



The State of Mobile Gaming 2022

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An Analysis of Mobile Gaming Market Trends
and Top Titles in the U.S., Europe, and Asia

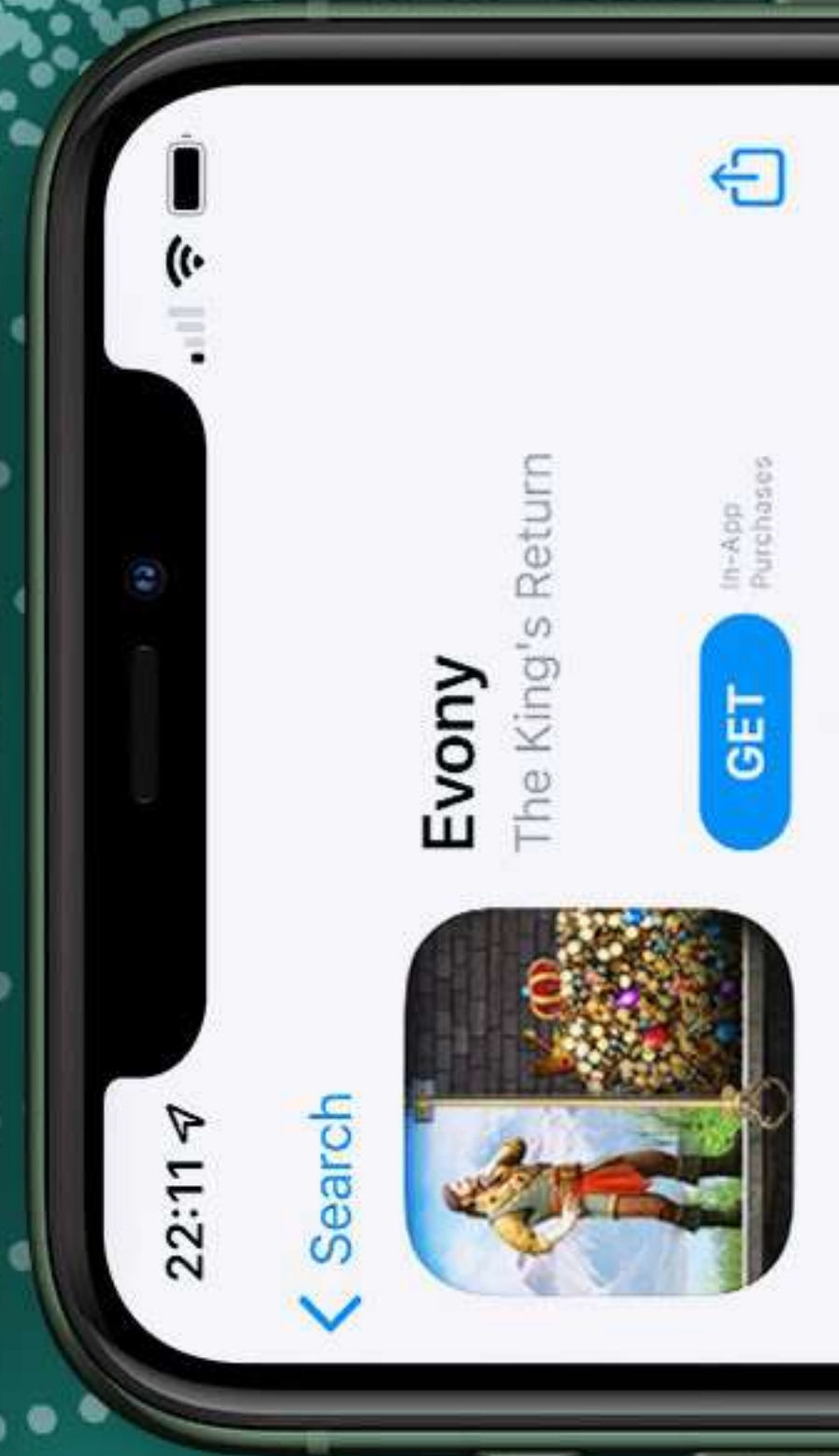
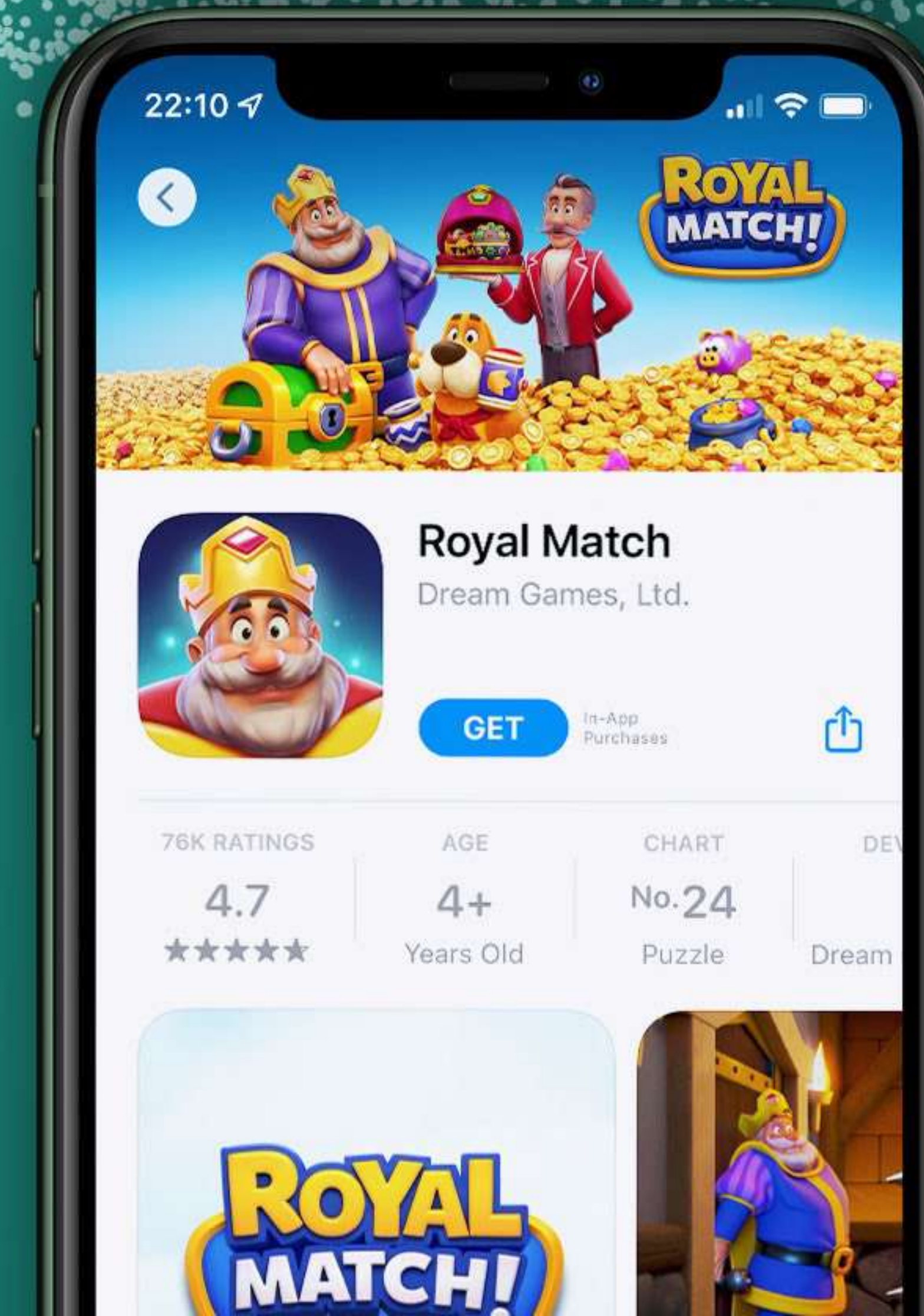
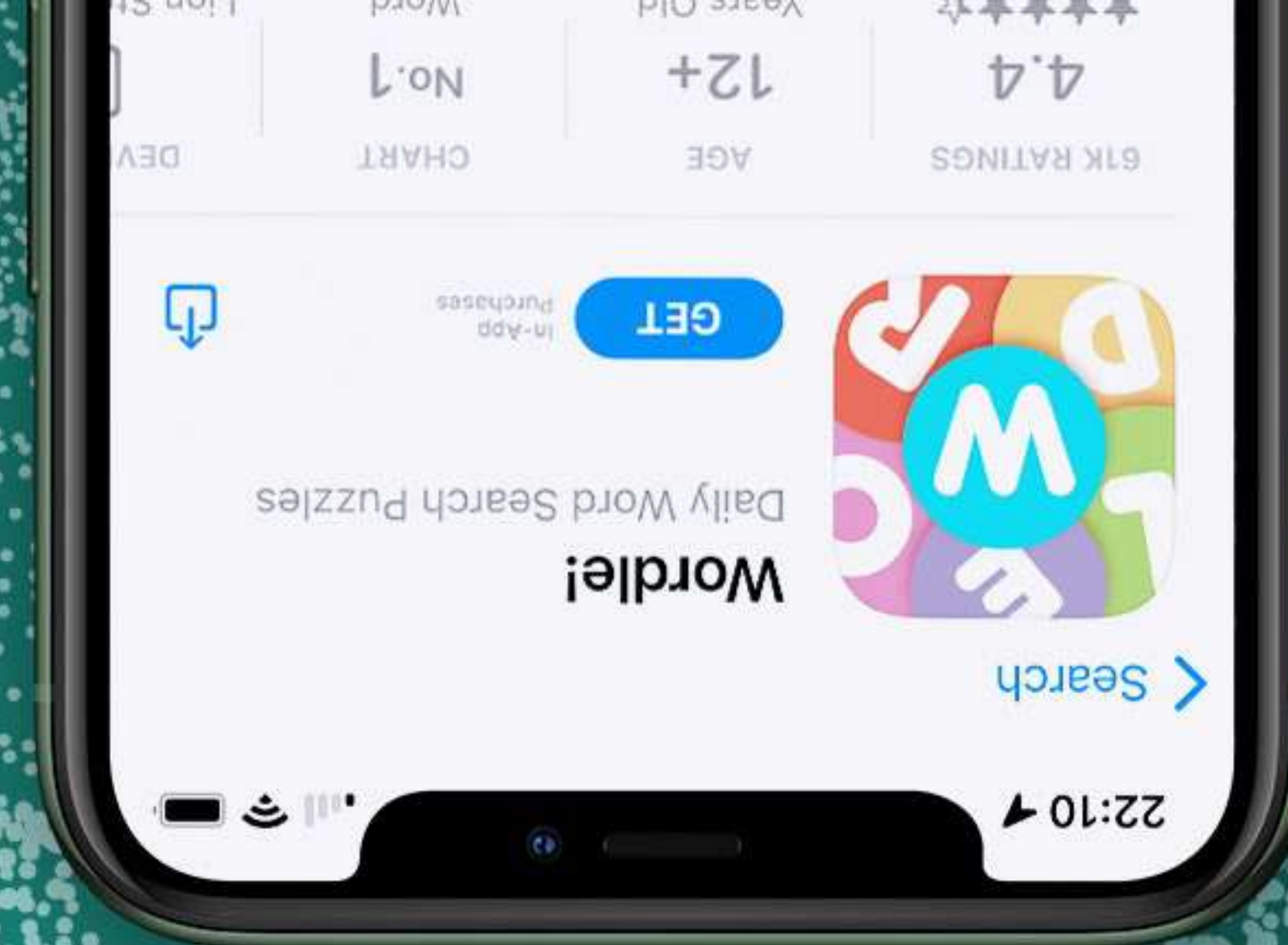


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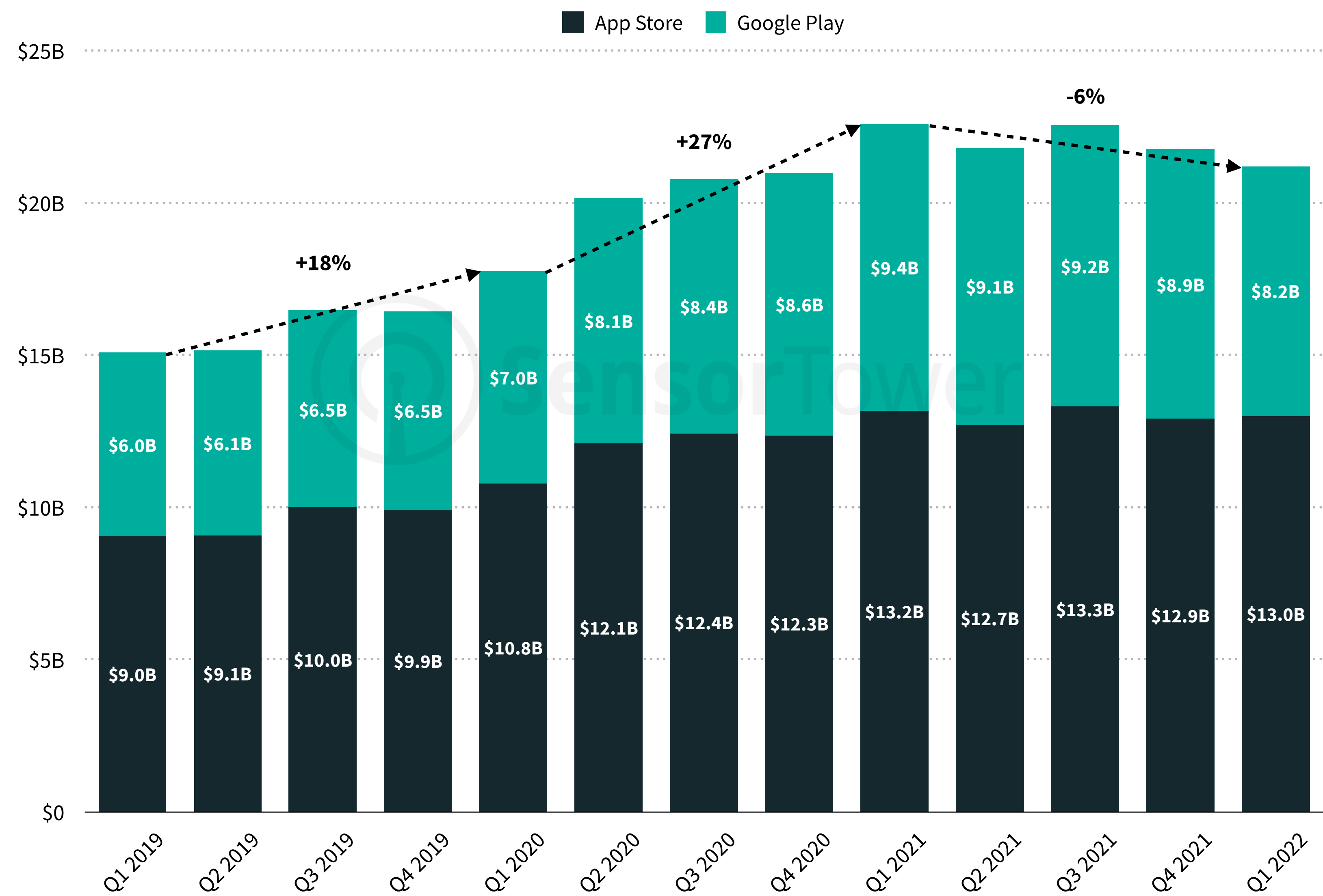
 Sensor Tower

Market Overview: Worldwide

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An Overview of Mobile Gaming Worldwide

After COVID, Global Game Revenue Declines for the First Time

Worldwide quarterly consumer spending in mobile games on the App Store and Google Play



Global mobile game revenue surged during the start of the COVID-19 pandemic, seeing its largest year-over-year growth in Q2 2020 at 33 percent. Player spending peaked in Q1 2021 at \$22.6 billion.

Mobile game revenue declined Y/Y for the first time in history during Q1 2022. Player spending declined 6 percent Y/Y to \$21.2 billion, primarily due to the high base of comparison from the previous year. Spending was still up nearly 20 percent compared to Q1 2020.

Note:
Revenue figures are gross revenue (including the cut taken by Apple or Google).

Lineage W Was the Only Game to Break into The Top Charts in Q1 2022

Top mobile games by worldwide revenue on the App Store and Google Play


Game Class

Mid-Core

Casual

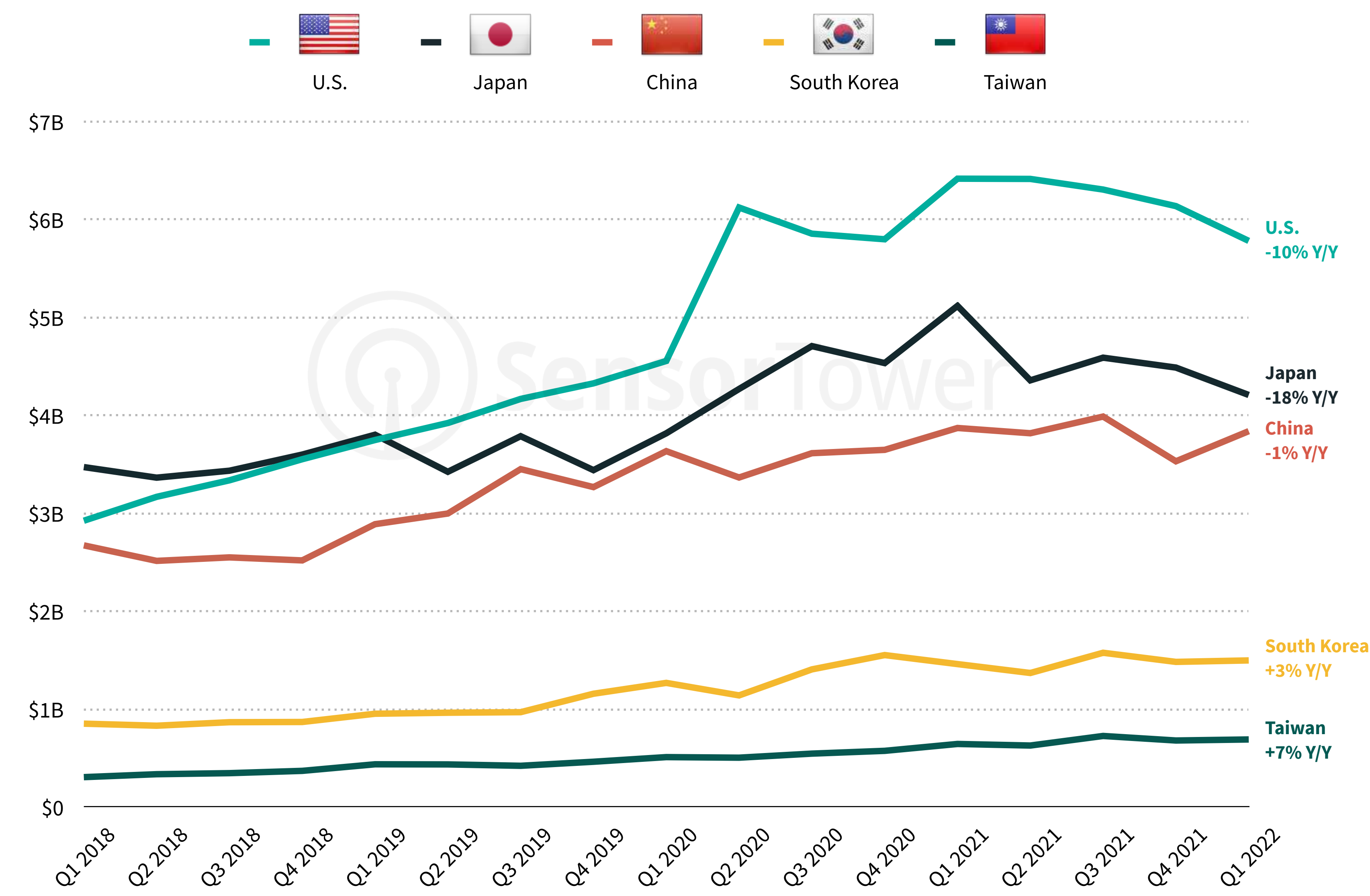
Casino

Sports & Racing

2019	2020	2021	Q1 2022
<div><div>1</div><div></div><div>Honor of Kings</div><div>Tencent</div><div>-</div></div>	<div><div>1</div><div></div><div>PUBG Mobile</div><div>Tencent</div><div>+1</div></div>	<div><div>1</div><div></div><div>PUBG Mobile</div><div>Tencent</div><div>-</div></div>	<div><div>1</div><div></div><div>Honor of Kings</div><div>Tencent</div><div>+1</div></div>
<div><div>2</div><div></div><div>PUBG Mobile</div><div>Tencent</div><div>NEW</div></div>	<div><div>2</div><div></div><div>Honor of Kings</div><div>Tencent</div><div>-1</div></div>	<div><div>2</div><div></div><div>Honor of Kings</div><div>Tencent</div><div>-</div></div>	<div><div>2</div><div></div><div>PUBG Mobile</div><div>Tencent</div><div>-1</div></div>
<div><div>3</div><div></div><div>Fate/Grand Order</div><div>Sony</div><div>-</div></div>	<div><div>3</div><div></div><div>Pokémon GO</div><div>Niantic</div><div>+3</div></div>	<div><div>3</div><div></div><div>Genshin Impact</div><div>miHoYo</div><div>NEW</div></div>	<div><div>3</div><div></div><div>Genshin Impact</div><div>miHoYo</div><div>-</div></div>
<div><div>4</div><div></div><div>Candy Crush Saga</div><div>King</div><div>-</div></div>	<div><div>4</div><div></div><div>Coin Master</div><div>Moon Active</div><div>NEW</div></div>	<div><div>4</div><div></div><div>Roblox</div><div>Roblox</div><div>+1</div></div>	<div><div>4</div><div></div><div>Roblox</div><div>Roblox</div><div>-</div></div>
<div><div>5</div><div></div><div>Monster Strike</div><div>Mixi</div><div>-3</div></div>	<div><div>5</div><div></div><div>Roblox</div><div>Roblox</div><div>NEW</div></div>	<div><div>5</div><div></div><div>Coin Master</div><div>Moon Active</div><div>-1</div></div>	<div><div>5</div><div></div><div>Candy Crush Saga</div><div>King</div><div>+1</div></div>
<div><div>6</div><div></div><div>Pokémon GO</div><div>Niantic</div><div>-</div></div>	<div><div>6</div><div></div><div>Candy Crush Saga</div><div>King</div><div>-2</div></div>	<div><div>6</div><div></div><div>Candy Crush Saga</div><div>King</div><div>-</div></div>	<div><div>6</div><div></div><div>Lineage W</div><div>NCSOFT</div><div>NEW</div></div>
<div><div>7</div><div></div><div>Fantasy Westward Journey</div><div>NetEase</div><div>-</div></div>	<div><div>7</div><div></div><div>Monster Strike</div><div>Mixi</div><div>-2</div></div>	<div><div>7</div><div></div><div>Pokémon GO</div><div>Niantic</div><div>-4</div></div>	<div><div>7</div><div></div><div>Coin Master</div><div>Moon Active</div><div>-2</div></div>
<div><div>8</div><div></div><div>Lineage M</div><div>NCSOFT</div><div>-3</div></div>	<div><div>8</div><div></div><div>Rise of Kingdoms</div><div>Lilith Games</div><div>NEW</div></div>	<div><div>8</div><div></div><div>Garena Free Fire</div><div>Garena</div><div>NEW</div></div>	<div><div>8</div><div></div><div>Uma Musume Pretty Derby</div><div>Cygames</div><div>+1</div></div>
<div><div>9</div><div></div><div>Clash of Clans</div><div>Supercell</div><div>-</div></div>	<div><div>9</div><div></div><div>Gardenscapes</div><div>Playrix</div><div>NEW</div></div>	<div><div>9</div><div></div><div>Uma Musume Pretty Derby</div><div>Cygames</div><div>NEW</div></div>	<div><div>9</div><div></div><div>Three Kingdoms Tactics</div><div>Alibaba</div><div>+1</div></div>
<div><div>10</div><div></div><div>Homescapes</div><div>Playrix</div><div>NEW</div></div>	<div><div>10</div><div></div><div>Fate/Grand Order</div><div>Sony</div><div>-7</div></div>	<div><div>10</div><div></div><div>Three Kingdoms Tactics</div><div>Alibaba</div><div>NEW</div></div>	<div><div>10</div><div></div><div>Garena Free Fire</div><div>Garena</div><div>-2</div></div>

Game Revenue Has Declined in the U.S. for the First Time

Top countries by mobile game spending, App Store and Google Play



The United States remains the top market for mobile games, having outpaced Japan in Q2 2019, and surpassed \$6 billion in revenue during Q1 2021.

U.S. player spending remained above \$6 billion each quarter in 2021, but declined 10 percent year-over-year during Q1 2022.

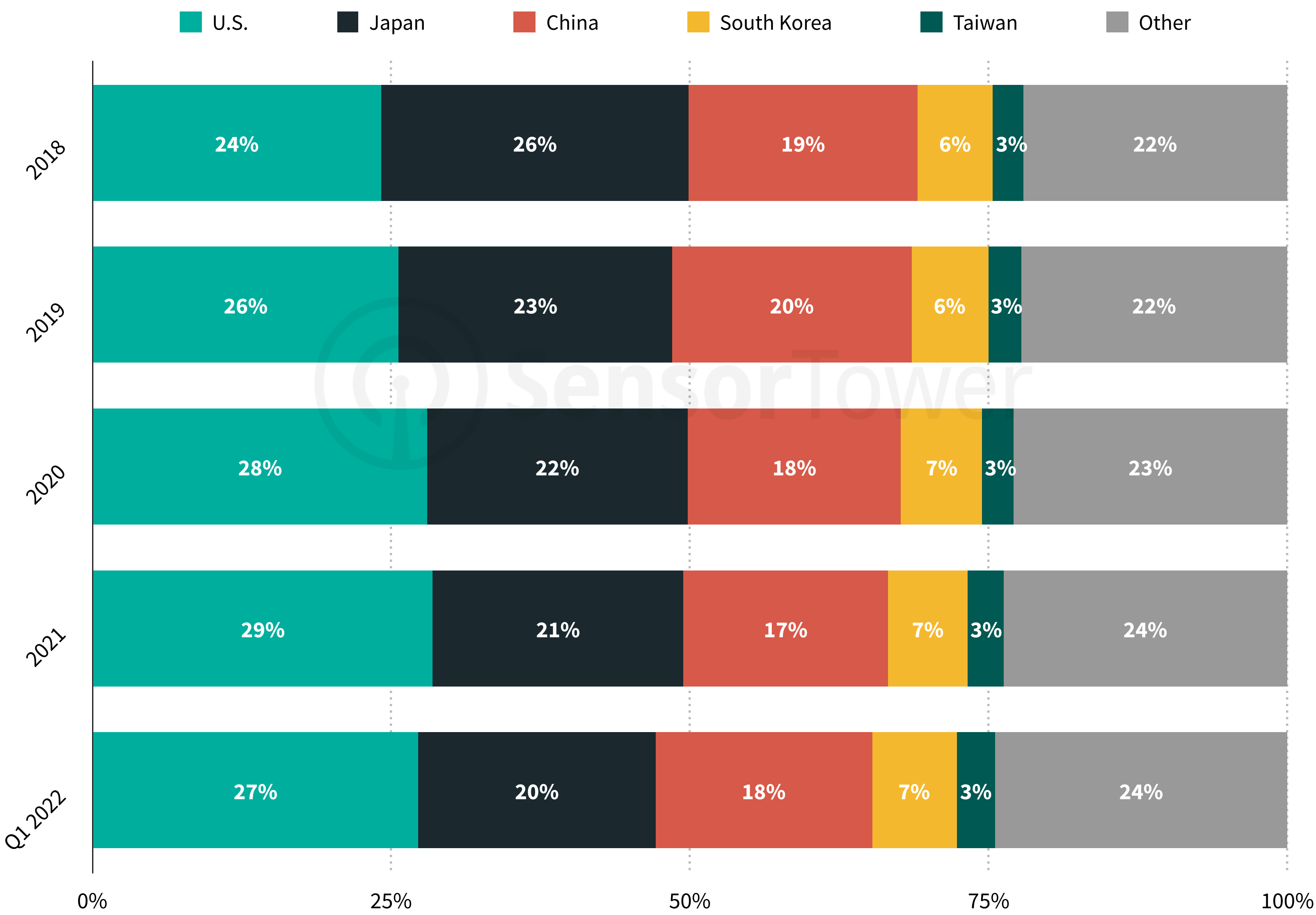
Japan, the second largest mobile games market, saw revenue down Y/Y for the third consecutive quarter in Q1 2022.

Taiwan, the fifth largest market, is still growing. Revenues increased during Q1 2022 to almost \$700 million, up 7 percent Y/Y.

Note:
Revenue figures are gross revenue (including the cut taken by Apple or Google). China numbers only include the App Store as Google Play is not available there.

