



The State of MOBA Mobile Games 2021

—
An Analysis of the MOBA Sub-Genre

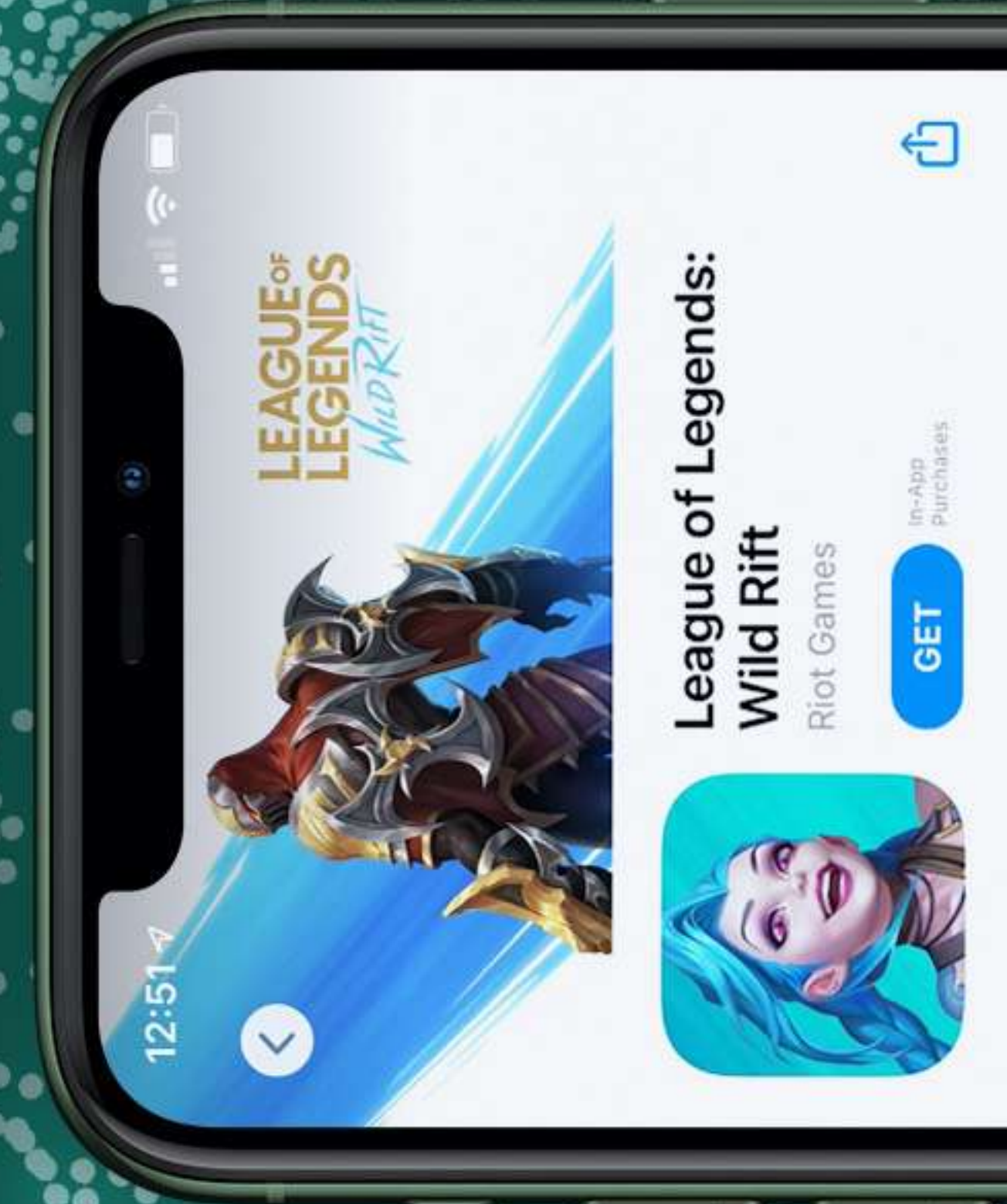
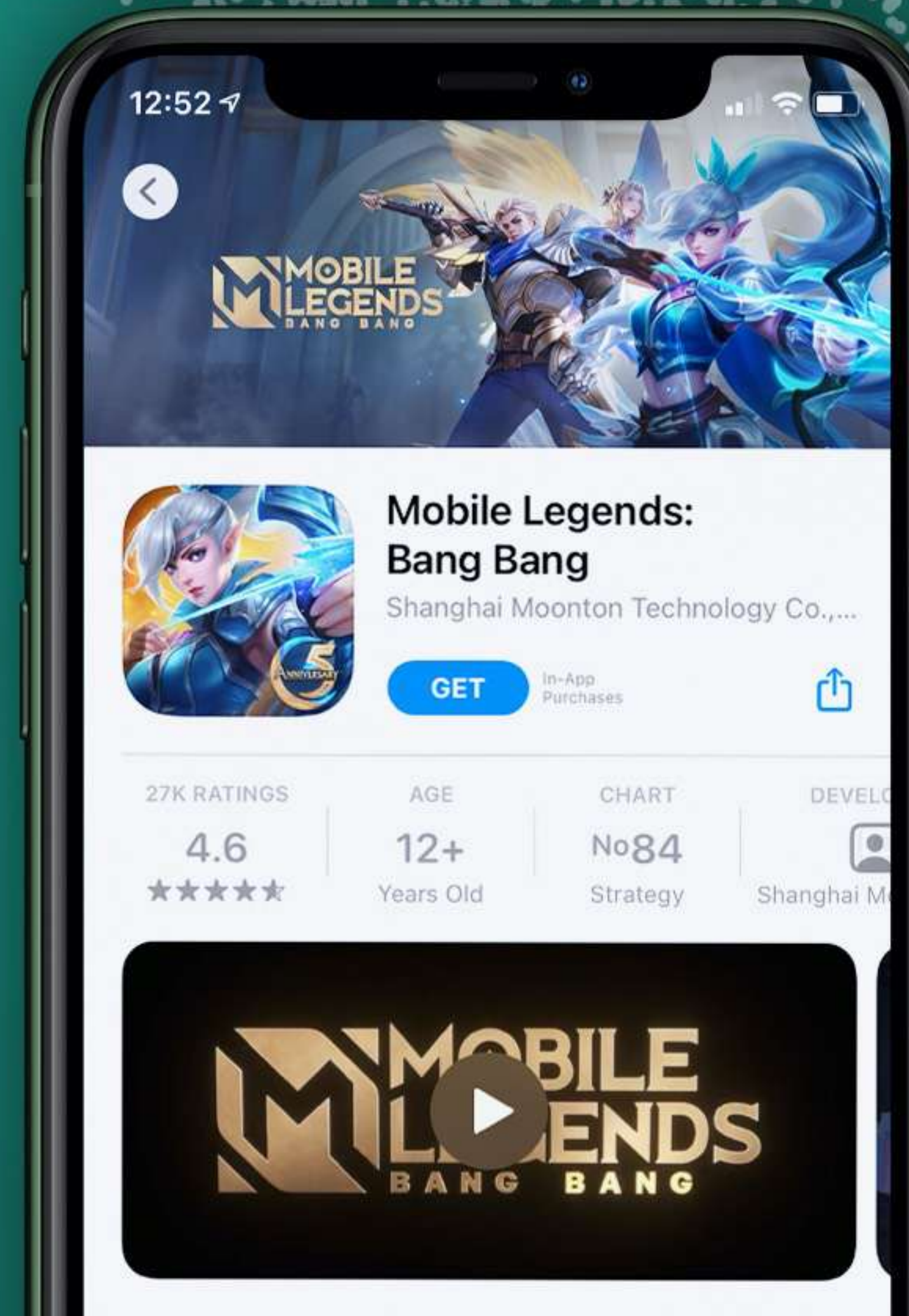
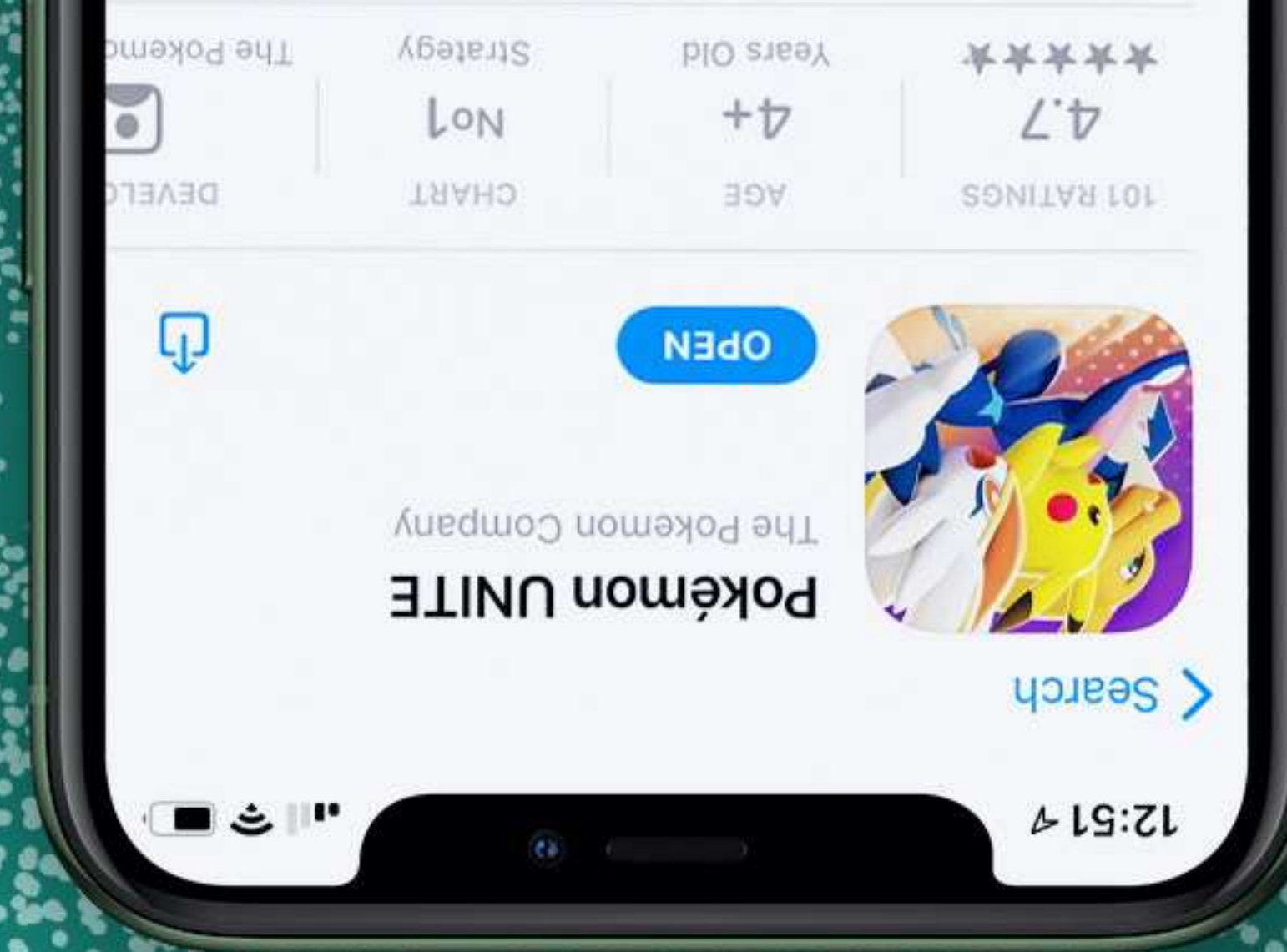


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Introduction

This report presents an overview of the MOBA (Multiplayer Online Battle Arena) sub-genre of mobile games, delving into the current market landscape, the most popular titles, and growth opportunities.

This analysis leverages **Sensor Tower's Game Taxonomy, Game Intelligence**, and **Store Intelligence** data.

- Revenue figures represent gross consumer spending (before the fees taken by Apple or Google).
- Download estimates presented are on a per-user basis, meaning that only one download per Apple or Google account is counted towards the total.
- Downloads of the same app by the same user to multiple devices, app updates, or re-installs of the same app by the same user are not counted towards the total.
- Android app install estimates represent downloads from the Google Play Store only. Sensor Tower does not provide download estimates for third-party Android stores.



