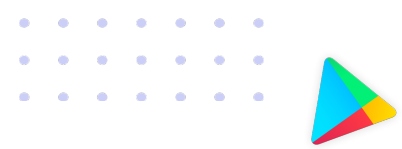
Action



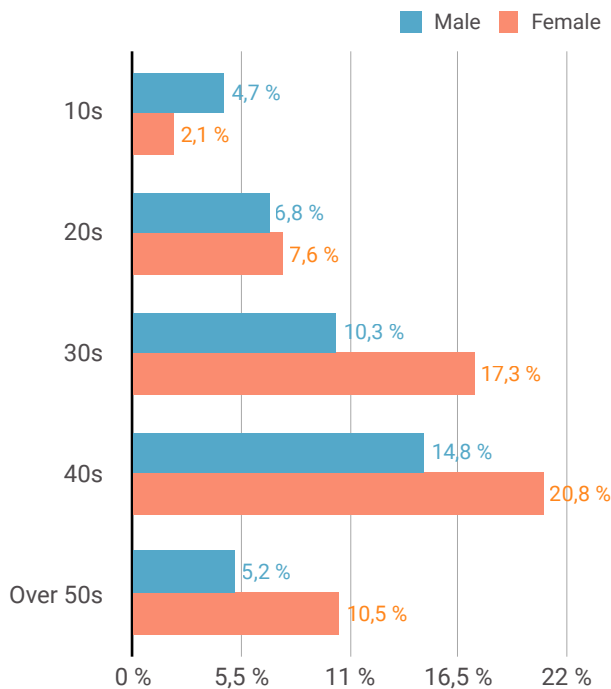
The Action category remains **popular among male users**, and the percentage of consumers aged 40 and above was higher than in 2019.

Men in their 10s and 20s play Action games more than any other category presented here; however, women in their 20s and 30s play Action games less than the 5 other categories. Males and females combined, Action games also represent the **lowest proportion of users over 40** out of the categories presented.

1.2 Demographics Per Category



Casual

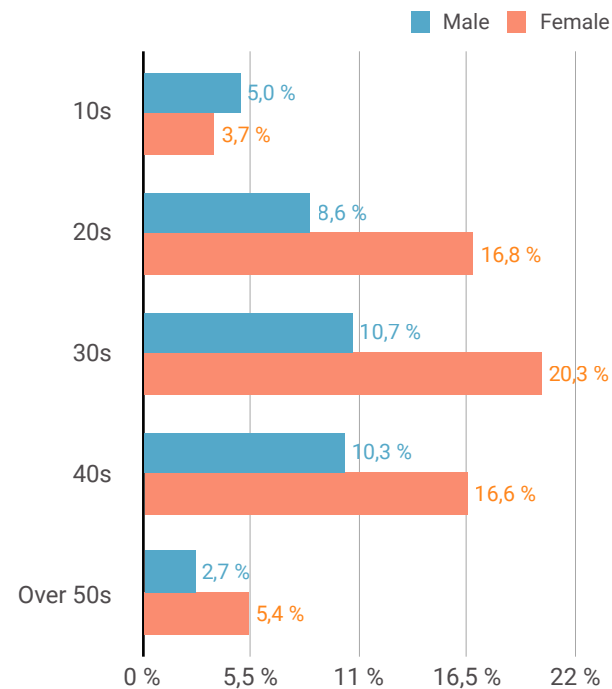


Demographics
(Total Genre MAU)

Women in their 30s and 40s are the dominant demographic of Casual game players. On the other hand, **males in their 10s** play Casual games the least compared to the other age groups. Looking at both men and women combined, **users in their 40s** are most represented in the Casual category compared to the other 5 genres, with male and female users in their 20s less active here.

Casual games also are the second most popular genre for both men and women in their 50s.

Simulation



Demographics
(Total Genre MAU)

Women in their 20s and 30s comprise the main user base of Simulation games, with females in their 10s also represented in the Simulation category more than in the other categories.

Compared to the 5 other categories presented here, Simulation games are the **least popular genre for men over 40**. Men over 50 represent the category's least dominant user base.



Introduction

As in Part 1: iOS, several in-store elements can impact the rankings and store performance of Android games; in particular, the **metadata** (keywords or creatives) added to a product page, or the frequency with which that **metadata is updated**.

Therefore, it is important for game developers to identify trends and best practices in each game category in order to understand App Store Optimization best practices.

2.1 Most Searched Keywords Per Category

Branded KW

Generic KW

Category: Games (All)

Keyword	Search Volume	Competition	Score
パズル	71	91	20
パズルゲーム!	64	91	17
パズルゲーム	63	92	17
ほーむすけいぷ	61	88	24
ぱずる	55	91	20
ホームスケイプ	55	73	17
ブロック	51	83	17
単語消し	46	57	17
ほーむすけいぷ無料	45	73	29
げーむ無料	39	88	21

Category: Puzzle

Keyword	Search Volume	Competition	Score
パズル!	72	90	31
パズル	70	91	30
パズルゲーム!	64	91	30
パズルゲーム	62	92	33
パズルゲーム無料人気	56	90	30
ぱずる	54	91	30
すうどく無料	50	55	29
ゲーム無料	49	89	30
すうどく	40	67	29
げーむ無料	39	89	39

The most popular keywords are often searches that received the highest search volumes in 2020. The volume – a number between 5 and 100 – represents how often a keyword is searched on the Play Store (a high search volume indicates a very popular keyword).

Here, we provide the **10 most popular keywords** for the Games (All) category on the Google Play Store, alongside the 10 most popular keywords for the 5 major game subcategories (based on those with the largest share of monthly active users; page 52).

A full list of the 50 most popular keywords for the Games category and its subcategories can be found in the Appendix.

For Games (All), “パズル” (puzzle) is the top searched keyword, followed by other puzzle-related terms, including “ブロック” (block).

Search volume: an indicator between 5 and 100 that represents the popularity of a keyword in App Store searches.

Competition: an indicator between 0 and 100 that represents how difficult it is to rank high for that keyword.

Score: a custom metric built to select the most popular keywords; a high score means that many apps from the selected category rank high for that keyword. The score depends on the number of apps that rank in the top 10 for that keyword and their ranking positions.

2.1 Most Searched Keywords Per Category

Branded KW

Generic KW

Category: Casual

Keyword	Search Volume	Competition	Score
おもしろいゲーム	67	79	21
面白いゲーム	66	83	18
ほーむすけいぷ	63	88	27
ホームスケイプ	56	73	22
ガーデンすけいぷ	51	67	20
ほーむすけいぷ無料	47	73	24
面白いゲーム無料	46	72	19
ガーデンスケイプ	45	60	20
homescapes	43	73	22
無理ゲーム	39	85	20

Category: Action

Keyword	Search Volume	Competition	Score
だいごじんかく	65	51	22
pupg	53	36	21
だいごじんかく	45	55	24
pubgmobile	43	19	23
マリオラン	40	66	21
ぱぶじ	37	69	21
パブジー	35	81	23
まりおらん	34	66	21
だいごしんかく	32	56	26
ぱぷじー	30	71	30

For Casual games, the top 2 keywords with the highest volume were **generic keywords**, “おもしろいゲーム” and “面白いゲーム”, which both mean ‘interesting game(s)’. Unlike English, Japanese is unique as there are multiple ways to spell out a single keyword. It therefore takes more time and effort to find all the possible writing formats and identify those with the best KPIs for your game.

Another example of this - but for branded keywords - is “ほーむすけいぷ” (hiragana form) and “ホームスケイプ” (katakana form), which both mean ‘Homescapes’. Interestingly, the Homescapes saga dominates the top searched keywords in the Casual category; it is the only branded game to hold 6 out of the 10 keywords. This shows the **influence of this non-Japanese game** in one of the most competitive categories in the market.

Unlike the Casual category which is dominated by one brand, 2 brands in the Action category contributed to the top searched keywords: PUBG and Mario. Users searched for these terms in various ways.

Search volume: an indicator between 5 and 100 that represents the popularity of a keyword in App Store searches.

Competition: an indicator between 0 and 100 that represents how difficult it is to rank high for that keyword.

Score: a custom metric built to select the most popular keywords; a high score means that many apps from the selected category rank high for that keyword. The score depends on the number of apps that rank in the top 10 for that keyword and their ranking positions.

2.1 Most Searched Keywords Per Category

Branded KW

Generic KW

Category: Role Playing

Keyword	Search Volume	Competition	Score
どらくえウォーク	61	39	29
どらくえ	61	74	28
ドラクエタクト	60	50	26
ぷりこね	58	45	24
星ドラ	56	63	30
どらがりあろすと	54	33	35
dqmsl	54	68	29
どらくえたくと	54	65	29
リゼロス	53	43	27
ドラガリ	51	47	25

For the Role Playing category, all top keywords are associated with branded terms, such as “どらくえ” (Dragon Quest). This indicates that for this genre, users directly search for specific games rather than browsing with generic terms.

Similarly, for Simulation games, the “イケメン” (ikeman) series dominated the top keyword searches. Nine out of the top 10 keywords were related to this Japanese-based game, indicating the **dominance of a domestic game** in this category. The only keyword that is not related is “農場ゲーム無料” (farm game free), which is ranked in 9th place.

Category: Simulation

Keyword	Search Volume	Competition	Score
イケメン	50	15	24
イケメンシリーズ	43	10	24
イケメン戦国	40	17	27
イケメン王子	38	13	19
イケメンヴァンパイア	36	11	19
いけめん戦国	35	17	27
いけめんしりーず	35	10	23
イケメン革命	33	10	17
農場ゲーム無料	32	26	16
いけめん	30	14	19

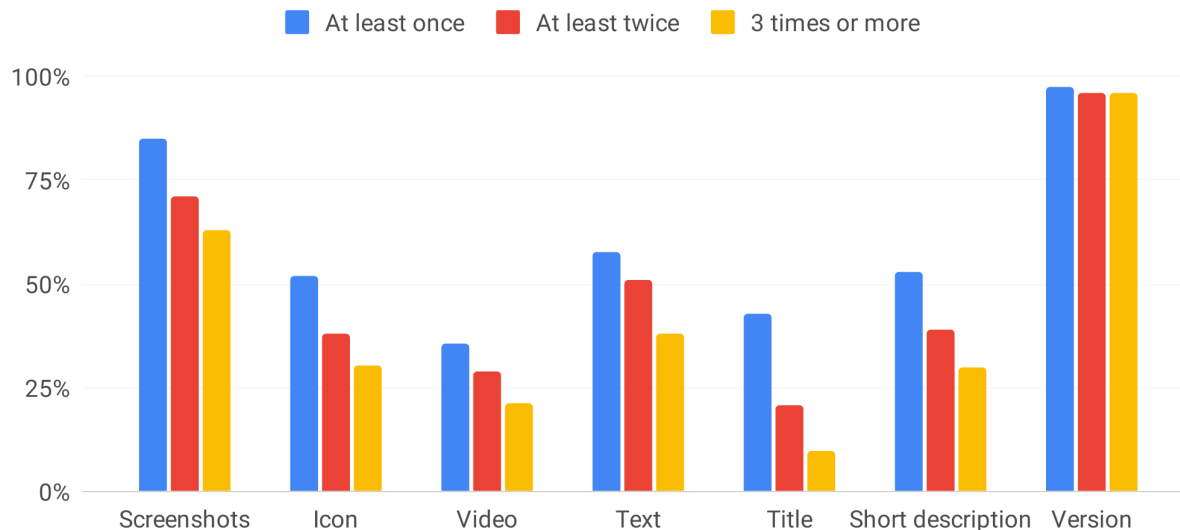
Search volume: an indicator between 5 and 100 that represents the popularity of a keyword in App Store searches.

Competition: an indicator between 0 and 100 that represents how difficult it is to rank high for that keyword.

Score: a custom metric built to select the most popular keywords; a high score means that many apps from the selected category rank high for that keyword. The score depends on the number of apps that rank in the top 10 for that keyword and their ranking positions.

2.2 Metadata Update Frequency

Metadata Update Frequency (Android, 2020)



Metadata elements updated at least one, two, or three (or more) times throughout the year

	At least once	At least twice	3 times or more
Screenshots	85.1%	71.1%	62.8%
Icon	52.1%	38.0%	30.6%
Video	35.5%	28.9%	21.5%
Text	57.9%	51.2%	38.0%
Title	43.0%	20.7%	9.9%
Short description	52.9%	38.8%	29.8%
Version	97.5%	95.9%	95.9%

Regularly updating your store metadata promotes a sustainable level of app visibility and helps to drive downloads. However, there is no single update frequency that will ensure your game's visibility keeps increasing (or remains stable) over time.