Alternative Markets are Gaining Traction

Market share for top countries by mobile game spending, App Store and Google Play



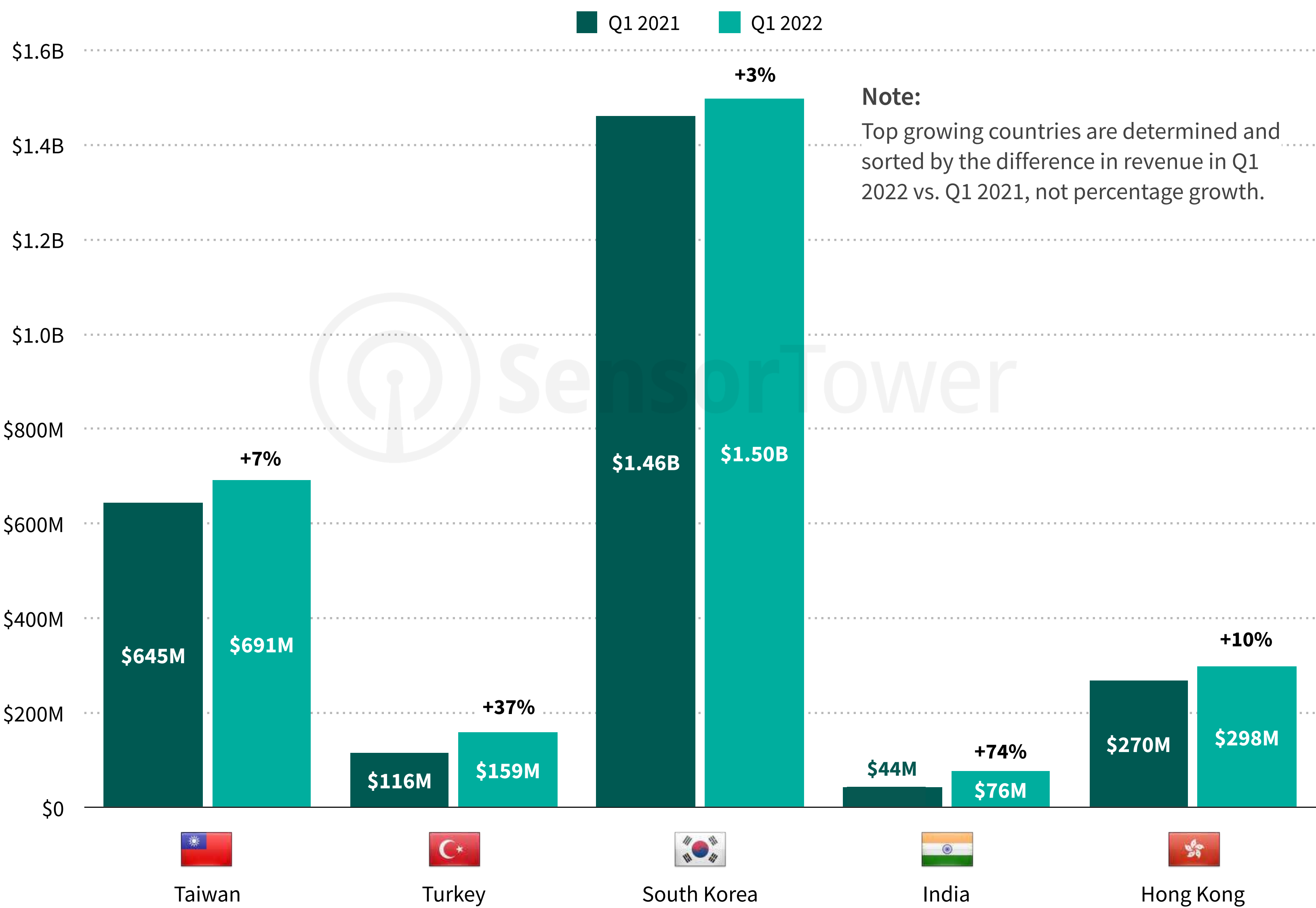
The two largest markets by spending (U.S. and Japan) experienced double digit revenue decline during Q1 2022, losing a combined 3 percent market share of global mobile game revenue compared to 2021.

Countries outside the top five have slowly gained market share, suggesting that mobile game publishers have turned to less-tapped markets with higher growth potential.

Note:
Revenue figures are gross revenue (including the cut taken by Apple or Google). China numbers only include the App Store as Google Play is not available there.

Taiwan Has Displaced Germany as the Fifth Largest Market

Top countries by Y/Y mobile game spending growth in Q1 2022, App Store and Google Play



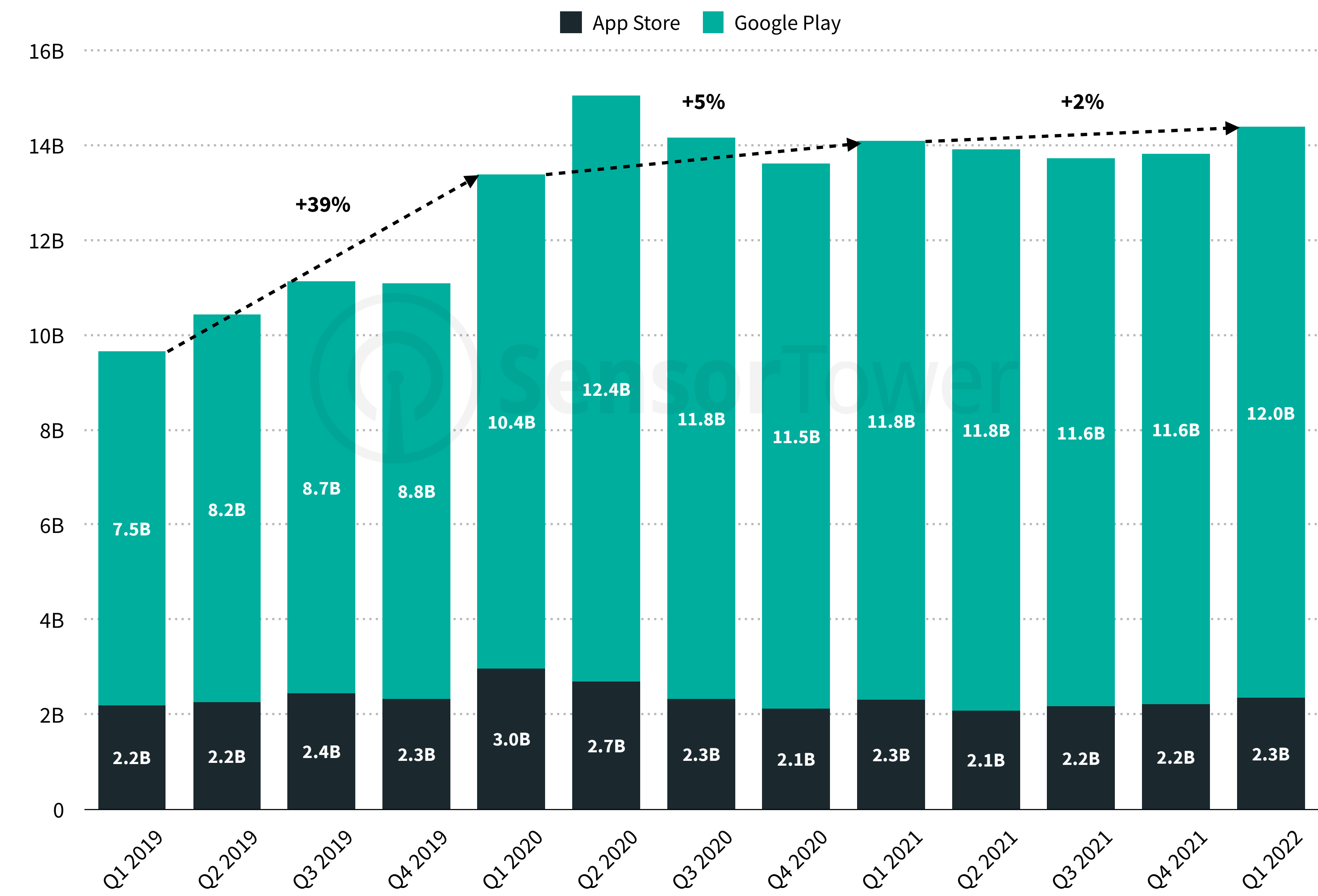
Having experienced double-digit growth between Q2 2018 and Q4 2021, Taiwan displaced Germany as the fifth largest mobile games market in the world, and no country had higher year-over-year growth. Consumer spending in this country was close to \$700 million in Q1 2022.

Each of the five top countries by player spending growth are in Asia, exposing how relevant the APAC region is for the games industry.

Note:
Revenue figures are gross revenue (including the cut taken by Apple or Google). China numbers only include the App Store as Google Play is not available there.

Mobile Game Adoption Remains Stable After a Jump in 2020

Worldwide quarterly downloads of mobile games on the App Store and Google Play



Mobile game downloads experienced big gains starting in Q1 2020, right at the beginning of the pandemic. Between Q3 2019 and Q4 2020, global downloads registered double-digit growth and are currently stable at about the 14 billion mark.

Although mobile game adoption has slowed since its peak in Q2 2020, it has remained well above pre-pandemic levels.

Seven Different Genres Appeared in the Downloads Top 10 for Q1 2022

Top mobile games by worldwide downloads on the App Store and Google Play




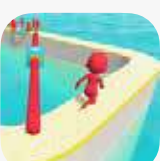

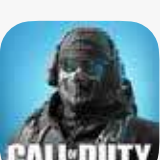

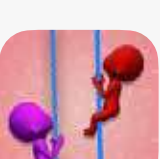
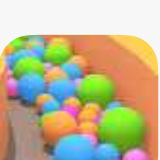

Game Class






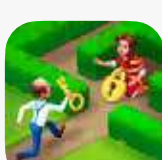


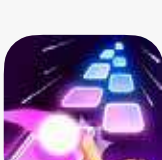

Mid-Core




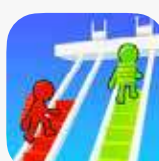
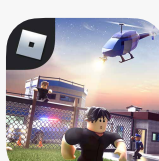



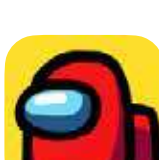
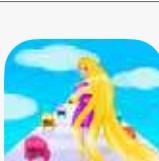
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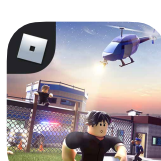



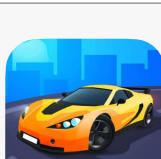
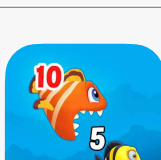
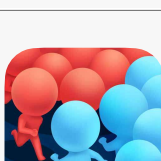
Casino

Sports & Racing

2019				
1		PUBG Mobile	Tencent	+1
2		Garena Free Fire	Garena	NEW
3		Subway Surfers	Sybo Games	-
4		Fun Race 3D	Good Job Games	NEW
5		Color Bump 3D	Good Job Games	NEW
6		Call of Duty: Mobile	Activision Blizzard	NEW
7		My Talking Tom 2	Outfit7	NEW
8		Run Race 3D	Good Job Games	NEW
9		Sand Balls	SayGames	NEW
10		Homescapes	Playrix	NEW

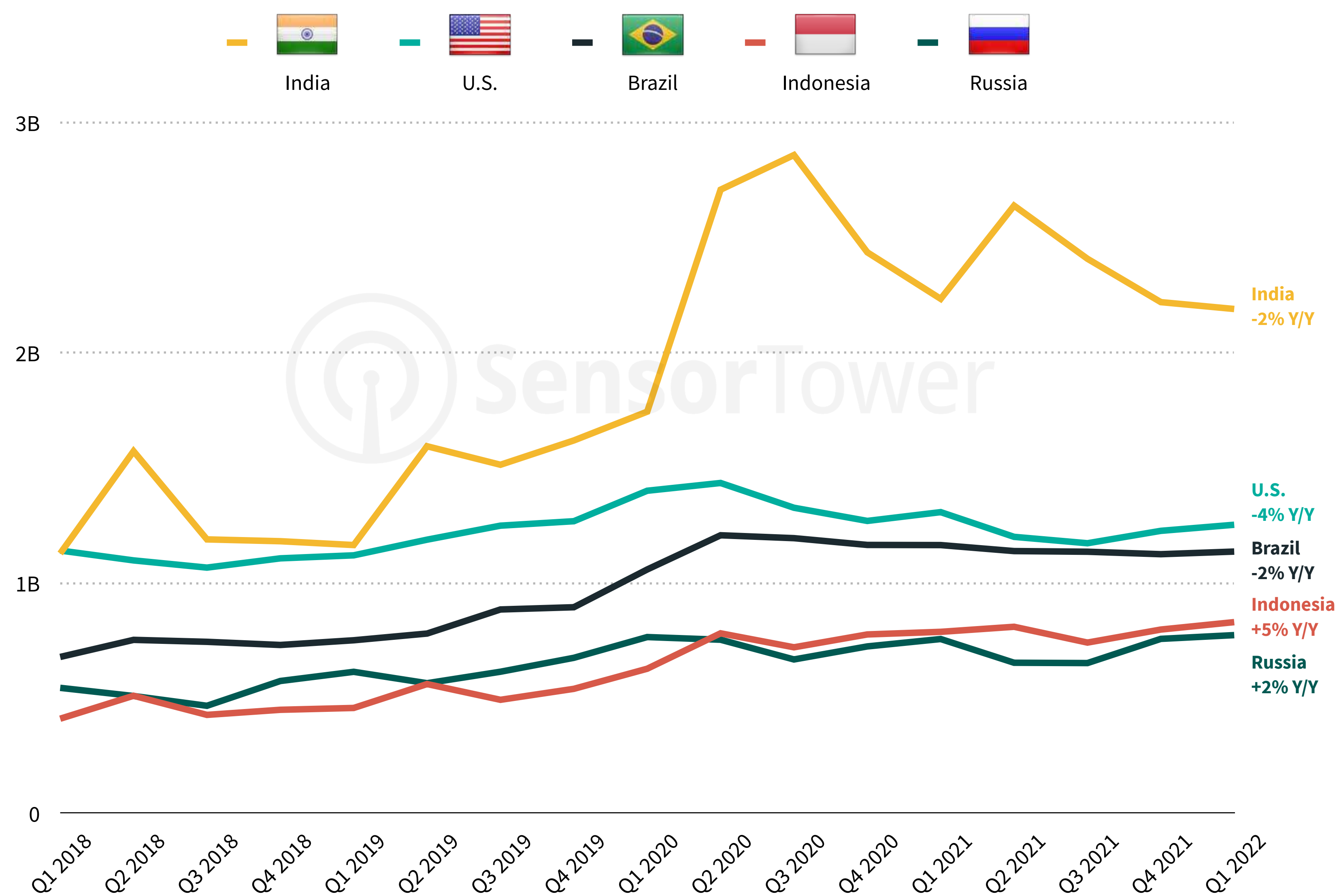
2020				
1		Among Us	InnerSloth	NEW
2		Garena Free Fire	Garena	-
3		Subway Surfers	Sybo Games	-
4		PUBG Mobile	Tencent	-3
5		Hunter Assassin	Ruby Games Studio	NEW
6		Gardenscapes	Playrix	NEW
7		Brain Out	Focus Apps	NEW
8		Ludo King	Gametion	NEW
9		Tiles Hop	Amanotes	NEW
10		Homescapes	Playrix	-

2021				
1		Garena Free Fire	Garena	+1
2		Subway Surfers	Sybo Games	+1
3		PUBG Mobile	Tencent	+1
4		Bridge Race	Supersonic Studios	NEW
5		Roblox	Roblox	NEW
6		Ludo King	Gametion	+2
7		Candy Crush Saga	King	+5
8		Join Clash 3D	Supersonic Studios	NEW
9		Among Us	InnerSloth	-8
10		Hair Challenge	Rollic Games	NEW

Q1 2022				
1		Garena Free Fire	Garena	-
2		Subway Surfers	Sybo Games	-
3		Merge Master	Homa Games	NEW
4		Roblox	Roblox	+1
5		Candy Crush Saga	King	+2
6		PUBG Mobile	Tencent	-3
7		Ludo King	Gametion	-1
8		Race Master 3D	SayGames	NEW
9		Fishdom	Playrix	NEW
10		Count Masters	Tap2Play	NEW

The Largest Markets Saw Game Installs Decline in Q1 2022

Top countries by mobile game downloads, App Store and Google Play



As smartphone penetration in India increased in recent years, it has become the largest market for mobile game downloads. COVID-19 boosted game adoption in the market by 65 percent during 2020. After that increased penetration, the market has cooled down and has been decreasing since Q2 2021.

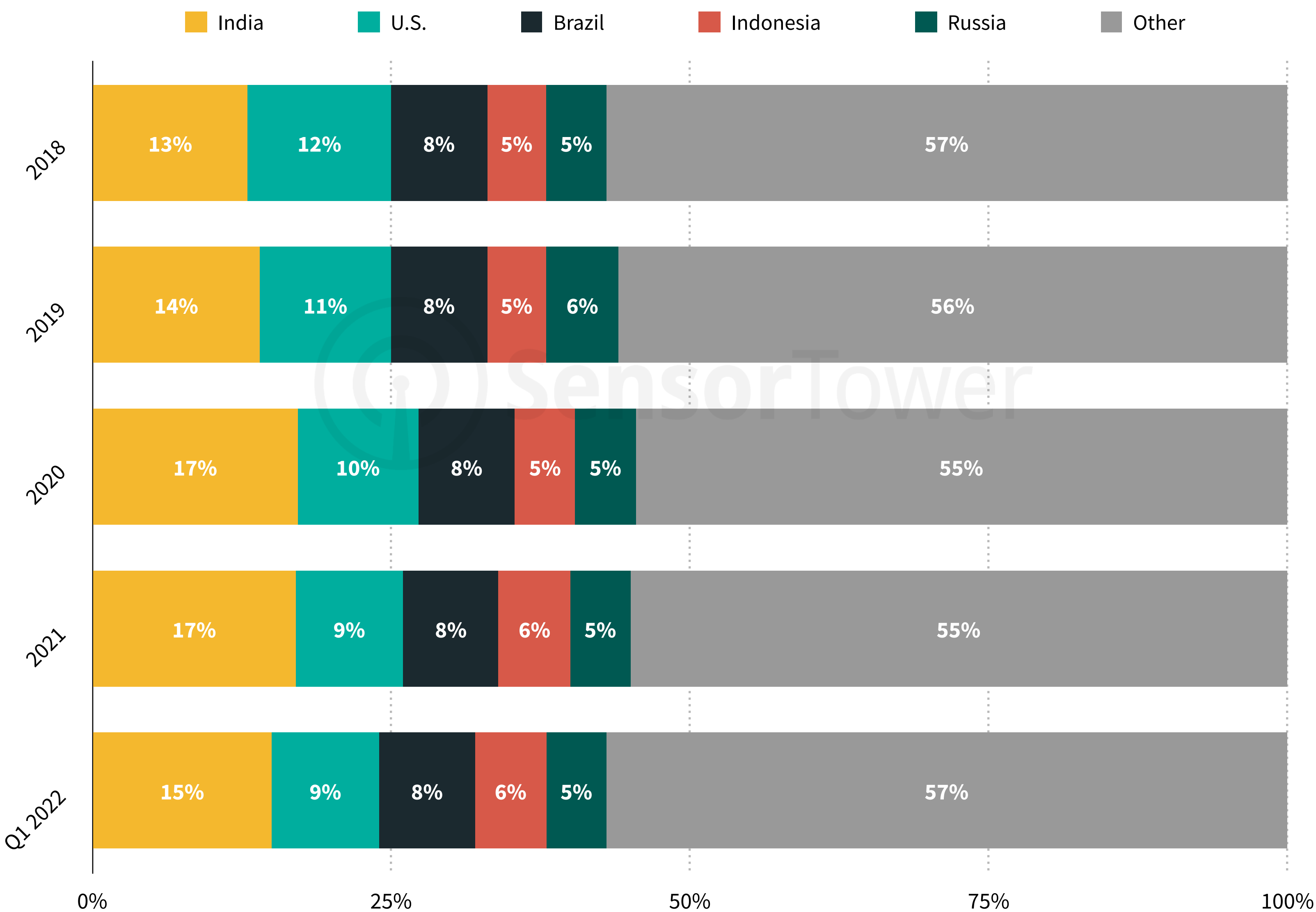
The U.S. market has been declining since Q1 2021, with the last six quarters showing negative growth year-over-year. Downloads in the U.S. decreased 4 percent during Q1 2022.

Emerging markets such as Indonesia and Brazil achieved double-digit Y/Y download growth during 2021. Nevertheless, Indonesia and Russia are the only top countries that continued to show growth during Q1 2022.

Vietnam, Philippines, Thailand, Pakistan, and Kazakhstan were the only countries to achieve double-digit Y/Y growth during Q1 2022. These five markets combined are now larger than the overall U.S. market.

India Accounted for 15 Percent of Downloads in Q1 2022

Market share for top countries by mobile game downloads, App Store and Google Play



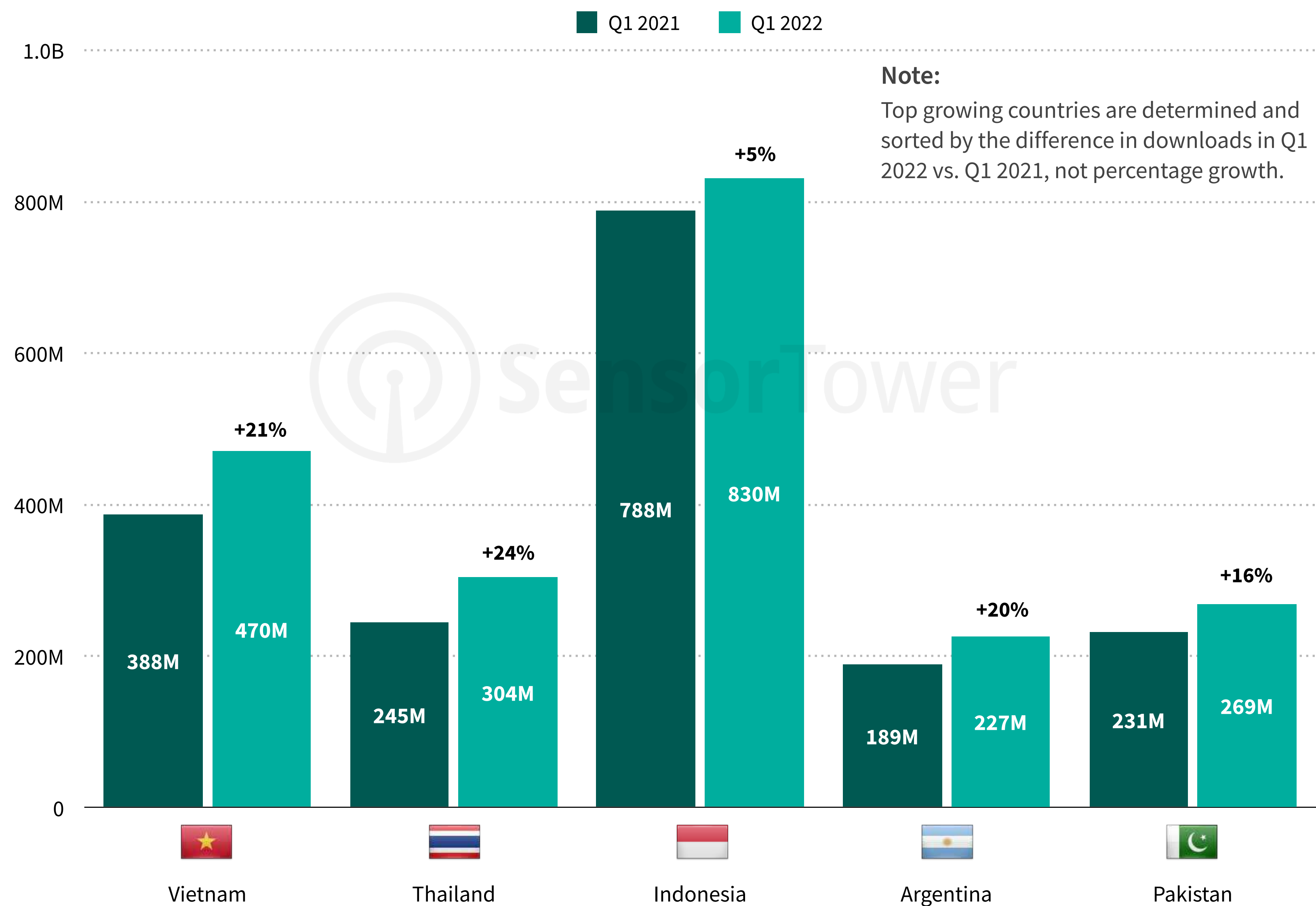
The U.S. download market share remains stable with just under 10 percent of worldwide installs in Q1 2022.

India remains the largest market for downloads, accumulating 15 percent of the worldwide total. Nevertheless, India lost 2 percentage points during Q1 2022 compared to 2021.

Brazil consolidated its position as the third largest market for mobile game downloads. During the last several quarters, downloads in Brazil have grown faster than the in U.S. If this trends continues during 2022, Brazil might surpass the U.S. and become the second largest market by downloads.

Emerging Markets in APAC Grew During Q1 2022

Top countries by Y/Y mobile game download growth in Q1 2022, App Store and Google Play

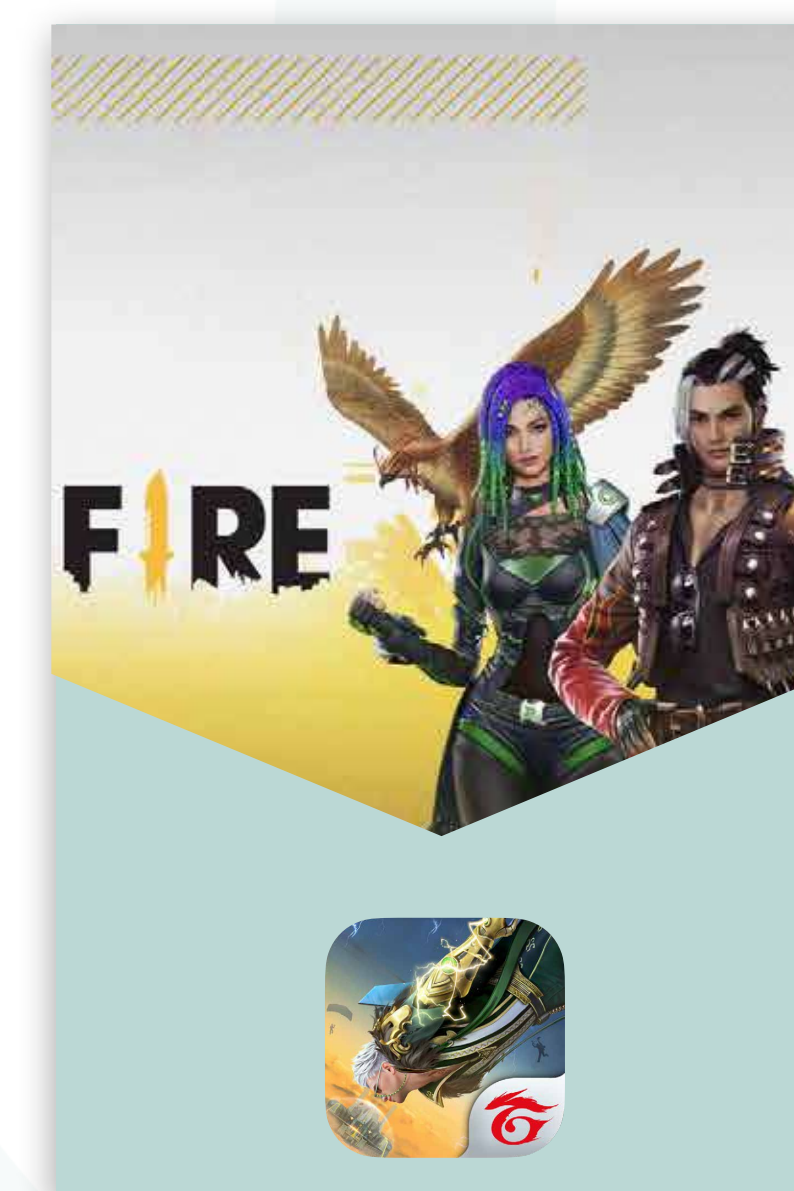
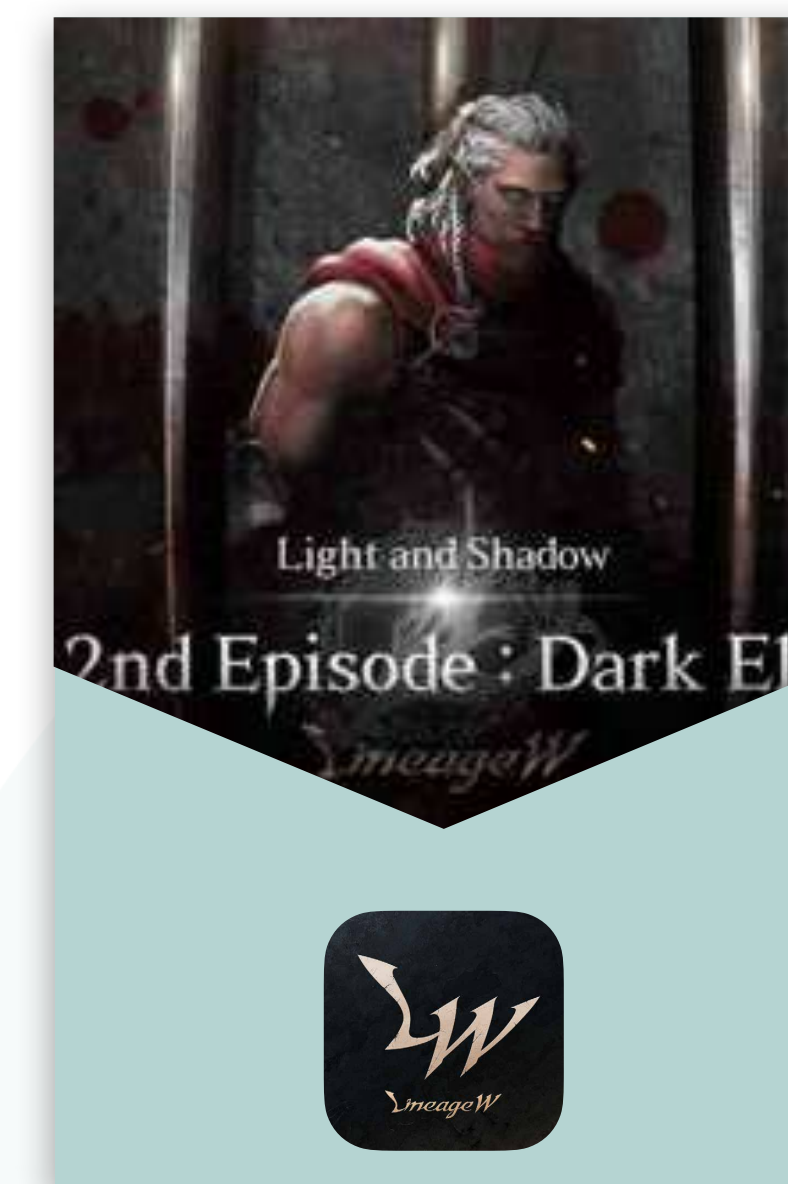


Vietnam saw the largest download growth during Q1 2022, with installs increasing more than 80 million, up 21 percent year-over-year. Thailand also experienced high download growth during the quarter, as installs rose by nearly 60 million, up 24 percent Y/Y.