Game Intelligence: Taxonomy

CASUAL

Hypercasual

Hypercasual - Puzzle

Hypercasual - Arcade

Hypercasual - Simulation

Hypercasual - Traversal

Hypercasual - Action

Hypercasual - .io

Hypercasual - Ultracasual

Hypercasual - Sports

Hypercasual - Racing

Hypercasual - Other

Lifestyle

Customization

Interactive Story

Music / Band

Lifestyle Simulator

Arcade

Platform / Runner

Idler

Traditional Shoot 'em Up

Arcade Driving

Social Party

Other Arcade

Simulation

Simulator

Driving / Flight Simulator

Tycoon / Crafting

Adventure

Time Management

Sandbox

Breeding

Geolocation AR

Geolocation AR

Tabletop

Board

Drawing & Coloring

Solitaire / Mahjong

Card

Puzzle

Classic Match 3

Other Match 3

Puzzle & Decorate

Word

Hidden Objects

Trivia

Action Puzzle

Bubble Shooter

Tile Blast

Merge

Other Puzzle

MID-CORE

RPG

Turn-based RPG

MMORPG

Survival

Puzzle RPG

Idle RPG

Squad RPG

Action RPG

Strategy

4X Strategy

Build & Battle

Tower Defense

Tactical Battler

Card Battler

Empire Simulation

MOBA

Action

Action Sandbox

Beat 'em Up

Fighting

Hack and Slash

Open World Adventure

Move and Shoot

Shooter

FPS / 3PS

Sniper

Battle Royale

Tactical Shooter

SPORTS & RACING

Sports

Arcade Sports

Realistic Sports

Sports Manager

Racing

Arcade Racing

Realistic Racing

CASINO

Casino

Poker / Cards

Slots

Bingo

Social Casino

Other Casino

Timeline: The History of MOBA Games



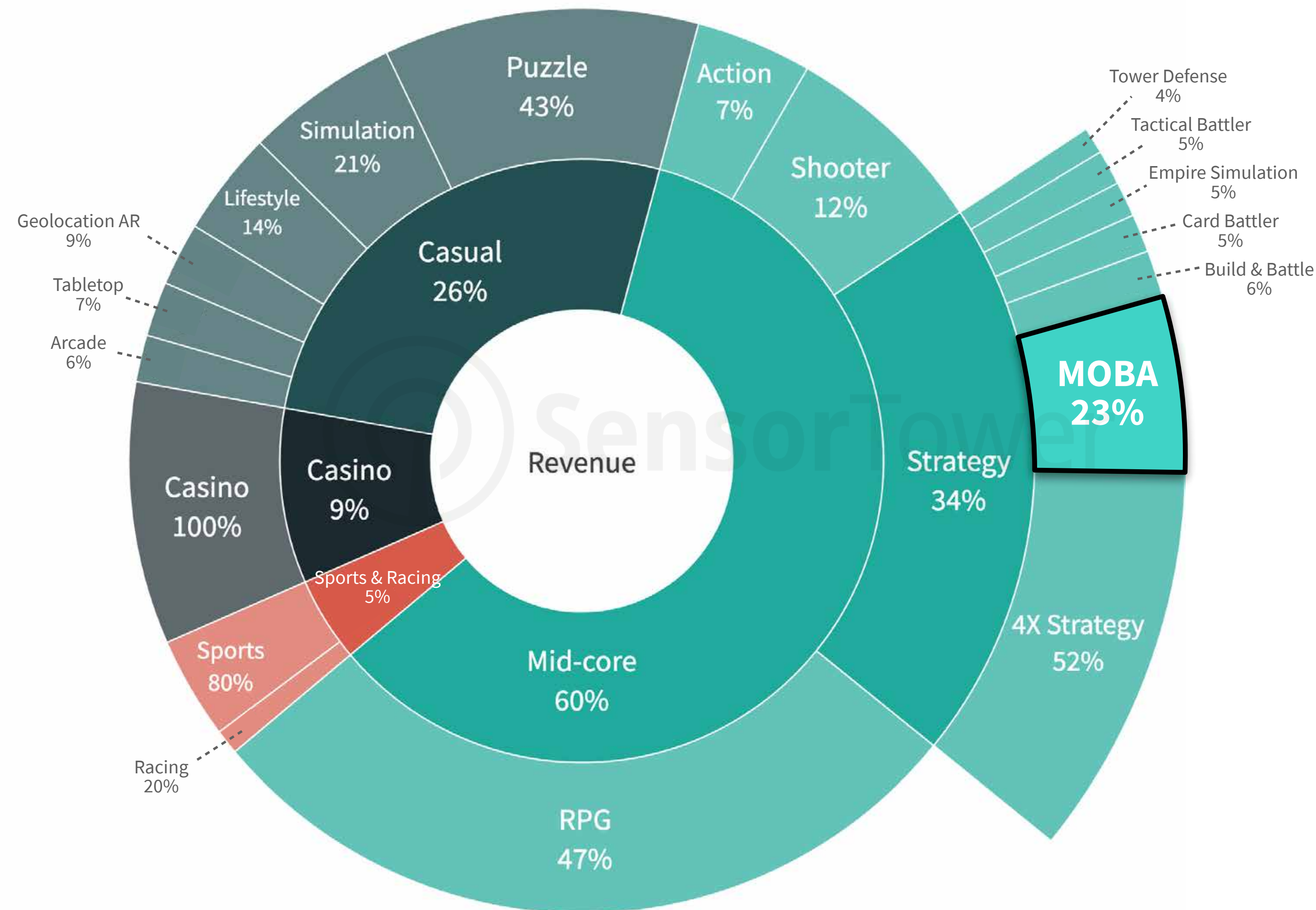


MOBA Mobile Games: Worldwide Overview

—
The Current State of the MOBA Sub-Genre on Mobile

Market Overview: Worldwide Revenue

Revenue share by Game Class, Genre, and Sub-Genre between January and August 2021



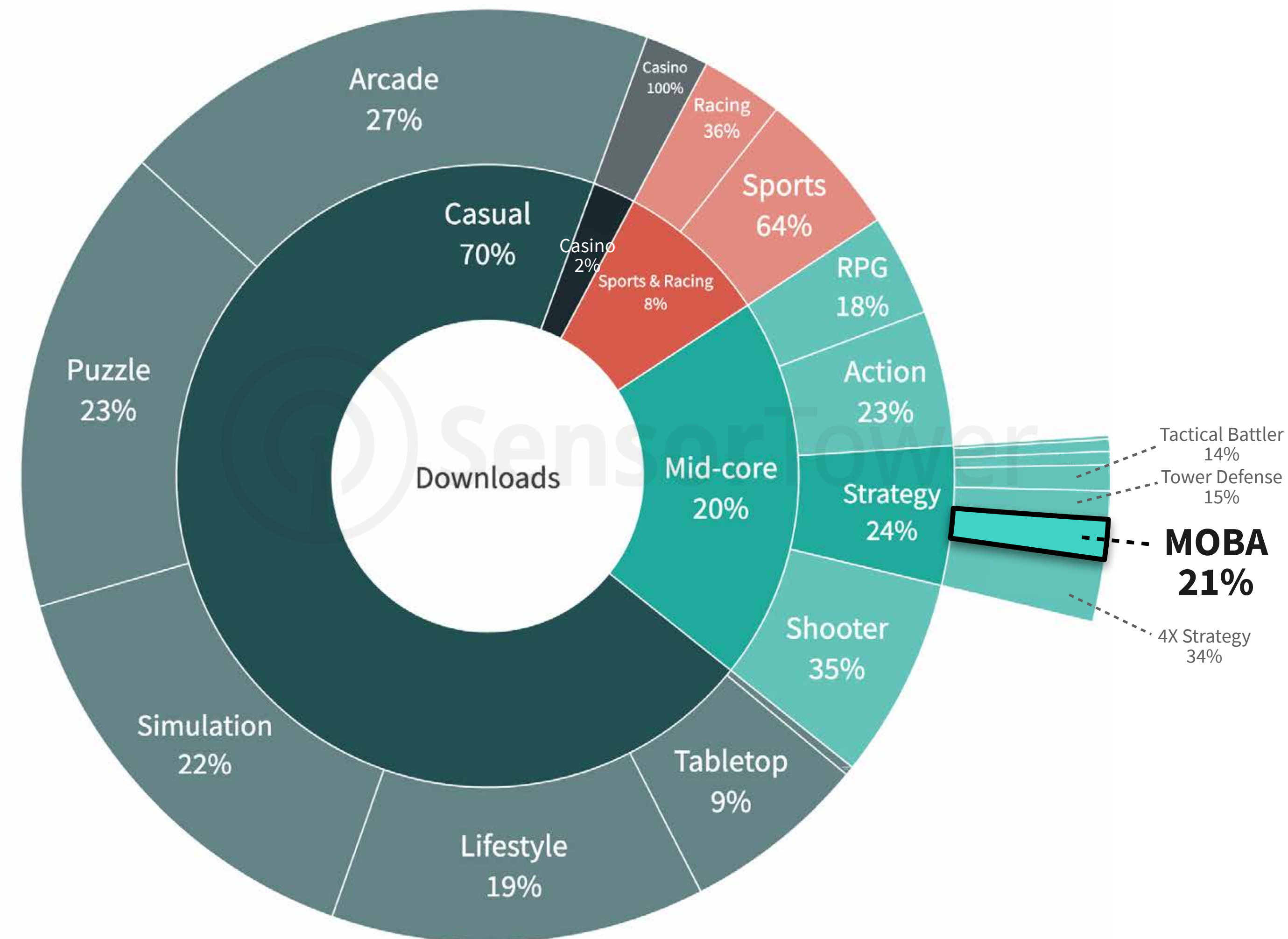
The Mid-Core class is a collection of genres that appeal to a more dedicated gaming audience. They typically require a significant time investment by players, have complex mechanics, and monetize through in-app purchases. **This class accounts for 60 percent of worldwide player spending.**

Strategy games rely on the player's decision-making skills to make strategic choices. Typically, they are slower paced and more mechanically complex than other genres. **Strategy ranks as the No. 2 genre by player spending, accounting for 34 percent of the Mid-Core market.** This genre was bigger than Shooter, Action, and Sports & Racing combined.

In MOBA games, players execute real-time team-based actions with strategic objectives. These games usually have very limited power progression and monetize mainly through cosmetics. **This sub-genre accounts for 23 percent of Strategy game player spending.**

Market Overview: Worldwide Downloads

Downloads by Game Class, Genre, and Sub-Genre between January through August 2021



Even though more than half of player spending is concentrated in the Mid-Core class, the vast majority of downloads are from Casual games. Excluding Hypercasual, this class accounts for 70 percent of downloads. Mid-Core games account for just 20 percent of worldwide installs.

The Shooter genre ranks as the most popular among Mid-Core games. Strategy is the second largest by downloads, accounting for 24 percent of Mid-Core installs between January and August 2021.

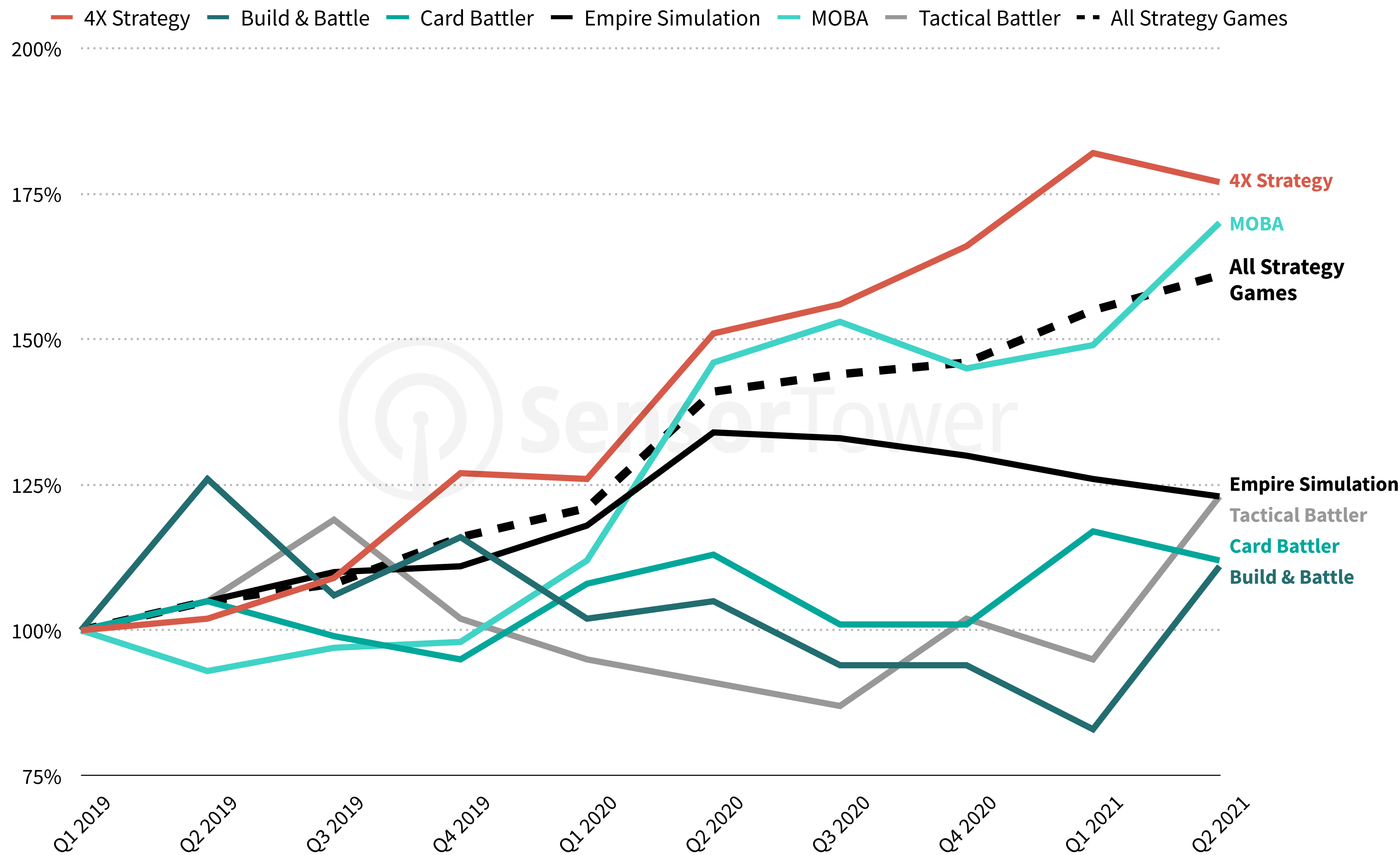
The MOBA sub-genre generated 208 million downloads during this period, accounting for 21 percent of overall Strategy game installs.

Note:

Hypercasual titles are excluded from this chart.

MOBA Is One of The Fastest-Growing Strategy Sub-Genres

Quarterly worldwide Strategy genre revenue by sub-genre (indexed to Q1 2019)



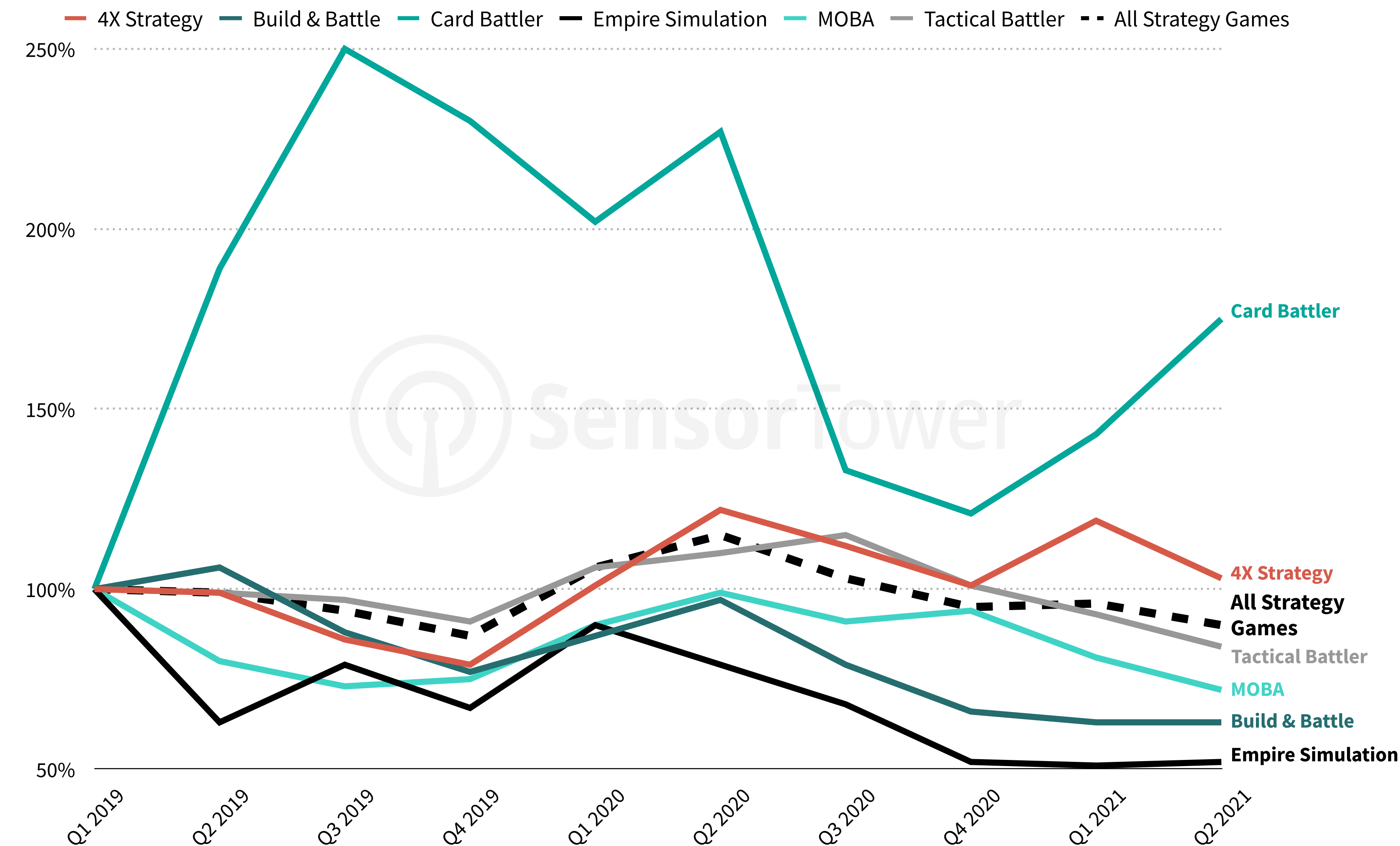
Two sub-genres stand out in terms of worldwide revenue over the past two years: 4X Strategy and MOBA. They are the fastest growing and highest grossing sub-genres, accounting for 52 percent and 23 percent of overall Strategy genre revenue, respectively.