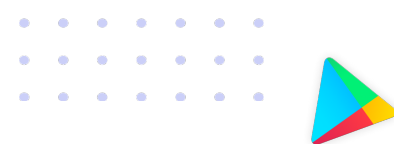
In 2020, **metadata update frequencies were higher on the Google Play Store** than on the App Store: 85% of the apps in our subset updated their screenshots at least once. Android apps changed their title less frequently (but still more often than on iOS), with 43% of apps updating this element at least once.

Android developers changed their videos and short description notably more often than promotional videos and subtitles on iOS: Where only 6.9% of App Store apps had their video changed 3 times or more, this figure rose to 21.5% for Android apps; where 6.9% of iOS apps changed their subtitle, almost a third of Android apps changed their short description. Finally, **over 95% of apps on the Google Play Store updated their version** at least 3 times throughout the year.

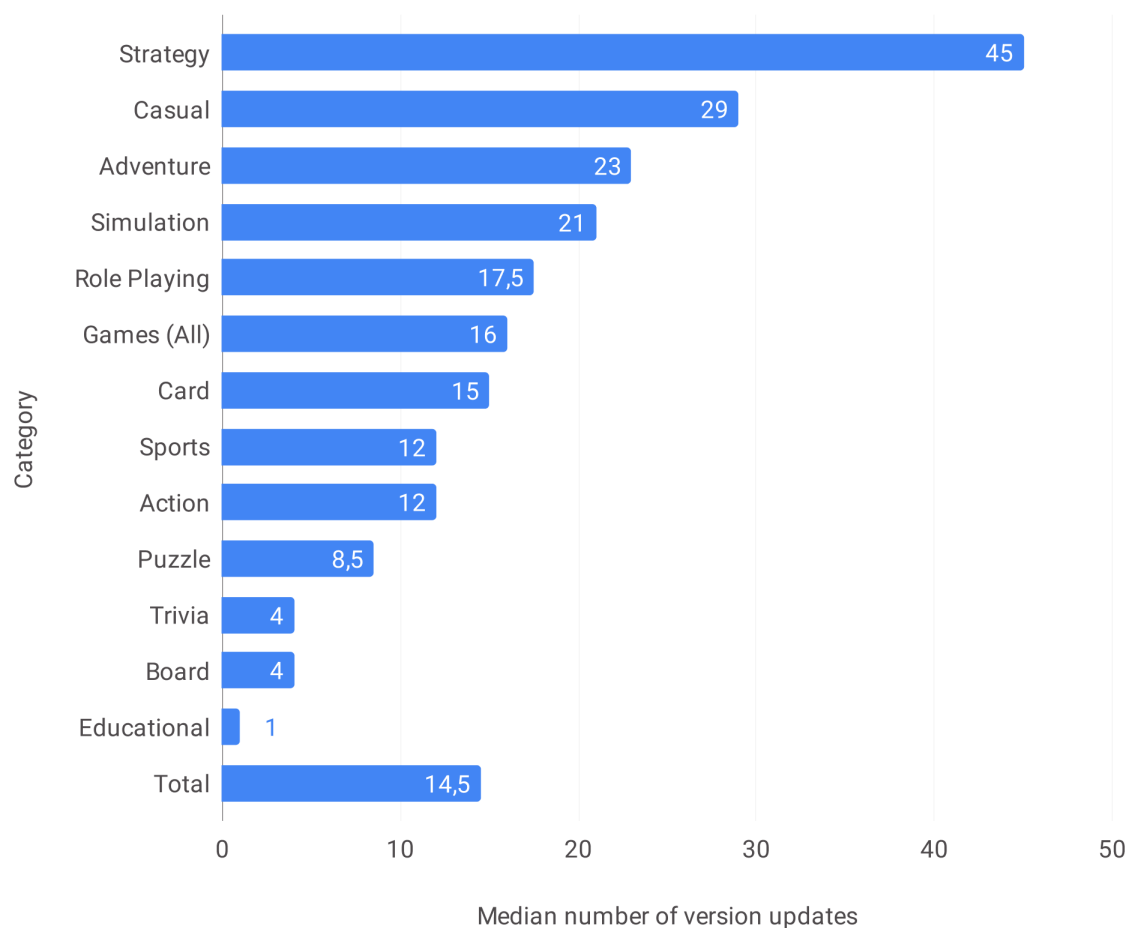
Note: 121 apps (followed from January 1st to December 31st, 2020).

*Text: Either title or subtitle.

2.2 Metadata Update Frequency



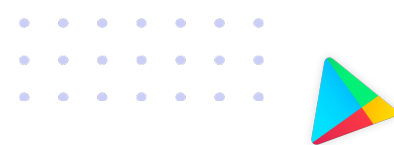
Number of Version Updates (Android, 2020)



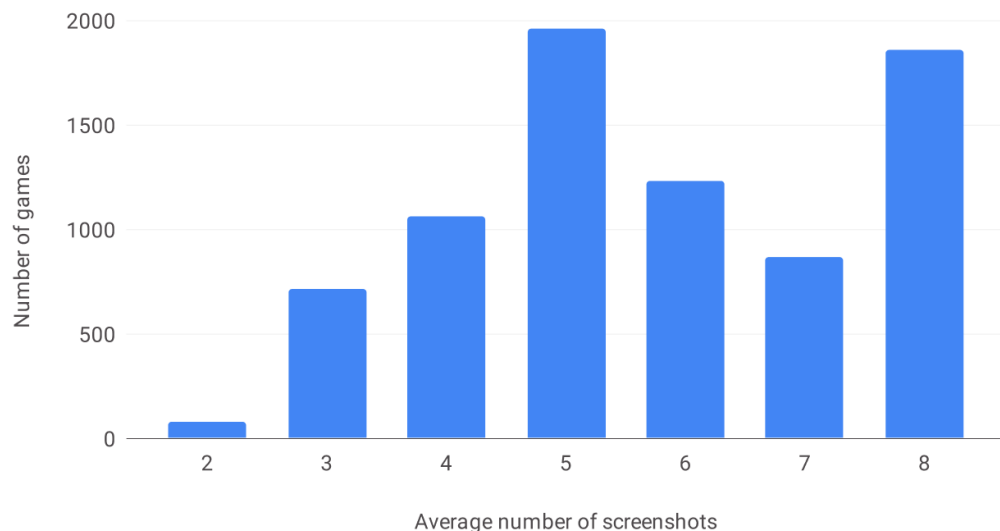
Android **games in the Strategy category were the most active** in terms of version updates in 2020, with the median game updating its version 45 times. They were followed by games in the Casual and Adventure category.

On the other hand, games in the **Educational, Board, and Trivia categories were the least active** in terms of version changes on the Google Play Store in 2020.

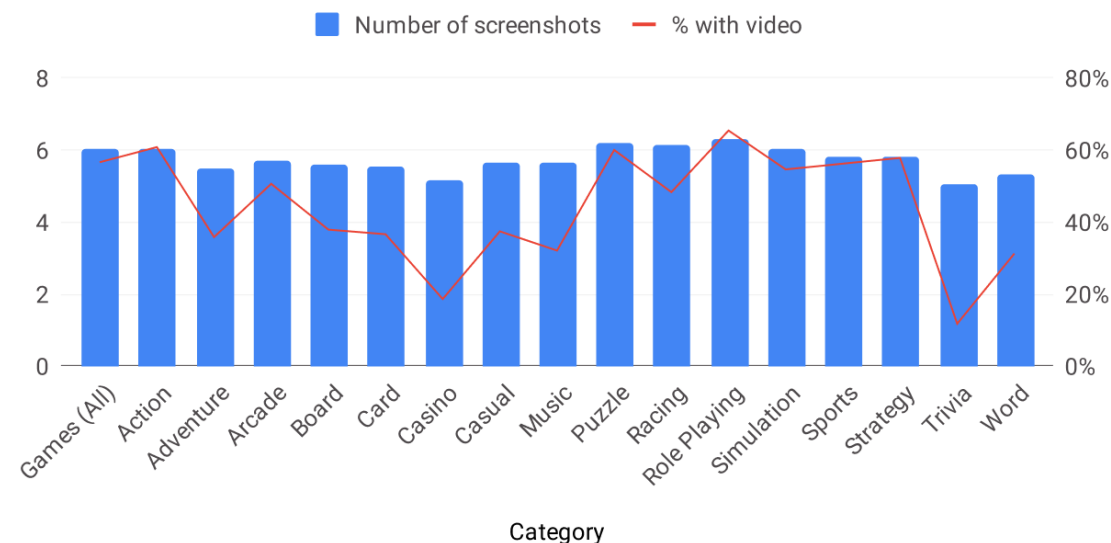
2.3 Creatives Per Category



Average Number of Screenshots for Games (Android, 2020)



Category Analysis: Number of Screenshots Per Game and % of Games with a Video (Android, 2020)



Most games on the Google Play Store in 2020 incorporated **5 screenshots** on their product page, but a **large number of games had 8**. The number of screenshots per game was not significantly different across categories; however, as on the App Store, there was **more disparity in the share of games that included a video**.

Games in the **Role Playing, Action, Puzzle, and Strategy** categories incorporated **the most videos**, while less than 20% of games in the Word and Trivia categories made use of a video.

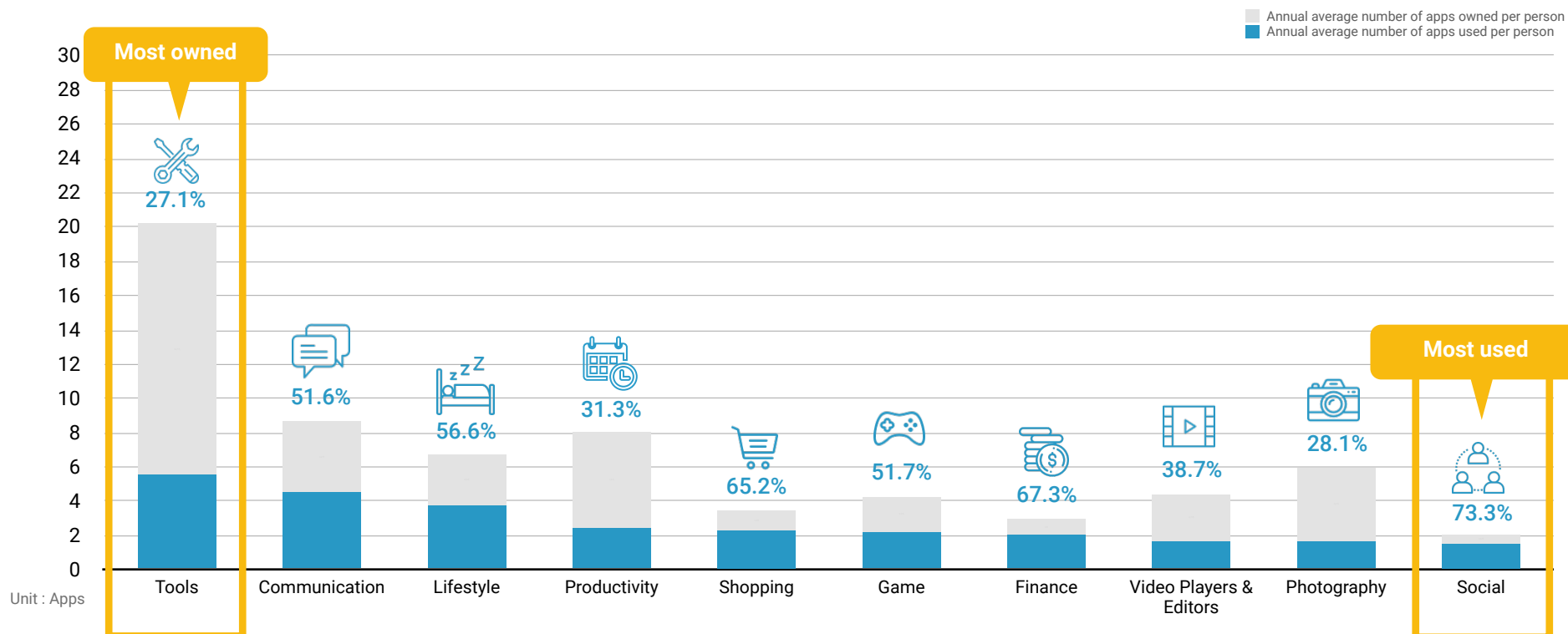


Introduction

Similarly to Part 1: iOS, there are several important metrics to consider when measuring the performance of a game's category. As multiple subcategories may be relevant to the functionalities of a single game, factors like **conversion rate benchmarks** and **revenue estimates** can help game publishers decide the best category (or categories) for their product. Furthermore, it is important to know how **seasonality** (trends in the stores that occur at specific, regular intervals) can impact a category's performance throughout a year, month, or week.