The top three countries by download growth were in Southeast Asia. Game installs climbed 11 percent Y/Y overall there. Outside of Southeast Asia, Argentina saw the highest growth in Q1 2022.

Key Takeaways: Worldwide

1. After mobile games market revenue surged during the coronavirus pandemic and lockdowns, global consumer spending receded in Q1 2022. While worldwide revenue still surpassed \$21 billion in Q1 2022, it was down 6 percent year-over-year.
2. The two largest mobile game markets, the U.S. and Japan, experienced double-digit revenue decline during the first quarter of 2022.
3. Mobile game downloads remained stable during Q1 2022 at about 14 billion.
4. Games from seven different genres made it into the top 10 by worldwide downloads in Q1 2022. Many forever franchises are still among the most downloaded titles worldwide, including Fishdom (released seven years ago), Ludo King (eight years ago), Subway Surfers (10 years ago), and Roblox (11 years ago).



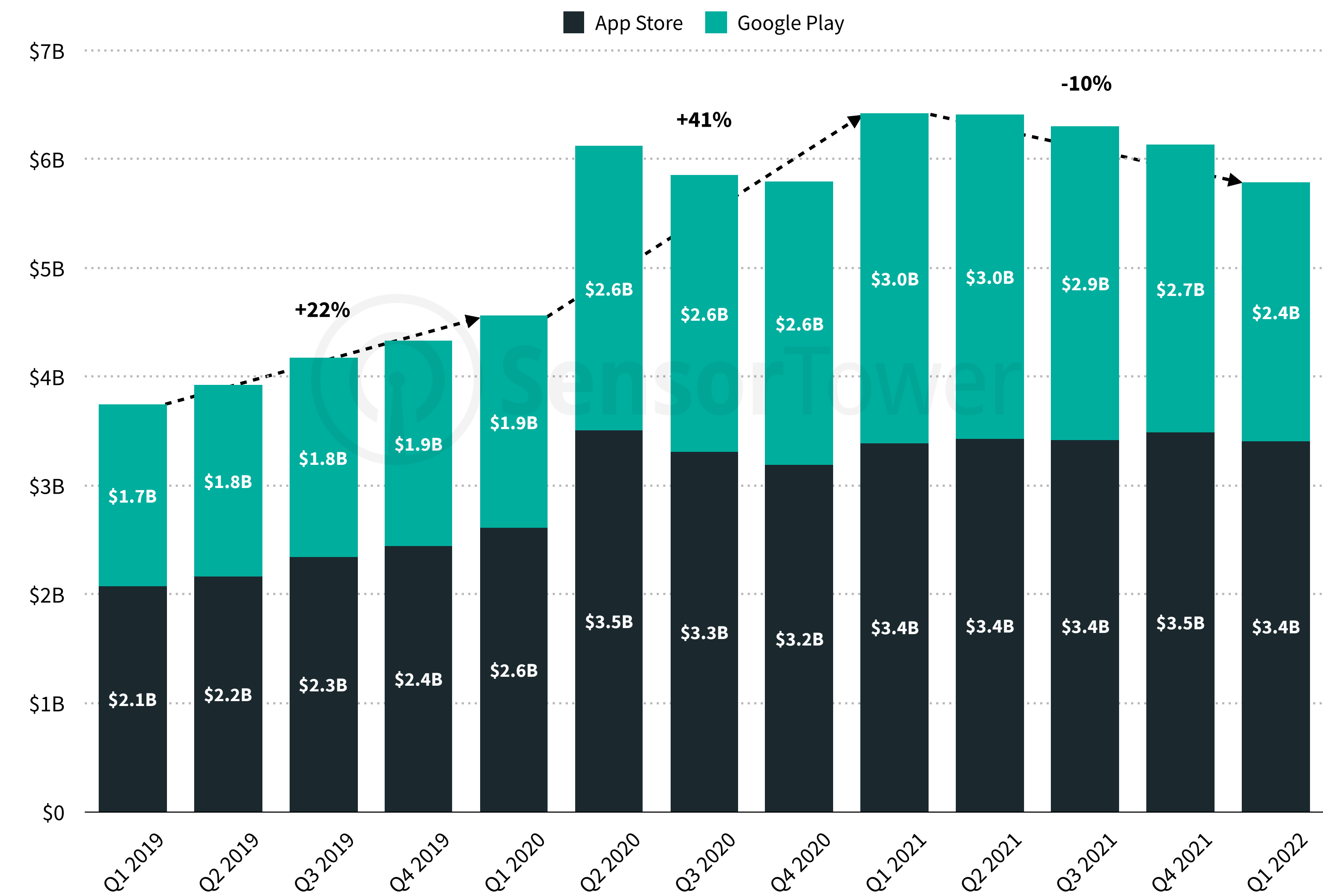


Market Overview: United States

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An Overview of Mobile Gaming in the U.S.

Inflation Has Affected U.S. Google Play Game Revenue

U.S. quarterly gross revenue from mobile games on the App Store and Google Play



The U.S. mobile games industry declined for the first time in history in Q1 2022 as consumer spending dropped 10 percent to below \$6 billion for the first time in a year.

Consumer spending on the App Store remained stable during the first quarter of 2022. The overall decline is mainly focused on poor game monetization performance on Google Play.

Consumer spending on Google Play declined by 22 percent Y/Y, losing \$655 million in gross revenue. Android users have, on average, lower income in the U.S. compared to iOS users.

Inflation and rising living costs may be affecting game revenue on Google Play.

Despite a decline in Q1 2022, **the U.S. is still the top market for mobile gaming.** Its revenue has more than doubled since the start of 2018.

Note:
Revenue figures are gross revenue (including the cut taken by Apple or Google).

Evony and Royal Match Broke into the Top Grossing U.S. Mobile Games

Top mobile games by U.S. revenue on the App Store and Google Play








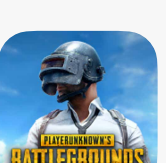


Game Class









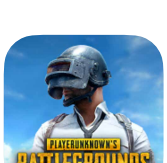
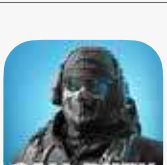
Mid-Core








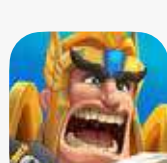

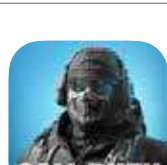
Casual




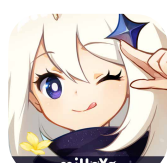

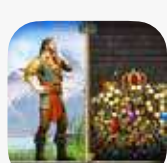

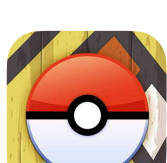
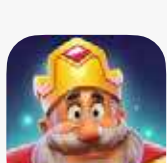

Casino

Sports & Racing

2019				
1		Candy Crush Saga	King	-
2		Roblox	Roblox	+5
3		Clash of Clans	Supercell	+1
4		Pokémon GO	Niantic	-1
5		Coin Master	Moon Active	NEW
6		Homescapes	Playrix	+4
7		Slotomania	Playtika	-2
8		PUBG Mobile	Tencent	NEW
9		Fortnite	Epic Games	-7
10		Toon Blast	Peak Games	-2

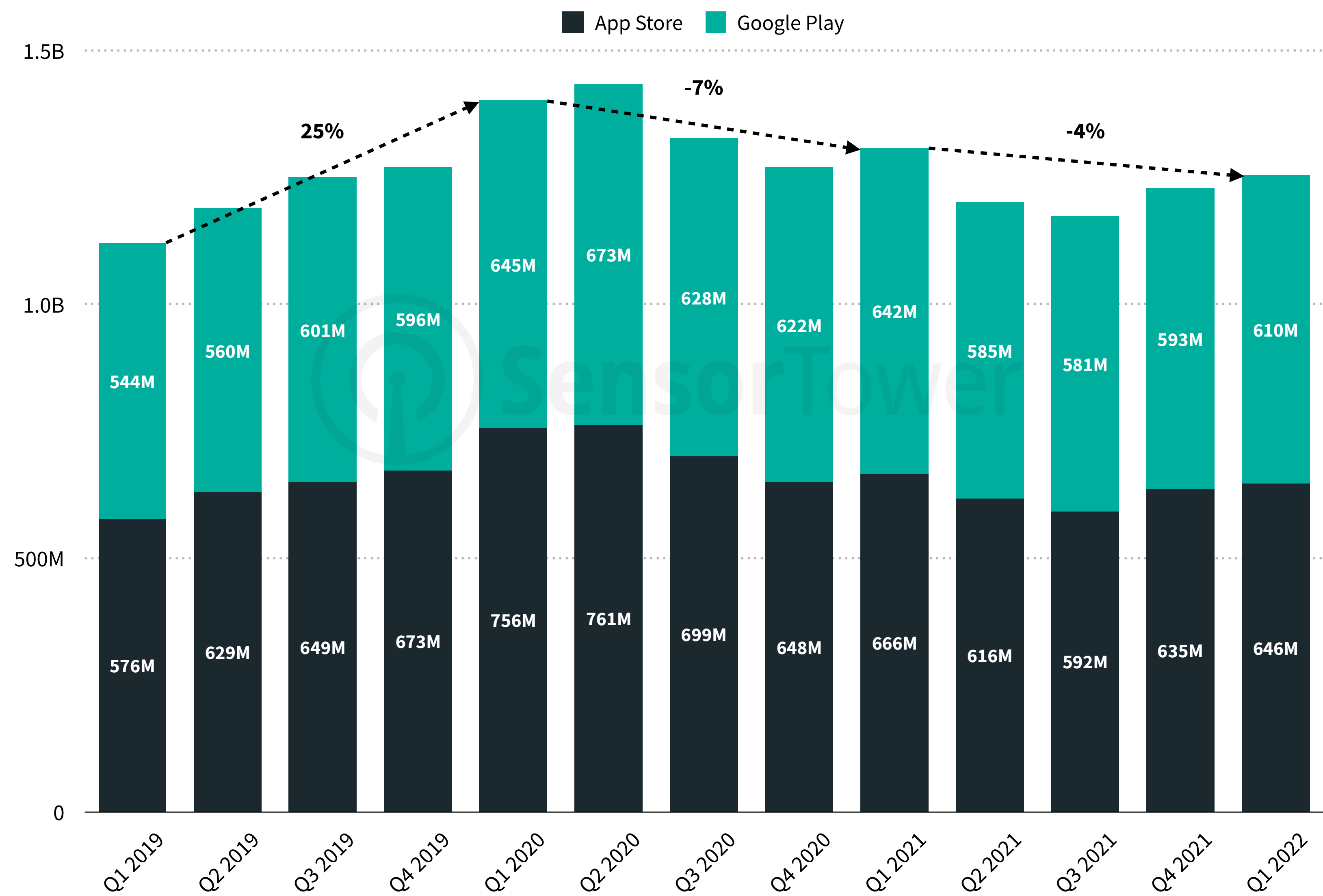
2020				
1		Roblox	Roblox	+1
2		Candy Crush Saga	King	-1
3		Coin Master	Moon Active	+2
4		Pokémon GO	Niantic	-
5		Gardenscapes	Playrix	NEW
6		Homescapes	Playrix	-
7		Clash of Clans	Supercell	-4
8		Slotomania	Playtika	-1
9		PUBG Mobile	Tencent	-1
10		Call of Duty: Mobile	Activision Blizzard	NEW

2021				
1		Candy Crush Saga	King	+1
2		Roblox	Roblox	-1
3		Coin Master	Moon Active	-
4		Garena Free Fire	Garena	NEW
5		Pokémon GO	Niantic	-1
6		Genshin Impact	miHoYo	NEW
7		Homescapes	Playrix	-1
8		Lords Mobile	IGG	NEW
9		Clash of Clans	Supercell	-2
10		Call of Duty: Mobile	Activision Blizzard	-

Q1 2022				
1		Candy Crush Saga	King	-
2		Roblox	Roblox	-
3		Coin Master	Moon Active	-
4		Genshin Impact	miHoYo	+2
5		Garena Free Fire	Garena	-1
6		Evony	Top Games	NEW
7		Clash of Clans	Supercell	+2
8		Pokémon GO	Niantic	-3
9		Royal Match	Dream Games	NEW
10		Homescapes	Playrix	-3

U.S. Game Installs Fell Slightly From a Mid-Pandemic Peak

U.S. quarterly downloads of mobile games on the App Store and Google Play



U.S. mobile game downloads fell from their peak during the first several quarters of the pandemic. Q1 2022 downloads declined by 4 percent year-over-year to 1.2 billion.

The decrease was homogeneous among both the App Store and Google play, with declines of 4 percent and 3 percent, respectively.

Wordle Broke into the Top Games by U.S. Downloads

Top mobile games by U.S. downloads on the App Store and Google Play







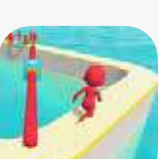
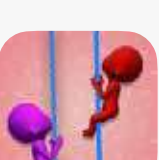
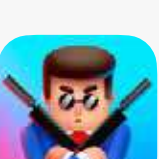

Game Class









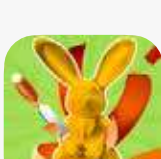
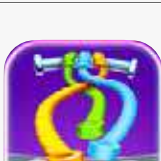
Mid-Core




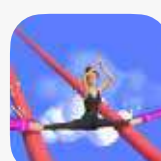

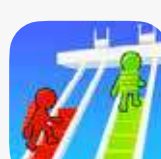
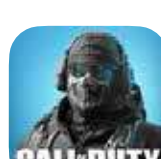


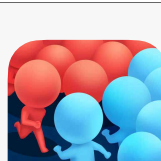
Casual






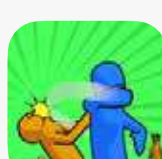

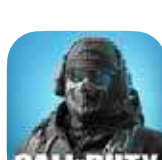
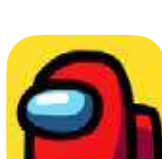

Casino

Sports & Racing

2019				
1		Call of Duty: Mobile	Activision Blizzard	NEW
2		Color Bump 3D	Good Job Games	NEW
3		Aquapark.io	Voodoo	NEW
4		Roblox	Roblox	+2
5		Mario Kart Tour	Nintendo	NEW
6		Wordscapes	PeopleFun	NEW
7		Fun Race 3D	Good Job Games	NEW
8		Run Race 3D	Good Job Games	NEW
9		Mr Bullet	Lion Studios	NEW
10		Polysphere	Playgendary	NEW

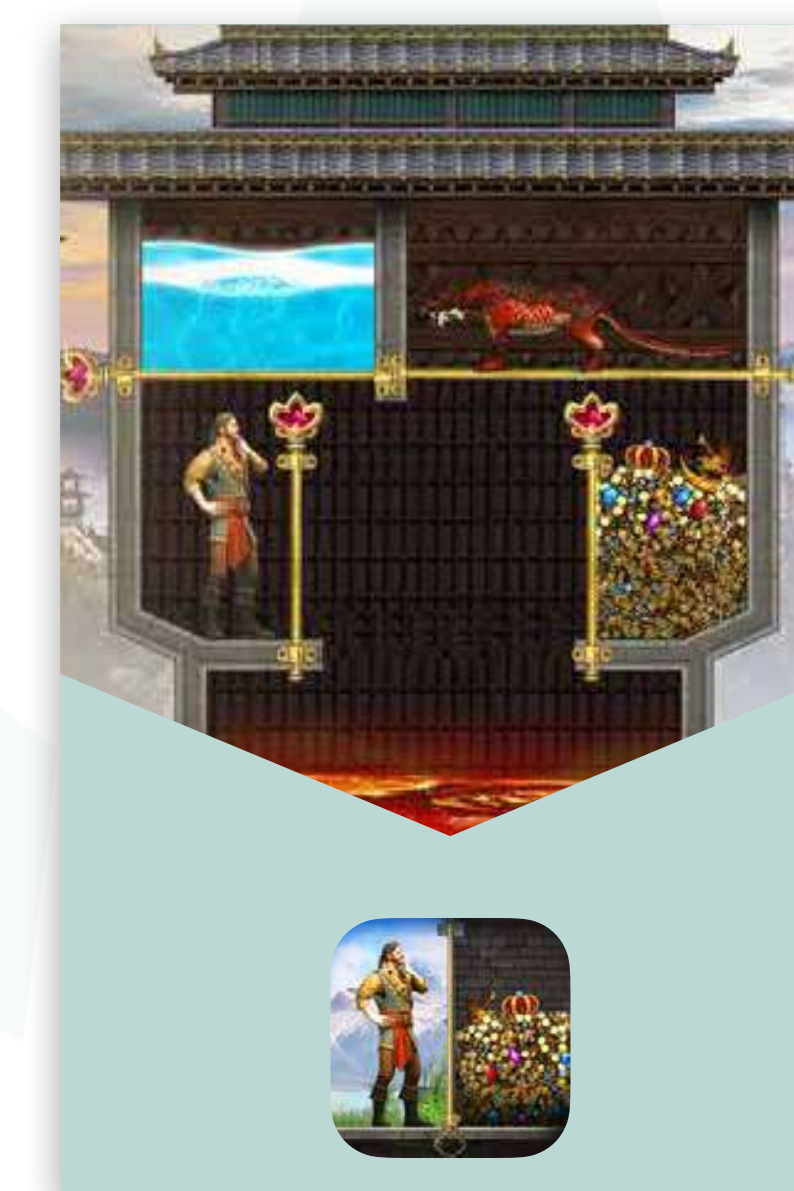
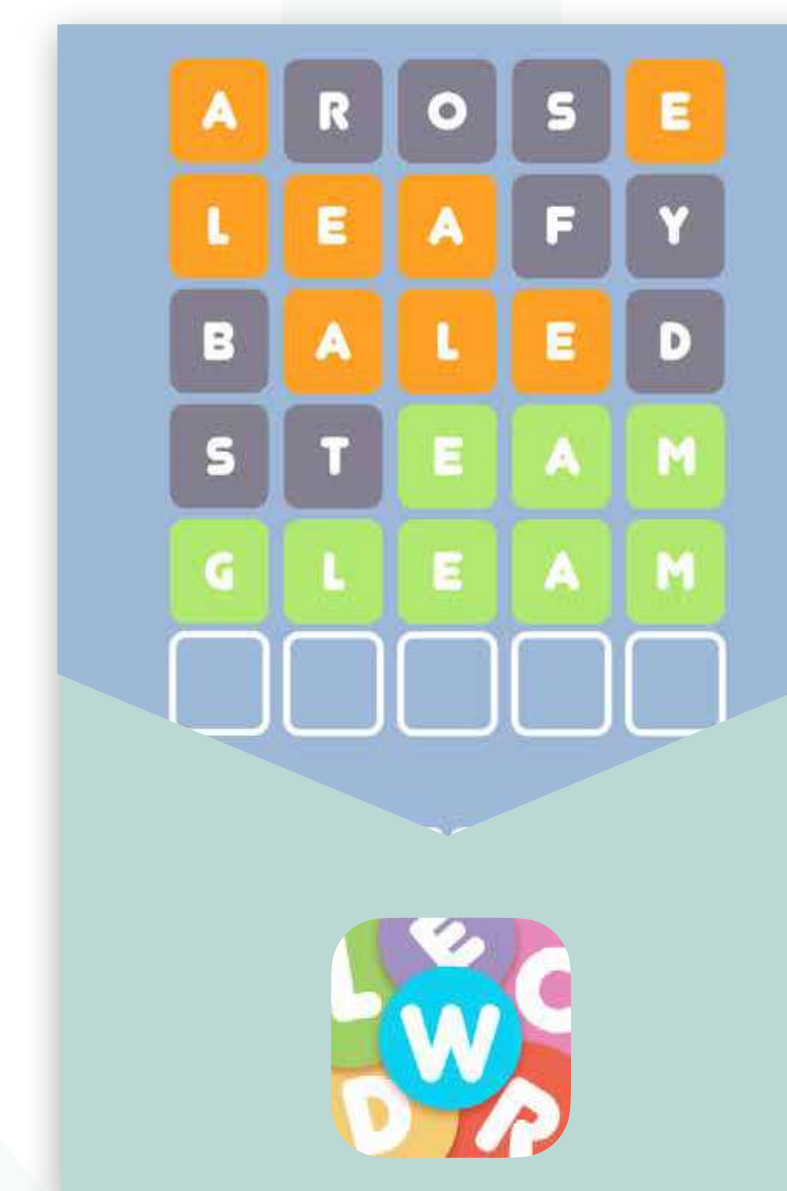
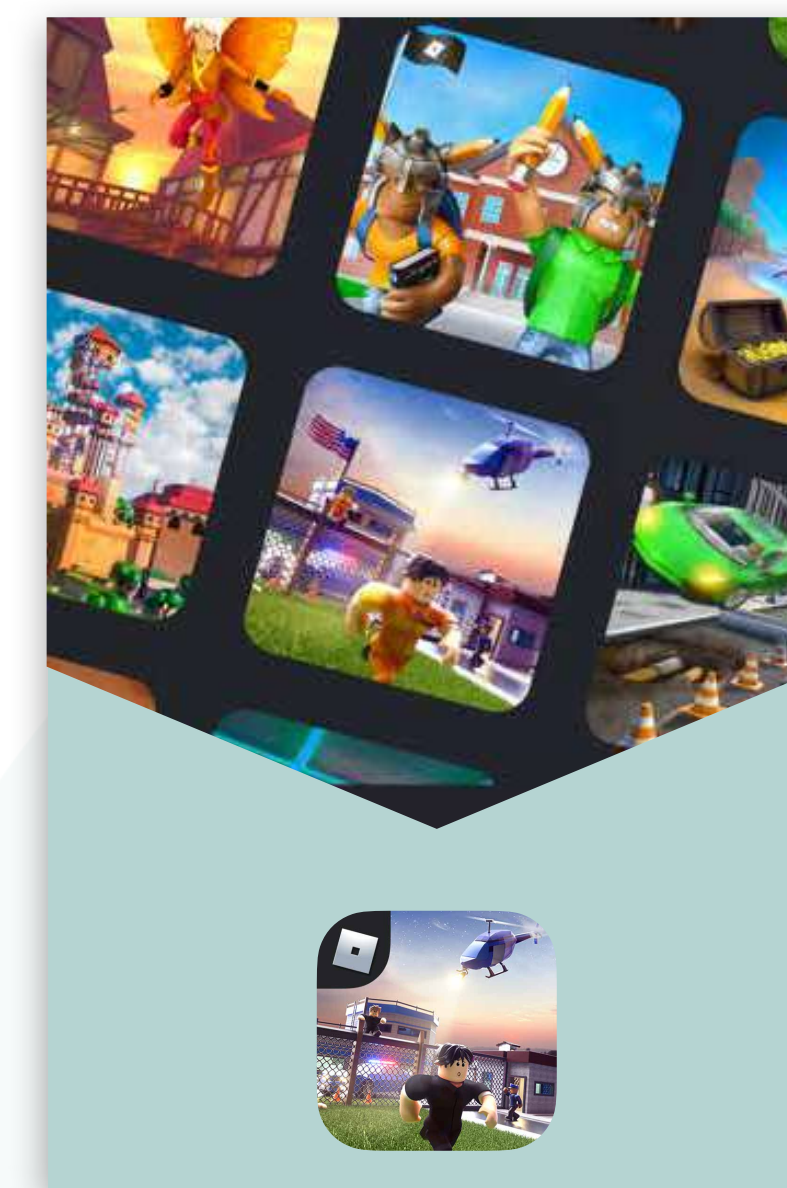
2020				
1		Among Us	InnerSloth	NEW
2		Roblox	Roblox	+2
3		Call of Duty: Mobile	Activision Blizzard	-2
4		Subway Surfers	Sybo Games	+18
5		Brain Test	Unico Studios	NEW
6		Coin Master	Moon Active	NEW
7		Magic Tiles 3	Amanotes	NEW
8		Fishdom	Playrix	NEW
9		Woodturning	Voodoo	NEW
10		Tangle Master 3D	Zynga	NEW

2021				
1		Roblox	Roblox	+1
2		Project Makeover	Magic Tavern	NEW
3		Among Us	InnerSloth	-2
4		High Heels	Zynga	NEW
5		Subway Surfers	Sybo Games	-1
6		Bridge Race	Supersonic Studios	NEW
7		Call of Duty: Mobile	Activision Blizzard	-4
8		Magic Tiles 3	Amanotes	-1
9		Paper Fold	Good Job Games	NEW
10		Count Masters	Tap2Play	NEW

Q1 2022				
1		Wordle	Lion Studios	NEW
2		Coloring Match	Supersonic Studios	NEW
3		Roblox	Roblox	-2
4		Subway Surfers	Sybo Games	+1
5		Count Masters	Tap2Play	+5
6		Slap and Run	Voodoo	NEW
7		Money Rush	Rollic Games	NEW
8		Call of Duty: Mobile	Activision Blizzard	-1
9		Among Us	InnerSloth	-6
10		Text or Die	Rollic Games	NEW

Key Takeaways: United States

1. The U.S. mobile game industry declined year-over-year for the first time in history. Consumer spending dropped below \$6 billion for the first time in a year, down 10 percent year-over-year during Q1 2022.
2. Inflation and rising living costs in the U.S. may be having an impact on game revenue on Google Play. While consumer spending remained flat on the App Store in Q1, Google Play revenue declined 22 percent Y/Y.
3. Wordle from Lion Studios was the most popular game in the U.S. during Q1 2022, ranking No. 1 by downloads, after surpassing 8.7 million installs. The word game, released in 2016 and sharing the same name as the web-based hit, added the “six guess” gameplay in early February and was later acquired by Lion Studios.