MOBA revenue increased by 14 percent quarter-over-quarter during Q2 2021, its steepest rise over the past year. During the first half of the year, games in this sub-genre generated approximately \$2 billion in player spending globally.

Note:
Tower Defense is excluded from the chart due to scale.

MOBA Downloads Declined Despite Revenue Growth

Quarterly worldwide Strategy genre downloads by sub-genre (indexed to Q1 2019)

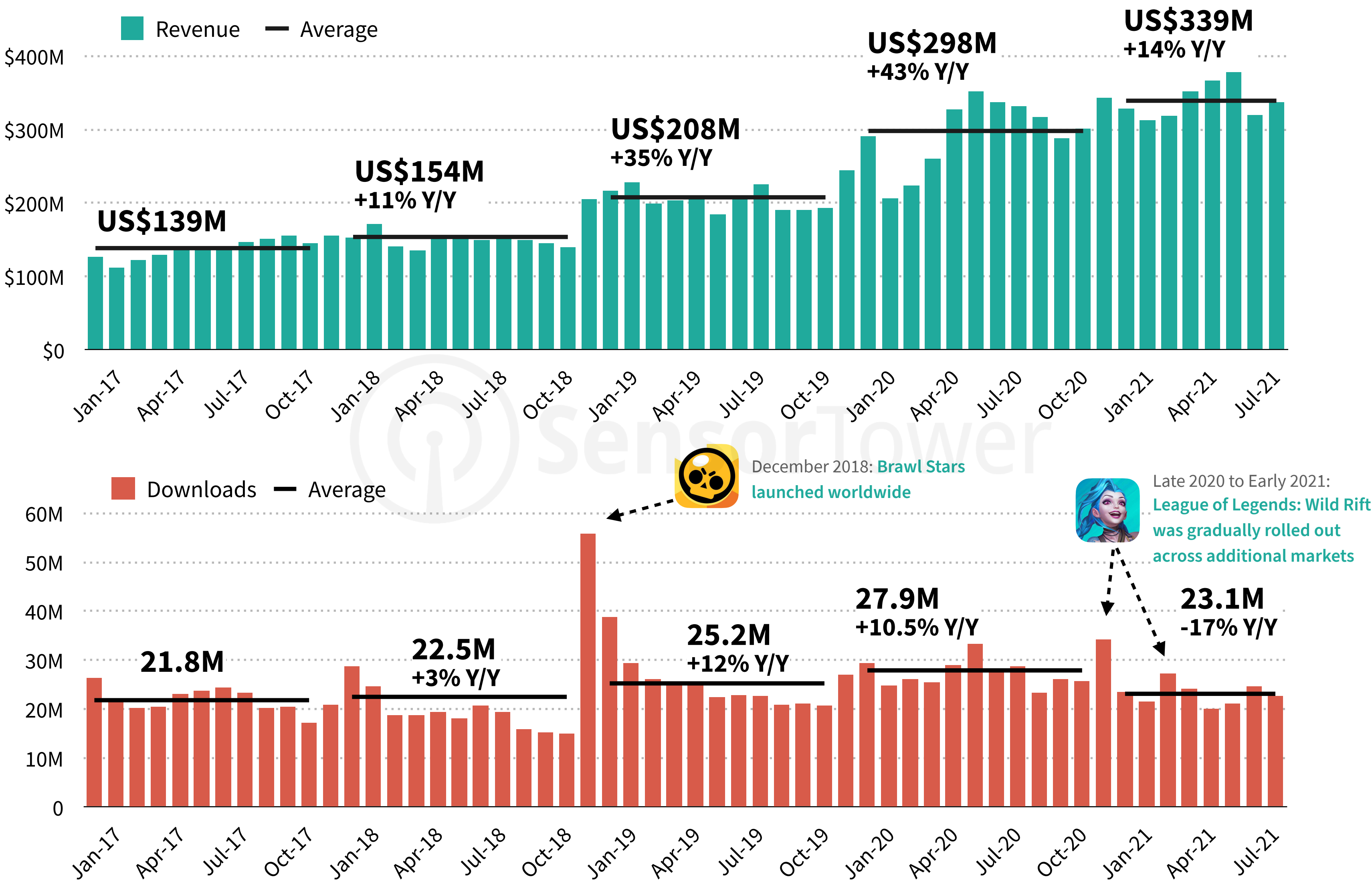


Although MOBA is one of the fastest growing strategy sub-genres by worldwide player spending, downloads decreased by 10 percent globally during Q2 2021.

With the exception of Card Battler games, downloads in the overall Strategy genre and have stagnated or declined during the period between Q1 2019 and Q2 2021.

Monthly Spending in Mobile MOBAs Exceeds \$300 Million

Worldwide revenue and downloads for MOBA sub-genre



Since the beginning of 2021, the MOBA sub-genre has held a new baseline in player spending of more than \$300 million per month.

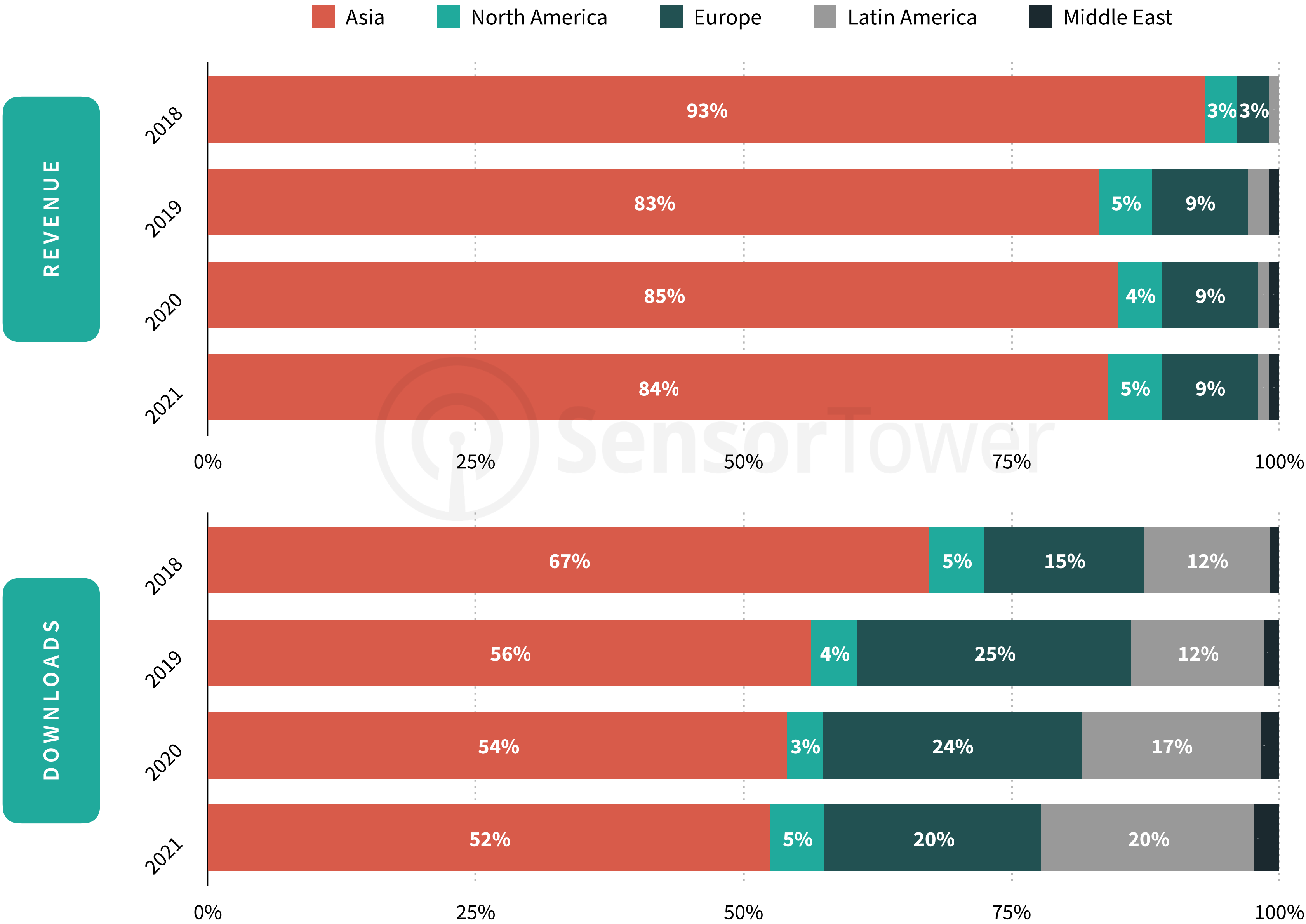
Lockdowns due to global COVID-19 pandemic sparked a surge in revenue in the MOBA sub-genre, with average monthly player spending rising by 43 percent year-over-year in 2020.

The MOBA sub-genre has continued to build upon the gains it made in 2020, with average monthly revenue rising by an additional 14 percent so far in 2021.

Downloads are driven by big new releases, with titles such as Brawl Stars and League of Legends: Wild Rift sparking increased installs in the MOBA market.

Asia Makes Up Lion’s Share of Mobile MOBA Market

MOBA revenue and download market share by region



While its share has decreased since 2018, Asia accounts for the vast majority of mobile MOBA revenue so far in 2021, making up 84 percent of player spending.

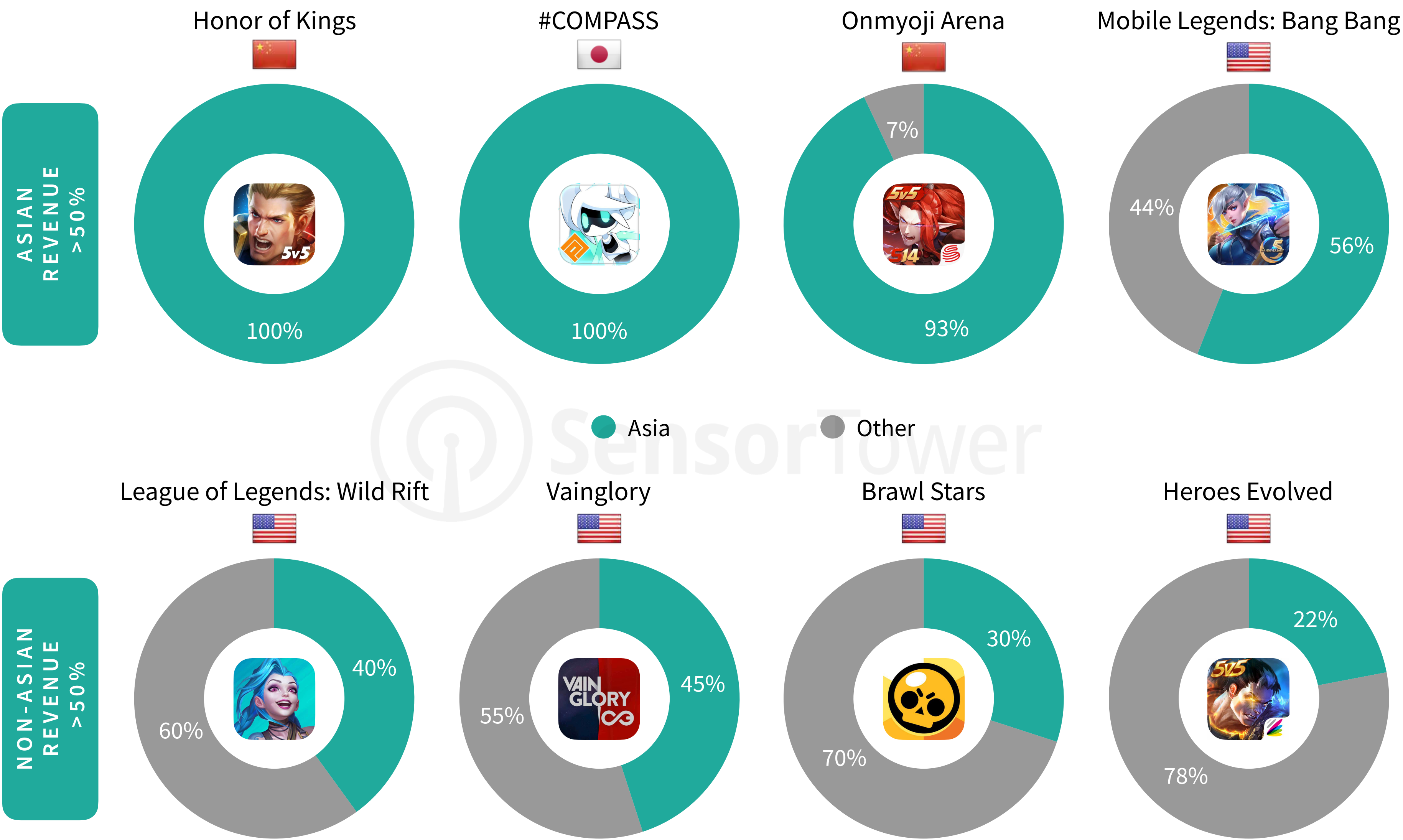
Europe accounts for 9 percent of global MOBA revenue, almost double that of North America.

The market share for downloads in Asia has dwindled during the past four years. Latin America has seen the most gains, accounting for a 20 percent share of installs in 2021. Despite this growth, the region still accounts for a small percentage of global MOBA revenue.