We also provide supplementary data related to Android games, including: the **average number of apps owned and used** per category, and each subcategory's share of **monthly active users** (MAU) within the Games (All) category. Such valuable insights provide us with an enhanced understanding of the Japanese game industry and allow us to further position each subcategory in the entire market.

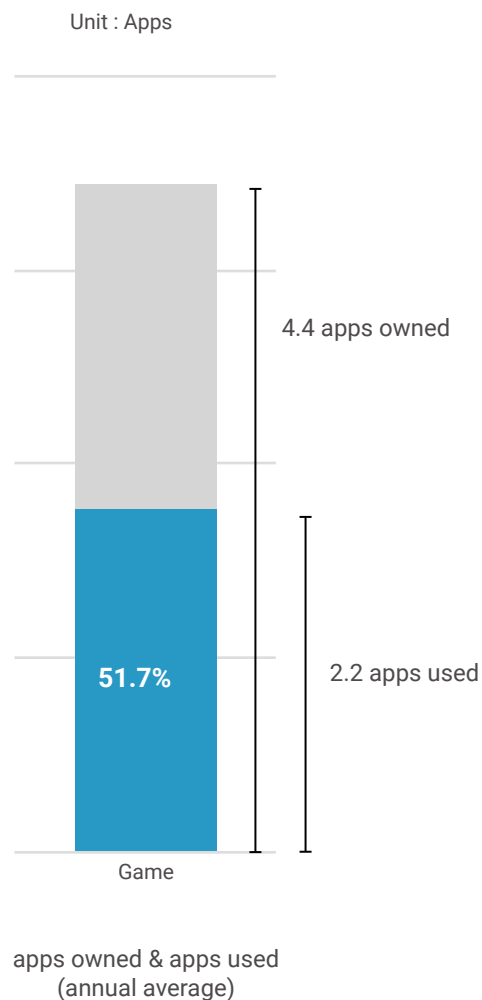
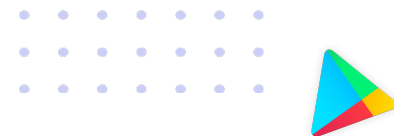
3.1 Average Number of Apps Owned & Used



The average number of apps owned and used across categories on the Google Play Store allows us to position the Games (All) category in the entire market. As in 2019, the **Tools category took first place** as the category with the highest average number of apps owned and used in 2020.

However, we saw that the **Social category had the highest ratio of apps used to apps owned**, with the usage rate exceeding 70%. Categories that saw increases from their 2019 usage rate were the Tools, Communication, Productivity, Video Players & Editors, and Shopping categories.

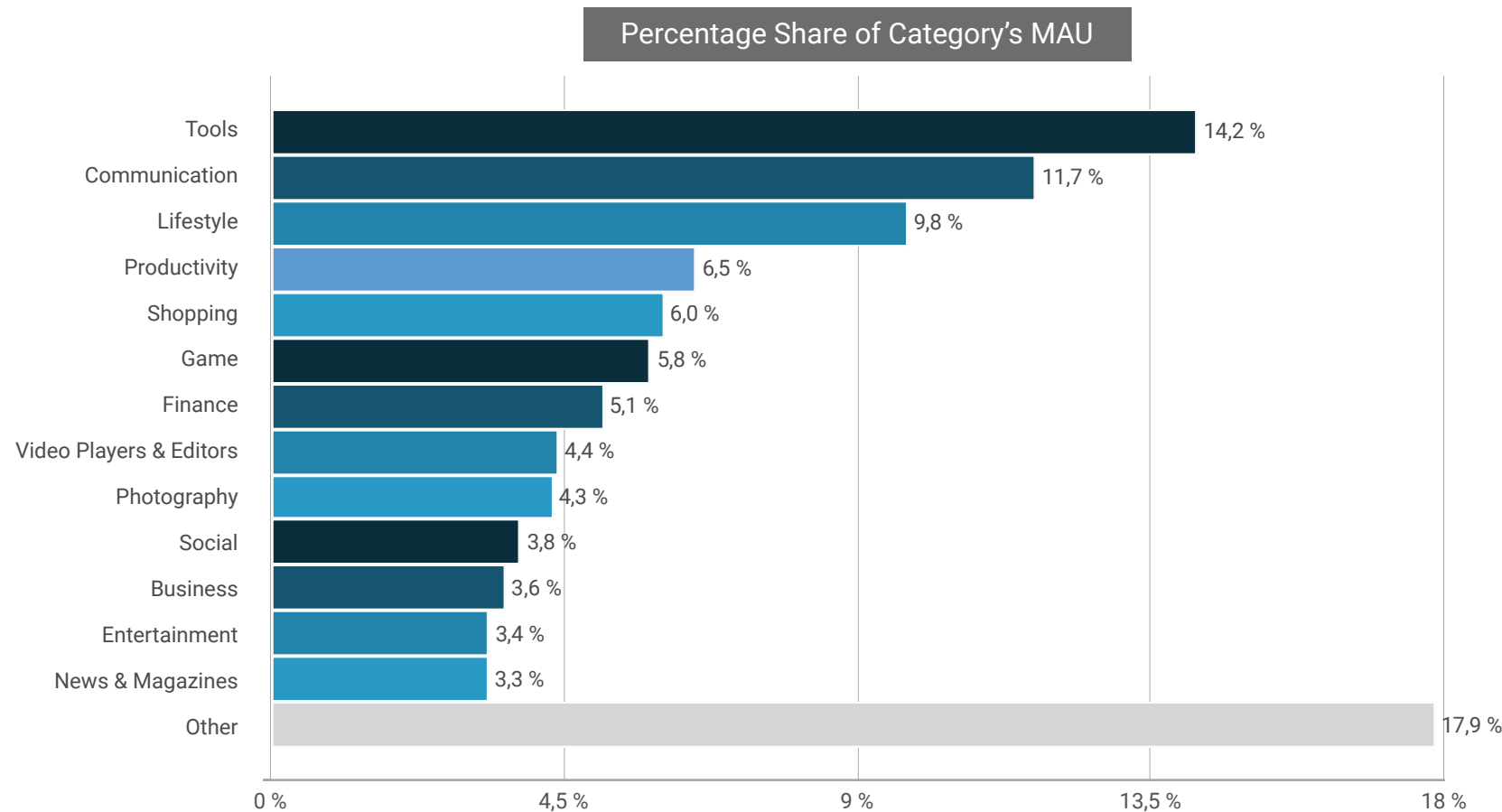
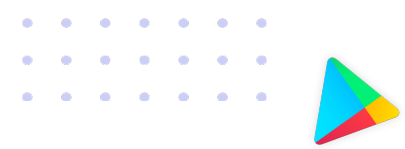
3.1 Average Number of Apps Owned & Used



The proportion of games used to games owned in the Games (All) category was quite even, with a **usage rate just over 50%**.

We observed that the number of apps owned and used in this category maintained similar levels as in 2019; as a result, we can assume that the pandemic did not greatly impact the category's performance.

3.2 Monthly Active Users Per Category



We can also measure the performance of the Games (All) category by calculating its percentage share of monthly active users (MAU) across Android categories.

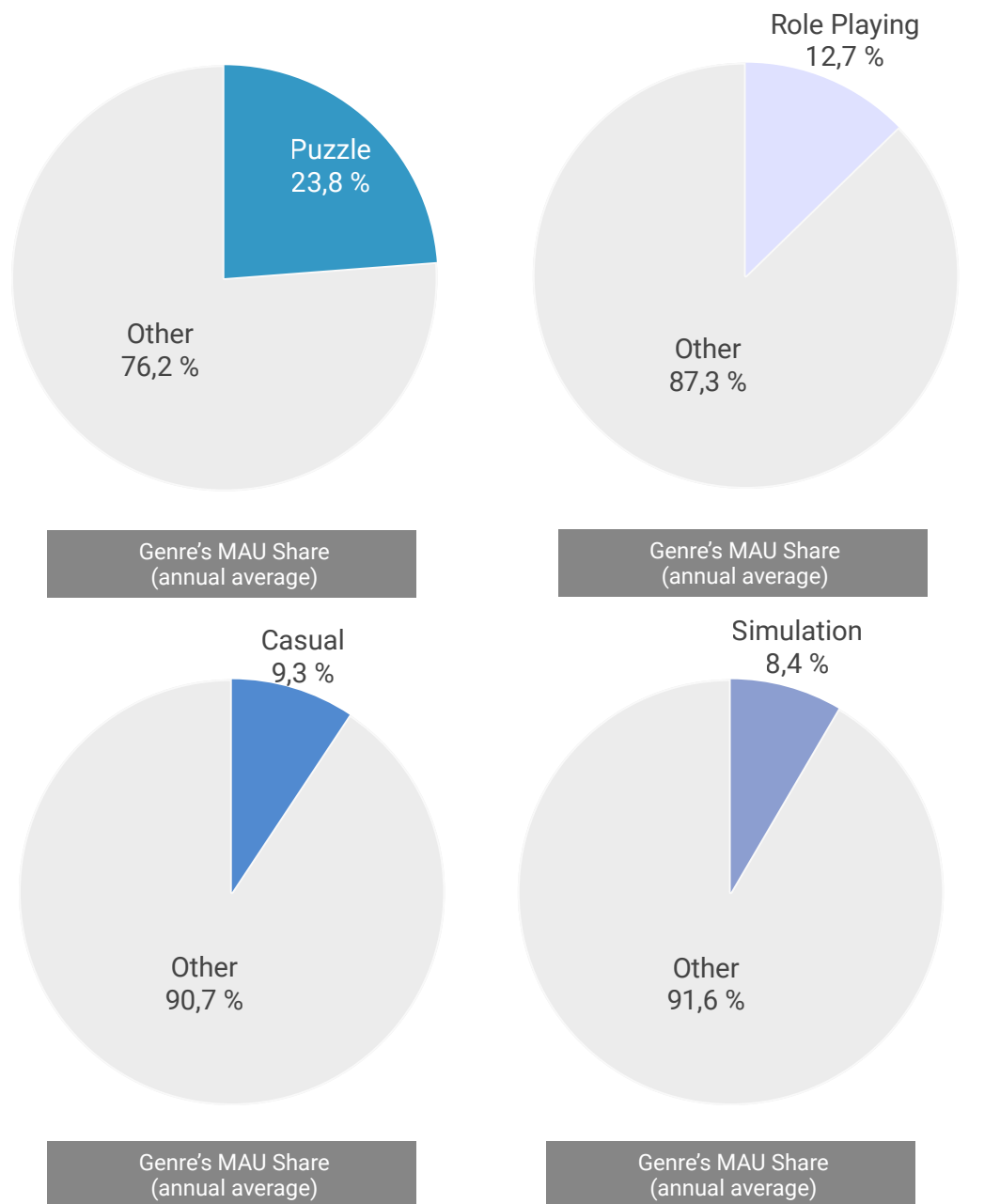
In general, 2020 was a year of **significant growth in the Shopping and Finance categories**; we can assume that external factors caused by the COVID-19 pandemic affected these specific consumer behaviors on mobile stores. As such, we also saw that the **Photography and Travel & Local categories experienced substantial decreases in MAU share**.

In 2020, the **Games (All) category held 5.8% of monthly active users** on the Google Play Store. This MAU percentage share remained stable from 2019 to 2020, suggesting that the pandemic did not greatly impact the category's performance.

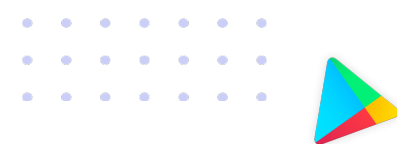
3.2 Monthly Active Users Per Category

Calculating the MAU share of each game subcategory helps us understand the performance of individual genres on the Google Play Store. These 5 subcategories represent those that held the highest proportions of monthly active users across all Android game categories.