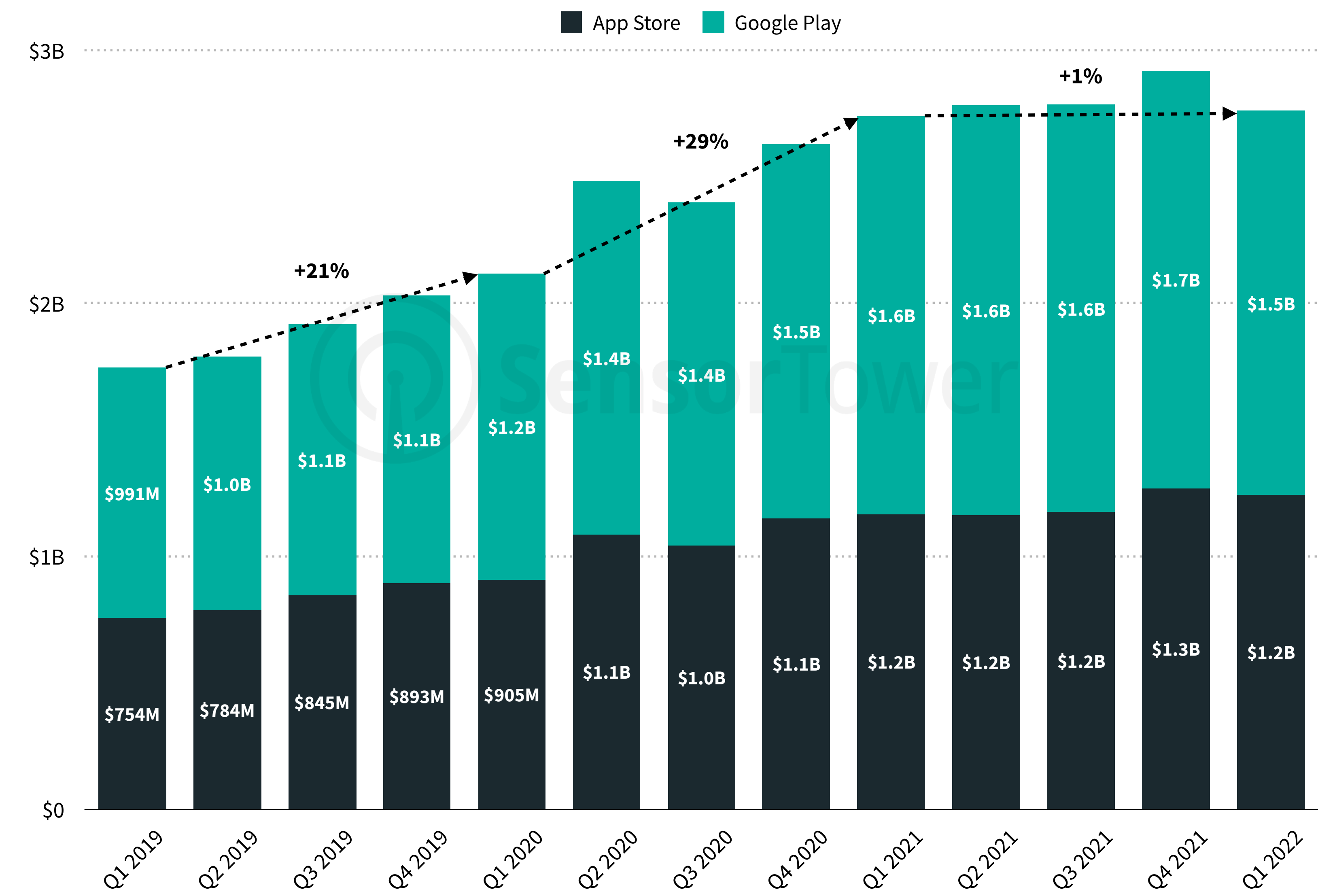


Market Overview: Europe

— An Overview of Mobile Gaming in Europe

Europe’s Game Spending Is Flat After Pandemic Growth

Europe quarterly gross revenue from mobile games on the App Store and Google Play



Mobile game consumer spending in Europe reached \$2.8 billion in Q1 2022, up 1 percent year-over-year. Following a boost in revenue during the pandemic, European consumer spending is now 75 percent higher than four years ago.

Growth in Europe during Q1 2022 came mainly from the App Store (7 percent Y/Y), while revenue from Google Play decreased by 4 percent Y/Y. Nevertheless, Google Play remains the larger platform, reaching \$1.5 billion in Q1 2022 compared to \$1.2 billion on the App Store.

Note:
Revenue figures are gross revenue (including the cut taken by Apple or Google).

Coin Master Regained Its Lead in Europe, Deposing PUBG Mobile

Top mobile games by Europe revenue on the App Store and Google Play








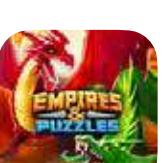

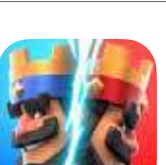
Game Class






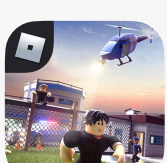


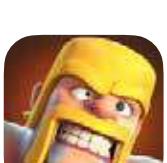

Mid-Core











Casual









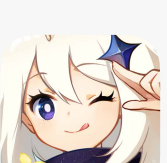

Casino

Sports & Racing

2019				
1		Coin Master	Moon Active	NEW
2		Candy Crush Saga	King	-1
3		Clash of Clans	Supercell	+2
4		Brawl Stars	Supercell	NEW
5		Gardenscapes	Playrix	-2
6		Homescapes	Playrix	+1
7		Pokémon GO	Niantic	-3
8		Empires & Puzzles	Small Giant Games	-
9		Guns of Glory	FunPlus	+1
10		Clash Royale	Supercell	-8

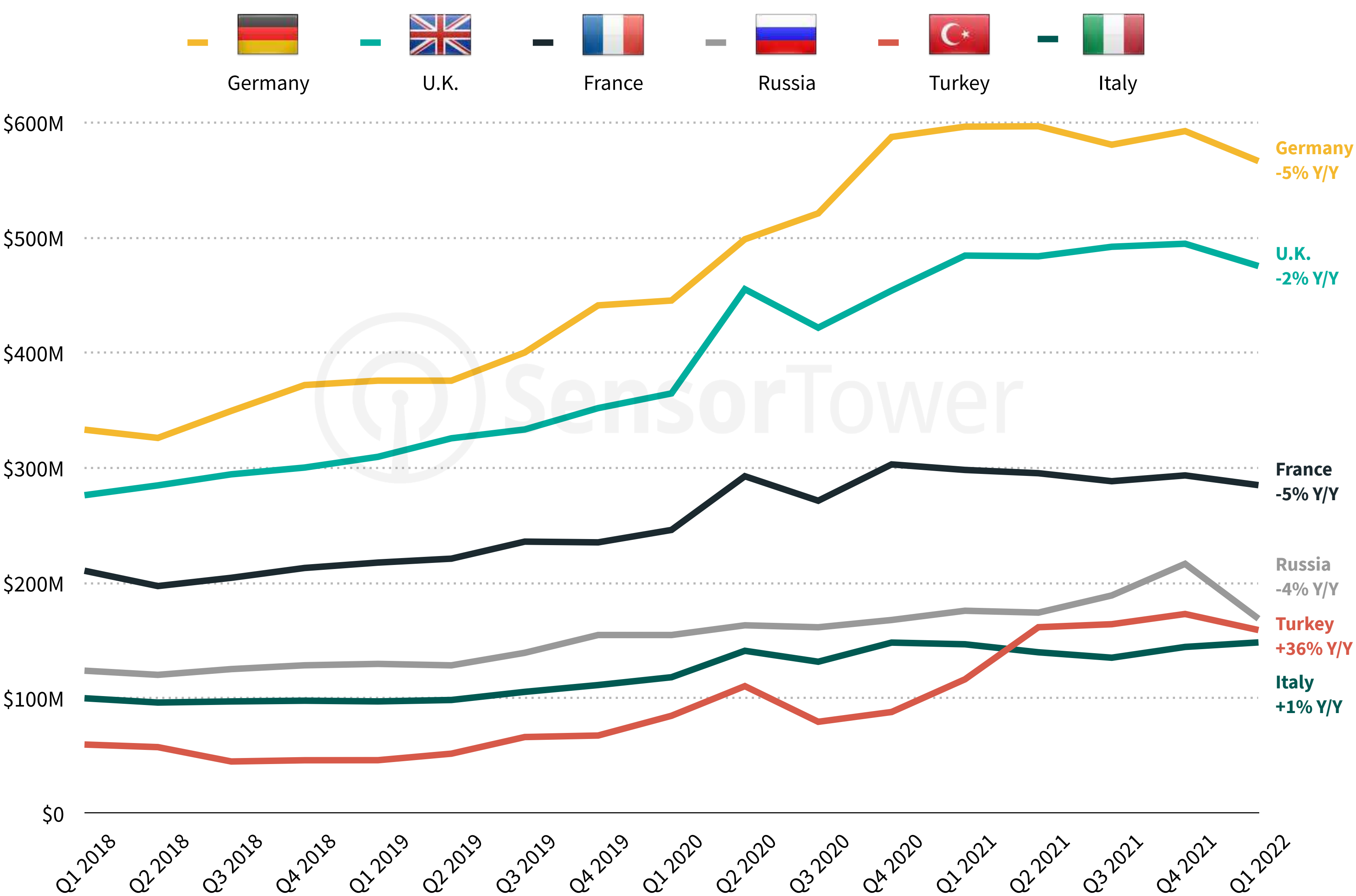
2020				
1		Coin Master	Moon Active	-
2		Brawl Stars	Supercell	+2
3		PUBG Mobile	Tencent	NEW
4		Gardenscapes	Playrix	+1
5		Pokémon GO	Niantic	+2
6		Roblox	Roblox	NEW
7		Candy Crush Saga	King	-5
8		Homescapes	Playrix	-2
9		Clash of Clans	Supercell	-6
10		State of Survival	FunPlus	NEW

2021				
1		PUBG Mobile	Tencent	+2
2		Coin Master	Moon Active	-1
3		Roblox	Roblox	+3
4		State of Survival	FunPlus	+6
5		Brawl Stars	Supercell	-3
6		Candy Crush Saga	King	+1
7		Gardenscapes	Playrix	-3
8		Homescapes	Playrix	-
9		Pokémon GO	Niantic	-4
10		Clash of Clans	Supercell	-1

Q1 2022				
1		Coin Master	Moon Active	+1
2		PUBG Mobile	Tencent	-1
3		Candy Crush Saga	King	+3
4		Roblox	Roblox	-1
5		Gardenscapes	Playrix	+2
6		State of Survival	FunPlus	-2
7		Homescapes	Playrix	+1
8		Clash of Clans	Supercell	+2
9		Genshin Impact	miHoYo	NEW
10		Fishdom	Playrix	NEW

Turkey Passes Italy to Rank Among the Top Five in Europe

Top European countries by mobile game revenue, App Store and Google Play



The mobile games category declined across the four biggest markets in Europe during Q1 2022 (Germany, U.K., France, and Russia).

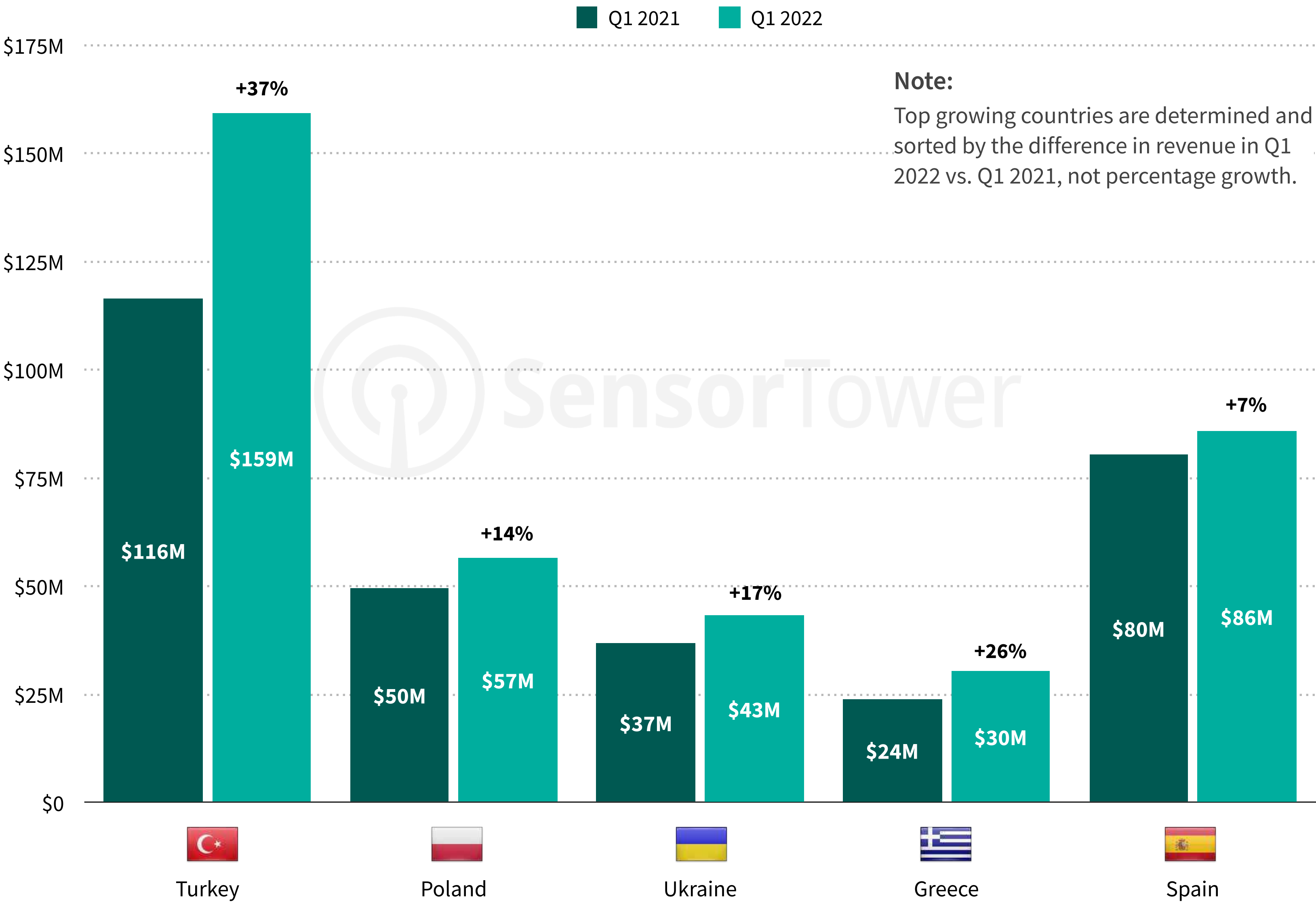
Turkey stands out as the fastest growing market in Europe, generating \$160 million in consumer spending, a 36 percent increase Y/Y. Turkey surpassed Italy in Q2 2021 and became the fifth biggest market in Europe.

Spain and the Netherlands also experienced a positive first quarter, growing 7 percent and 5 percent, respectively.

Note:
Revenue figures are gross revenue (including the cut taken by Apple or Google).

Turkey Saw Substantial Y/Y Revenue Growth in Q1 2022

Top European countries by Y/Y game revenue growth in Q1 2022, App Store and Google Play



Turkey’s mobile game revenue grew by nearly \$40 million year-over-year in Q1 2022, which was followed by Ukraine at \$13 million and Poland at \$10 million.

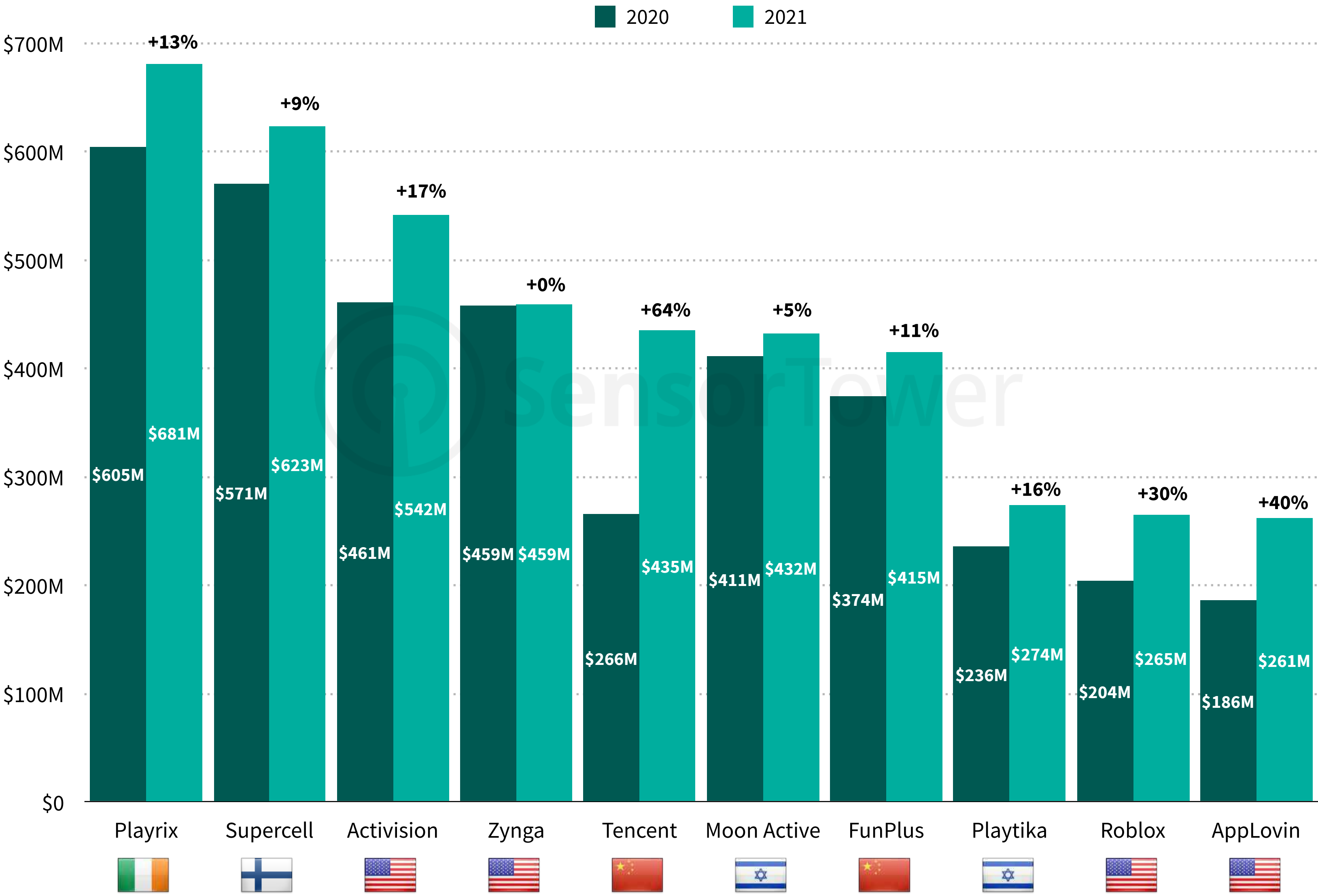
Turkey was the fastest growing games market in Europe during Q1 2022. This shows that the country is not only a hub for great talent and developers, but also a lucrative market.

Over the last several years, Turkey has become the Silicon Valley of the mobile games industry. Peak Games, a Turkish company based in Istanbul, was acquired by Zynga in 2020 for \$1.8 billion. Another Turkish studio, Dream Games, publishes Royal Match, a Puzzle title that reached the top 10 grossing rankings in the U.S.

Note:
Revenue figures are gross revenue (including the cut taken by Apple or Google).

Tencent and AppLovin are the Fastest Growing Publishers in Europe

Top games publishers by European revenue in 2021 on the App Store and Google Play



Two European publishers generated the most revenue in Europe during 2021, with the popular Puzzle and Decorate genre developer Playrix and Strategy game publisher Supercell leading the way. There were also two Israel-based publishers (Moon Active and Playtika) among the top 10.

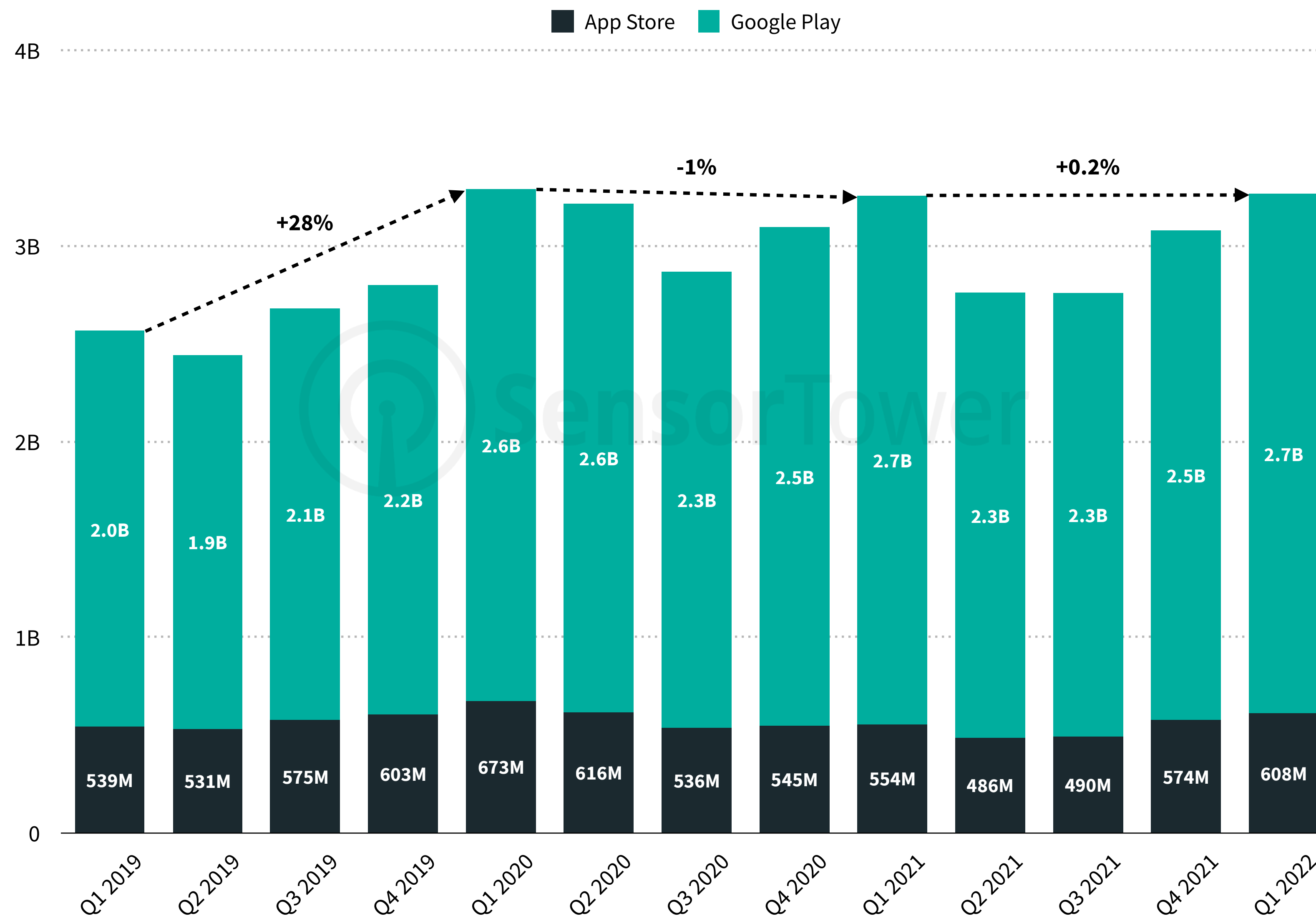
Tencent was the fastest growing publisher in Europe during 2021, with revenue growing by 64 percent year-over-year.

U.S. mobile technology company AppLovin also showed a very strong performance in Europe, with revenue from its portfolio increasing by 40 percent Y/Y.

Note:
Revenue figures are gross revenue (including the cut taken by Apple or Google).

European Game Installs Were Stagnant in Q1 2022

European quarterly downloads from mobile games on the App Store and Google Play



Mobile game installs remained above 3 billion during Q1 2022 in Europe, up 0.2 percent year-over-year.

The overall negligible growth came from the App Store (up 10 percent Y/Y), while Google Play installs, which account for the vast majority of all downloads, decreased by 2 percent Y/Y.

Google Play remains the most relevant mobile game marketplace in Europe, accounting for 81 percent of the downloads market share.

Half of the Top Games by Downloads in Europe are Hypercasual Titles

Top mobile games by Europe downloads on the App Store and Google Play







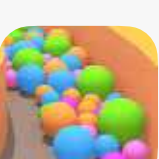

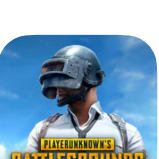

Game Class






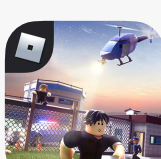
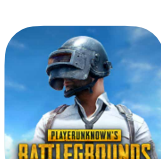

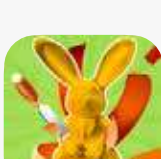
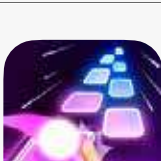
Mid-Core







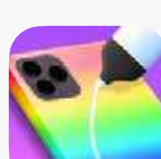
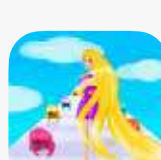
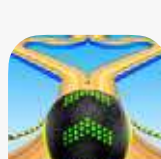
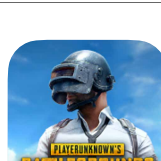
Casual







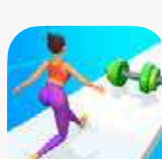
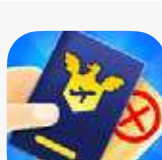


Casino

Sports & Racing

2019				
1		Brawl Stars	Supercell	NEW
2		Color Bump 3D	Good Job Games	NEW
3		Fun Race 3D	Good Job Games	NEW
4		Call of Duty: Mobile	Activision Blizzard	NEW
5		Homescapes	Playrix	NEW
6		Run Race 3D	Good Job Games	NEW
7		Sand Balls	SayGames	NEW
8		Aquapark.io	Voodoo	NEW
9		PUBG Mobile	Tencent	-4
10		Subway Surfers	Sybo Games	-8

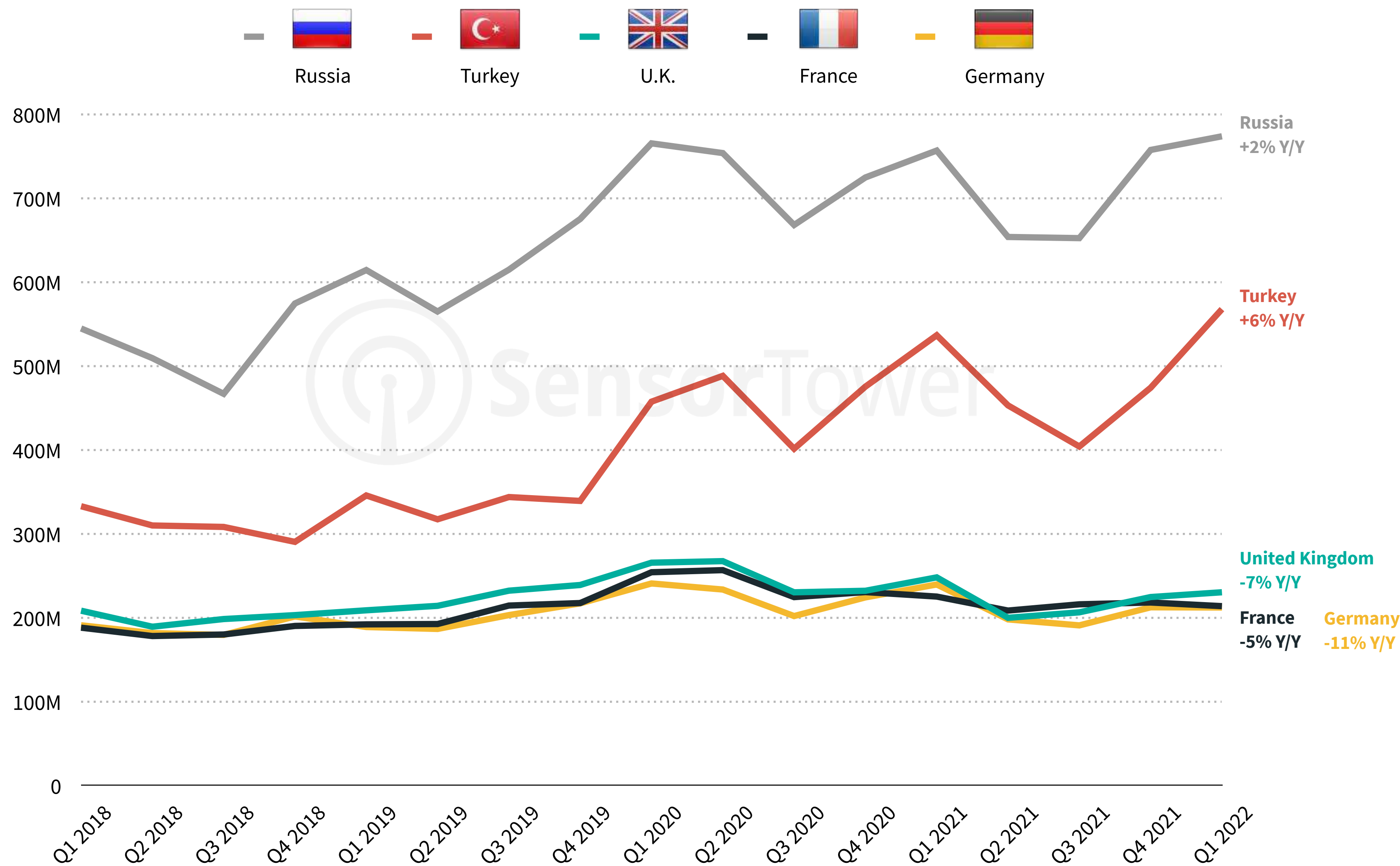
2020				
1		Among Us	InnerSloth	NEW
2		Brawl Stars	Supercell	-1
3		Gardenscapes	Playrix	NEW
4		Brain Test	Unico Studios	NEW
5		Subway Surfers	Sybo Games	+5
6		Roblox	Roblox	NEW
7		PUBG Mobile	Tencent	+2
8		Brain Out	Focus Apps	NEW
9		Woodturning	Voodoo	NEW
10		Tiles Hop	Amanotes	NEW