Note:
Africa and Oceania are excluded.

Mobile Legends Has the Greatest Global Appeal

All-time revenue breakdown by Asia and Rest of World



Some of the biggest MOBA titles worldwide are focused largely on one market. #Compass, available only in Japan, has generated \$281 million in player spending to date. Honor of Kings and Onmyoji Arena, meanwhile, have accumulated most of their revenue in China.

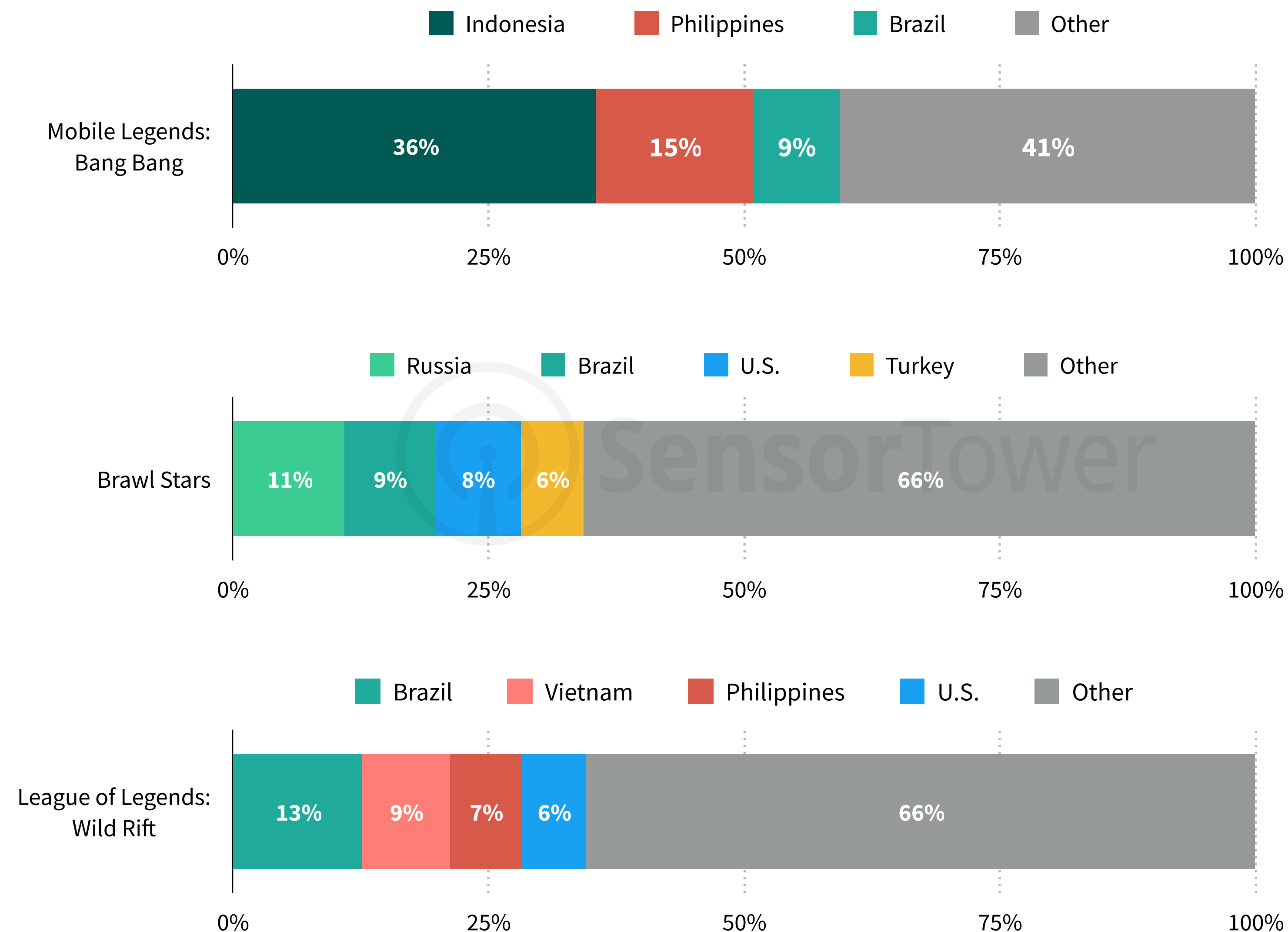
While the overall market generates the majority of revenue in Asia, titles such as Mobile Legends, League of Legends, and Brawl Stars have been able to break out into other regions.

Mobile Legends from ByteDance-owned Moonton, which has grossed \$1 billion to date, has the most global appeal with 44 percent of its revenue emanating from outside Asia.

Note:
Country flag indicates game’s top country by player spending.

MOBAs Find Sizable Audiences in Emerging Markets

Daily Active Users (DAU) by country between January and August 2021



Even though the United States ranks as the No. 1 country for player spending in Mobile Legends, Brawl Stars, and League of Legends: Wild Rift, emerging markets such as Indonesia, Brazil, and Russia were these titles' leading markets by daily active users (DAU).

In Mobile Legends, the emerging markets of Indonesia, the Philippines, and Brazil accounted for 60 percent of daily active users between January and August 2021.

Brazil stands out as one of the largest emerging markets for daily active users, ranking No. 1 for League of Legends, No. 2 for Brawl Stars, and No. 3 for Mobile Legends.

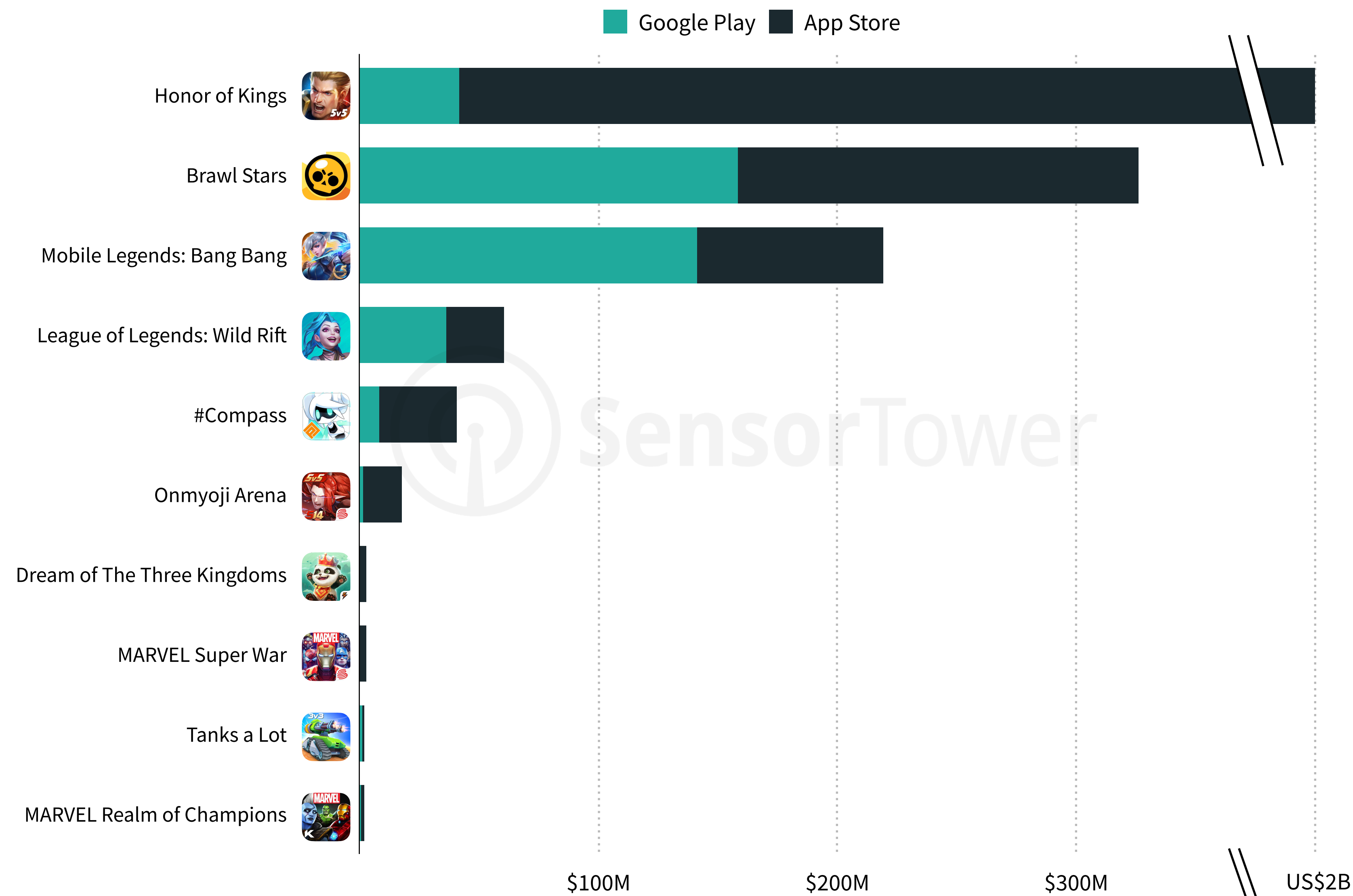


Top MOBA Mobile Games Worldwide

—
Analysis of Top Titles by Revenue and Downloads

Honor of Kings Hits \$10 Billion Lifetime Player Spending

Top grossing titles by worldwide player spending for January through August 2021



Launched in 2015, Honor of Kings has become the highest earning mobile game globally, surpassing \$10 billion in total player spending. Between January 1 and August 31, 2021 alone, the title accumulated more than \$2 billion.

Brawl Stars from Supercell ranked as the No. 2 mobile MOBA by player spending, generating more than \$320 million in lifetime sales. The game's largest market was the United States (16 percent) followed by Germany (9.9 percent).

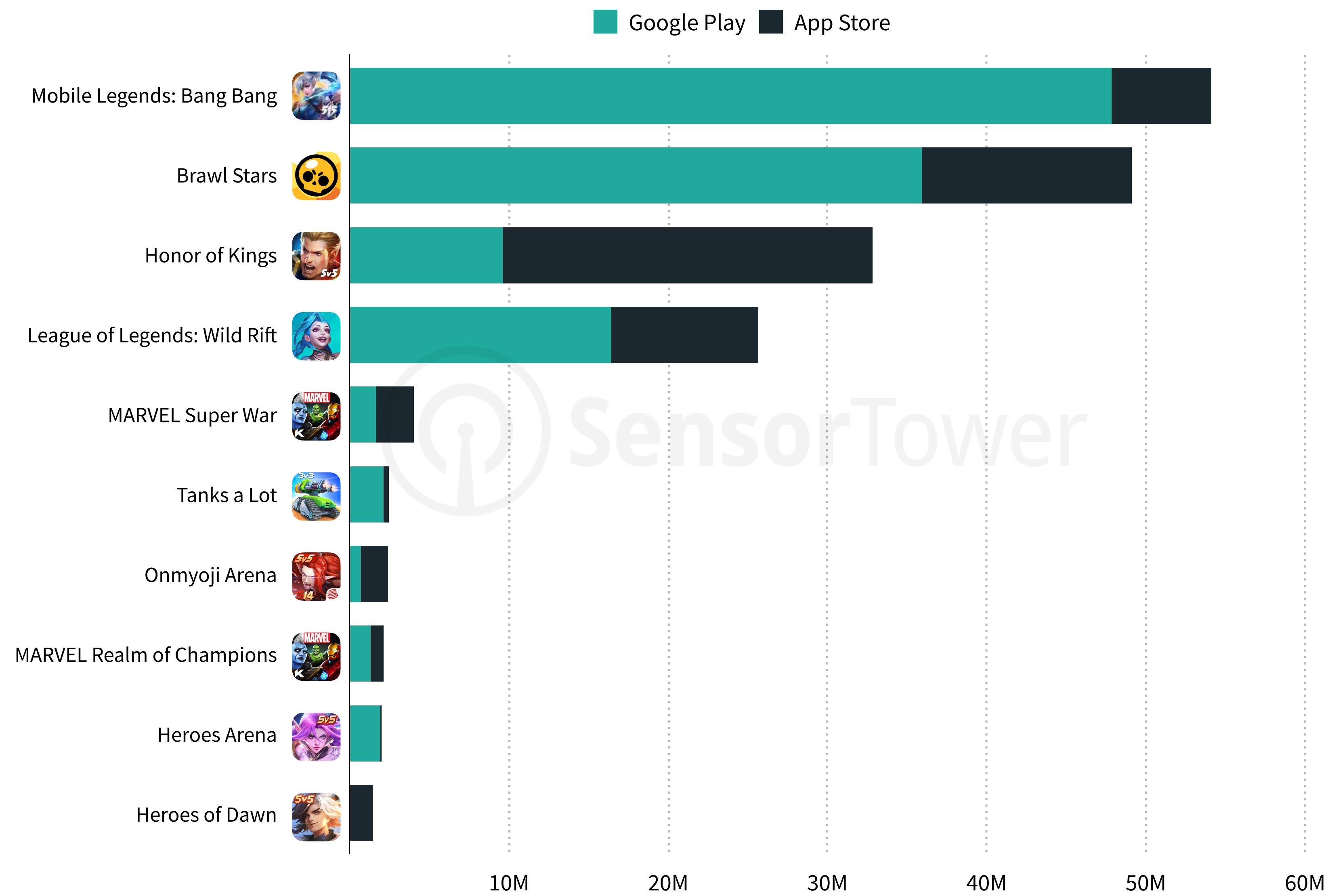
The MOBA market is highly concentrated and dominated by industry heavyweights such as Tencent, Supercell, and ByteDance, making it challenging for newcomers to enter.

Note:

Graph resized for scale. Spending totals do not include third-party Android stores.

Mobile Legends Is The Most Downloaded MOBA of 2021

Top titles by worldwide downloads for January through August 2021



Mobile Legends is the world's top MOBA by downloads between January and August of this year, generating 54 million installs. Google Play accounted for 88.5 percent of all downloads and accounted for 64.5 percent of revenue.






Brawl Stars ranks as the No. 2 mobile MOBA by installs so far in 2021, accumulating nearly 50 million downloads. Google Play also accounted for the vast majority of Brawl Stars installs.

League of Legends: Wild Rift launched its North American beta during March 2021, and now ranks as the No. 4 most downloaded title in the sub-genre.