As such, we see that **Puzzle, Role Playing, Action, Casual, and Simulation** games were played the most actively by users. The Puzzle category demonstrated a particular dominance in the Games category, with almost one quarter of all monthly active users playing Puzzle games.



3.3 Conversion Rate Benchmarks Per Category



A game's **conversion rate (installs/listing visitors)** is the percentage of users that download the game after viewing its page. This metric is predominantly used to help members of the ASO community understand how well an app or game's page convinces users to download the product.

In Part 1, we also provided the click-through rate and install rate; however, these metrics are less relevant to the Play Store as **users cannot download apps directly from search or Browse results**.

As on iOS, the **Racing category on Android had the highest conversion rate**, convincing over 12% of listing visitors to install its games. Other categories that converted users well were Casual and Simulation games. On the other hand, the **Strategy category had the lowest conversion rate (3.4%)**, followed by the Role Playing and Action categories.

Android, Japan (2020)

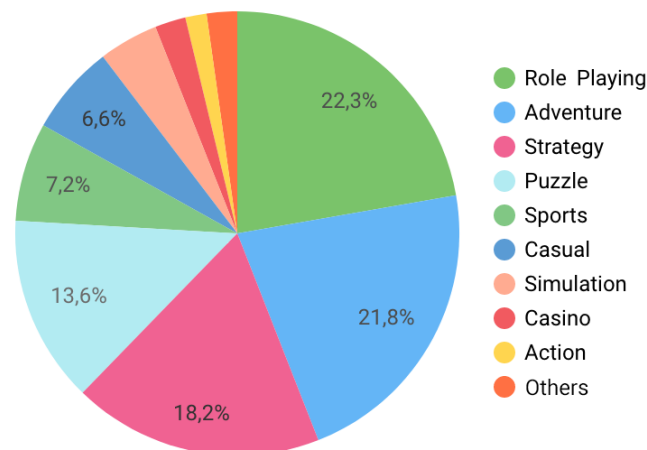
Category	Listing visitors to installs
Racing	12.1%
Casual	11.8%
Simulation	9.8%
Arcade	7.7%
Sports	7.7%
Puzzle	6.9%
Adventure	5.9%
Action	5.8%
Role Playing	4.8%
Strategy	3.4%
Average	7.6%

Note: Conversion rate benchmarks are based on AppTweak's integration data. If over 75% of the data used to calculate these publishers belongs to one publisher (= only one integration), that data is not shown to respect client confidentiality.

3.4 Revenue Estimates Per Category

Revenue Estimates for Free Apps on Android (2020)

	Category Name	Total Yearly Revenue (Estimate)
1.	Role Playing	182 884
2.	Adventure	179 140
3.	Strategy	149 680
4.	Puzzle	112 068
5.	Sports	59 062
6.	Casual	53 983
7.	Simulation	35 602
8.	Casino	18 453
9.	Action	12 741
10.	Racing	9 006
11.	Music	7 328
12.	Board	859
13.	Educational	654
14.	Card	323
15.	Arcade	54



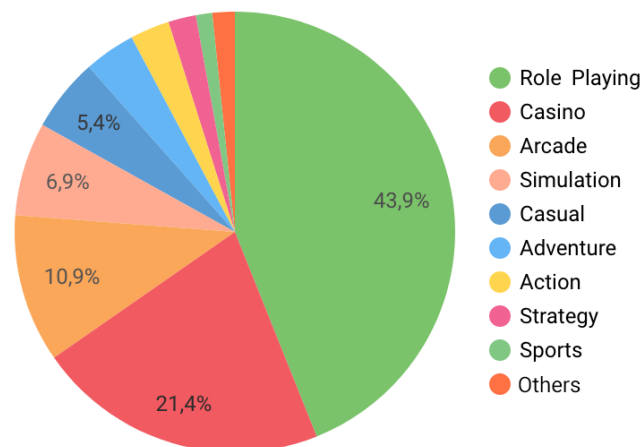
When discussing the estimated revenue driven by different categories, we must make the distinction between free and paid games: While free games generate revenue through indirect manners such as in-app purchases or subscriptions, paid games require users to purchase the game itself before being able to install it.

Looking at free games on the Japanese Play Store, games in the **Role Playing, Adventure, and Strategy categories drove the highest revenue** in 2020 - these were also the top 3 revenue drivers on the App Store. Contrastingly, games in the **Arcade and Card categories drove the least revenue**.

3.4 Revenue Estimates Per Category

Revenue Estimates for Paid Apps on Android (2020)

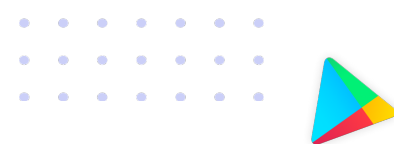
	Category Name	Total Yearly Revenue (Estimate)
1.	Role Playing	12 528
2.	Casino	6 096
3.	Arcade	3 106
4.	Simulation	1 955
5.	Casual	1 538
6.	Adventure	1 071
7.	Action	825
8.	Strategy	580
9.	Sports	342
10.	Puzzle	167
11.	Card	155
12.	Racing	81
13.	Board	56
14.	Educational	9
15.	Music	2



The **Role Playing** category was also the top revenue driver for **paid games**, generating almost half of all paid revenues; games in the **Casino** category also performed well here. Interestingly, paid games in the **Arcade** category performed a lot better than their free counterparts.

However, paid games in the **Music** and **Educational** categories **drove the least revenues** on the Japanese Play Store in 2020. In general, paid games again consistently drove less revenue to their categories than free games.

3.5 Seasonality



Games (All)

Key Metrics

GROWTH PER YEAR ▲15.7%

TOP MONTH August ▲21.5%

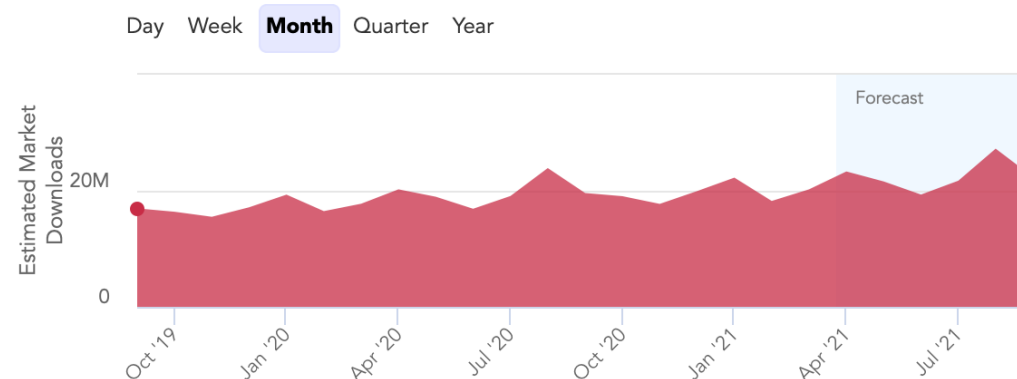
WORST MONTH November ▼9.9%

TOP DAY Friday ▲6.1%

WORST DAY Monday ▼4.4%

 apptweak

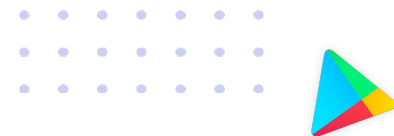
Market Trend



AppTweak's App Market Seasonality feature uses millions of data points on app downloads to identify seasonality trends across categories and countries. In particular, the data shows whether a category generates more downloads during weekdays or weekends, and which month of the year generates the most installs.

Looking at the Games (All) category on the Play Store, we estimate that the market is growing year by year. **Downloads typically reach a peak in August**, with the least downloads generally driven in November. On a daily basis, **Fridays are the best days** for the Games category and Mondays are the worst, as similarly observed on iOS.

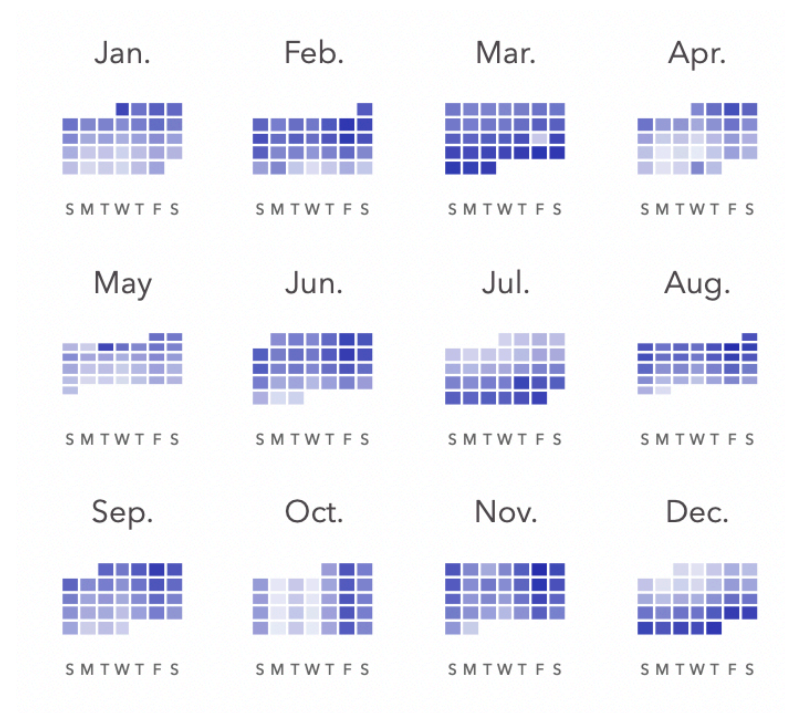
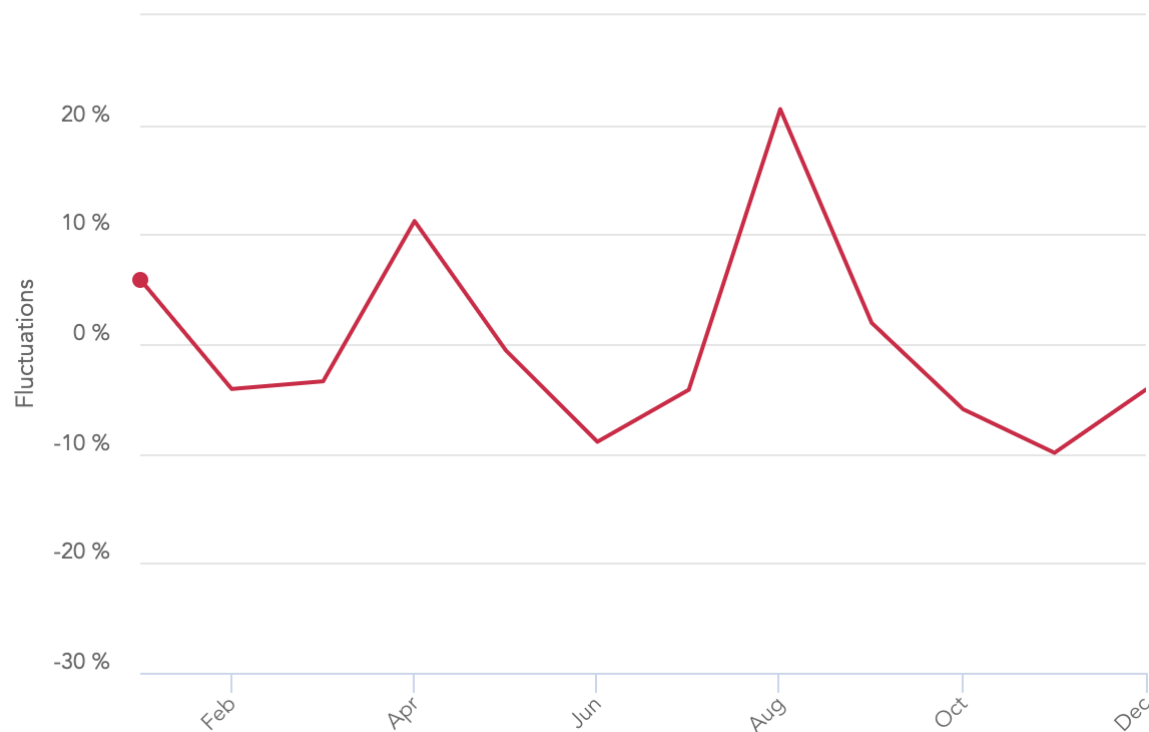
3.5 Seasonality