2021				
1		Count Masters	Tap2Play	NEW
2		Roblox	Roblox	+4
3		Among Us	InnerSloth	-2
4		Brawl Stars	Supercell	-2
5		Subway Surfers	Sybo Games	-
6		DOP 2	SayGames	NEW
7		Phone Case DIY	Crazy Labs	NEW
8		Hair Challenge	Zynga	NEW
9		Going Balls	Supersonic Studios	NEW
10		PUBG Mobile	Tencent	-3

Q1 2022				
1		Subway Surfers	Sybo Games	+4
2		Roblox	Roblox	-
3		Count Masters	Tap2Play	-2
4		Race Master 3D	SayGames	NEW
5		Fishdom	Playrix	NEW
6		Coloring Match	Supersonic Studios	NEW
7		Twerk Race 3D	Tap2Play	NEW
8		Airport Security	Kwalee	NEW
9		Paper Fold	Good Job Games	NEW
10		Magic Tiles 3	Amanotes	NEW

Turkey Drives European Game Download Growth

Top European countries by mobile game downloads, App Store and Google Play



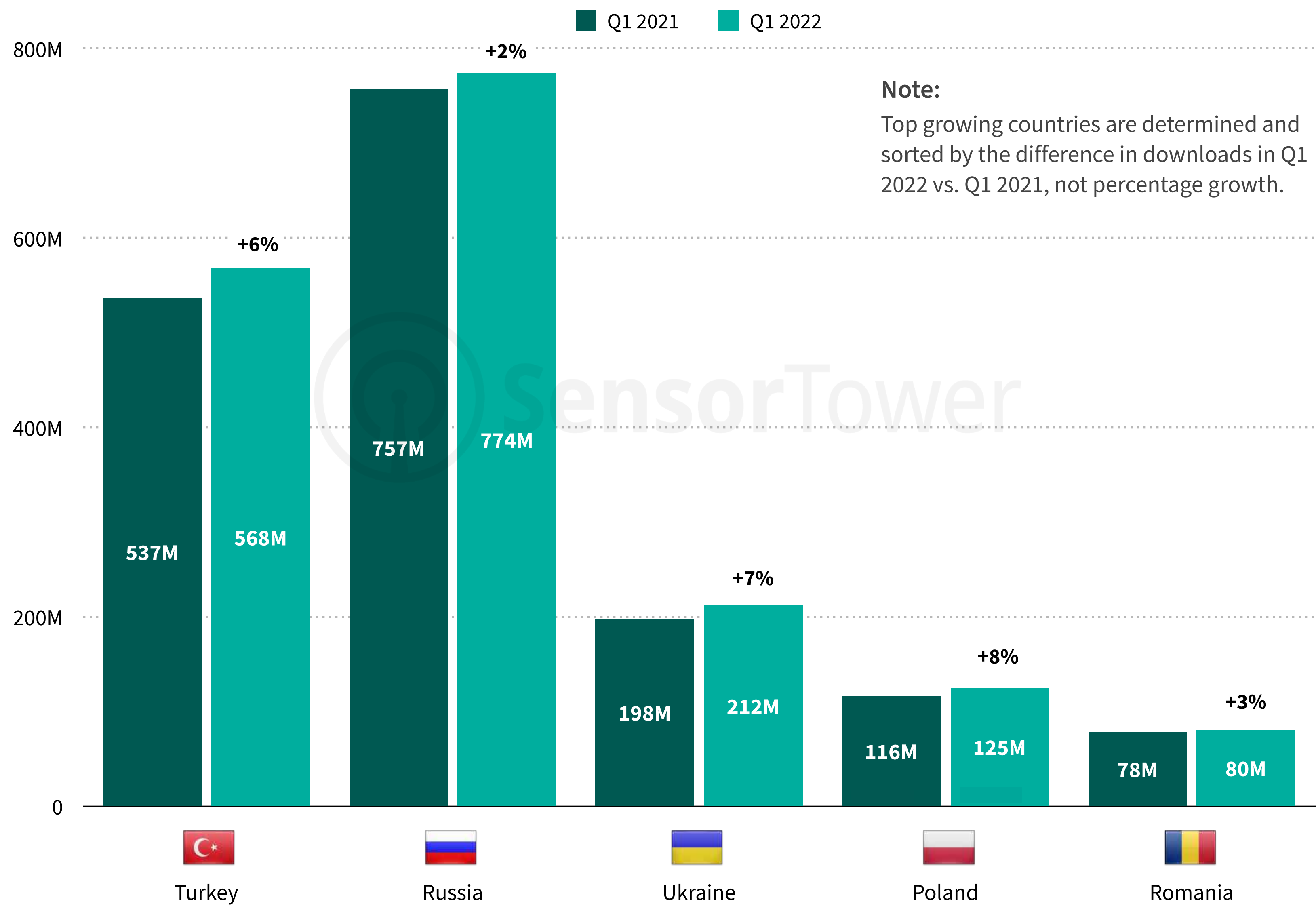
Russia was the top European market in Q1 2022 with 773 million downloads, followed by Turkey at 567 million. This was more than double the No. 3 market, the U.K., which generated 230 million during the quarter.

Many of the developed countries in Europe saw downloads decline year-over-year in Q1 2022. U.K. downloads were down 7 percent Y/Y, while Germany’s dropped 11 percent and France’s fell 5 percent.

Turkey, the fastest growing European country by revenue, was also the fastest growing country by downloads, with 6 percent Y/Y growth in Q1 2022.

Poland Leads Download Growth in Europe

Top European countries by Y/Y game download growth in 1Q22, App Store and Google Play



Even though overall downloads in Europe remained flat in Q1 2022, some countries saw solid download growth.

Poland game downloads reached 125 million during Q1 2022, up 8 percent year-over-year. Ukraine registered 7 percent growth Y/Y.

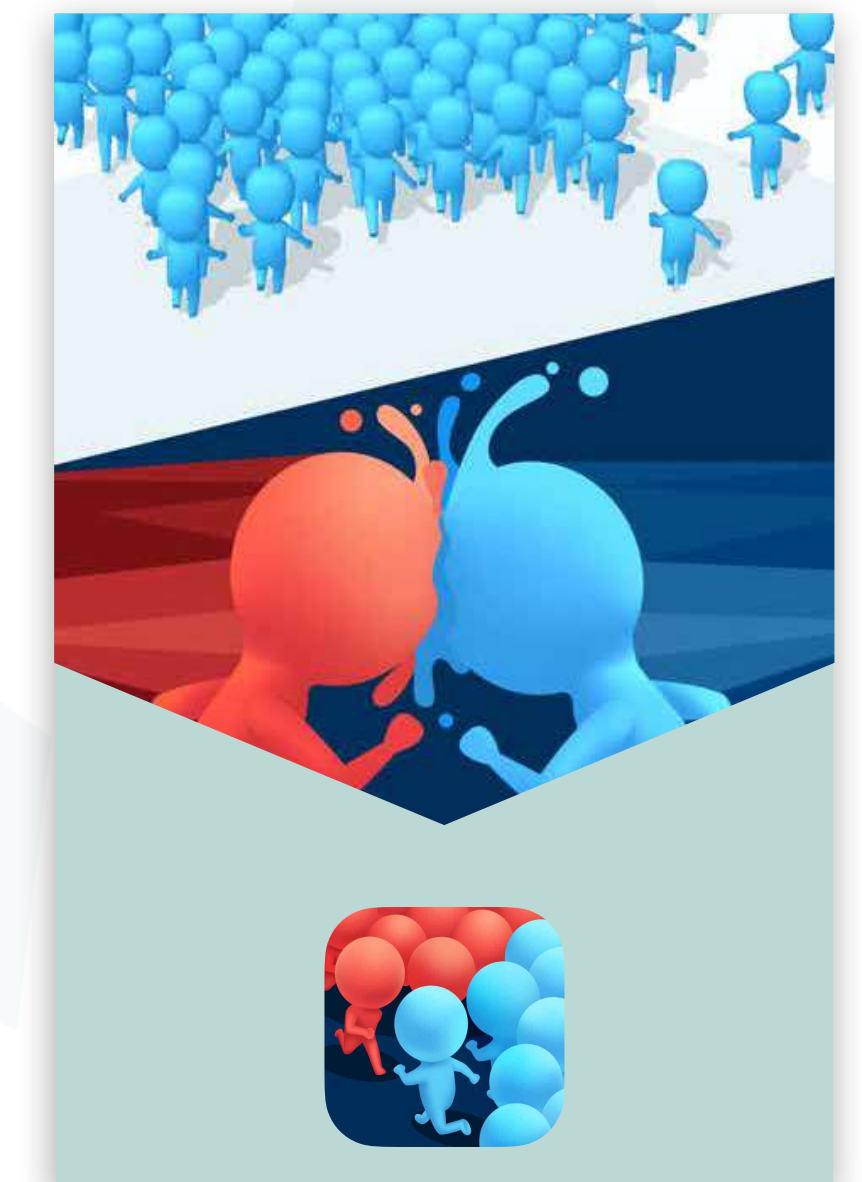
Turkey ranks as the No. 2 largest market in Europe by downloads, increasing 6 percent Y/Y to 568 million.

Russia, the largest market by downloads in Europe, saw little growth, accumulating 774 million downloads in Q1 2022.

Key Takeaways:

Europe

1. Mobile game consumer spending in Europe reached \$2.8 billion during Q1 2022, up 1 percent year-over-year. Following a surge in revenue during the pandemic and resulting lockdowns, Europe's game revenue is now 75 percent higher than it was four years ago.
2. **Over the past several years, Turkey has become the Silicon Valley of the mobile gaming industry.** Peak Games, a Turkish company based in Istanbul, was acquired by Zynga in 2020 for \$1.8 billion. Meanwhile, another local studio, Dream Games, publishes Royal Match, a Puzzle game that made the top 10 list of highest grossing titles in the U.S.
3. **Turkey is not only a hub for mobile game development, but also stands out as the fastest growing market in Europe, generating \$160 million in consumer spending, a 36 percent increase Y/Y.** During Q1 2022, Turkey surpassed Italy and became the fifth largest market in Europe.
4. Tencent was the fastest growing publisher in Europe during 2021, with revenue climbing 64 percent Y/Y. U.S. mobile technology company AppLovin also showed a very strong performance in Europe, with revenue from its portfolio of titles increasing by 40% Y/Y.





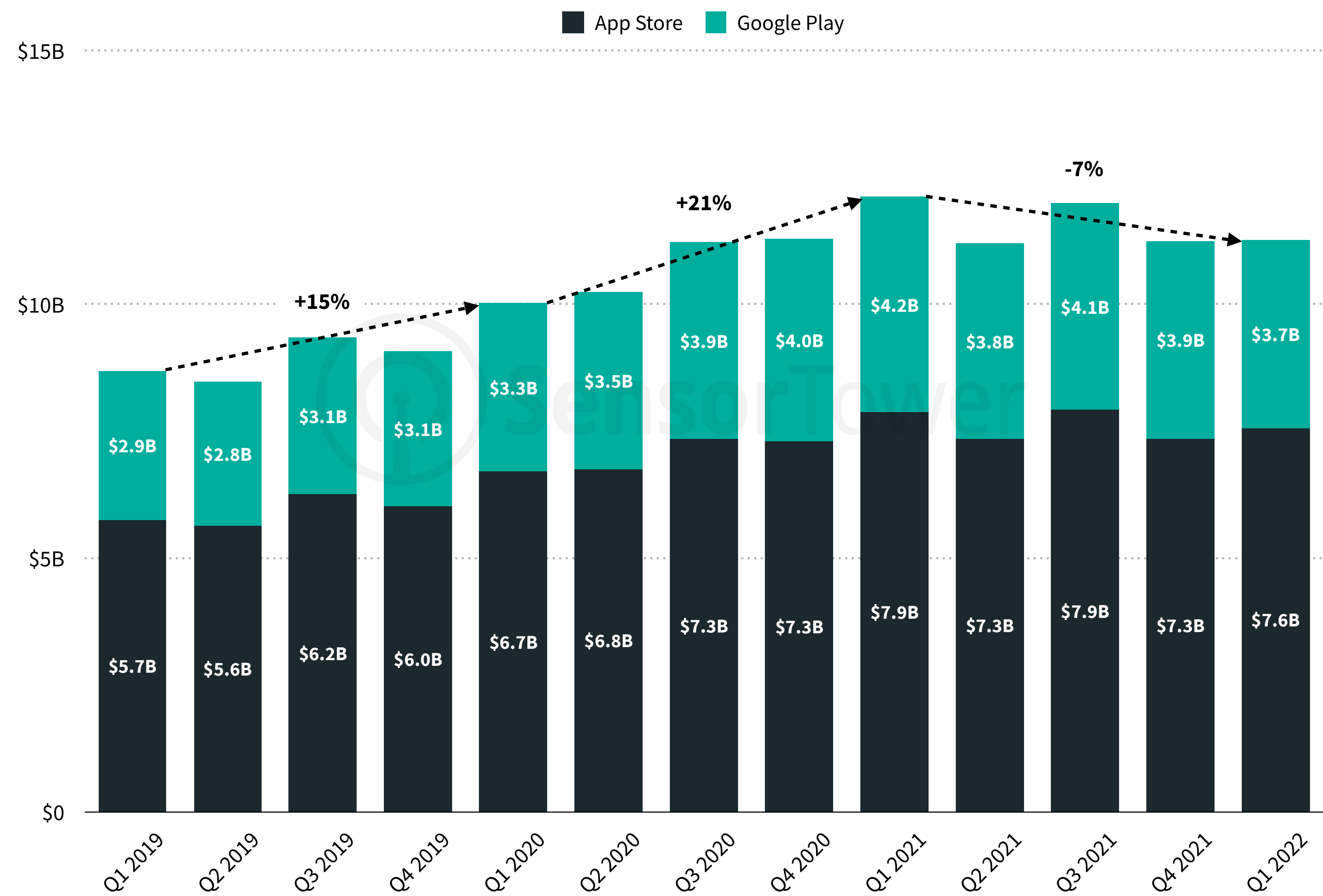
Market Overview:

Asia

—
An Overview of Mobile Gaming in Asia

Game Revenue in Asia Declined 7 Percent Year-Over-Year

Asia’s quarterly gross revenue from mobile games on the App Store and Google Play



Asia’s mobile game revenue surpassed \$12 billion in Q1 2021, up 21 percent year-over-year. During Q1 2022, revenue decreased by 7 percent Y/Y to \$11.2 billion.

The revenue decline was more pronounced on Google Play (13 percent) compared to the App Store, which decreased by 4 percent Y/Y during Q1 2022.

Following the same trend observed in the U.S. market, mobile game revenue in Asia declined during Q1 2022. Still, it remains by far the most lucrative region for mobile game revenue, led by China and Japan.

Note:
Revenue figures are gross revenue (including the cut taken by Apple or Google).

Lineage W Climbed into the Top Five Just Five Months After its Release

Top mobile games by Asia revenue on the App Store and Google Play











Game Class











Mid-Core



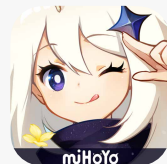







Casual










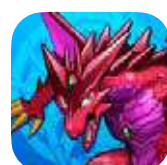
Casino

Sports & Racing

2019				
1		Honor of Kings	Tencent	-
2		Fate/Grand Order	Sony	+1
3		PUBG Mobile	Tencent	NEW
4		Monster Strike	Mixi	-2
5		Fantasy Westward Journey	NetEase	-
6		Lineage M	NCSOFT	-2
7		Puzzle & Dragons	GungHo	-1
8		Perfect World	Tencent	NEW
9		Knives Out	NetEase	-2
10		Dragon Ball Z Dokkan Battle	Bandai Namco	-

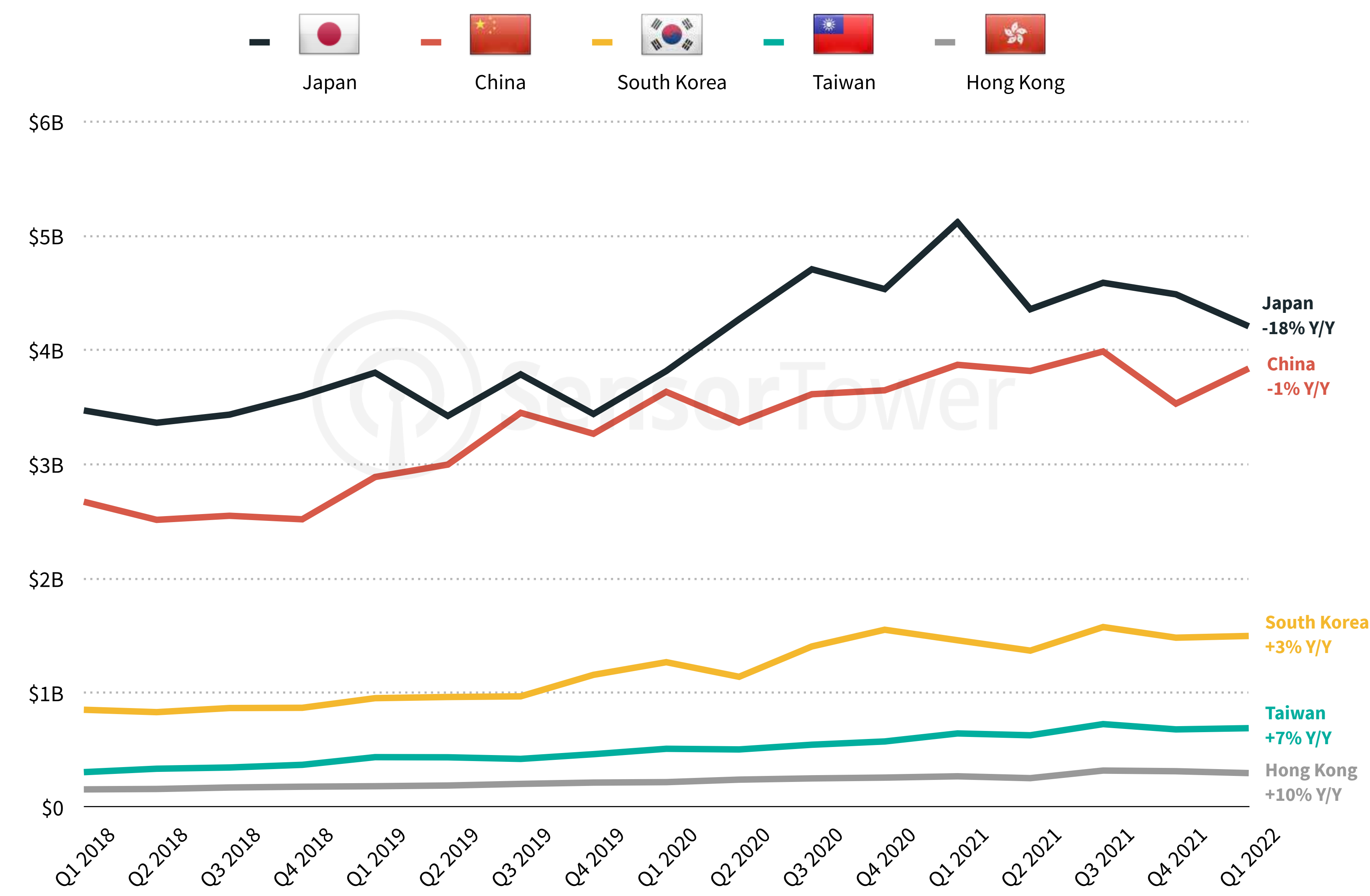
2020				
1		Honor of Kings	Tencent	-
2		PUBG Mobile	Tencent	+1
3		Monster Strike	Mixi	+1
4		Fate/Grand Order	Sony	-2
5		Three Kingdoms Tactics	Alibaba	NEW
6		Lineage M	NCSOFT	-
7		Lineage2M	NCSOFT	NEW
8		Fantasy Westward Journey	NetEase	-3
9		Knives Out	NetEase	-
10		AFK Arena	Lilith Games	NEW

2021				
1		Honor of Kings	Tencent	-
2		PUBG Mobile	Tencent	-
3		Genshin Impact	miHoYo	NEW
4		Uma Musume Pretty Derby	Cygames	NEW
5		Three Kingdoms Tactics	Alibaba	-
6		Fate/Grand Order	Sony	-2
7		Puzzle & Dragons	GungHo	+6
8		Fantasy Westward Journey	NetEase	-
9		Pro Baseball Spirits A	Konami	NEW
10		Monster Strike	Mixi	-7

Q1 2022				
1		Honor of Kings	Tencent	-
2		PUBG Mobile	Tencent	-
3		Genshin Impact	miHoYo	-
4		Lineage W	NCSOFT	NEW
5		Uma Musume Pretty Derby	Cygames	-1
6		Three Kingdoms Tactics	Alibaba	-1
7		Monster Strike	Mixi	+3
8		Fate/Grand Order	Sony	-2
9		Fantasy Westward Journey	NetEase	-1
10		Puzzle & Dragons	GungHo	-3

Japan’s Game Revenue Declined 18 Percent in Q1 2022

Top Asian countries by mobile game revenue, App Store and Google Play



Four of the top five countries globally by mobile game revenue are in Asia, with the U.S. as the only exception. **Japan surpassed \$4.2 billion in Q1 2022, followed by China at \$3.8 billion and South Korea at \$1.5 billion.**

Japan, the largest market in Asia, experienced a double-digit revenue decline during Q1 2022, down 18 percent Y/Y.

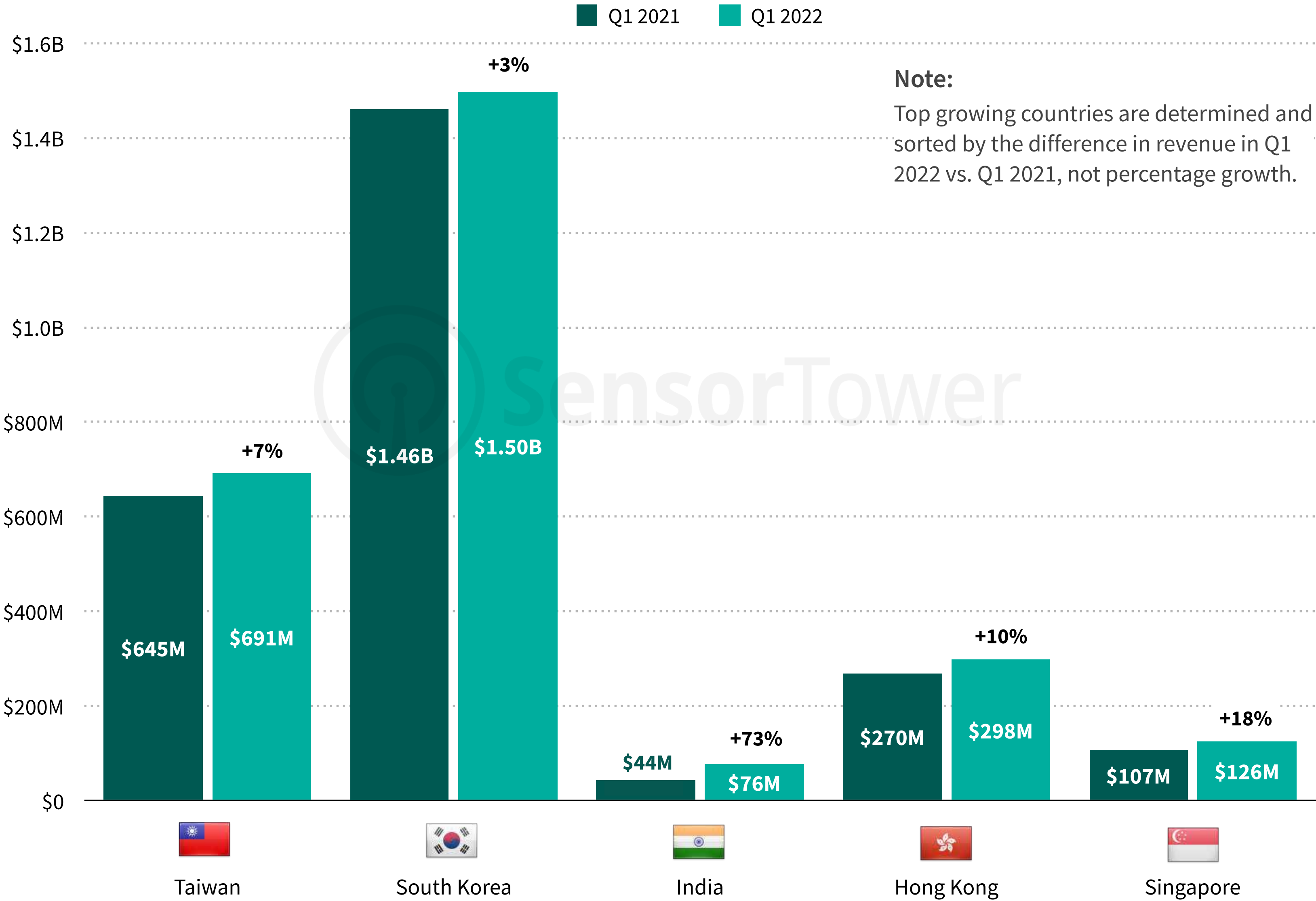
Even though they are smaller markets, both Taiwan and Hong Kong saw healthy growth during Q1 2022, rising by 7 percent and 10 percent Y/Y, respectively.

India, the largest mobile games market in the world by downloads, started to catch up in consumer spending. During Q4 2021, spending increased 96 percent Y/Y, followed by a very strong Q1 2022, with revenue up 73 percent.

Note: Revenue figures are gross revenue (including the cut taken by Apple or Google). China numbers only include the App Store as Google Play is not available there.

India's Mobile Games Market Starts to Heat Up

Top Asian countries by Y/Y game revenue growth in Q1 2022, App Store and Google Play



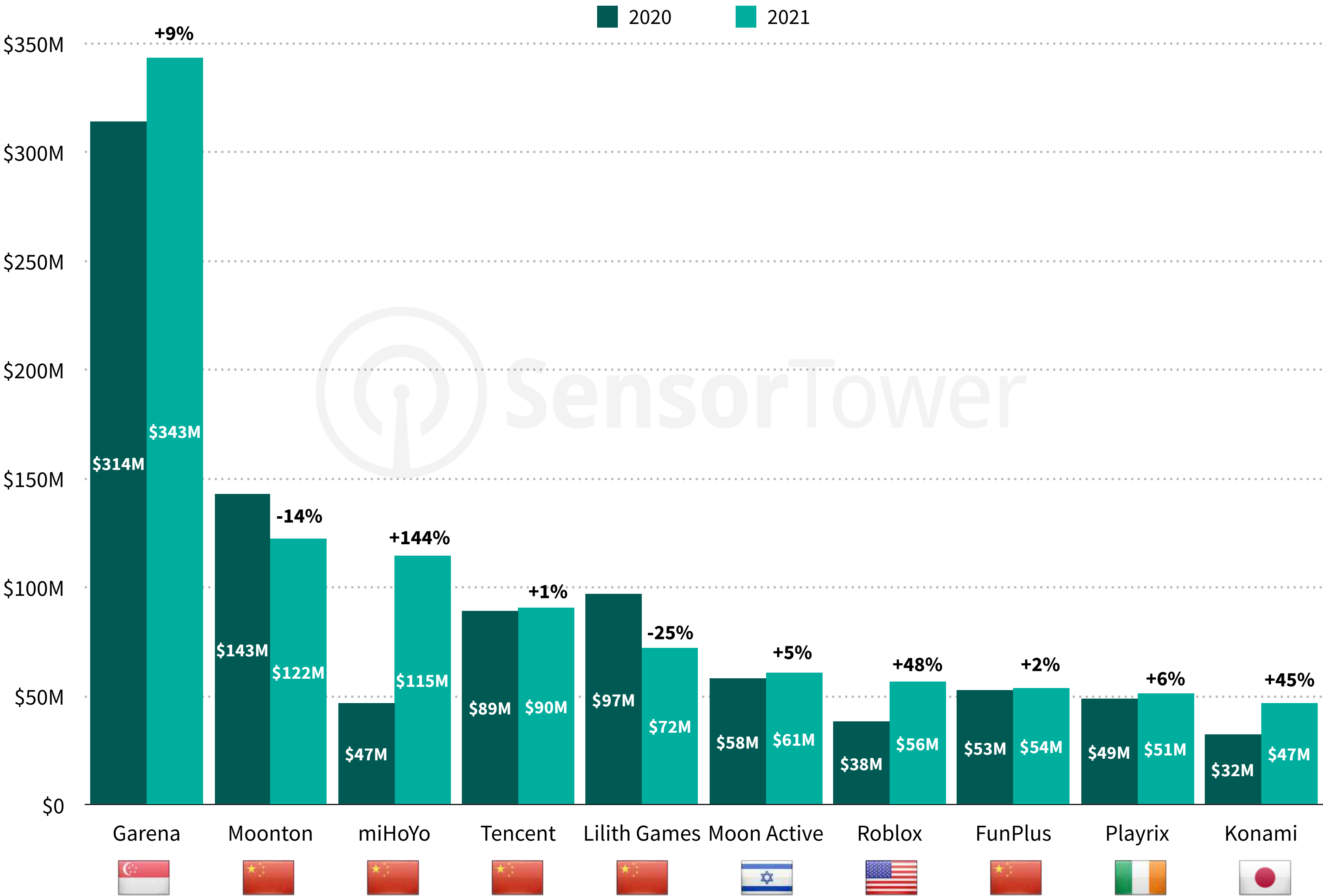
Japan’s mobile game revenue decreased by more than \$900 million in Q1 2022 vs. Q1 2021, a reduction of 18 percent. Thailand also showed weak performance, with revenue decreasing 31 percent year-over-year to \$65 million.