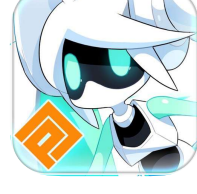

MOBA Is a Winner-Takes-All Market on Mobile

Top grossing MOBA mobile games worldwide




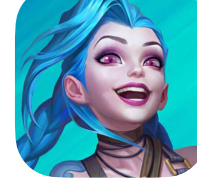
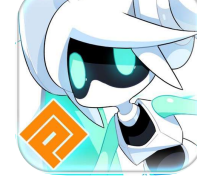
2019

1		Honor of Kings Tencent	-
2		Brawl Stars Supercell	+2
3		Mobile Legends Moonton	-1
4		#Compass NHN Corp	-1
5		Onmyoji Arena NetEase	-

2020

1		Honor of Kings Tencent	-
2		Brawl Stars Supercell	-
3		Mobile Legends Moonton	-
4		#Compass NHN Corp	-
5		Onmyoji Arena NetEase	-

2021

1		Honor of Kings Tencent	-
2		Brawl Stars Supercell	-
3		Mobile Legends Moonton	-
4		League of Legends Riot Games	NEW
5		#Compass NHN Corp	-1

The MOBA sub-genre is defined by its market leaders—Honor of Kings, Brawl Stars, and Mobile Legends—which have dominated the space for years and have essentially made it a winner-takes-all market.

Honor of Kings rules the sub-genre in China, but has encountered difficulty developing global appeal. Mobile Legends has managed to capitalize on this vacuum to establish itself as a leader in the rest of the world.






Note:

The +/- next to game names reflect their change in ranking from the previous year. “NEW” means that a game is new to the top five for that year. 2021 includes data from January to August.






Mobile Legends Passes Brawl Stars for 2021 Downloads

Most downloaded MOBA mobile games worldwide






2019

1		Brawl Stars Supercell	+2
2		Mobile Legends Moonton	-1
3		Honor of Kings Tencent	-1
4		Heroes Arena uCool	+2
5		Tanks a Lot Highcore Labs	+3

2020

1		Brawl Stars Supercell	-
2		Mobile Legends Moonton	-
3		Honor of Kings Tencent	-
4		League of Legends Riot Games	NEW
5		MARVEL Super War NetEase	NEW

2021

1		Mobile Legends Moonton	+1
2		Brawl Stars Supercell	-1
3		Honor of Kings Tencent	-
4		League of Legends Riot Games	-
5		MARVEL Super War NetEase	-

Mobile Legends, acquired by ByteDance in March 2021, has generated 54 million installs worldwide so far this year. That makes it the No. 1 mobile MOBA by global downloads in 2021, surpassing Brawl Stars for the first time.

League of Legends: Wild Rift began rolling out in select countries during October 2020 and quickly ranked as the No. 4 most installed MOBA worldwide for the year. The game has held this position into 2021 following its release into other territories, such as the Americas.

Note:

The +/- next to game names reflect their change in ranking from the previous year. "NEW" means that a game is new to the top five for that year. 2021 includes data from January to August.

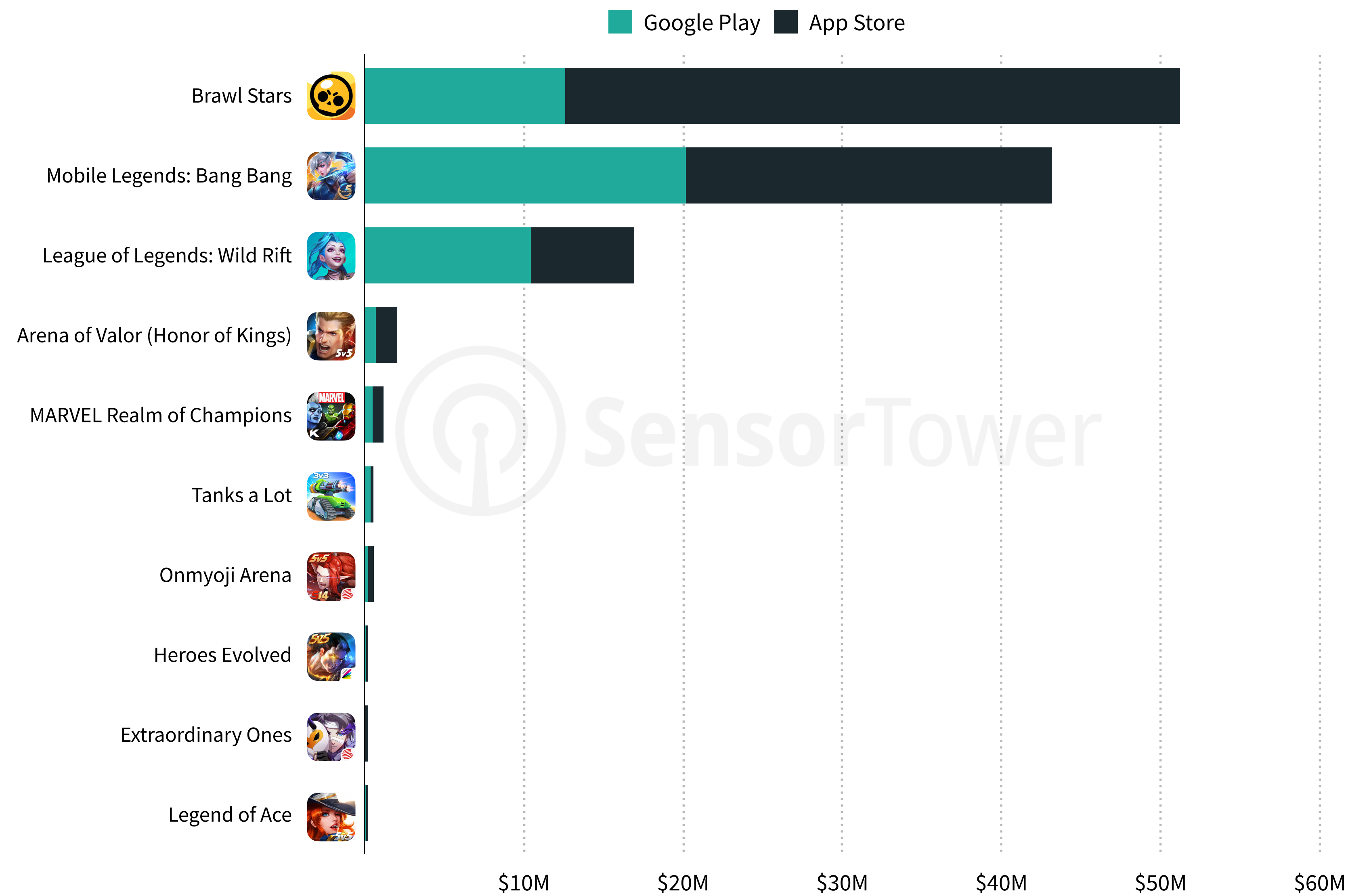


Top MOBA Mobile Games in the U.S.

— Analysis of Top Titles by Revenue and Downloads

Brawl Stars Is the Top Mobile MOBA in the U.S. for 2021

Top grossing titles by player spending in the U.S. for January through August 2021



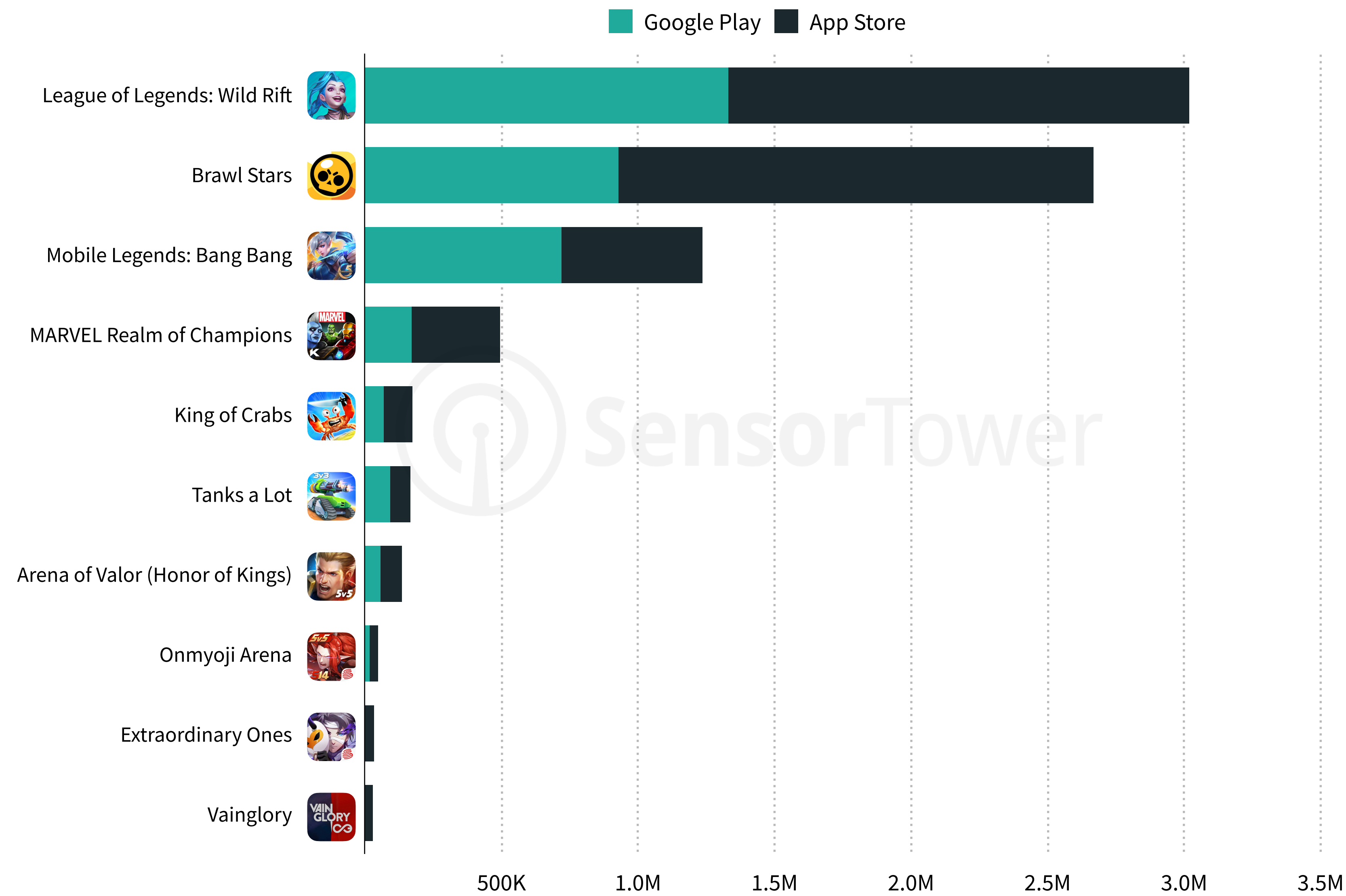
For the third year running, Brawl Stars is the top earning mobile MOBA in the United States, accumulating \$51 million in player spending—75 percent of which came from the App Store. Supercell focused on simpler mechanics and a 3D cartoon art style to bring the genre to a wider audience, particularly in the U.S. where the category previously struggled to gain traction.

Mobile Legends ranks as the No. 2 title by player spending, generating more than \$43 million so far in 2021, up 17.6 percent year-over-year.

League of Legends: Wild Rift, which began its open beta in the U.S. in March 2021, has quickly become the market's No. 3 earning mobile MOBA, picking up \$16.9 million so far this year. Unlike Brawl Stars, Google Play has accounted for the majority of its revenue at 62 percent.

Wild Rift Heads Straight to No. 1 for U.S. Installs

Top titles by downloads in the U.S. for January through August 2021





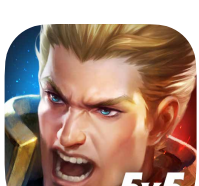


League of Legends: Wild Rift is the most downloaded mobile MOBA in the United States so far in 2021, able to capitalize on the well known IP and generate 3 million installs. The title marks the third occasion Riot has utilized the League of Legends IP in its mobile portfolio, following the releases of Teamfight Tactics and Legends of Runeterra, with Wild Rift already the most installed of the three.

Even though Google Play has accounted for 62 percent of Wild Rift's U.S. revenue, the App Store represents 56 percent of the installs. This bucks the typical trend, where Google Play generally sees a greater number of mobile game downloads, while the App Store accounts for a larger share of player spending.






Brawl Stars Dominates the U.S. MOBA Market on Mobile

Top grossing MOBA mobile games in the United States




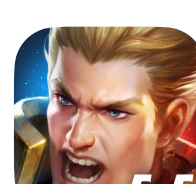

2019

1		Brawl Stars Supercell	+1
2		Mobile Legends Moonton	-1
3		Arena of Valor Tencent	-
4		Vainglory Super Evil Megacorp	+1
5		Onmyoji Arena NetEase	NEW

2020

1		Brawl Stars Supercell	-
2		Mobile Legends Moonton	-
3		Arena of Valor Tencent	-
4		Tanks a lot Highcore Labs	+3
5		Onmyoji Arena NetEase	-

2021

1		Brawl Stars Supercell	-
2		Mobile Legends Moonton	-
3		League of Legends Riot Games	NEW
4		Arena of Valor Tencent	-1
5		Marvel Realm of Champions Kabam	NEW

Since its release in December 2018, Brawl Stars has consistently been the No. 1 ranked mobile MOBA in the United States by player spending.

League of Legends: Wild Rift entered the charts at No. 3 in 2021 following the launch of its U.S. open beta in March.

While Arena of Valor is wildly popular in China and has seen player spending rise over the past year, the title has not been able to replicate that level of success in the U.S.






Note:

The +/- next to game names reflect their change in ranking from the previous year. "NEW" means that a game is new to the top five for that year. 2021 includes data from January to August.






League of Legends Takes No. 1 for U.S. Downloads

Most downloaded MOBA mobile games in the United States






2019

1		Brawl Stars Supercell	
2		Mobile Legends Moonton	-
3		King of Crabs Robot Squid	NEW
4		Arena of Valor Tencent	-1
5		Tanks a Lot Highcore Labs	NEW

2020

1		Brawl Stars Supercell	-
2		Mobile Legends Moonton	-
3		Marvel Realm of Champions Kabam	NEW
4		King of Crabs Robot Squid	-1
5		Arena of Valor Tencent	-1

2021

1		League of Legends Riot Games	NEW
2		Brawl Stars Supercell	-1
3		Mobile Legends Moonton	-1
4		Marvel Realm of Champions Kabam	-1
5		King of Crabs Robot Squid	-1

League of Legends: Wild Rift has gone directly to the top spot for mobile MOBA downloads in the United States following the start of its open beta in March 2021, usurping previous incumbent Brawl Stars which had dominated since 2019.

The world's most popular MOBA, Honor of Kings (known as Arena of Valor in the West), has moved out of the top five by U.S. downloads with the success of Wild Rift.

Note:

The +/- next to game names reflect their change in ranking from the previous year. "NEW" means that a game is new to the top five for that year. 2021 includes data from January to August.