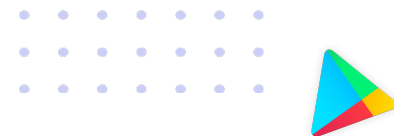
Games (All)



Yearly trend



3.5 Seasonality



Puzzle

Key Metrics

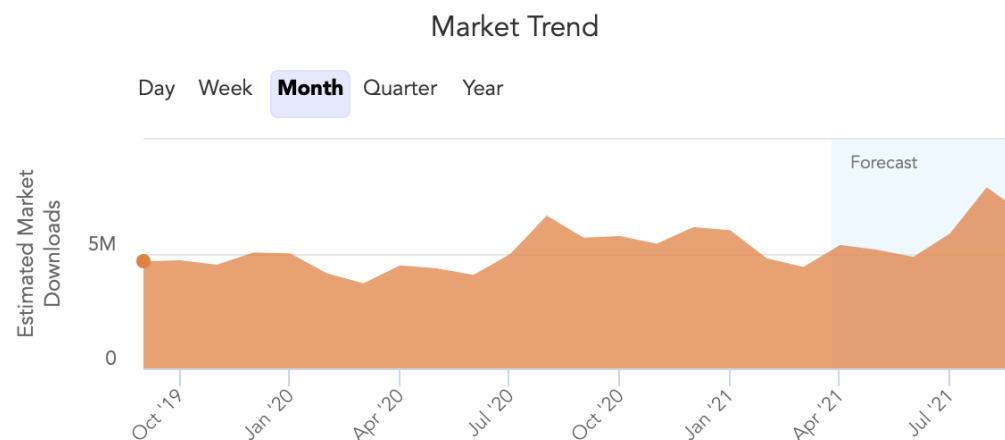
GROWTH PER YEAR ▲6.4%

TOP MONTH August ▲28.1%

WORST MONTH March ▼22.4%

TOP DAY Friday ▲2.0%

WORST DAY Sunday ▼2.6%



Next, we estimate that the Puzzle category is experiencing a slight yearly growth in the market. As for the Games (All), Action, Casual, and Simulation categories, the **Puzzle genre's best month for downloads is August**. However, its worst month is March. The category drives the **most installs at the end of the week on Fridays**, with the least installs driven on Sundays.

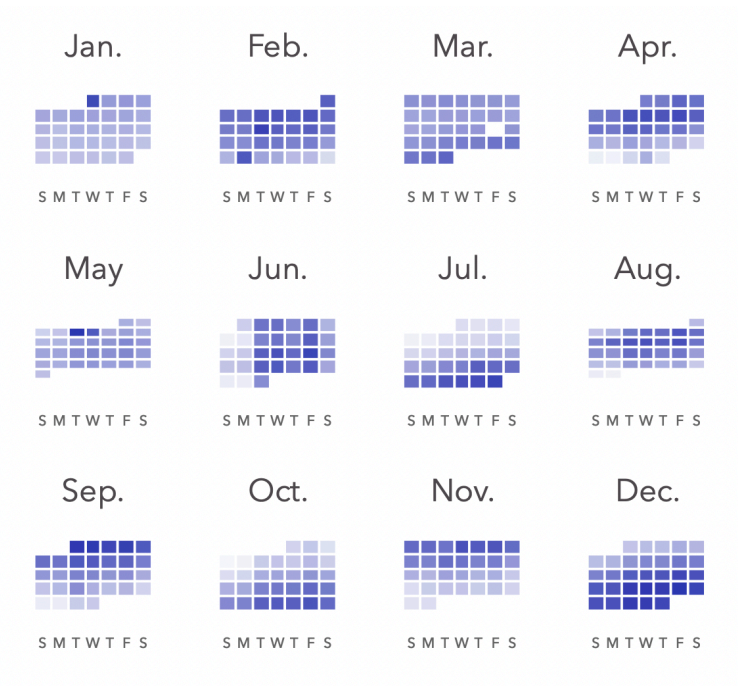
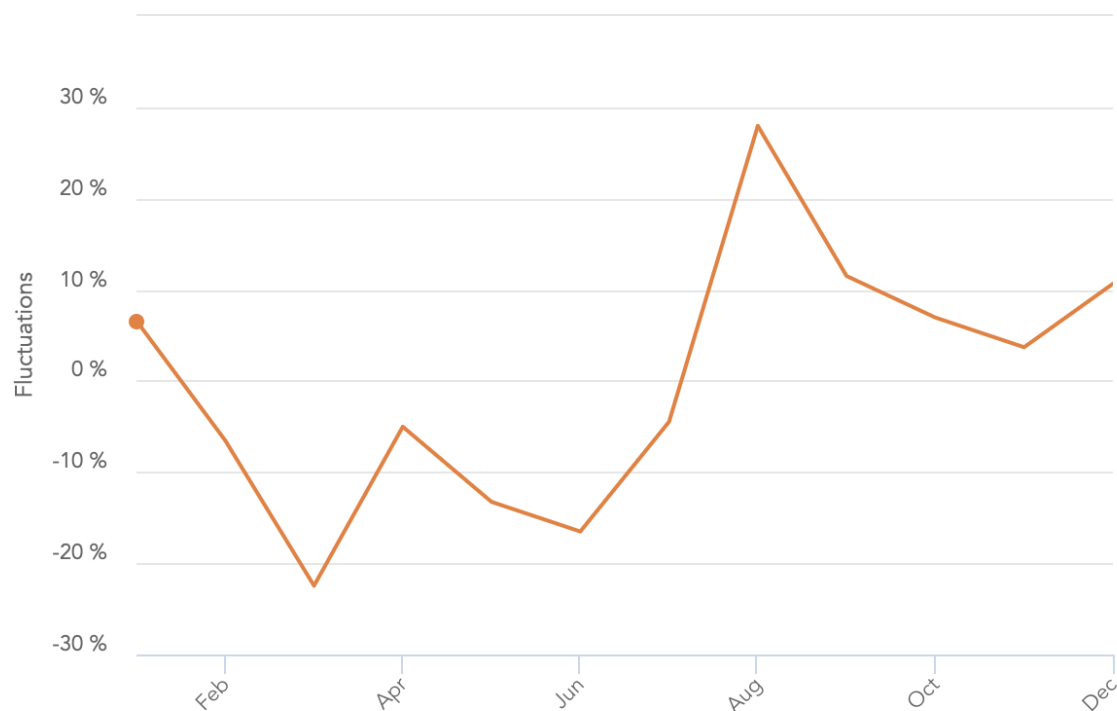
3.5 Seasonality



Puzzle

apptweak

Yearly trend



3.5 Seasonality

Role Playing

Key Metrics

GROWTH PER YEAR ▲37.2%

TOP MONTH January ▲21.1%

WORST MONTH December ▼19.3%

TOP DAY Friday ▲5.3%

WORST DAY Monday ▼5.9%



According to our estimates, the **Role Playing category is experiencing the most year-on-year growth** out of the 6 subcategories presented here. With its top month being at the very beginning of the year (**January**), its worst month is towards the end of the year (December). As for most of the other genres presented, **Role Playing games drive the most downloads on Fridays** and the least on Mondays.

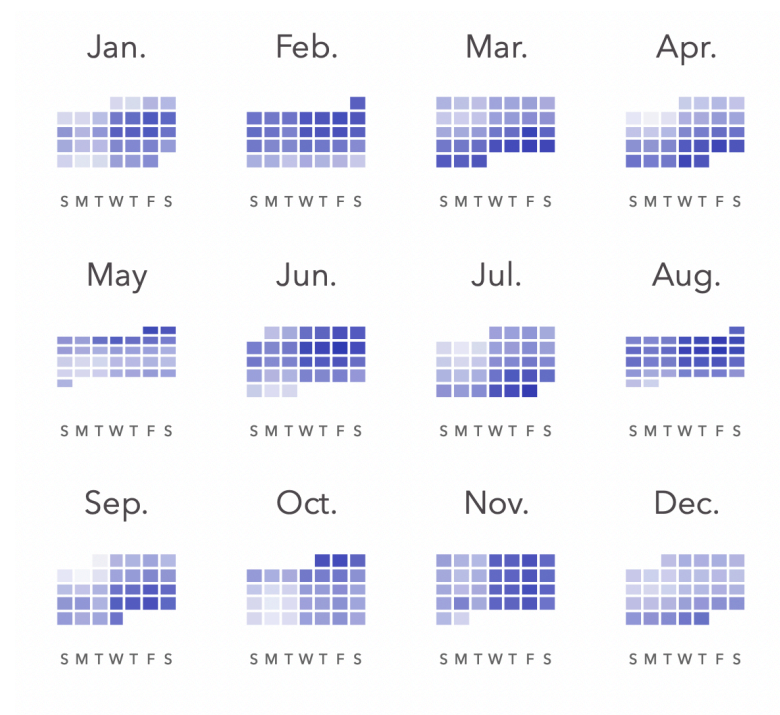
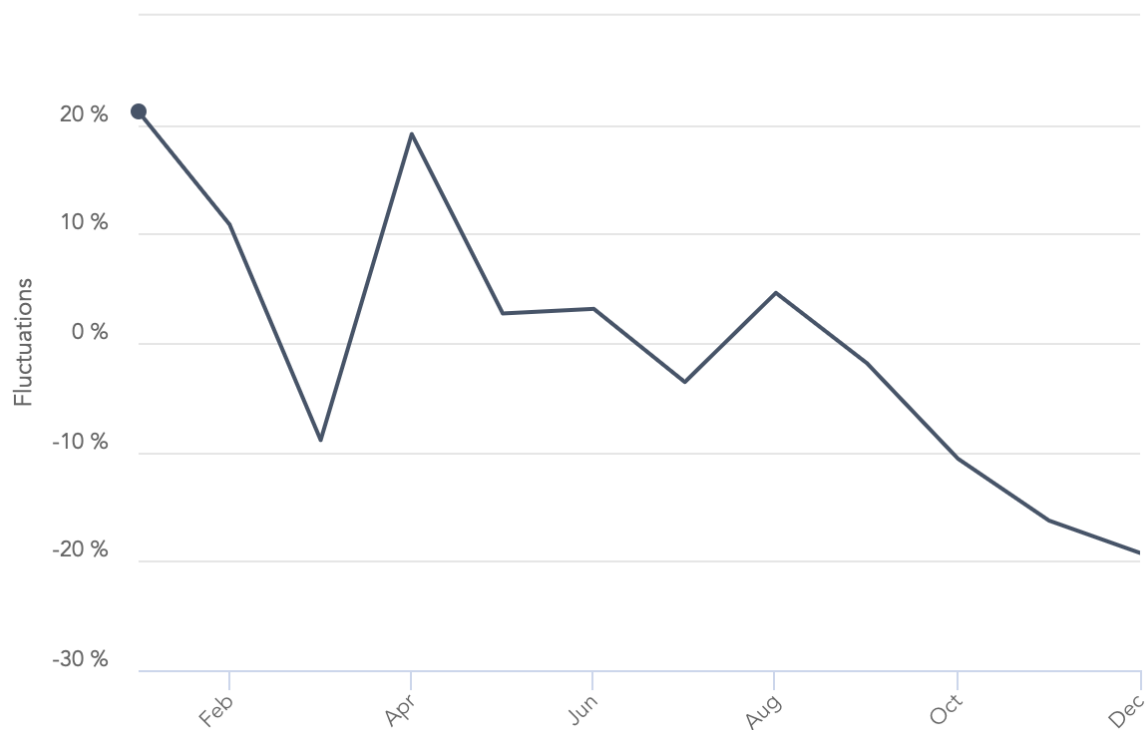
3.5 Seasonality



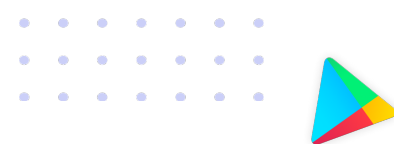
Role Playing



Yearly trend



3.5 Seasonality



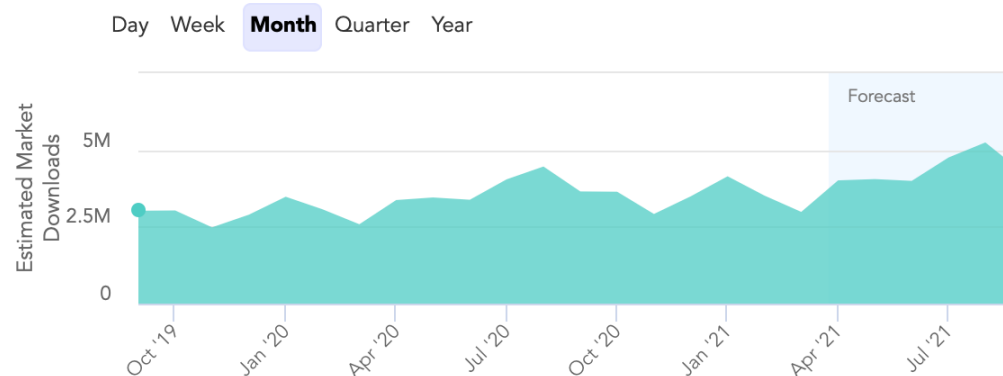
Action

Key Metrics

GROWTH PER YEAR	▲21.2%
TOP MONTH	August ▲25.3%
WORST MONTH	March ▼26.8%
TOP DAY	Friday ▲3.9%
WORST DAY	Monday ▼4.2%

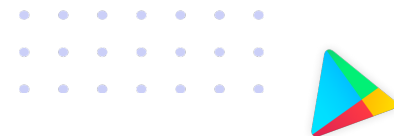
apptweak

Market Trend



As another growing category in the market, **downloads in the Action genre are typically highest in August** and lowest in March (as also seen in the Puzzle category). Action games continue the frequent pattern of **Fridays being the best days** for installs, and the start of the week, Mondays, being the worst days.