Taiwan was the No. 1 country in Asia by growth, with consumer spending up nearly 7 percent Y/Y to more than \$690 million.

Historically, India has been the No. 1 country in the world by downloads, concentrating almost 15 percent of worldwide installs. Nevertheless, games have had a tough time monetizing in this geo, with revenue representing 0.4 percent of global spending. **During the last two quarters, consumer spending in games in India has picked up, increasing 95 percent Y/Y in Q4 2021 and 73 percent in Q1 2022.**

Half of the Top SEA Publishers are Based in China

Top games publishers by SEA revenue in 2021 on the App Store and Google Play



Singapore-based Garena remained the dominant publisher in Southeast Asia (SEA) with more than double the revenue of the next closest publisher, Moonton. The publisher saw a rise in revenue of 9 percent year-over-year.

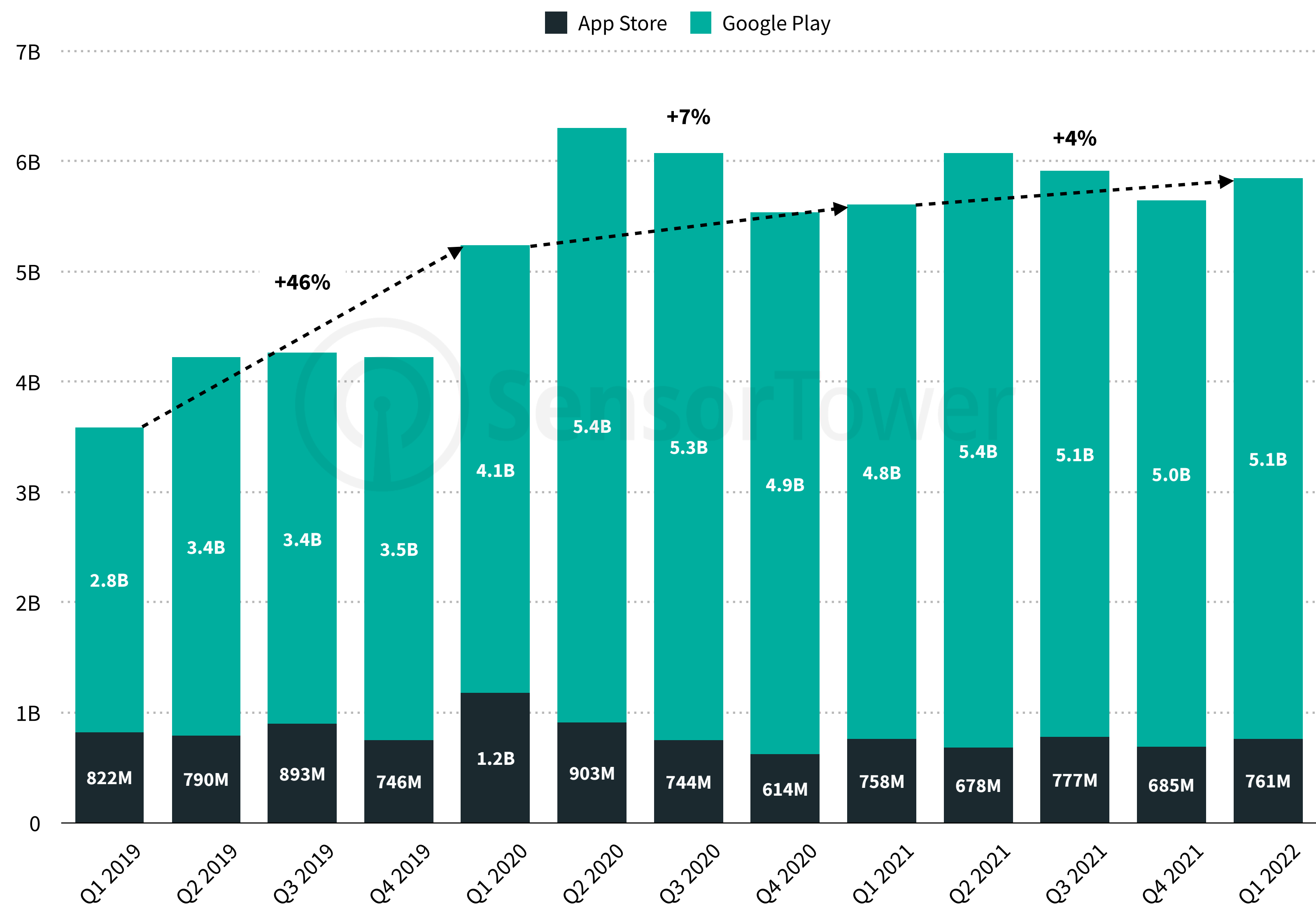
China represented half of the top 10 publishers by revenue in SEA in 2021. Interestingly, half of the top 10 publishers in SEA were also among the top 10 in Europe: Tencent, Moon Active, FunPlus, Playrix, and Roblox.

The top performing publisher in SEA was Garena, with its flagship title Garena Free Fire growing 9 percent Y/Y .

Note:
Revenue figures are gross revenue (including the cut taken by Apple or Google).

Asia’s Mobile Game Adoption Growth Continued in Q1 2022

Asia’s quarterly downloads from mobile games on the App Store and Google Play



Quarterly mobile game downloads in Asia surpassed 6 billion for the first time in Q2 2020 during the pandemic. Although installs have dropped off from this peak, they still surpassed 5.8 billion during Q1 2022, up 4 percent year-over-year

The vast majority of game installs in Asia came from Google Play, driven largely by countries like India and Indonesia where Android phones are much more popular than iPhones. About 87 percent of downloads in Q1 2022 were from Google Play, up from 71 percent in Q1 2018.

Games from Seven Different Genres Reached the Top 10 in Q1 2022

Top mobile games by Asia downloads on the App Store and Google Play

Game Class

Mid-Core

Casual

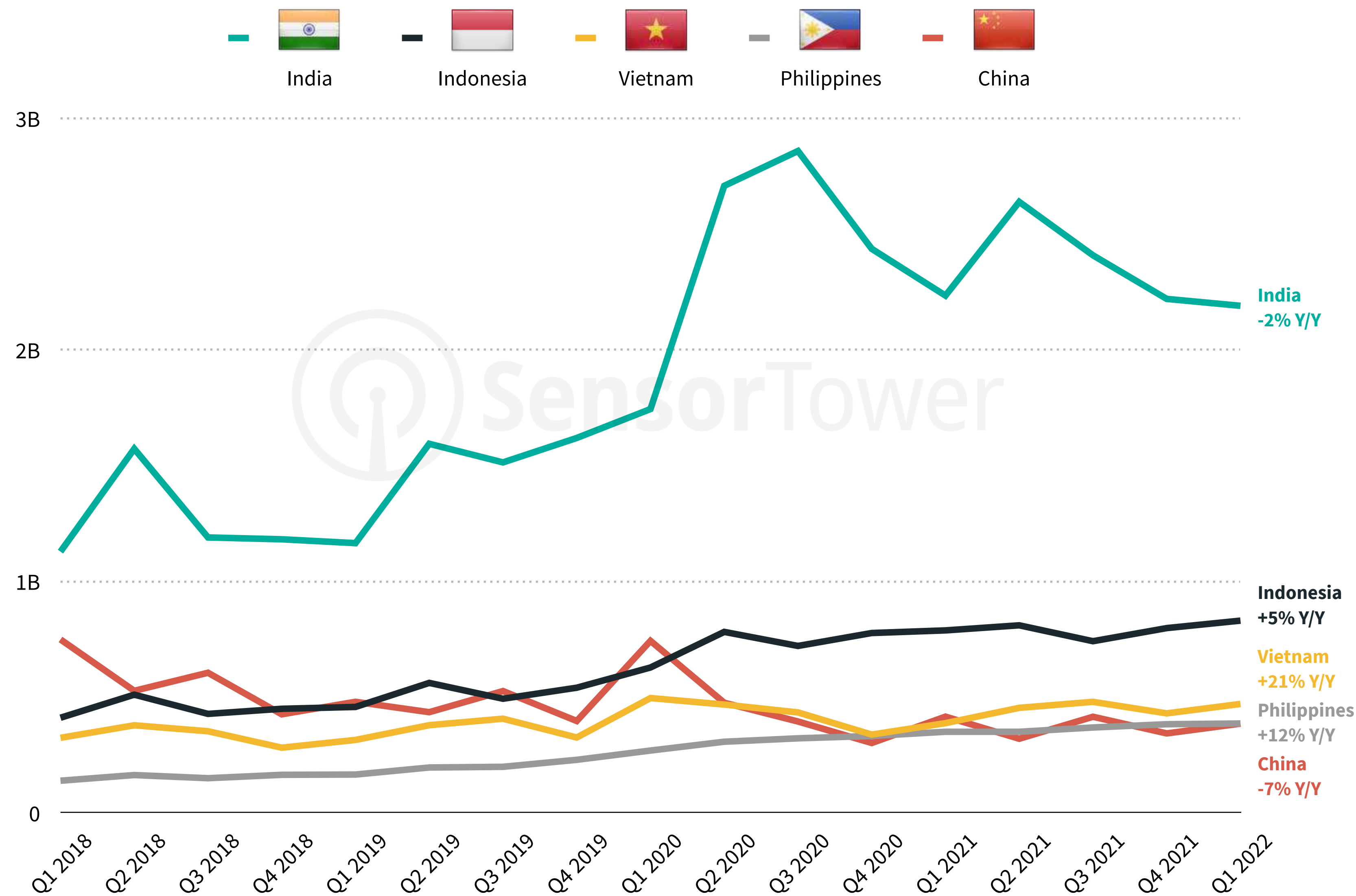
Casino

Sports & Racing

2019	2020	2021	Q1 2022
<div><div>1</div><div></div><div>PUBG Mobile</div><div>Tencent</div><div>-</div></div>	<div><div>1</div><div></div><div>Ludo King</div><div>Gametion</div><div>+2</div></div>	<div><div>1</div><div></div><div>Ludo King</div><div>Gametion</div><div>-</div></div>	<div><div>1</div><div></div><div>Garena Free Fire</div><div>Garena</div><div>+1</div></div>
<div><div>2</div><div></div><div>Garena Free Fire</div><div>Garena</div><div>+3</div></div>	<div><div>2</div><div></div><div>Garena Free Fire</div><div>Garena</div><div>-</div></div>	<div><div>2</div><div></div><div>Garena Free Fire</div><div>Garena</div><div>-</div></div>	<div><div>2</div><div></div><div>Ludo King</div><div>Gametion</div><div>-1</div></div>
<div><div>3</div><div></div><div>Ludo King</div><div>Gametion</div><div>-1</div></div>	<div><div>3</div><div></div><div>PUBG Mobile</div><div>Tencent</div><div>-2</div></div>	<div><div>3</div><div></div><div>PUBG Mobile</div><div>Tencent</div><div>-</div></div>	<div><div>3</div><div></div><div>Subway Surfers</div><div>Sybo Games</div><div>+1</div></div>
<div><div>4</div><div></div><div>Subway Surfers</div><div>Sybo Games</div><div>-1</div></div>	<div><div>4</div><div></div><div>Hunter Assassin</div><div>Ruby Games</div><div>NEW</div></div>	<div><div>4</div><div></div><div>Subway Surfers</div><div>Sybo Games</div><div>+1</div></div>	<div><div>4</div><div></div><div>Merge Master</div><div>Homa Games</div><div>NEW</div></div>
<div><div>5</div><div></div><div>Mobile Legends: Bang Bang</div><div>Moonton</div><div>+1</div></div>	<div><div>5</div><div></div><div>Subway Surfers</div><div>Sybo Games</div><div>-1</div></div>	<div><div>5</div><div></div><div>Carrom Pool</div><div>Miniclip</div><div>+3</div></div>	<div><div>5</div><div></div><div>PUBG Mobile</div><div>Tencent</div><div>-2</div></div>
<div><div>6</div><div></div><div>Fun Race 3D</div><div>Good Job Games</div><div>NEW</div></div>	<div><div>6</div><div></div><div>Brain Out</div><div>Focus Apps</div><div>NEW</div></div>	<div><div>6</div><div></div><div>Join Clash 3D</div><div>Supersonic Studios</div><div>NEW</div></div>	<div><div>6</div><div></div><div>Candy Crush Saga</div><div>King</div><div>+1</div></div>
<div><div>7</div><div></div><div>My Talking Tom 2</div><div>Outfit7</div><div>NEW</div></div>	<div><div>7</div><div></div><div>Worms Zone.io</div><div>Azur Interactive</div><div>NEW</div></div>	<div><div>7</div><div></div><div>Candy Crush Saga</div><div>King</div><div>+5</div></div>	<div><div>7</div><div></div><div>Carrom Pool</div><div>Miniclip</div><div>-2</div></div>
<div><div>8</div><div></div><div>Temple Run 2</div><div>Imangi Studios</div><div>-1</div></div>	<div><div>8</div><div></div><div>Carrom Pool</div><div>Miniclip</div><div>+1</div></div>	<div><div>8</div><div></div><div>Bridge Race</div><div>Supersonic Studios</div><div>NEW</div></div>	<div><div>8</div><div></div><div>Truck Simulator</div><div>Games Wing</div><div>NEW</div></div>
<div><div>9</div><div></div><div>Carrom Pool</div><div>Miniclip</div><div>NEW</div></div>	<div><div>9</div><div></div><div>Gardenscapes</div><div>Playrix</div><div>NEW</div></div>	<div><div>9</div><div></div><div>Worms Zone.io</div><div>Azur Interactive</div><div>-2</div></div>	<div><div>9</div><div></div><div>Find the Alien</div><div>Moonee</div><div>NEW</div></div>
<div><div>10</div><div></div><div>Candy Crush Saga</div><div>King</div><div>-2</div></div>	<div><div>10</div><div></div><div>Among Us</div><div>InnerSloth</div><div>NEW</div></div>	<div><div>10</div><div></div><div>Subway Princess Runner</div><div>Ivy</div><div>NEW</div></div>	<div><div>10</div><div></div><div>My Talking Tom 2</div><div>Outfit7</div><div>+4</div></div>

India’s Game Installs Dwarf All Other Markets

Top Asian countries by mobile game downloads, App Store and Google Play



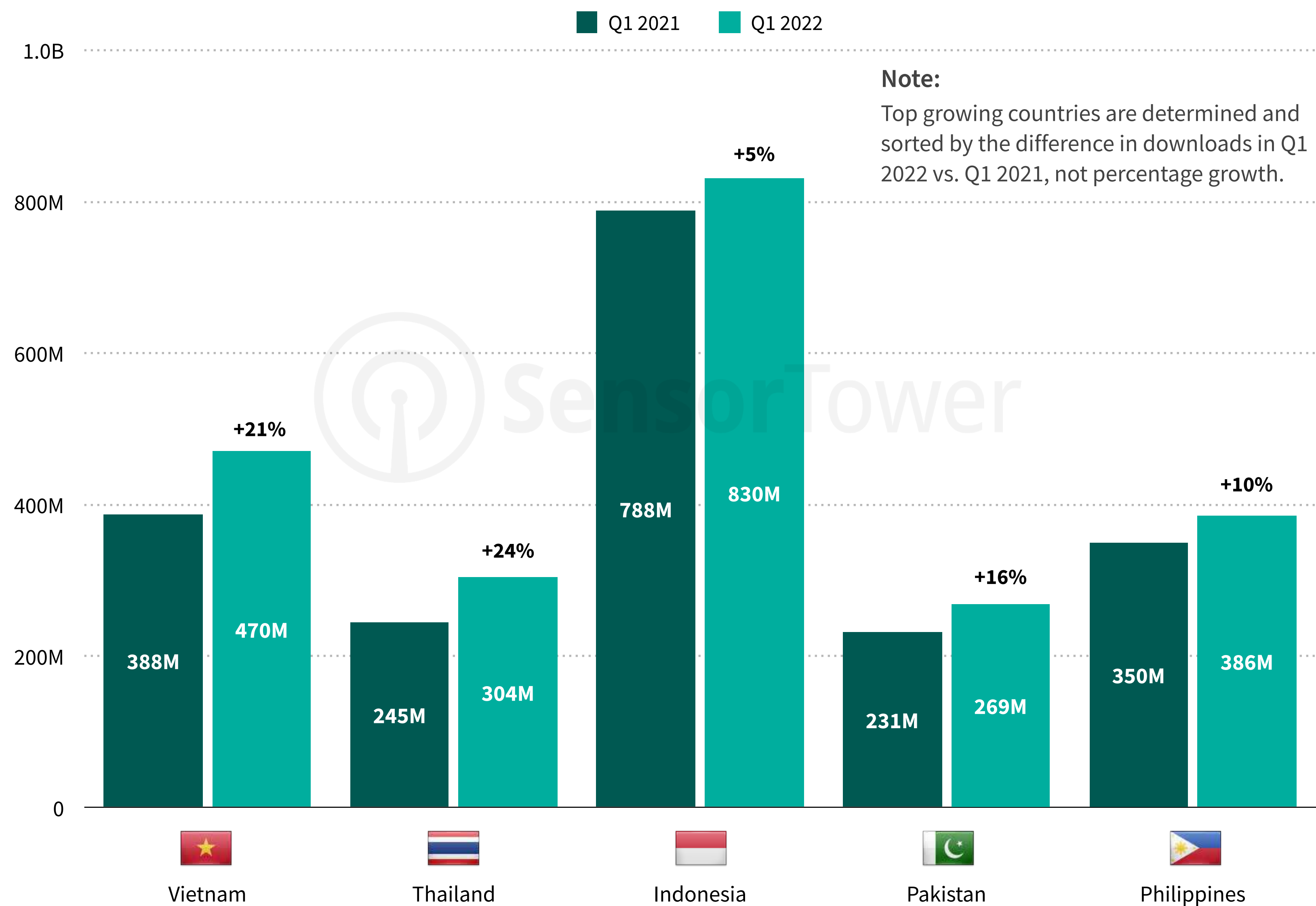
India is the largest mobile games market by downloads in the world. It has seen rapid growth since the start of 2019, climbing from 1.2 billion in Q1 2019 to nearly 2.9 billion in Q3 2020. After that explosive growth, downloads began trending downwards in Q2 2021. During the last quarter, Indian game downloads were down 2 percent year-over-year to 2.2 billion.

Vietnam has experienced strong download growth of 21 percent Y/Y in Q1 2022. The Philippines also performed well in Q1 2022, with installs up 12 percent Y/Y.

Note:
China numbers only include the App Store as Google Play is not available there.

Thailand and Vietnam Top Install Growth in Asia

Top Asian countries by Y/Y game download growth in Q1 2022, App Store and Google Play



Many of the fastest growth markets in Asia are in Southeast Asia, including the top three countries by year-over-year growth. Mobile game installs in Vietnam grew by approximately 80 million Y/Y in Q1 2022.

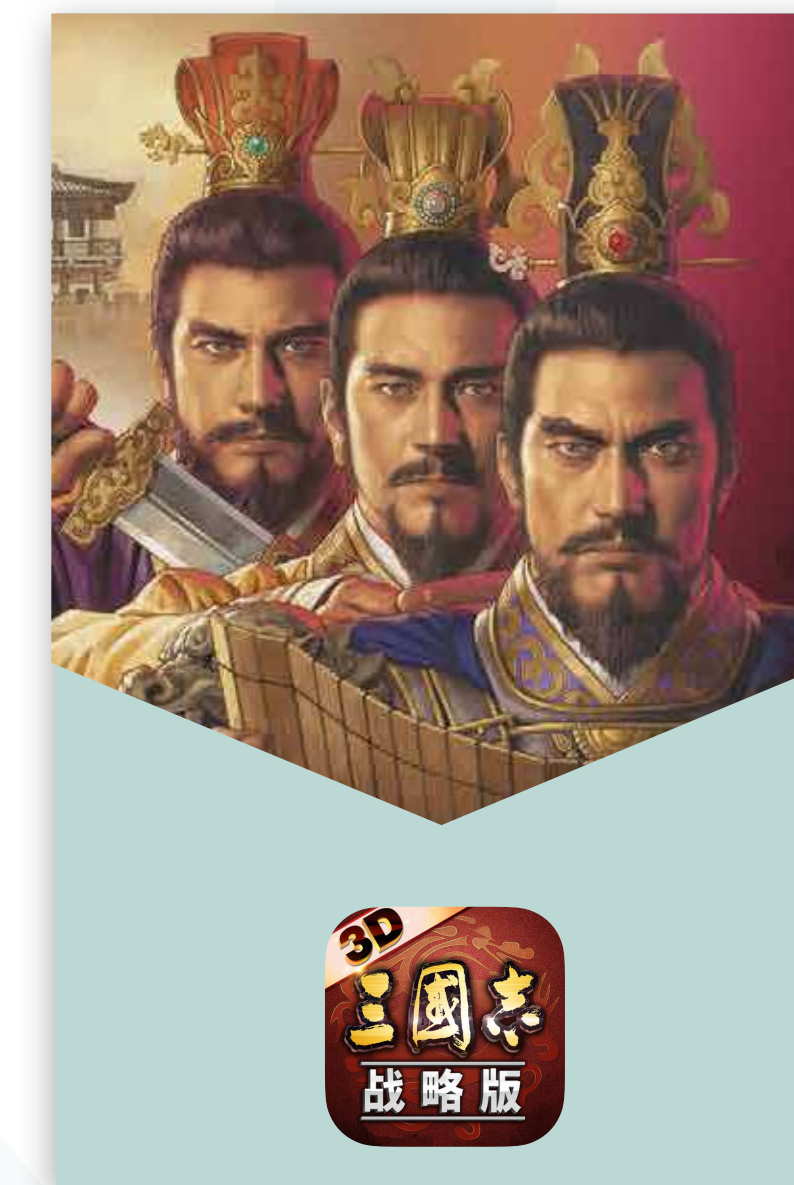
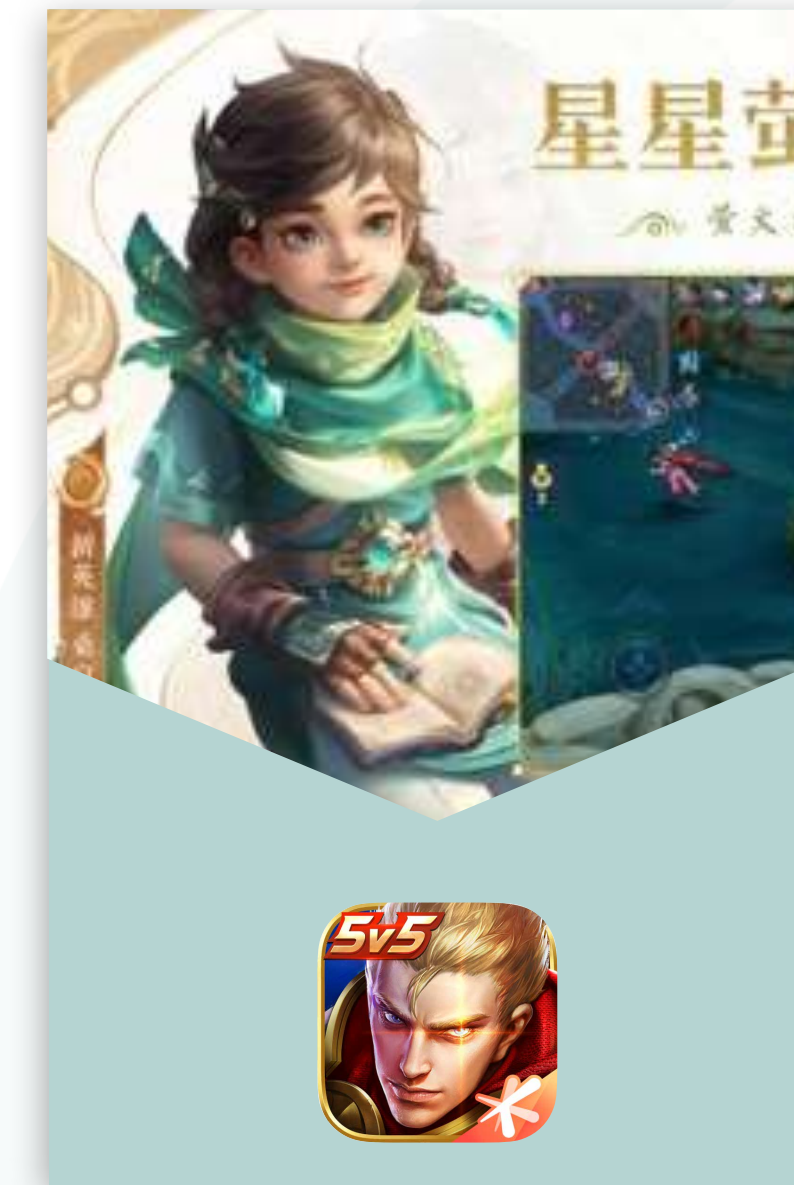
Game installs in Thailand increased by almost 60 million during Q1 2022, up 24 percent Y/Y.

Indonesia and the Philippines also experienced positive growth during the quarter, with downloads increasing by 5 percent and 12 percent, respectively.

Key Takeaways:

Asia

1. **Asia is the top region for mobile games by consumer spending.** During Q1 2022, revenue decreased by 7 percent year-over-year to \$11.2 billion.
2. Originally released in 1998, Lineage is one of the highest grossing video game franchises of all time. Five months after its release, Lineage W climbed to the top of the revenue charts in Asia, where it currently ranks No. 4 behind Genshin Impact. The title, published by NCSoft, reached \$272 million in consumer spending in Asia during the first quarter of 2022.
3. Japan, the largest mobile games market in Asia by revenue and the second largest in the world, experienced a double-digit revenue decline during Q1 2022, down 18 percent Y/Y.