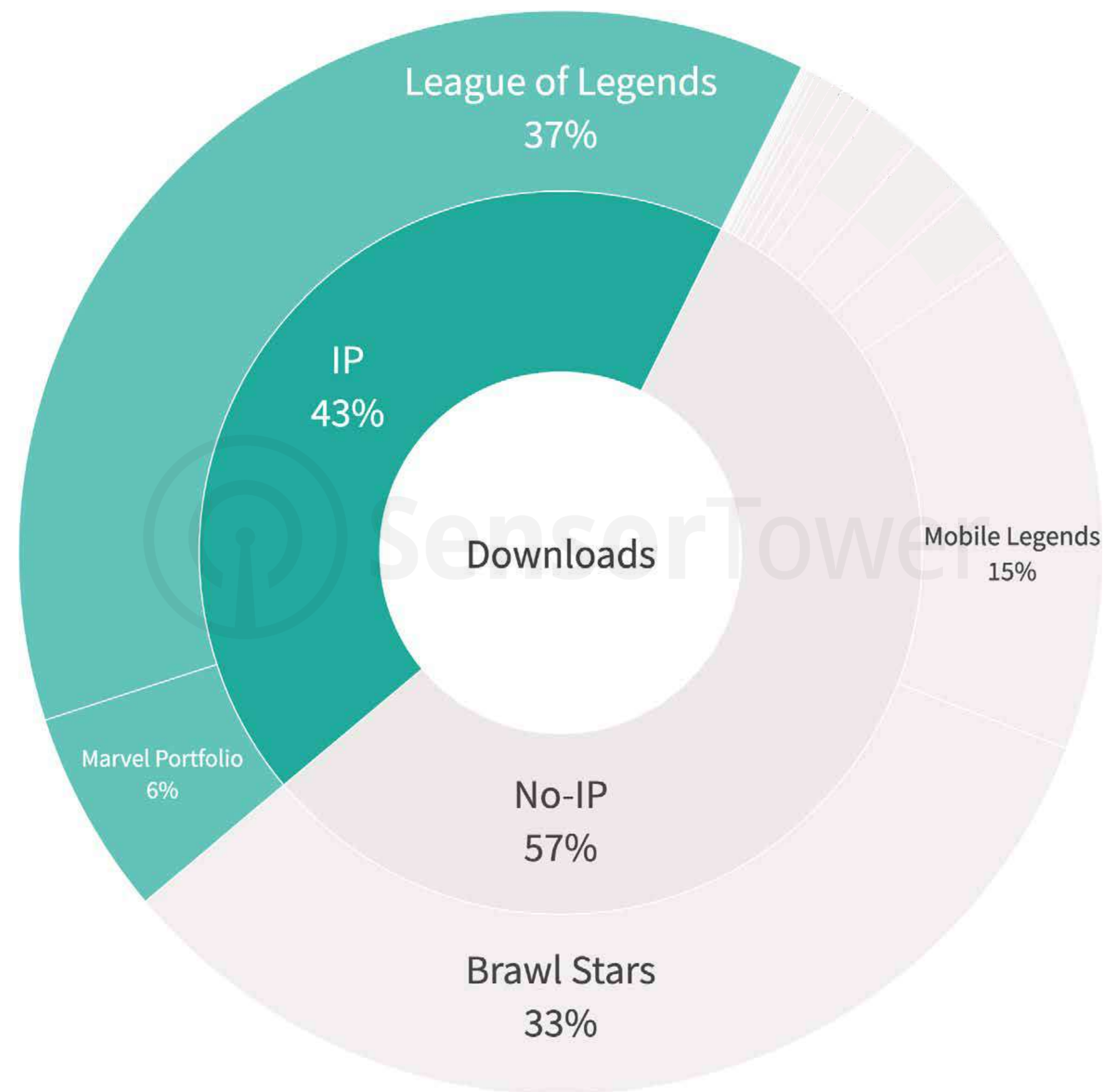


Intellectual Property Insights

— Analysis of Licensed IP in MOBA Mobile Games

IP-Based MOBAs Make Up Nearly Half of U.S. Installs

Share of mobile MOBA downloads by IP in the U.S. from January through August 2021



Approximately 43 percent of U.S. mobile MOBA downloads during the first eight months of 2021 were for games that utilized a licensed IP.

While the majority of installs (57 percent) came from non-IP games, titles such as Mobile Legends and Arena of Valor (Honor of Kings) have historically used licenses to appeal to a wider audience by adding new playable heroes.

MOBILE LEGENDS + TRANSFORMERS



Overview: Pokémon Unite

STORE INTELLIGENCE

First Day Downloads: 1.8 million

First Week Downloads: 31 million

INTELLECTUAL PROPERTY

Licensed IP: Pokémon

IP Operator: The Pokémon Company

Corporate Parents: Nintendo,
Game Freak, Creatures

IP Type: Videogame

APP INTELLIGENCE

**Worldwide
Release Date:**
Sep. 22, 2021

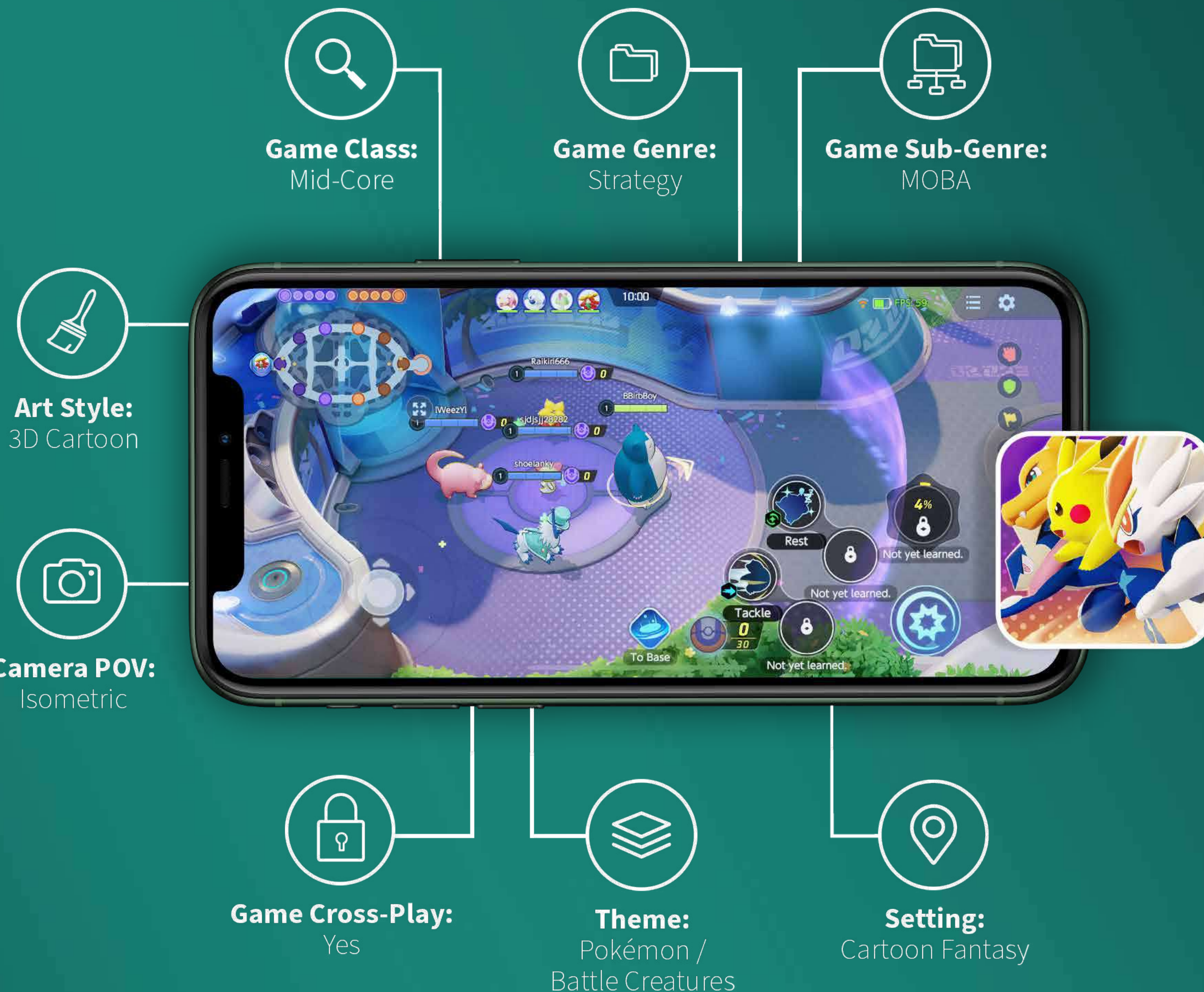
INSTALL SHARE



42%

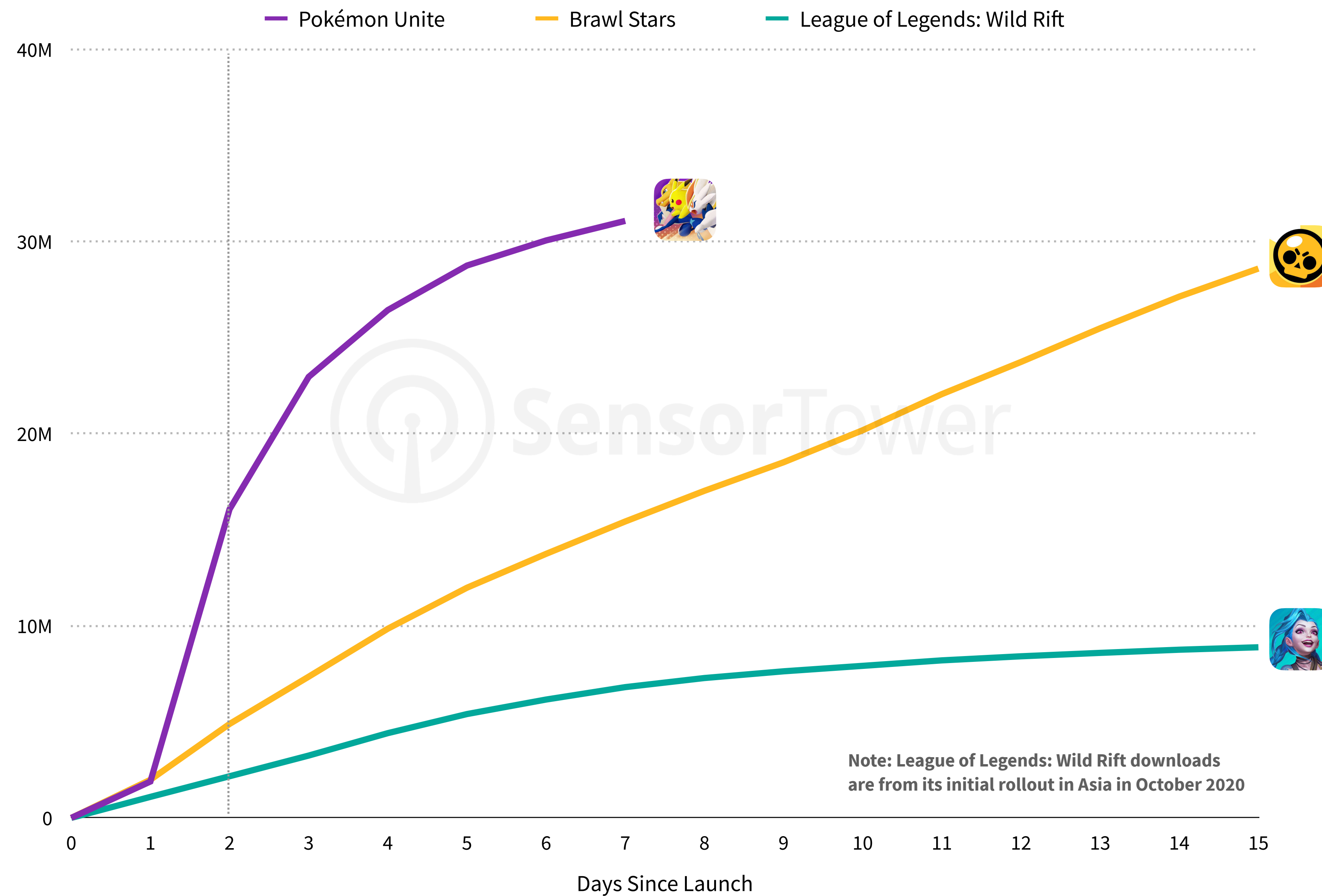


58%



Pokémon Unite Surpasses 15 Million Downloads in 2 Days

Worldwide cumulative downloads for top mobile MOBAs during launch period



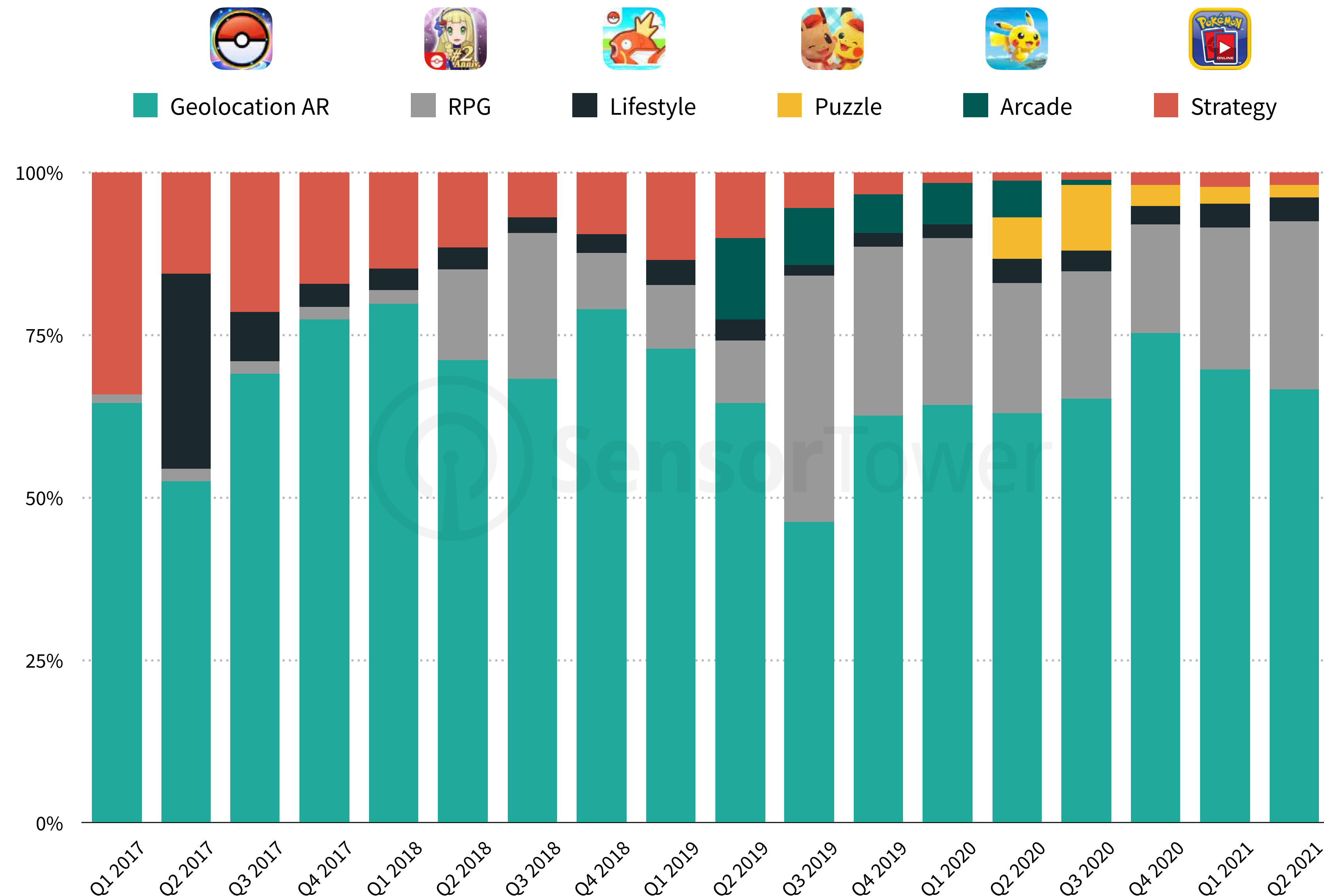
Pokémon Unite is the biggest MOBA launch ever on mobile, surpassing 15 million downloads within just two days following its release on September 22, 2021. It took Brawl Stars seven days to reach this same milestone.