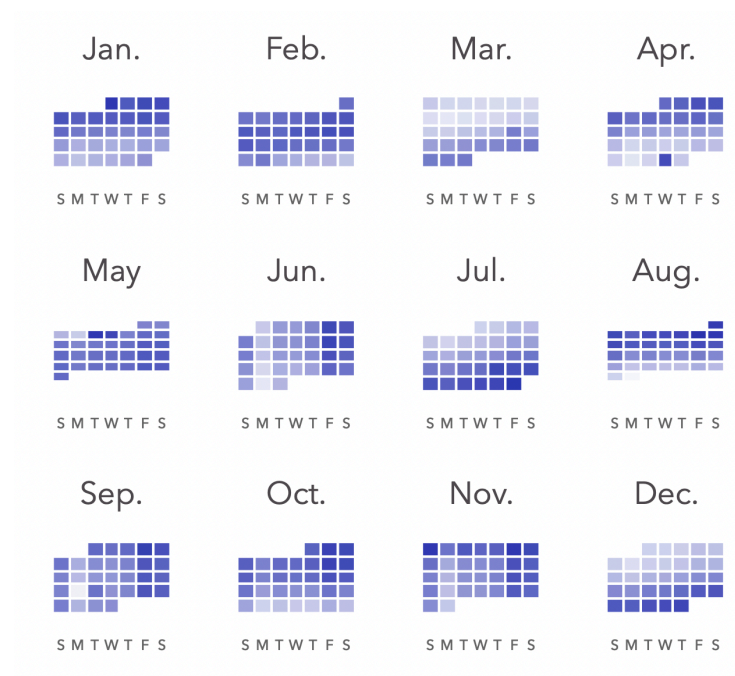
3.5 Seasonality



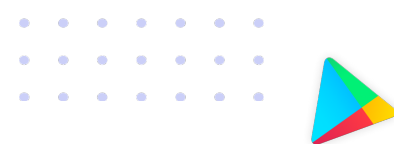
Action



Yearly trend



3.5 Seasonality



Casual

Key Metrics

GROWTH PER YEAR ▲28.5%

TOP MONTH August ▲25.8%

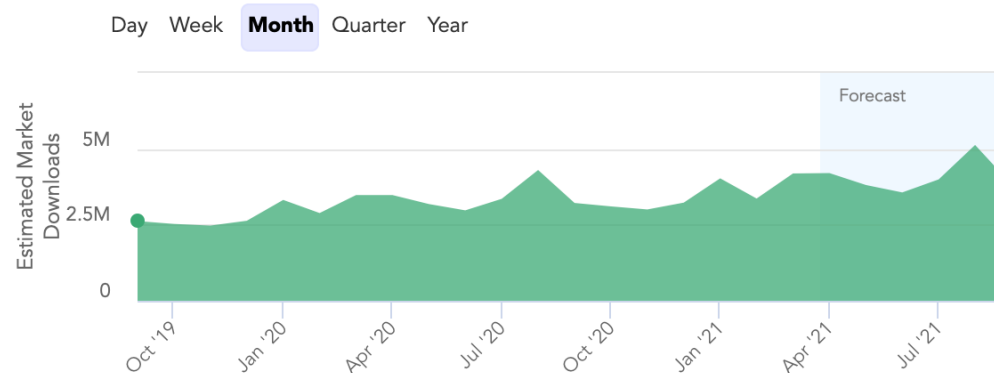
WORST MONTH November ▼13.7%

TOP DAY Saturday ▲3.3%

WORST DAY Thursday ▼1.9%

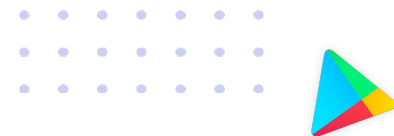


Market Trend



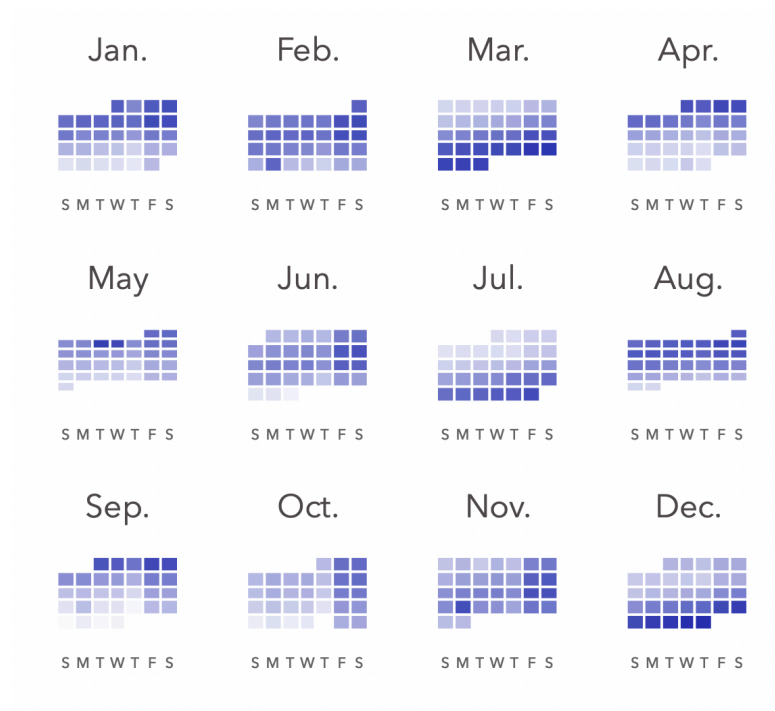
Looking at the Casual category, we again see interesting year-on-year growth. While the genre drives the **most downloads in August**, installs typically decline the most in November. Unlike the other subcategories presented here, **Casual games perform the best on Saturdays** and the worst on Thursdays.

3.5 Seasonality

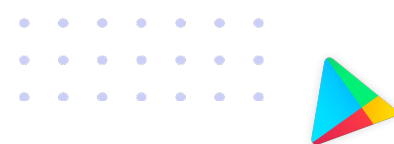


Casual

Yearly trend



3.5 Seasonality



Simulation

Key Metrics

GROWTH PER YEAR ▲32.5%

TOP MONTH August ▲16.7%

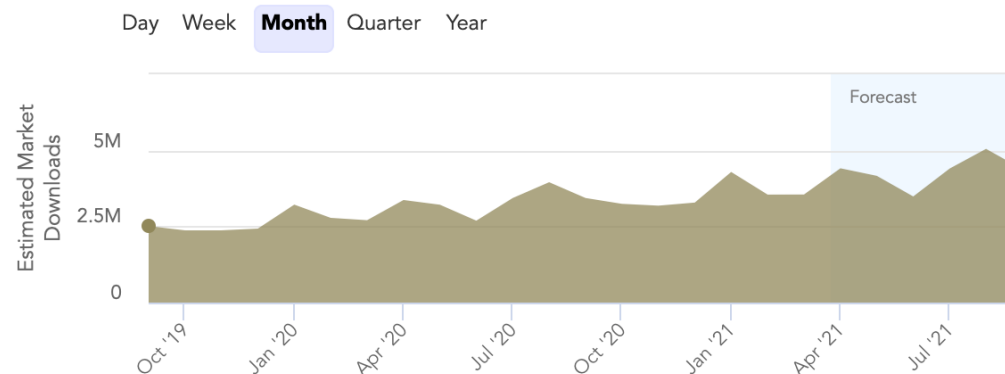
WORST MONTH June ▼13.3%

TOP DAY Friday ▲4.8%

WORST DAY Monday ▼3.0%

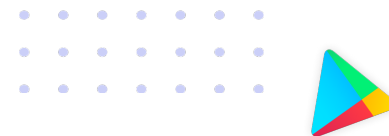


Market Trend



Finally, we estimate that the Simulation category is experiencing high yearly growth. Deviating from the pattern, **both its best and worst month for downloads are in the summer**, with the most installs being driven in August and the least installs driven in June. The category is more aligned with the others presented on a weekly basis, having its **best days on Fridays** and its worst days typically on Mondays.

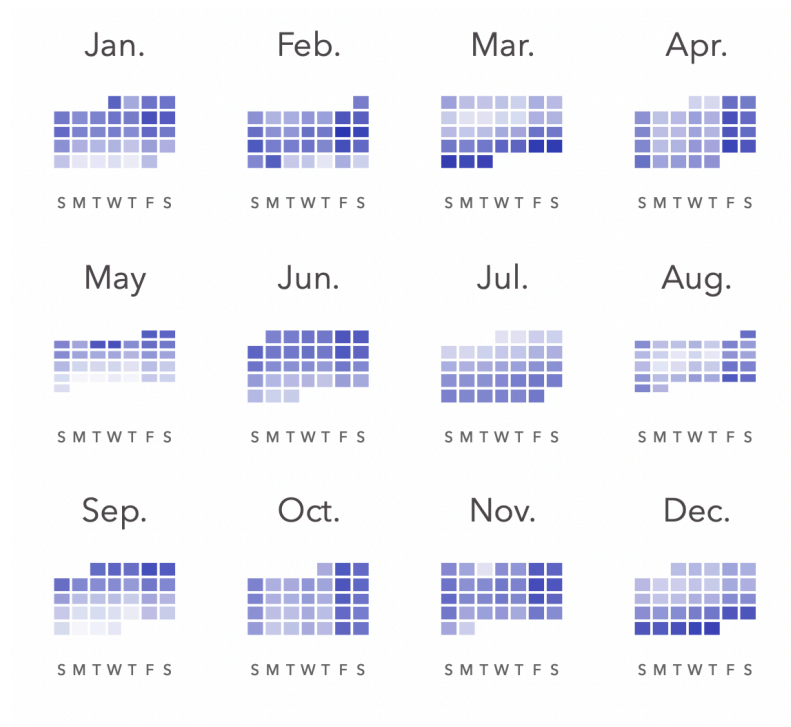
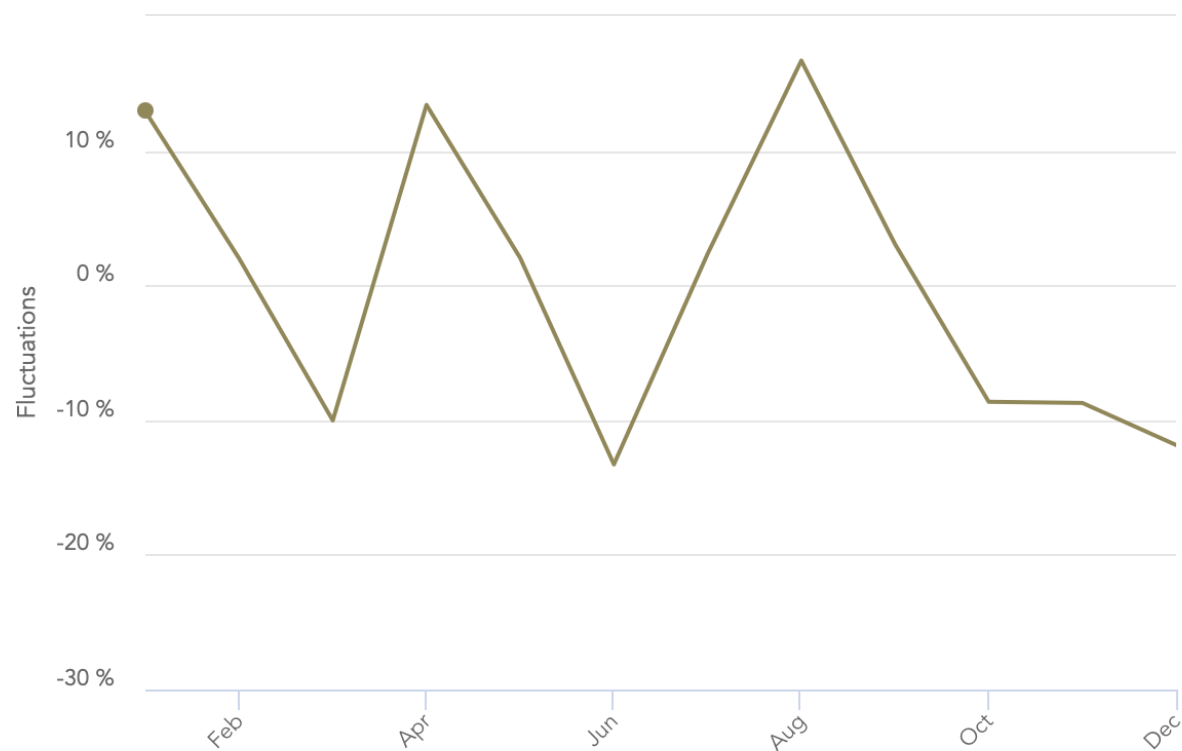
3.5 Seasonality