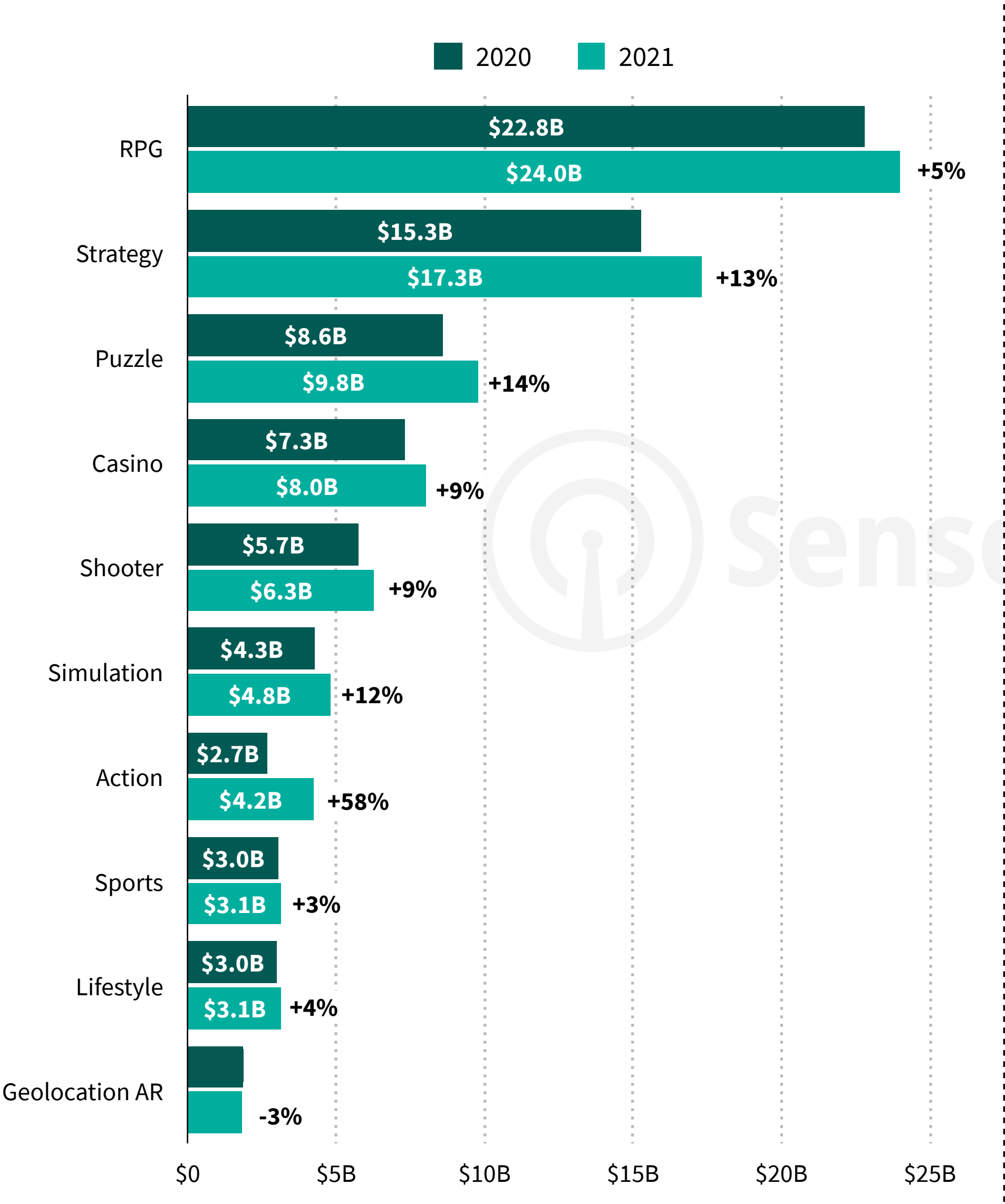


Game Genre Trends

Worldwide Trends by Mobile Game Genre

RPG was the Top Game Genre by Revenue in 2021

Top 10 game genres by worldwide gross revenue, App Store and Google Play



Top Sub-Genre:	Top Country:	Top Game:
MMORPG	36%	Uma Musume
4X Strategy	30%	Honor of Kings
Puzzle & Decorate	52%	Candy Crush Saga
Slots	60%	Coin Master
Battle Royale	33%	PUBG Mobile
Sandbox	48%	Roblox
Open World Adventure	26%	Genshin Impact
Realistic Sports	40%	Pro Baseball Spirits A
Music / Rhythm	50%	Ensemble Stars!
Geolocation AR	53%	Pokémon GO

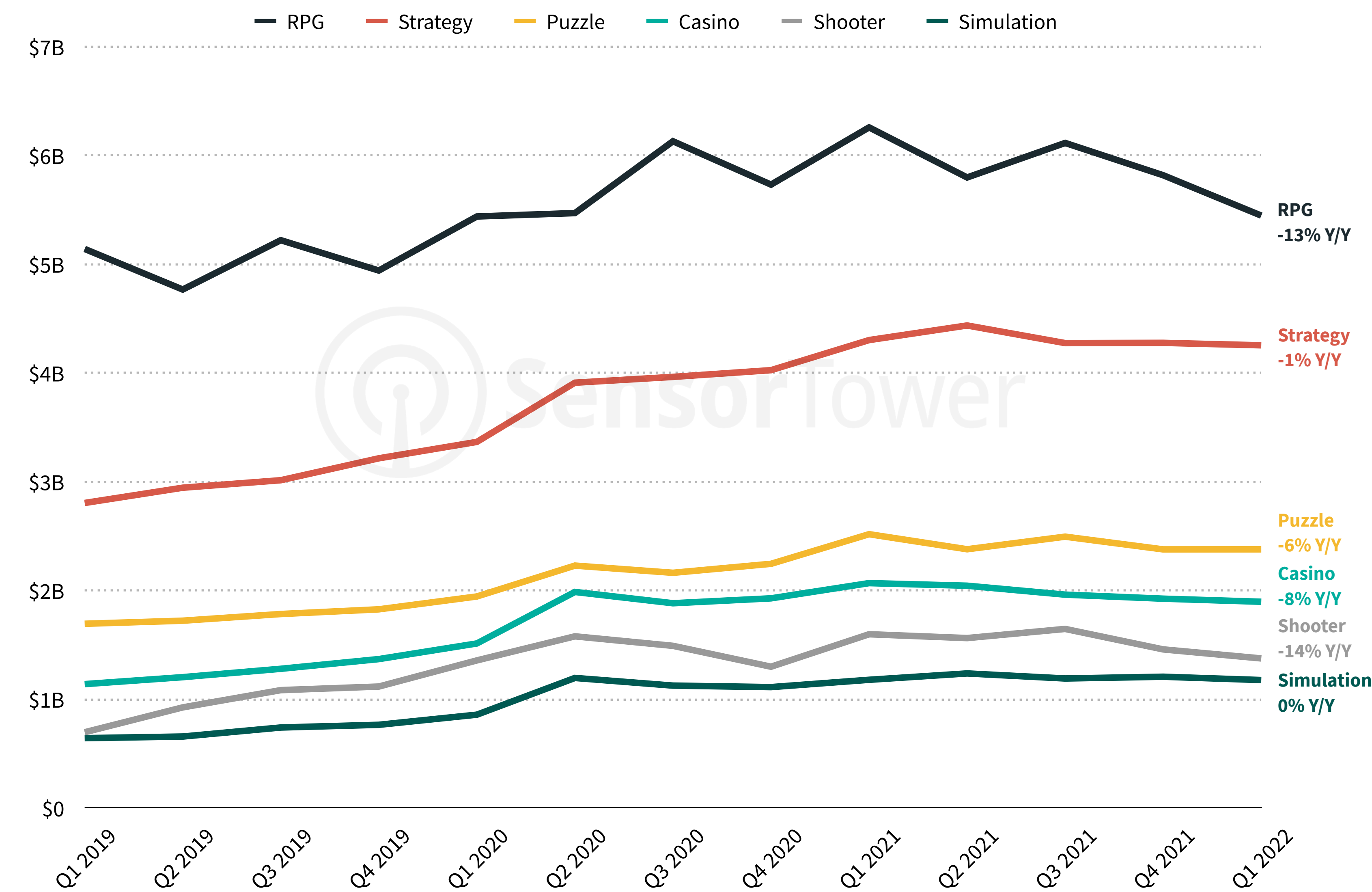
RPG led all genres by revenue in 2021, followed by Strategy and Puzzle. Strategy revenue grew by \$2B year-over-year, while RPG was close behind with growth of \$1.2B, followed by Puzzle with an increase of \$1.1B.

Among the top genres, Action led the way with Y/Y growth at 58 percent, mainly due to the strong performance of Genshin Impact. The No. 2 fastest growing genre was Puzzle with 14 percent, with Strategy ranking No. 3 at 13 percent Y/Y.

Note:
Revenue figures are gross revenue (including the cut taken by Apple or Google).

Most Top Genres Saw Revenue Decline in Q1 2022

Worldwide revenue by game genre, App Store and Google Play



RPG is the largest genre by worldwide revenue. Quarterly gross revenue has been above \$5 billion since Q1 2020, with a peak of \$6.1 billion during Q3 2021. Nevertheless, during the first quarter of 2022, it experienced a double-digit decline, with spend decreasing by 13 percent year-over-year.

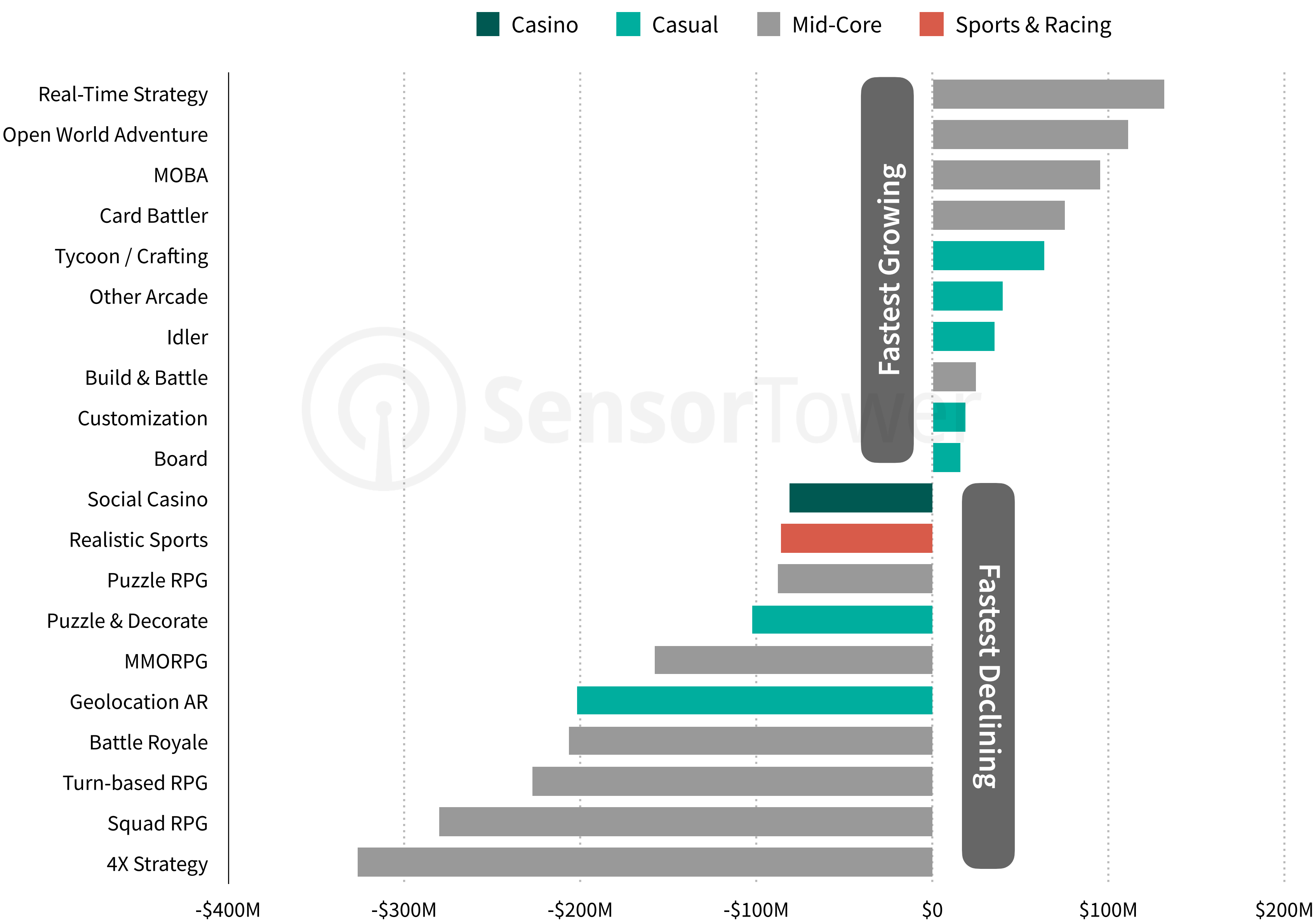
The five largest game genres registered revenue declines during Q1 2022. Among them, Strategy had the least drastic decrease. It has remained above \$4 billion in gross revenue each quarter since Q4 2020. During Q1 2022, Strategy games generated \$4.2 billion worldwide, down 1 percent Y/Y.

Shooter saw the steepest decline among the top genres, with revenue falling by 14 percent Y/Y in Q1 2022.

Note:
Revenue figures are gross revenue (including the cut taken by Apple or Google).

Real-Time Strategy is the Fastest Growing Sub-Genre

Top 10 game sub-genres by year-over-year revenue growth and decline in Q1 2022



Mid-Core games saw very heterogeneous performance during Q1 2022. Some of the Mid-Core sub-genres were the fastest growing, while others saw the largest declines.

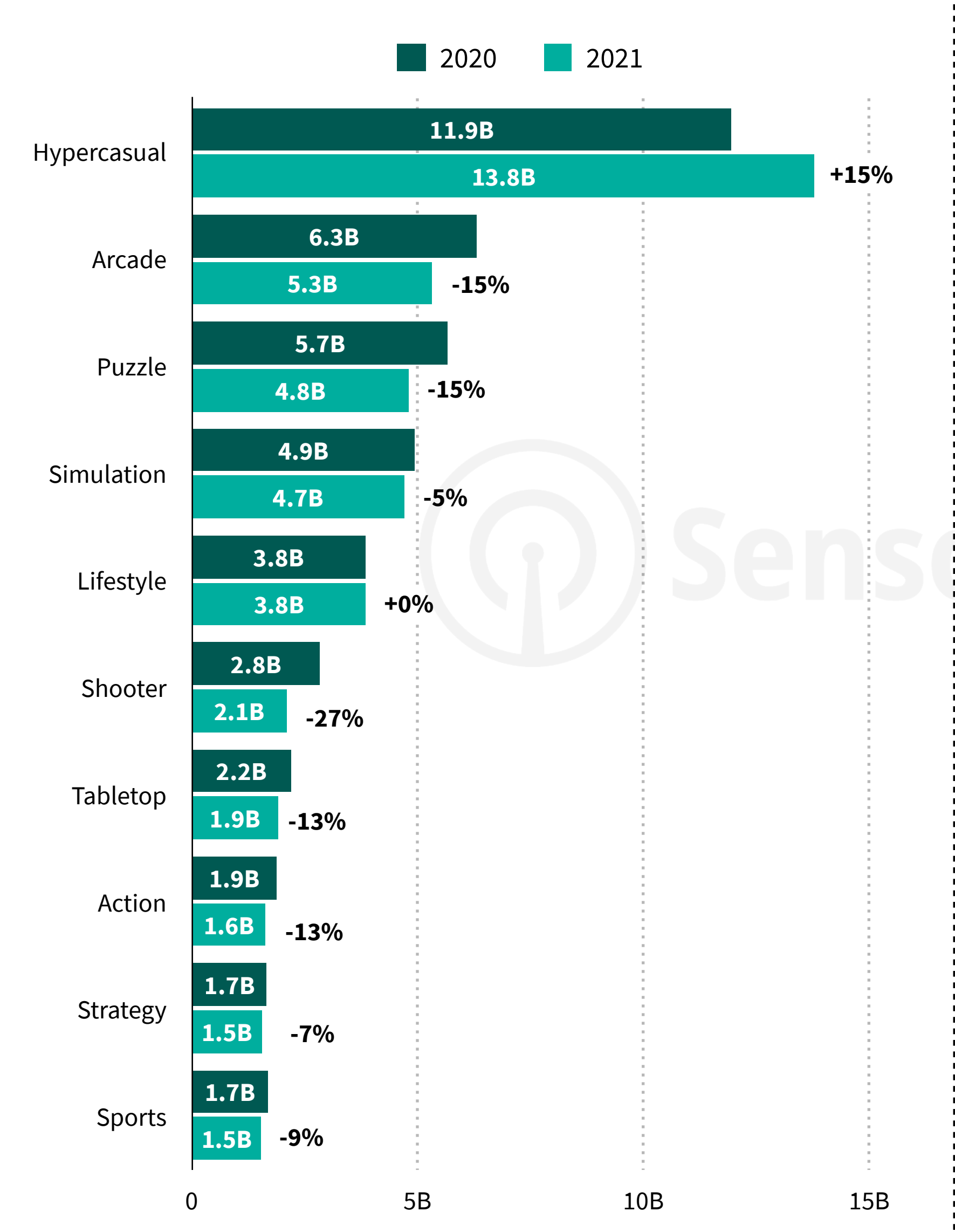
Real-Time Strategy was the fastest growing sub-genre during Q1 2022, with revenue increasing by more than \$130 million, mainly due to the excellent performance of Clash Royale from Supercell. The No. 2 fastest growing sub-genre was Open World Adventure, with consumer spending increasing by more than \$110 million, driven by the global scaling of Genshin Impact.

On the other hand, 4X Strategy was the fastest declining sub-genre in Q1 2022. Rise of Kingdoms (revenue down 27 percent Y/Y) and State of Survival (down 28 percent Y/Y) contributed to this decrease.

Note:
Revenue figures are gross revenue (including the cut taken by Apple or Google).

The Ascent of Hypercasual Continued in 2021

Top 10 game genres by worldwide downloads, App Store and Google Play



Top Sub-Genre:	Top Country:	Top Game:
Traversal	14%	Bridge Race
Plataformer / Runner	22%	Subway Surfers
Other Puzzle	16%	Candy Crush Saga
Driving / Flight Simulator	18%	Roblox
Lifestyle Simulator	14%	Magic Tiles 3
FPS / 3PS	23%	Garena Free Fire
Board	28%	Ludo King
Action Sandbox	21%	1945 Air Force
4X Strategy	10%	Mobile Legends
Realistic Sports	16%	8 Ball Pool

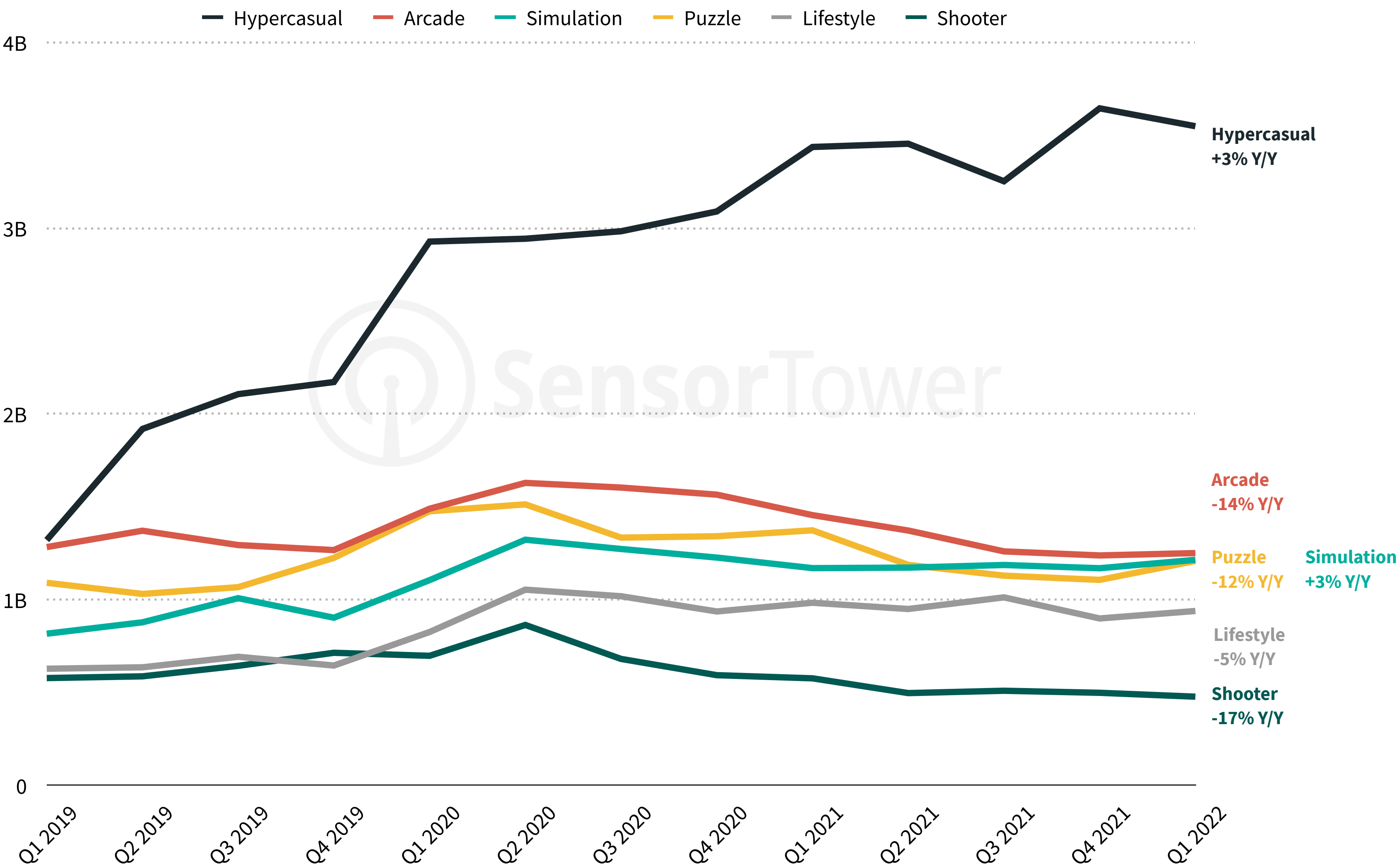
Hypercasual install growth continued in 2021, rising 15 percent year-over-year. Hypercasual games were downloaded nearly 14 billion times last year.

While Hypercasual continued to grow in 2021, all other game genres exhibited negative growth.

Shooter was the worst performing genre in terms of growth, with worldwide installs decreasing 27 percent Y/Y during 2021. However, it still ranked as the sixth largest genre.

Hypercasual Has Seen Staggering Growth Since 2018

Worldwide download growth by game genre, App Store and Google Play

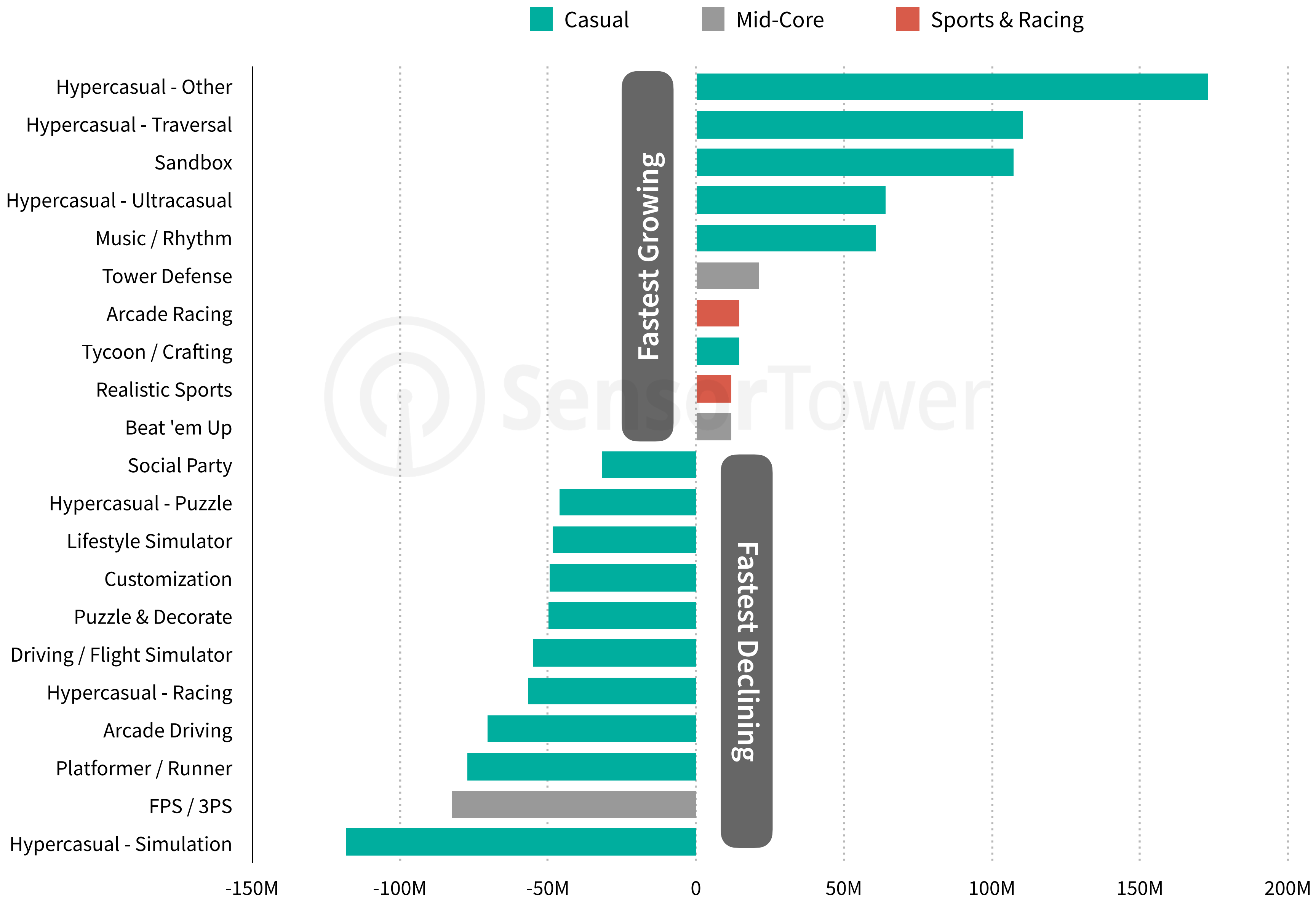


Hypercasual installs have skyrocketed, climbing from 757 million in Q1 2018 to more than 3.5 billion in Q1 2022. The genre was responsible for 32.5 percent of downloads in Q1 2022; no other genre had more than 12 percent.

Other genres such as Puzzle, Arcade, and Shooter saw double-digit declines in Q1 2022.