On the day of its release, Pokémon Unite ranked as the No. 1 most downloaded iPhone game on the App Store in 59 countries. In its first week, the title accumulated more than 30 million downloads worldwide.

League of Legends: Wild Rift has had a staggered global rollout, starting in Asia in October 2020 before launching in the Americas in 2021.

Pokémon Doubles Down on The Strategy Genre

Global download share of games with Pokémon license by genre between 2017 and 2021



Pokémon GO found massive success in the Geolocation AR genre, consistently generating the vast majority Pokémon-related IP downloads since its launch in July 2016. The RPG genre, which the franchise is built upon, ranks No. 2 for downloads, thanks to titles such as Pokémon Masters and Pokémon Quest.

Diversifying its offerings on mobile, The Pokémon Company is now eyeing the Strategy genre with the launch of Pokémon Unite and upcoming of Pokémon Trading Card Game Live.

POKÉMON MOBILE STRATEGY GAMES



Pokémon Unite
Moba
Released



Pokémon Trading Card
Game Live
Card Battler
Announced



Product Overview

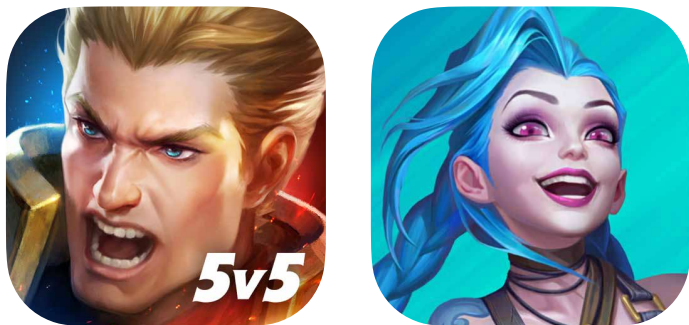
Deep Dive into the Most Successful MOBA Mobile Games

Product Overview

1

Complex:
Competitive MOBA

- Skins are only cosmetic and don't affect stats
- Items are acquired in-game and only last during that session
- Competitive focus can lead to potential for eSports
- Complex mechanics (more than six action buttons)
- More than 70 heroes
- Include 5v5, 3v3, and 1v1 modes



Classic MOBAs (Lines, Jungles, Roles)

2

Complex:
Paid Advantage

- Skins can be acquired with hard currency and modify the stats of heroes. This provides players with a competitive advantage if they spend money in the game
- Items are acquired in-game and only last during that session
- More than 100 heroes
- Complex mechanics (more than six action buttons)



Classic MOBAs (Lines, Jungles, Roles)

3

Innovative:
Paid Advantage

- Skins are only cosmetic
- Items are acquired with soft currency and can be upgraded with Aeos Gems (hard currency). Upgraded items modify Pokémon stats, creating a paid competitive advantage.
- Fewer than 30 heroes but 100+ to be added with new seasons
- Simplified game mechanics
- Innovative gameplay experience: Jungle creeps drop Pokéballs which are used to score



Innovative Game Experiences: More casual for broader appeal

4

Innovative:
Less Core

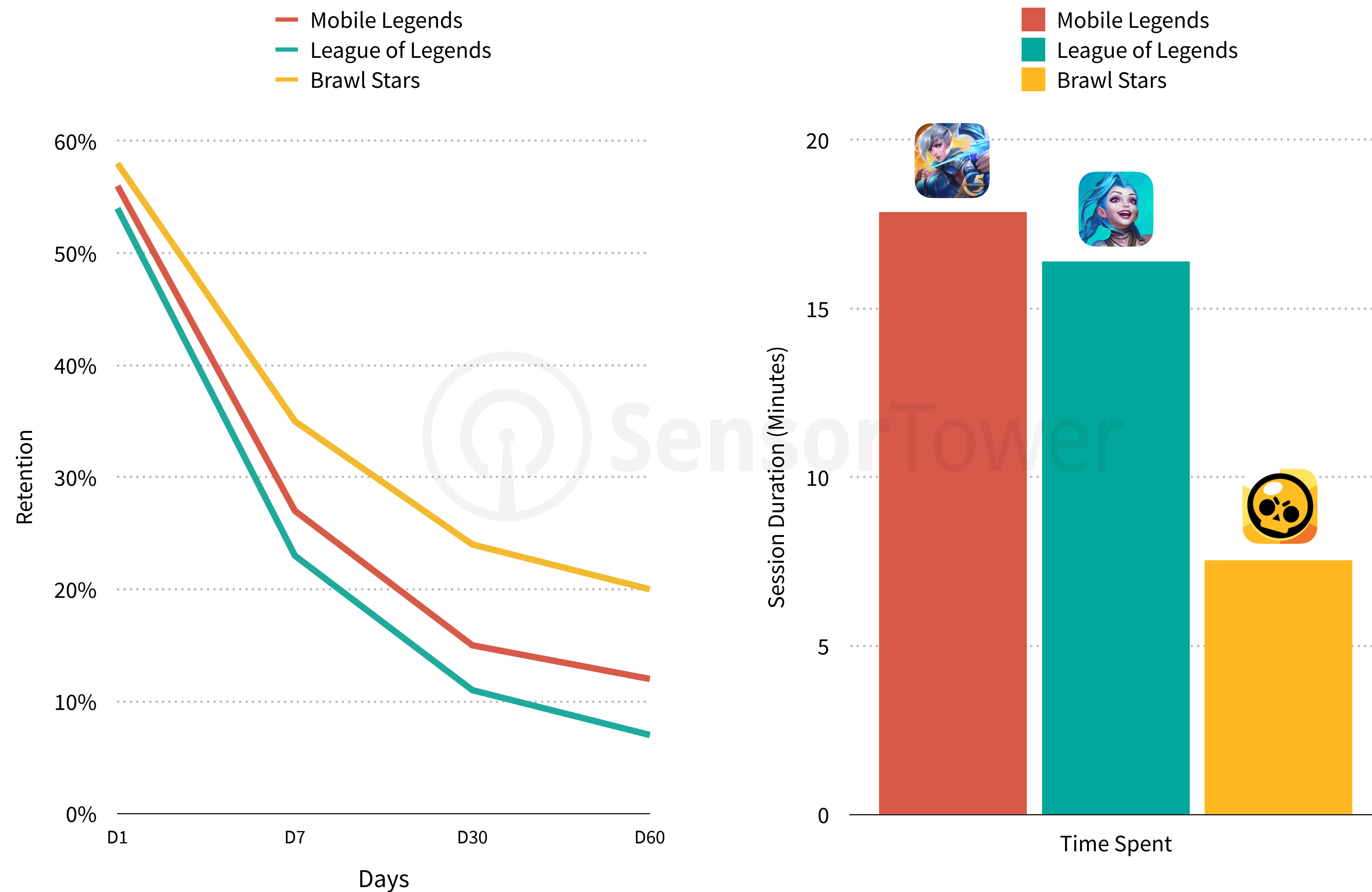
- Skins are only cosmetic
- No items
- Large variety of game modes (PvP and PvE) appeal to broader audiences. Game modes include: 3v3, Showdown (Battle Royale), Siege, Heist, Boss Fight, and Robo Rumble (PvE), Big Game.
- More than 60 heroes
- Simplified game mechanics (two action buttons).



Innovative Game Experiences: More casual for broader appeal

Brawl Stars Has Market-Leading Engagement

All-time retention and all time daily time spent on iOS

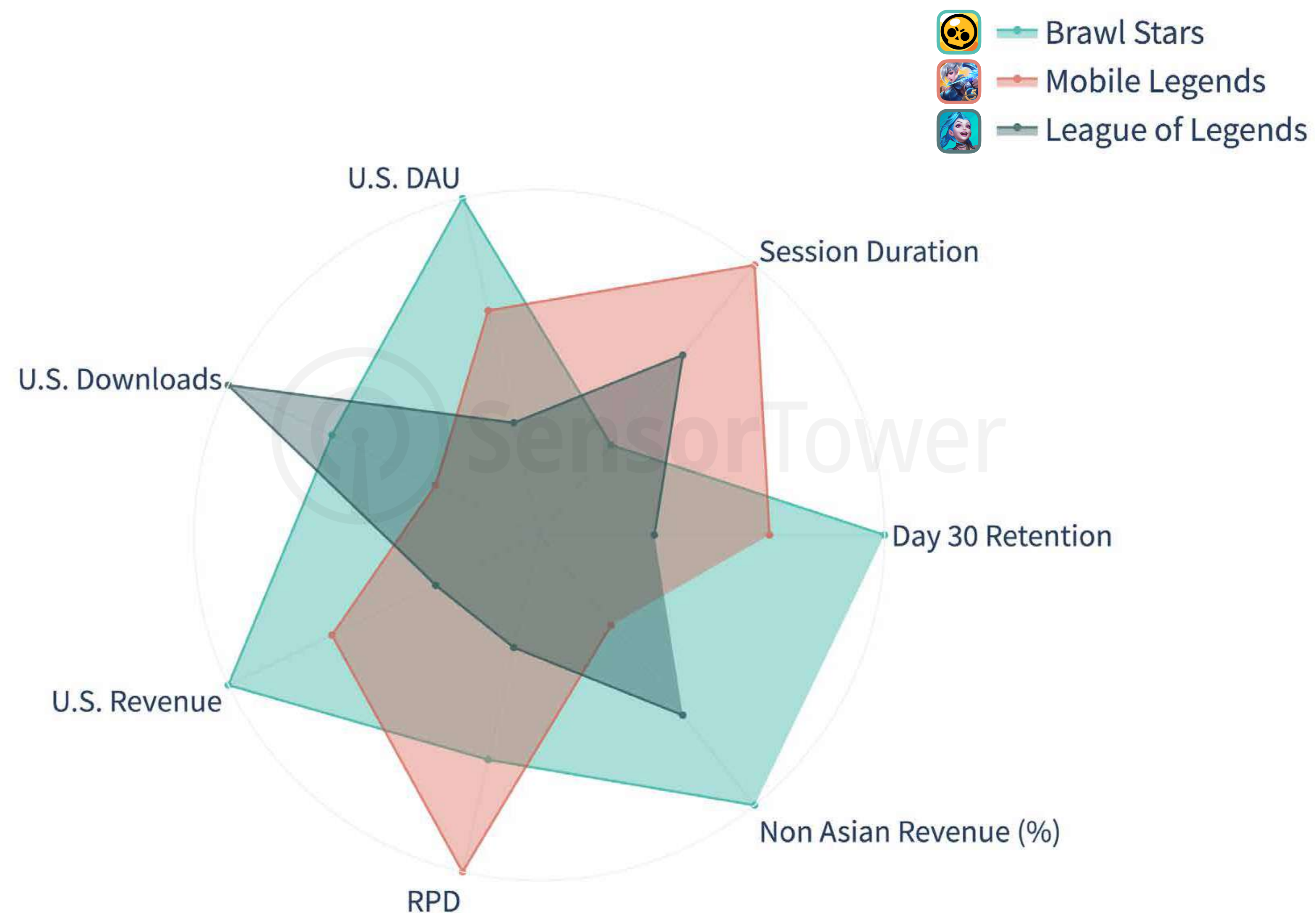


Among the analyzed MOBAs, Brawl Stars has the highest Day 60 retention rate of its peers at 20 percent, placing it among some of the best mobile games in the industry by this metric.

Brawl Stars, a more casual MOBA, has half the average daily time spent of more traditional-style titles in the genre, such as Mobile Legends and League of Legends.

Paid Advantage Boosts RPD but Risks Retention Impact

U.S. key performance indicators among top MOBA titles for January through August 2021



Some MOBA mobile games incorporate paid advantage mechanics, enabling players to purchase upgrades that can positively impact their chances of winning. These games can achieve higher RPD, but the mechanics can potentially lead to lower long-term retention.

While this monetization model is popular in some Asia countries, it is not particularly successful in Western markets.