Simulation



Yearly trend





Introduction

Competition is a pivotal element of any game publisher's App Store Optimization strategy on the Google Play Store, as on the App Store.

In particular, the **top 10 games of each subcategory** that hold the highest MAU indicate the dominant games and levels of competition in each genre.

Category volatility represents the amount of movement that takes place within a category's top 100 apps. **High volatility suggests a lot of competition**, while more stable categories are characterized by a lower amount of competition.

Finally, it is important to understand the **game publishers that dominate the Play Store** to better understand the industry leaders at the forefront of Japan's game market.

4.1 Top 10 Monthly Active Users Per Category

Games (All)

Rank	App	MAU Share
1	LINE: ディズニー ツムツム (LINE: Disney Tsum Tsum)	3.57%
2	Pokémon GO	2.59%
3	モンスターストライク (Monster Strike)	2.15%
4	パズル&ドラゴンズ (Puzzle & Dragons)	1.43%
5	どうぶつの森 ポケットキャンプ (Animal Crossing: Pocket Camp)	1.24%
6	LINE ポコポコ - うさぎのポコタとクローバーやチェ	1.17%
7	ドラゴンクエストウォーク (Dragon Quest Walk)	1.14%
8	トゥーンブラスト (Toon Blast)	1.01%
9	Fate/Grand Order	0.96%
10	にゃんこ大戦争 (The Battle Cats)	0.94%
Sum Total		16.21%

Top 10 Apps by MAU
(annual average)

This data shows the top 10 games that held the highest share of monthly active users within each category in 2020. Looking at the Games (All) category, the top 10 apps held a total of 16.2% MAU. This total is lower than for the 5 other dominant game genres presented here, suggesting that the **Games (All) category is composed of many different games competing with each other**. We also observed that there have not been significant changes in the top 10 games in Japan over the years.

Puzzle











Rank	App	MAU Share
1	LINE: ディズニー ツムツム (LINE: Disney Tsum Tsum)	15.00%
2	パズル&ドラゴンズ (Puzzle & Dragons)	6.03%
3	LINE ポコポコ - うさぎのポコタとクローバーやチェリーを集める! ダンジョンでも遊べる無料パズル (LINE PokoPoko)	4.92%
4	トゥーンブラスト (Toon Blast)	4.25%
5	妖怪ウォッチ ぷにぷに (Yo-kai Watch: Wibble Wobble)	3.09%
6	ジグソーパズルで懸賞が当たる-ジグソーde懸賞 (Jigsaw de Sweepstakes)	2.12%
7	LINE バブル2-ブラウン&コニーのシューティングパズル (LINE Bubble 2)	1.87%
8	ナンプレde懸賞 - 完全無料で懸賞応募 ナンプレパズル4000問以上 脳トレや暇つぶしに (Nanpure de Sweepstakes)	1.79%
9	ディズニー ポップタウン (Disney POP TOWN)	1.32%
10	ディズニー ツムツムランド (Disney Tsum Tsum Land)	1.27%
Sum Total		41.66%

Top 10 Apps by MAU
(annual average)

The top 10 Puzzle games in 2020 were almost the same as in the previous year. Disney POP TOWN, released in 2020, was a new addition to the top 10 chart and demonstrates the brand's rapid impact in the category. The LINE: Disney Tsum Tsum game held the highest MAU share within the genre, and the **top 10 games collectively held almost half of all monthly active users for the Puzzle category**.

4.1 Top 10 Monthly Active Users Per Category











Role Playing

Rank	App	MAU Share
1	 ドラゴンクエストウォーク (Dragon Quest Walk)	8.99%
2	 Fate/Grand Order	7.57%
3	 白猫プロジェクト (White Cat Project)	2.84%
4	 グランブルーファンタジー (Granblue Fantasy)	2.53%
5	 プリンセスコネクト! Re:Dive (Princess Connect!)	2.48%
6	 放置少女 ~百花繚乱の萌姫たち (Hōchi Shōjo: Hyakka Ryōran no Moehime-tachi)	2.13%
7	 クイズRPG 魔法使いと黒猫のウィズ (Quiz RPG: The World of Mystic Wiz)	1.83%
8	 ロマンシング サガ リ・ユニバース (Romancing SaGa Re: Universe)	1.66%
9	 Pokémon Masters EX	1.64%
10	 星のドラゴンクエスト (Star Dragon Quest)	1.60%
Sum Total		33.27%

Top 10 Apps by MAU
(annual average)

The Fate/Grand Order game had been the number one game in the Role Playing category for many years; however, in 2020, it dropped to second place. Despite 'stay home' orders during the COVID-19 pandemic, the Dragon Quest Walk game secured the highest MAU share in 2020. Collectively, the **top 10 games represented one third of all monthly active users in the Role Playing category.**

Action











Rank	App	MAU Share
1	 モンスターストライク (Monster Strike)	21.90%
2	 マリオカート ツアー (Mario Kart Tour)	6.81%
3	 ドラゴンボールZ ドッカンバトル (Dragon Ball Z Dokkan Battle)	3.97%
4	 Call of Duty®: Mobile	3.79%
5	 Identity V	3.49%
6	 ブロスタ (Brawl Stars)	3.36%
7	 PUBG MOBILE	2.72%
8	 アーチャー伝説 (Archerō)	2.12%
9	 アズールレーン (Azur Lane)	2.06%
10	 常駐型マルチ掲示板 for モンスト (Multi-matching for Monsuto)	1.97%
Sum Total		52.17%

Top 10 Apps by MAU
(annual average)

The top 10 Action games in 2020 were almost the same as in the 2019. Monster Strike was an extremely popular game, representing over one fifth of the genre's monthly active users. In total, the **top 10 games held over one half of the genre's MAU**, suggesting that the Action category is made up of a few particularly dominant games.

4.1 Top 10 Monthly Active Users Per Category











Casual

Rank	App	MAU Share
1	 にゃんこ大戦争 (The Battle Cats)	10.13%
2	 ホームス케이プ (Homescapes)	10.09%
3	 ガーデンス케이プ (Gardenscapes)	9.38%
4	 LINE POP2-ブラウン&コニーと爽快! ポップでかわいい大人気パズルゲーム	5.17%
5	 タウンシップ (Township)	2.99%
6	 キャンディークラッシュソーダ (Candy Crush Soda Saga)	2.48%
7	 キャンディークラッシュ (Candy Crush Saga)	2.39%
8	 ねこあつめ (Neko Atsume)	1.88%
9	 DNB-15分IQアップ脳トレゲーム (DNB-15 minutes IQ up - brain training game)	1.33%
10	 Roller Splat!	1.24%
カテゴリ別MAU合計に占めるTOP10アプリの比率		47.11%

Top 10 Apps by MAU
(annual average)

In the Casual category, the top 10 apps in 2020 were exactly the same as in 2019, with the exception of 'DNB-15 minutes IQ up brain training game' and Roller Splat!, which were both released in 2020. Battle Cats, Homescapes, and Gardenscapes all competed for the highest share of monthly active users, with the **3 games collectively representing one third of the genre's MAU share.**

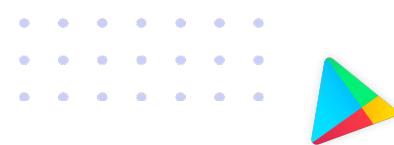
Simulation

Rank	App	MAU Share
1	 どうぶつの森 ポケットキャンプ (Animal Crossing: Pocket Camp)	14.64%
2	 刀剣乱舞-ONLINE- Pocket (Touken Ranbu -ONLINE- Pocket)	4.55%
3	 ペンギンの島 (Penguin Isle)	2.30%
4	 あんさんぶるスターズ!! Basic (Ensemble Stars!! Basic)	2.21%
5	 ファイアーエムブレム ヒーローズ (Fire Emblem Heroes)	1.92%
6	 旅かえる (Travel Frog)	1.62%
7	 A3!	1.49%
8	 FFBE幻影戦争 WAR OF THE VISIONS	1.43%
9	 夢王国と眠れる100人の王子様 (100 Sleeping Princes & the Kingdom of Dreams)	1.36%
10	 LINE ブラウンファーム (LINE BROWN FARM)	1.26%
Sum Total		32.78%

Top 10 Apps by MAU
(annual average)

Finally, the **Animal Crossing: Pocket Camp game dominated the Simulation category** in 2020, holding almost 15% of the genre's MAU share. The remaining games in the top 10 were less dominant, indicating the many different games that compete within the category.

4.2 Category Volatility



In general, **games present in the most competitive categories remain in the top 100 for a shorter period**. On Android, games in the Games (All), Adventure, and Simulation categories ranked in the top 100 for less than 70 days on average; these categories were similarly competitive on iOS.

On the other hand, more Android categories saw games ranked in the top 100 for over 100 days on average, with games in the Music, Board, and Educational categories ranking for over 125 days. As on the App Store, the data suggests that the **Games (All) category is the most competitive genre** and the **Music category is the least competitive**.

Top 100 in 2019 vs 2020

44%

On both the App Store and Google Play Store, 44% of all apps that ranked in the top 100 in 2020 were already ranking in the top 100 in 2019.*

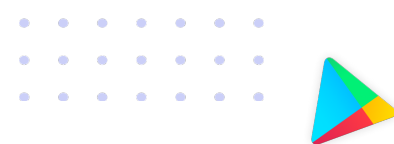
Average Number of Days in Top 100

Category	Days
Music	142
Board	133
Educational	128
Card	119
Racing	119
Sports	117
Word	112
Casino	103
Trivia	100
Arcade	95
Strategy	87
Action	79
Puzzle	78
Casual	78
Role Playing	72
Simulation	65
Adventure	61
Games (All)	37

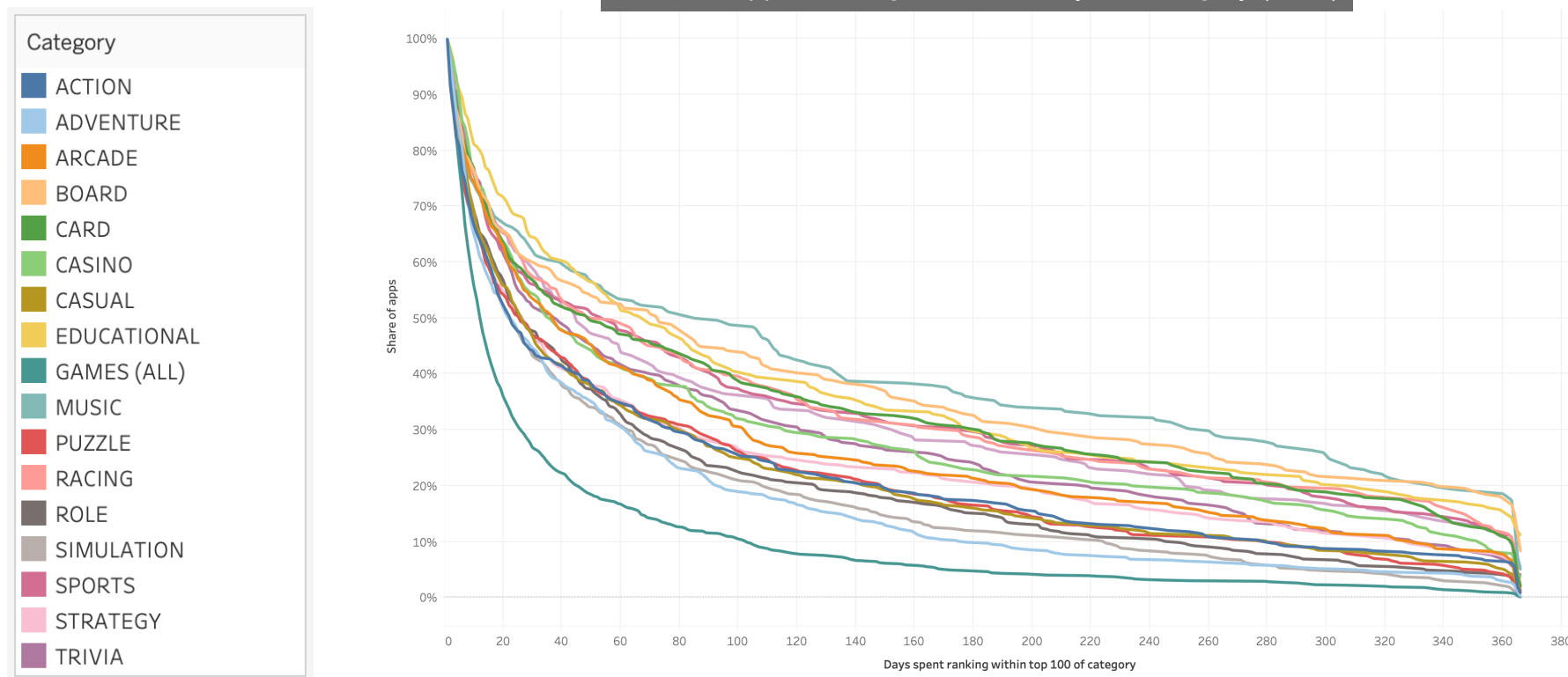
Note: Among all apps that ranked in the top 100 for at least one day in 2020.

*Out of 19,030 Android apps.

4.2 Category Volatility



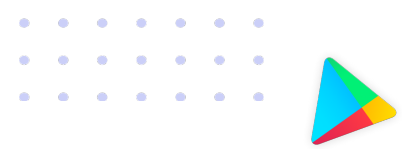
Share of Apps Ranking at Least X Days in Category (2020)



This chart shows the number of apps that ranked for a certain amount of days in each category's top 100 in 2020. To compute this, we considered all apps that ranked for at least one day in each category in 2020 and calculated how long each remained in the top charts. For example, 100% of apps ranked in the top 100 for at least one day, but **less than 50% ranked in the top 100 for 80 days or more**. For both iOS and Android, the share of games ranking in the top 100 for the Games (All) category over a given period decreases much more rapidly than for other categories.

With the exception of the Games (All) category, a **minimum of 65% of games ranked for at least 10 days in the top 100**. In the Simulation or Adventure categories, this figure dropped to 51% after 20 days and 38% after 40 days. From this graph, we can also clearly visualize the **highly volatile Games (All) category**, and the **more stable Music category**.

4.3 Top Game Publishers



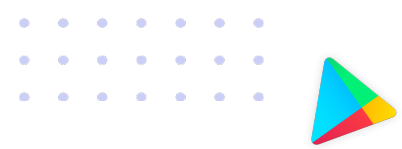
Games (All)

	Publisher	Total Yearly Downloads (Estimate)
1.	VOODOO	11 100 611
2.	Playrix	6 239 732
3.	LINE Corporation	4 424 031
4.	Lion StudAndroid	3 585 400
5.	Nintendo Co., Ltd.	3 458 546
6.	BANDAI NAMCO Entertainment Inc.	3 006 126
7.	SayGames	2 761 423
8.	MASK LLC.	2 760 582
9.	Peak	2 722 314
10.	AMANOTES PTE LTD	2 352 841
11.	SQUARE ENIX Co.,Ltd.	2 010 274
12.	NetEase Games	1 819 637
13.	Unico Studio	1 776 746
14.	Good Job Games	1 719 929
15.	KONAMI	1 718 333
16.	Crazy Labs by TabTale	1 658 984
17.	Cross Field Inc.	1 612 809
18.	Supersonic StudAndroid LTD	1 535 808
19.	KAYAC Inc.	1 504 897

Puzzle

	Publisher	Total Yearly Downloads (Estimate)
1.	LINE Corporation	3 769 620
2.	Peak	2 722 314
3.	Easybrain	1 987 372
4.	Lion StudAndroid	1 860 762
5.	Popcore Games	1 623 224
6.	Focus apps	1 447 853
7.	Playrix	1 405 155
8.	KAYAC Inc.	1 395 161
9.	SayGames	1 245 087
10.	Ohte, Inc.	1 220 382
11.	Beetles Games Studio	1 153 597
12.	Zynga	1 135 794
13.	DoPuz Games	972 999
14.	GungHoOnlineEntertainment	844 178
15.	SUPERBOX.INC	814 104
16.	BitMango	807 698
17.	EzOs	782 731
18.	Fast Fun	669 147
19.	F.I.L Games	649 407

4.3 Top Game Publishers



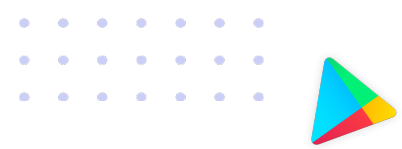
Role Playing

	Publisher	Total Yearly Downloads (Estimate)
1.	SQUARE ENIX Co.,Ltd.	1 921 640
2.	BANDAI NAMCO Entertainment Inc.	1 313 568
3.	YOOZOO Inc.	1 278 819
4.	37Games-Oversea	1 172 590
5.	C4 Connect Inc.	996 167
6.	DeNA Co., Ltd.	748 672
7.	GOOD SMILE COMPANY, Inc	636 164
8.	Aniplex Inc.	571 816
9.	NEXTERS GLOBAL LTD	540 345
10.	SEGA CORPORATION	520 564
11.	Sixjoy Limited	454 477
12.	COLOPL, Inc.	432 588
13.	Sumzap, Inc.	431 418
14.	YOUZU(SINGAPORE)PTE.LTD.	424 882
15.	LilithGames	416 670
16.	Netmarble	382 248
17.	Team Tapas	359 722
18.	Asobimo, Inc.	346 486
19.	NEXON Company	335 644

Action

	Publisher	Total Yearly Downloads (Estimate)
1.	VOODOO	3 823 244
2.	Nintendo Co., Ltd.	1 365 665
3.	BANDAI NAMCO Entertainment Inc.	1 094 020
4.	UUUM, Inc.	973 682
5.	XFLAG, Inc.	966 869
6.	NetEase Games	834 296
7.	SayGames	827 040
8.	Activision Publishing, Inc.	718 492
9.	Geisha Tokyo, Inc.	686 923
10.	株式会社ブシロード	587 546
11.	Fun Games For Free	586 754
12.	Innersloth LLC	560 081
13.	Ohayoo	521 134
14.	OneSoft Global PTE. LTD.	482 231
15.	SAT-BOX	476 769
16.	Playgendary Limited	465 328
17.	Supersonic StudAndroid LTD	461 462
18.	Lion StudAndroid	442 057
19.	CASUAL AZUR GAMES	441 587

4.3 Top Game Publishers



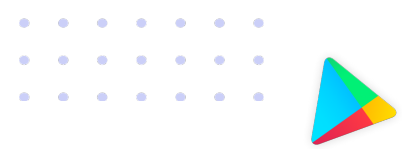
Casual

	Publisher	Total Yearly Downloads (Estimate)
1.	Playrix	4 740 158
2.	VOODOO	1 752 118
3.	G.Gear.inc	1 701 755
4.	Lion StudAndroid	1 050 098
5.	Kwalee Ltd	786 252
6.	PONOS Corporation	734 764
7.	IEC Global Pty Ltd	643 959
8.	Eureka Studio	582 662
9.	JoyPac	542 107
10.	King	519 356
11.	Wuhan Weipai Network Technology Co., Ltd.	466 180
12.	SeyeonSoft	434 438
13.	ZenLife Games	433 489
14.	LinkDesks - Jewel Games Star	398 542
15.	Outfit7 Limited	360 675
16.	hap Inc.	348 090
17.	Gameloft SE	345 530
18.	Ohayoo	330 889
19.	Dual Cat	313 277

Simulation

	Publisher	Total Yearly Downloads (Estimate)
1.	Nintendo Co., Ltd.	1 854 417
2.	MASK LLC.	1 254 445
3.	Crazy Labs by TabTale	1 188 320
4.	VOODOO	673 002
5.	Lion StudAndroid	575 896
6.	SayGames	566 186
7.	Habby	475 713
8.	BEEWORKS GAMES	392 727
9.	VIZOR APPS LTD.	373 520
10.	LINE Corporation	366 429
11.	Voltage, Inc.	357 340
12.	ZPLAY Games	337 426
13.	DH-Publisher	335 852
14.	Codigames	333 903
15.	Fun Games For Free	332 458
16.	FLERO Games	317 588
17.	SQUARE ENIX Co.,Ltd.	315 933
18.	Imagineer Co.,Ltd.	295 741
19.	Kolibri Games	280 463

4.3 Top Game Publishers



Total MAU and Number of Operated Apps by Major Game Publisher *Android only

Rank	Publisher	Number of apps	Total MAU (annual)	App with the highest MAU
1 🏆	LINE Corporation	31	44 102 964	LINE; Disney Tsum Tsum
2 🏆	SQUARE ENIX Co.,Ltd.	75	18 007 332	Dragon Quest Walk
3 🏆	Niantic, Inc.	4	15 788 396	Pokémon GO
4	BANDAI NAMCO Entertainment Inc.	63	14 740 088	Dragon Ball Z Dokkan Battle
5	Playrix	6	14 098 853	Homescapes
6	Nintendo Co., Ltd.	6	14 088 058	Animal Crossing: Pocket Camp
7	XFLAG, Inc.	8	13 688 882	Monster Strike
8	KONAMI	27	12 245 820	PROFESSIONAL BASEBALL SPIRITS
9	Aniplex Inc.	16	10 605 543	Fate/Grand Order
10	GungHoOnlineEntertainment	14	10 496 011	Puzzle & Dragons
11	VOODOO	87	10 062 811	Hole.io
12	Ohte, Inc.	7	9 493 586	Jigsaw de Sweepstakes
13	COLOPL, Inc.	44	8 000 713	White Cat Project
14	SEGA CORPORATION	23	7 620 005	NET Mahjong MJ Mobile
15	Supercell	5	7 418 333	Clash Royale

Japan is one of the largest markets for app developers; mobile revenue is expected to exceed \$16 billion by 2021.

AppTweak and App Ape have teamed up to provide an in-depth analysis of Japan's highly competitive Games category. With an analytic approach focusing on different domains, including in-store activities, consumer usage trends, competitive landscapes, and category performance, this white paper delivers valuable insights to help you succeed in Japan's competitive landscape across the App Store and Google Play Store.

This white paper includes everything you need to know to succeed in Japan, including data, tips, and recommendations on how to:

- Successfully enter Japan's mobile game market by understanding in-store activities, including monthly active users (MAU), average apps owned, and consumer demographics
- Understand different game landscapes across iOS and Google Play based on category volatility
- Build and develop an effective ASO strategy that considers the most searched keywords per category



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