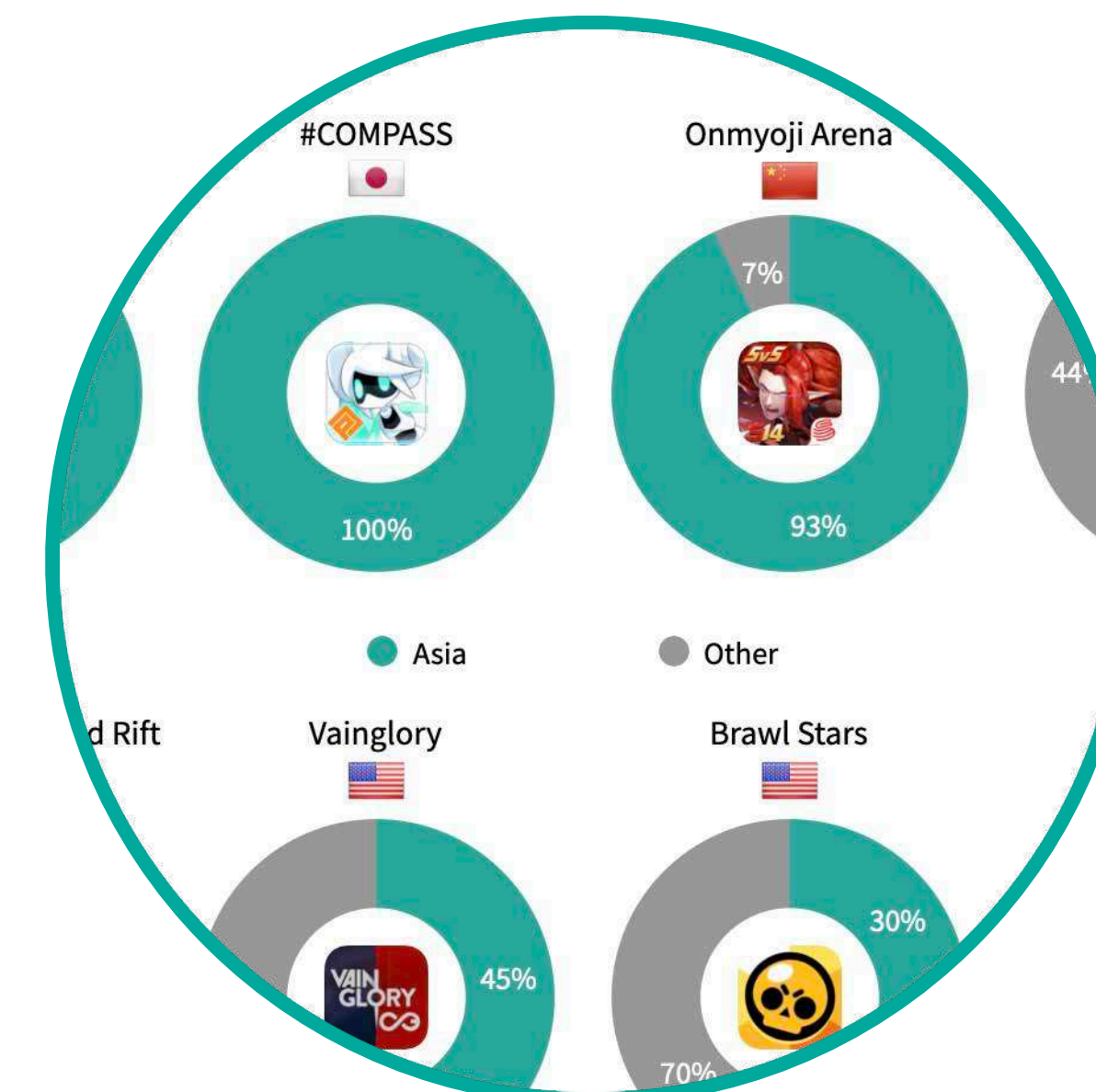
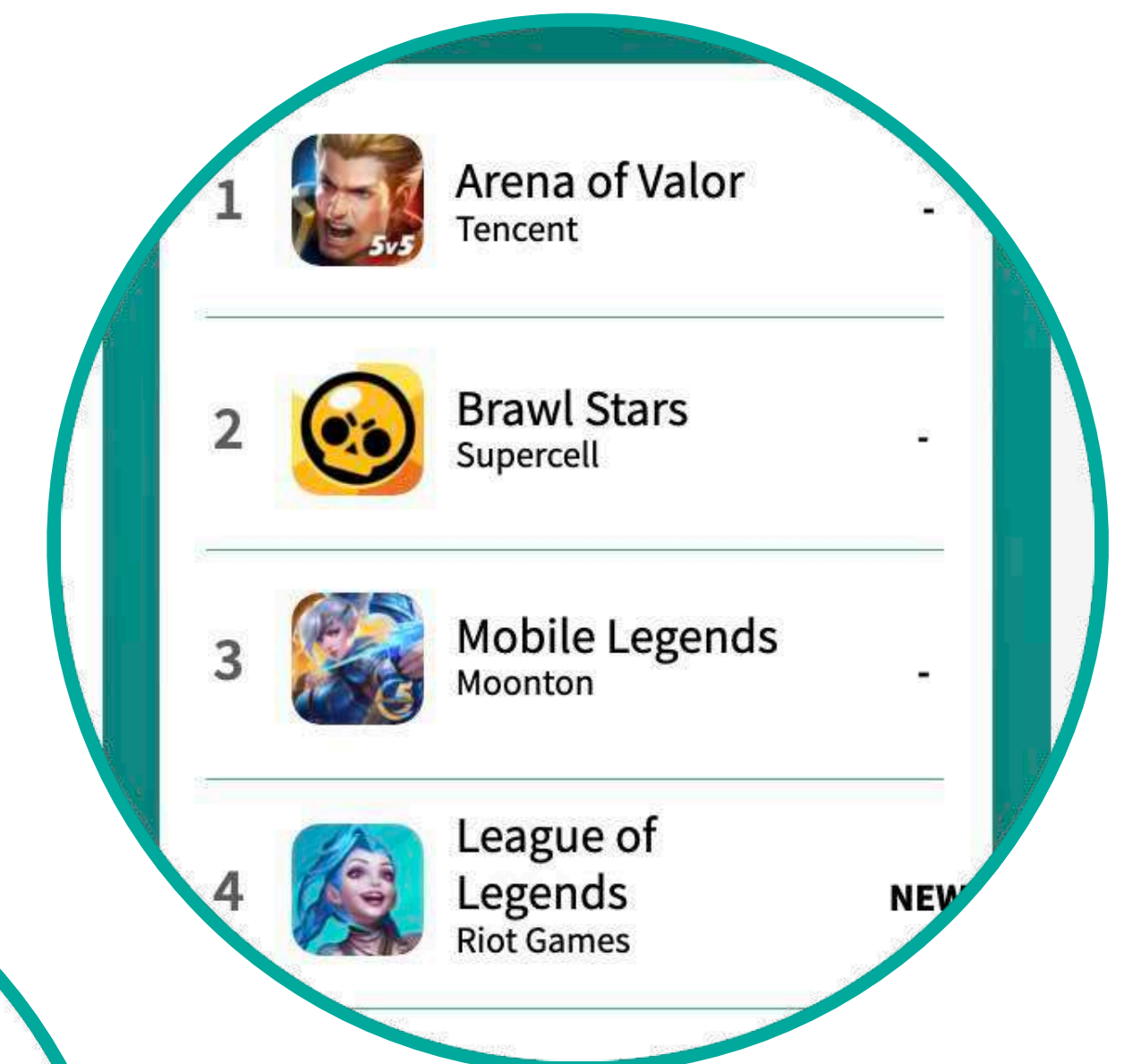
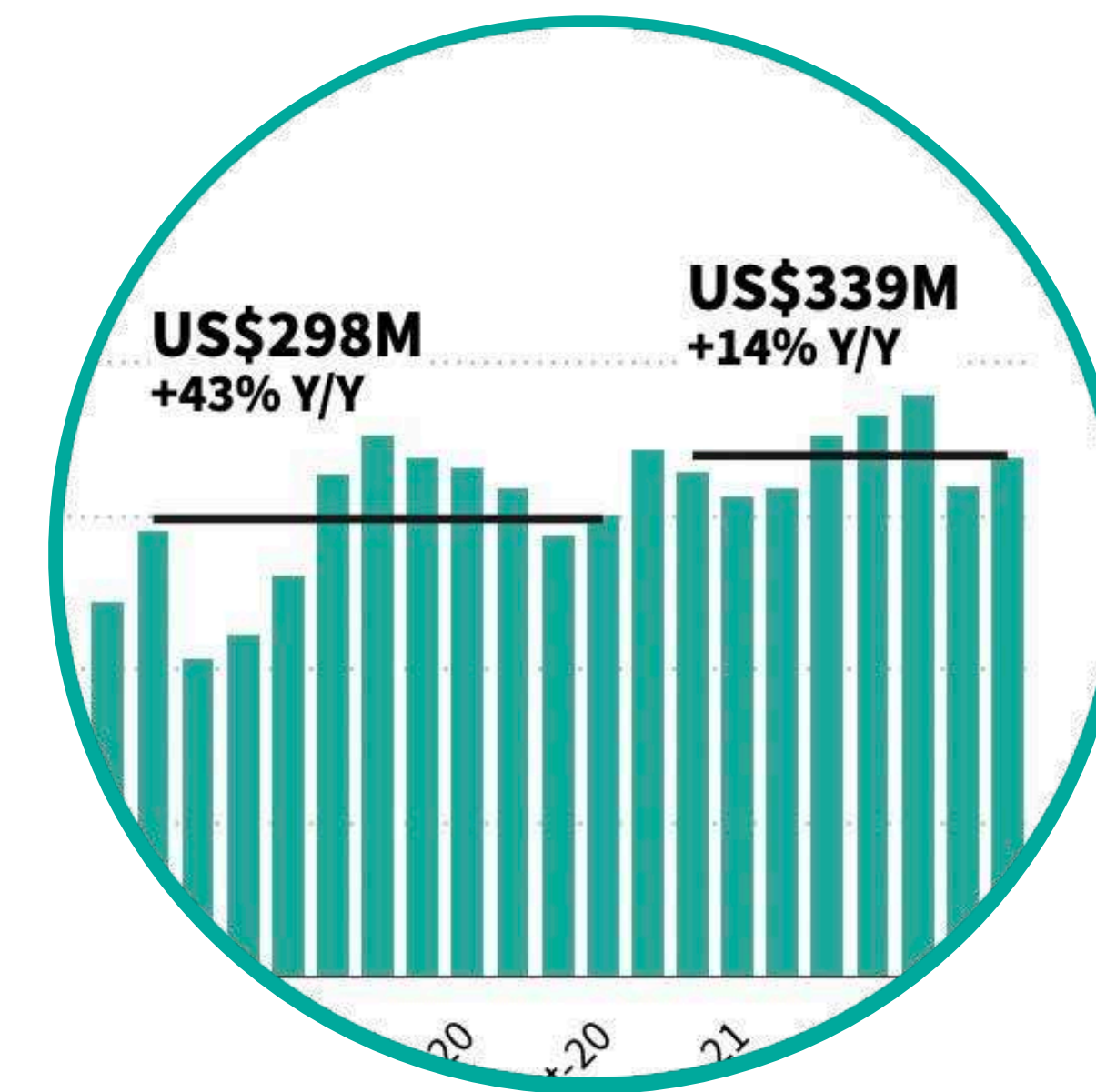
Brawl Stars' more casual approach to gameplay and shorter sessions provides the game with broader audience appeal, and as a result it ranks No. 1 for U.S. daily active users.



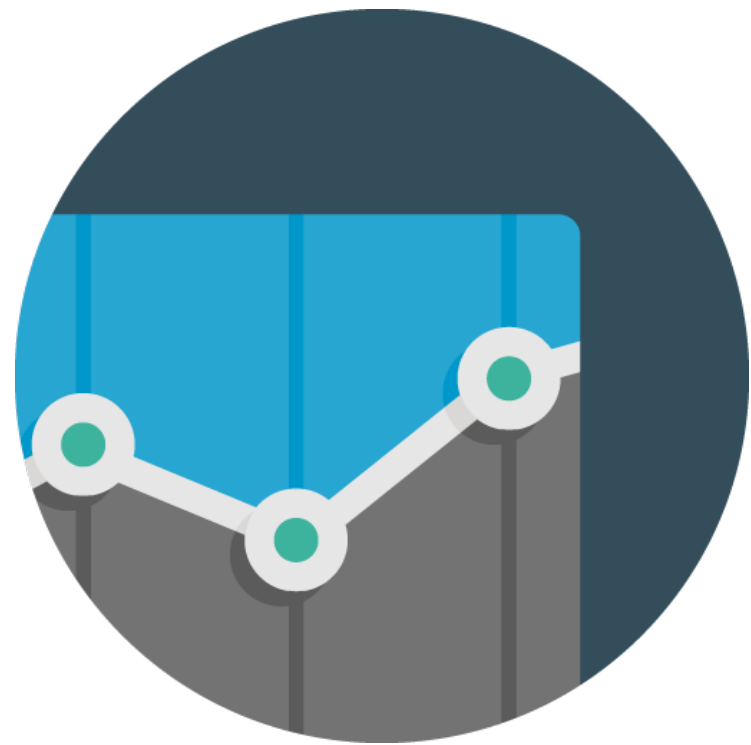
Conclusion

Conclusion

- MOBA is one of the fastest growing Strategy sub-genres. Revenue increased by 14 percent quarter-over-quarter during Q2 2021, its steepest rise over the past year. During the first half of 2021, titles in this sub-genres generated approximately \$2 billion in player spending globally.
- Asia accounts for the vast majority of MOBA revenue so far in 2021, making up 84 percent of player spending.
- MOBA games find sizable audiences in emerging markets. Brazil stands out as one of the largest markets for active users, ranking No. 1 for DAUs in League of Legends, No. 2 for Brawl Stars, and No. 3 for Mobile Legends.
- First launched in 2015, Honor of Kings (Arena of Valor in Western markets) has become the highest revenue generating mobile game globally across the App Store and Google Play, generating \$10 billion in player spending.
- IP-Based MOBAs make up nearly half of U.S. installs. Games that don't own an IP, such as Mobile Legends and Arena of Valor, have historically used licenses to appeal to a wider audience.
- Pokémon Unite is the biggest MOBA launch ever on mobile, surpassing 15 million downloads in just two days following its release on September 22, 2021.
- Some MOBAs incorporate paid advantage mechanics with purchasable upgrades that can impact chances of success. These games can achieve higher revenue per download, but might see lower long-term retention.



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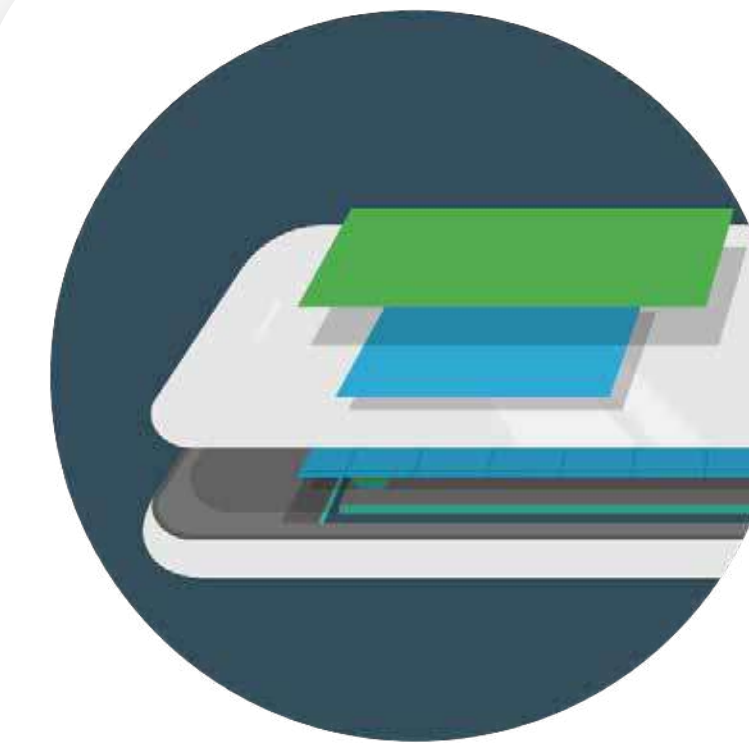
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