Hypercasual Sub-Genres Drive Adoption Growth

Top 10 game sub-genres by year-over-year downloads growth and decline in Q1 2022



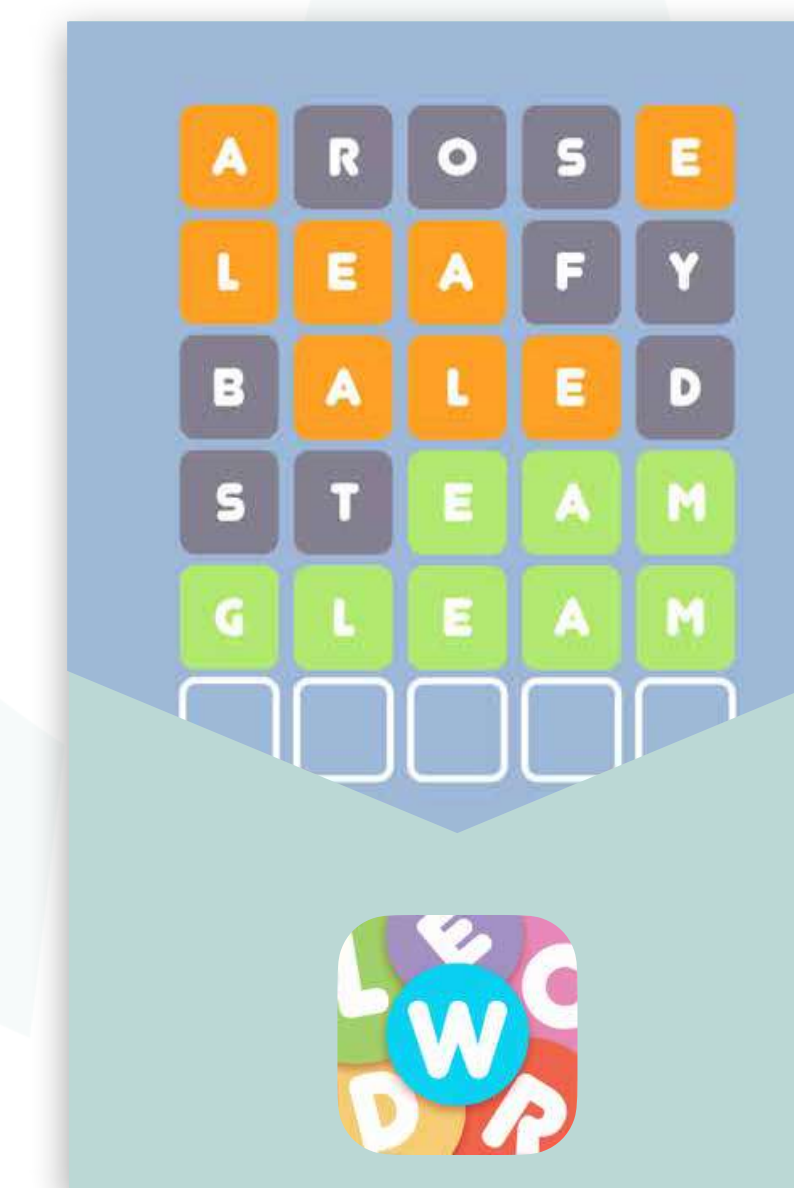
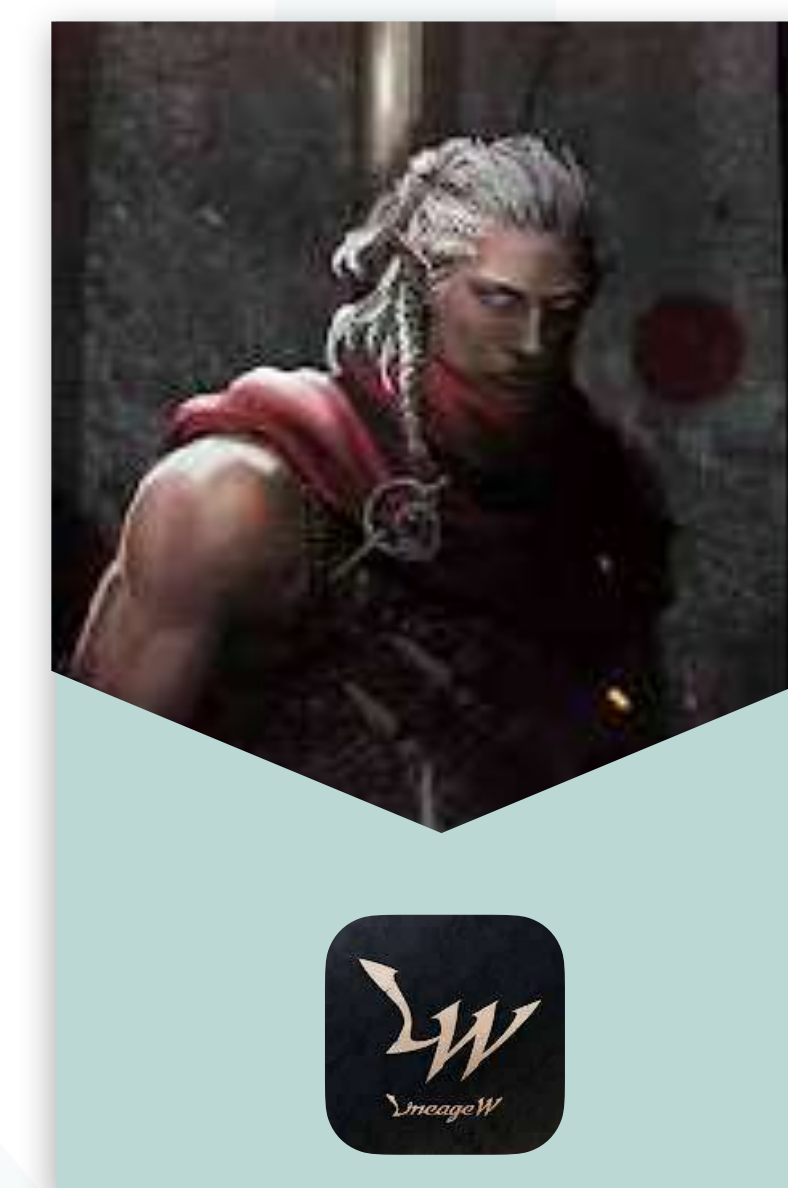
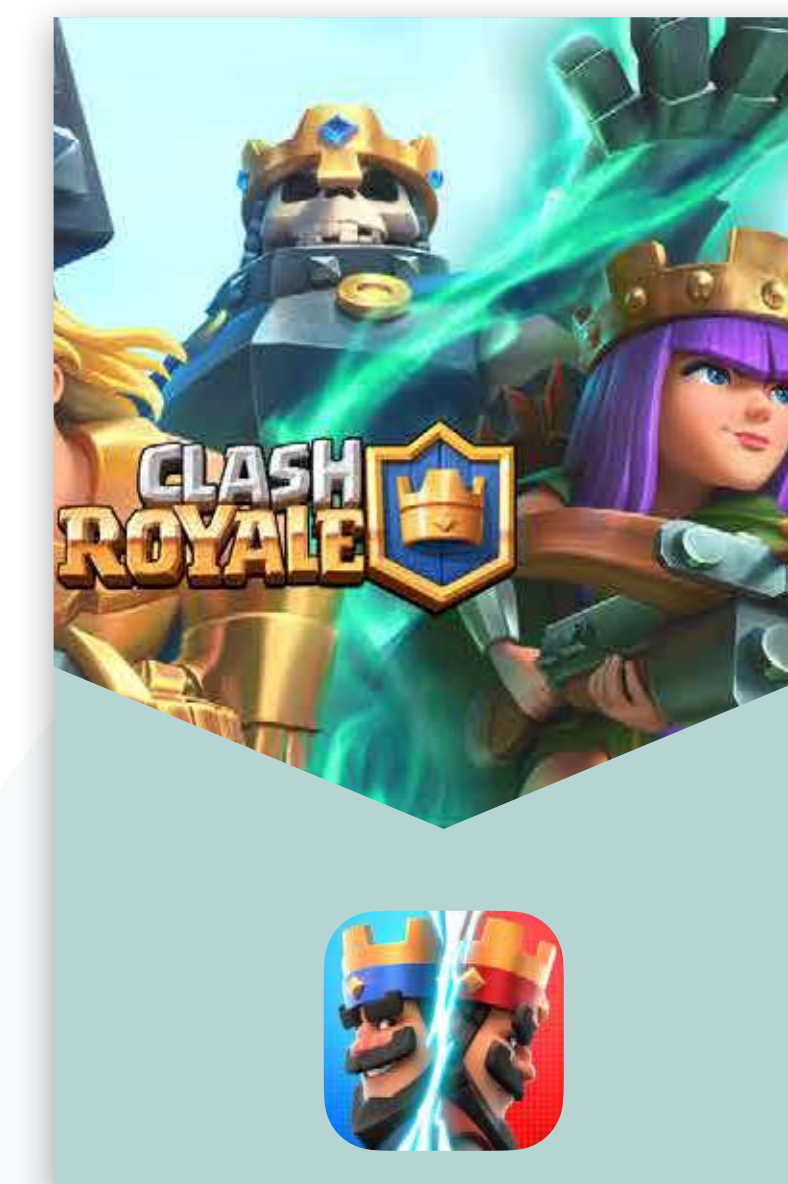
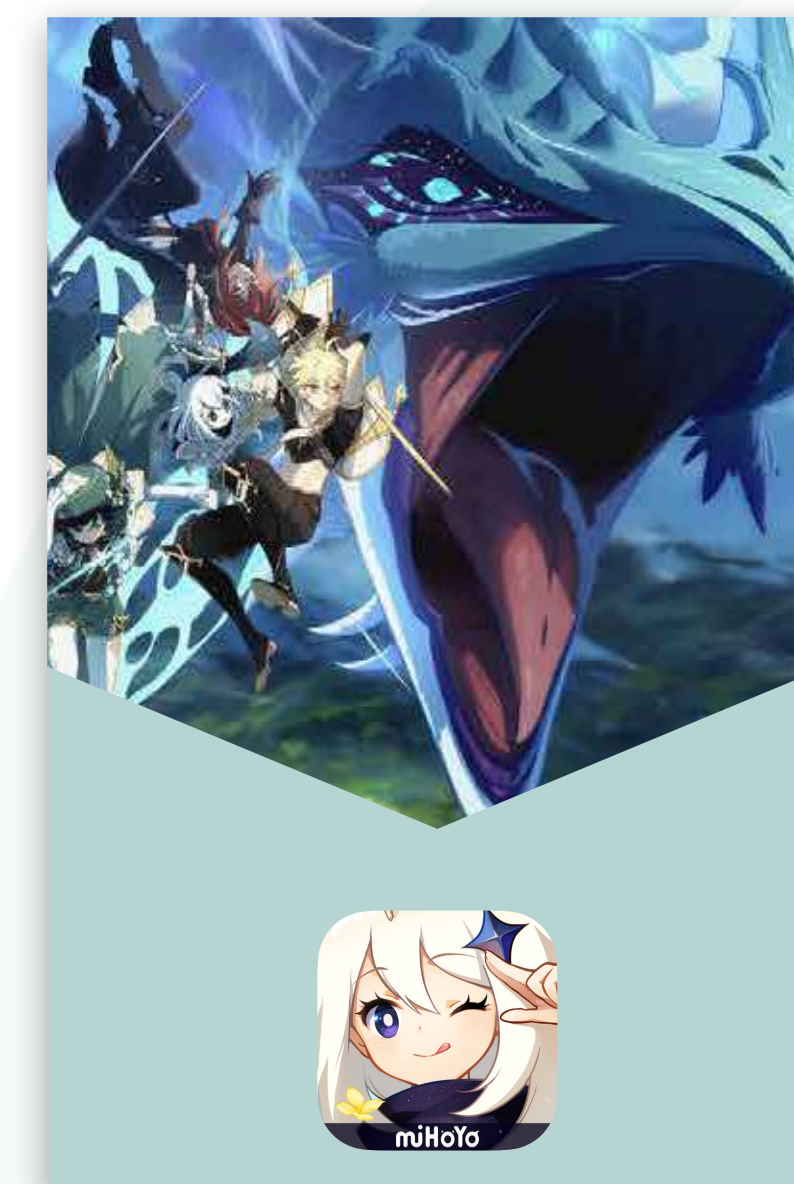
Five of the top 10 fastest growing sub-genres by year-over-year growth in Q1 2022 were in the Hypercasual genre, including the top two.

FPS/3PS was the only Mid-Core game sub-genre that saw a decline during Q1 2022. The Shooter sub-genre reached 205M downloads in the quarter, down 82 million from the previous year.

Key Takeaways:

Game Genre Trends

1. RPG led all genres by revenue in 2021, followed by Strategy and Puzzle.
2. Among the top genres, Action led the way with year-over-year growth at 58 percent in 2021, mainly due to the excellent performance of Genshin Impact. The No. 2 fastest growing genre was Puzzle at 14 percent, followed by Strategy at No. 3 at 13 percent Y/Y.
3. The five largest game genres registered revenue declines during Q1 2022. Among them, Strategy had the least drastic decrease, remaining above \$4 billion in gross revenue each quarter since Q4 2020.
4. Real-Time Strategy was the fastest growing sub-genre during Q1 2022, with revenue increasing by more than \$130 million. The increase was mainly due to the excellent performance of Clash Royale from Supercell. The No. 2 fastest growing sub-genre was Open World Adventure, with consumer spending increasing by more than \$110 million, mainly due to the global scaling of Genshin Impact.
5. Hypercasual installs have skyrocketed, climbing from 757 million in Q1 2018 to more than 3.5 billion in Q1 2022. The genre was responsible for 32.5 percent of downloads in Q1 2022; no other genre had more than 12 percent.



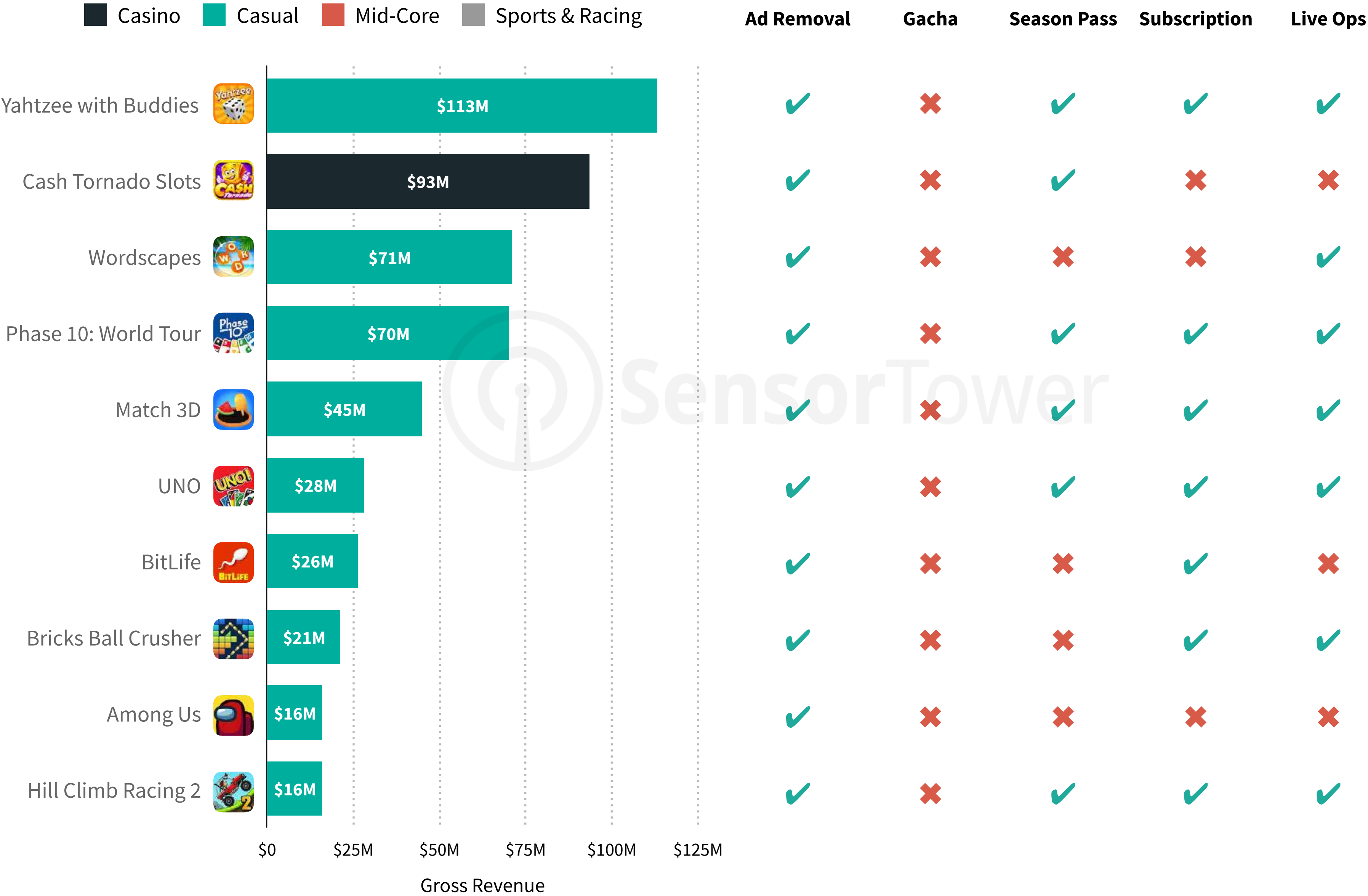


Monetization Trends

Trends in Mobile Game Monetization Strategies

Casual Leverages Ad Removal Monetization for Success

Top 10 games by worldwide revenue in 2021 with Ad Removal



Casino game Cash Tornado Slots from AppLovin stands out as the only non-casual title in the top 10 grossing rankings that features an Ad Removal option.

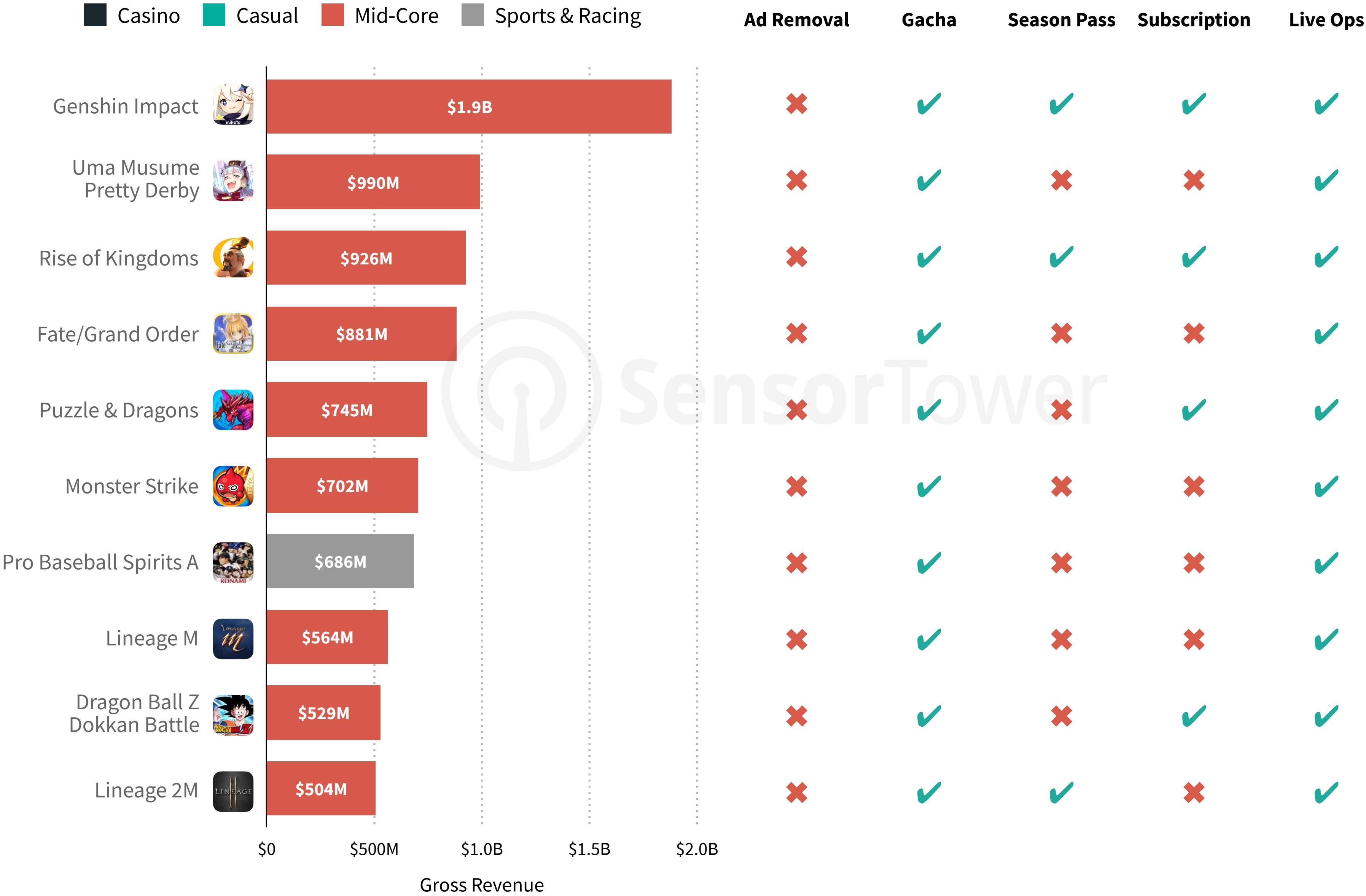
Three of the top earning titles with an Ad Removal option (Cash Tornado Slots, Wordscapes, and Match 3D) are published by U.S.-based AppLovin.

This demonstrates the publisher’s expertise in the mobile advertising space, where it operates its own ad network. It is able to leverage this, in some cases alongside other monetization methods.

Interested in Seeing More Monetization Insights?
This data in this section is from our State of Mobile Game Monetization report.
[Click here to download the full report.](#)

Konami Finds Lucrative Blend Between Sports and Gacha

Top 10 games by worldwide revenue in 2021 with Gacha



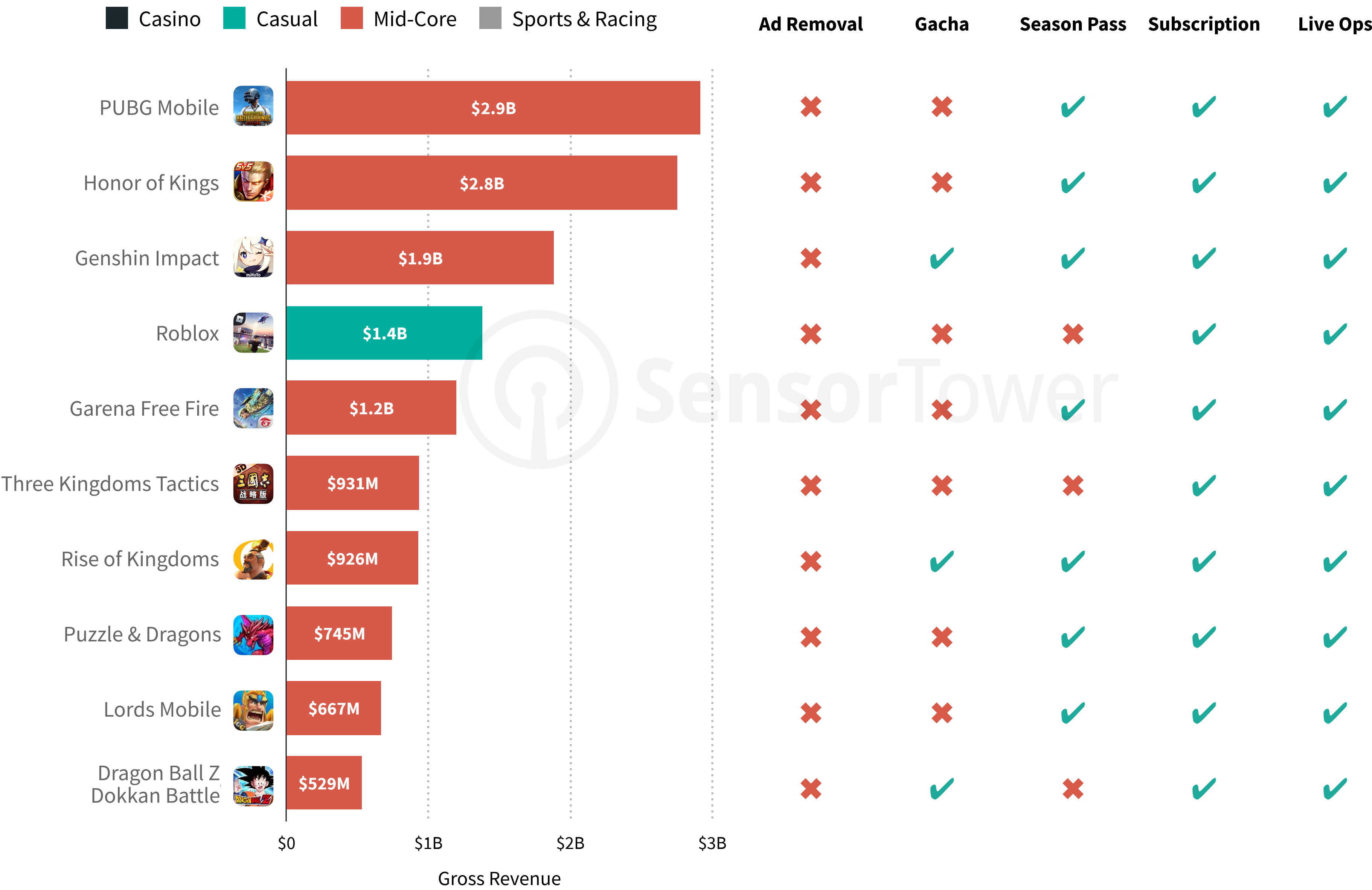
Gacha is most commonly utilized in the Mid-Core market, with titles in the class accounting for **nine of the top 10 revenue generating games that feature Gacha monetization.**

Only three out of the top 10 grossing Gacha games also implemented a season pass, suggesting that there are challenges in implementing the two models together.

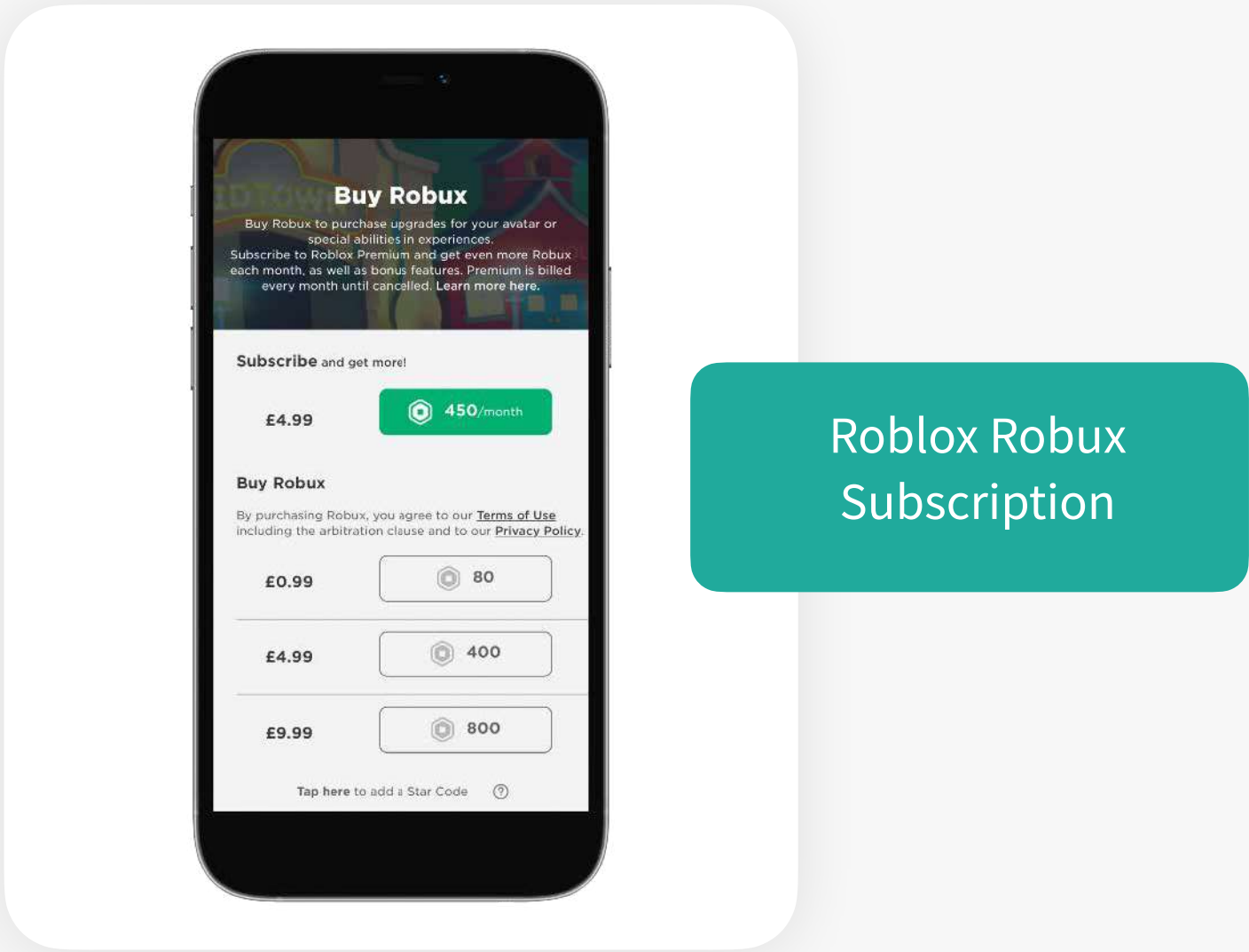
Konami has successfully implemented Gacha mechanics into its sports titles such as Professional Baseball Spirits A and eFootball PES 2021. While these two titles are skewed toward the Japanese market, another game, Golf Clash from Playdemic, has successfully brought this to the West.

User-Generated Content Fuels Roblox Subscription Success

Top 10 games by worldwide revenue in 2021 with Subscription



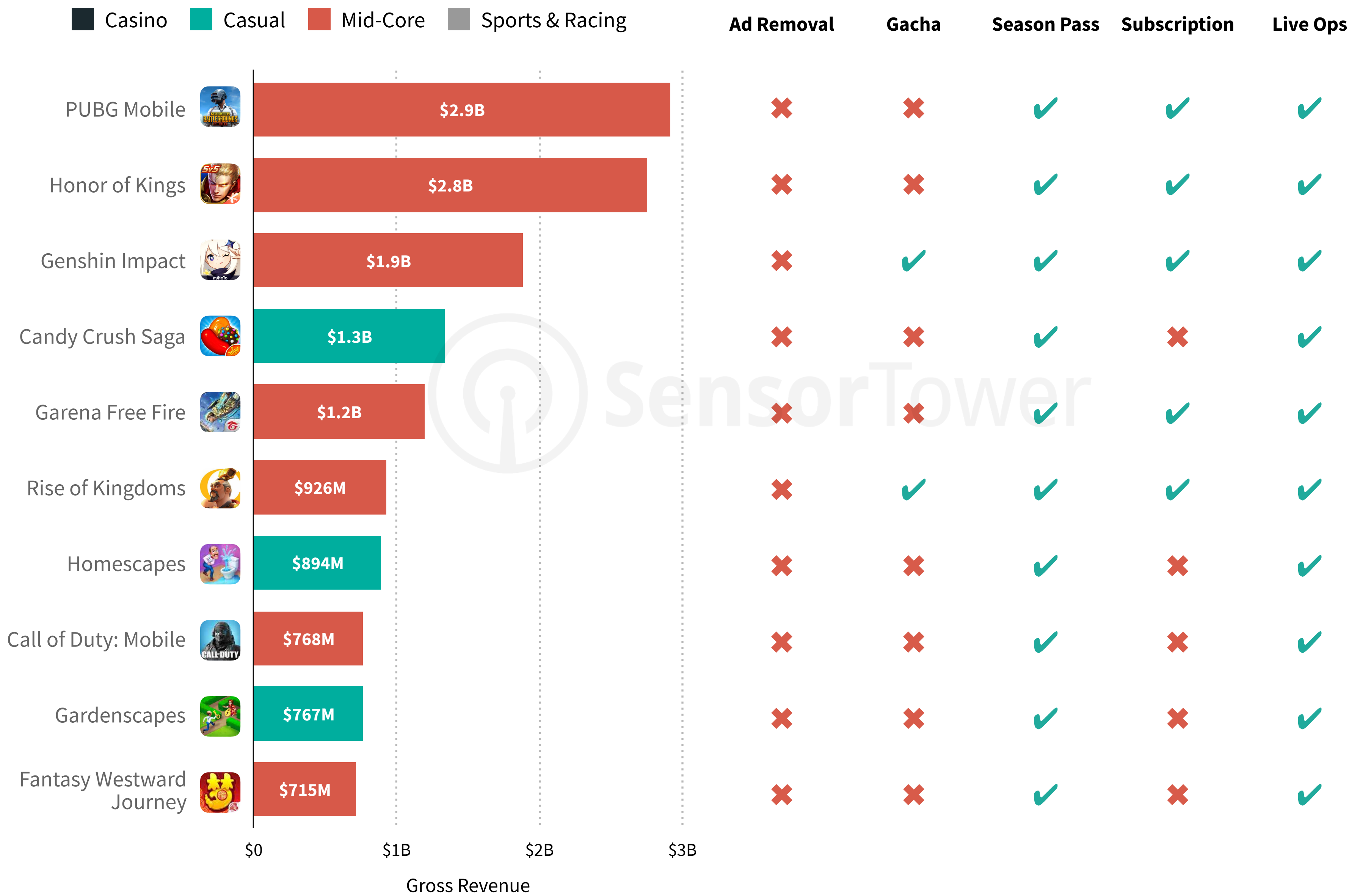
Roblox stands out as one of the only top grossing mobile titles that implements a **Subscription without a Season Pass**. One of the key foundations for a Subscription model to work is the constant stream of new content to avoid churn, often provided by Live Ops. **In the case of Roblox, the subscription provides a regular, set amount of in-game currency, Robux, that can be used on the title’s wide variety of user-generated content.**



Note: While some Roblox experiences have Season Pass implemented, Roblox itself does not.

Half of World’s Top Grossing Titles Utilize a Season Pass

Top 10 games by worldwide revenue in 2021 with Season Pass



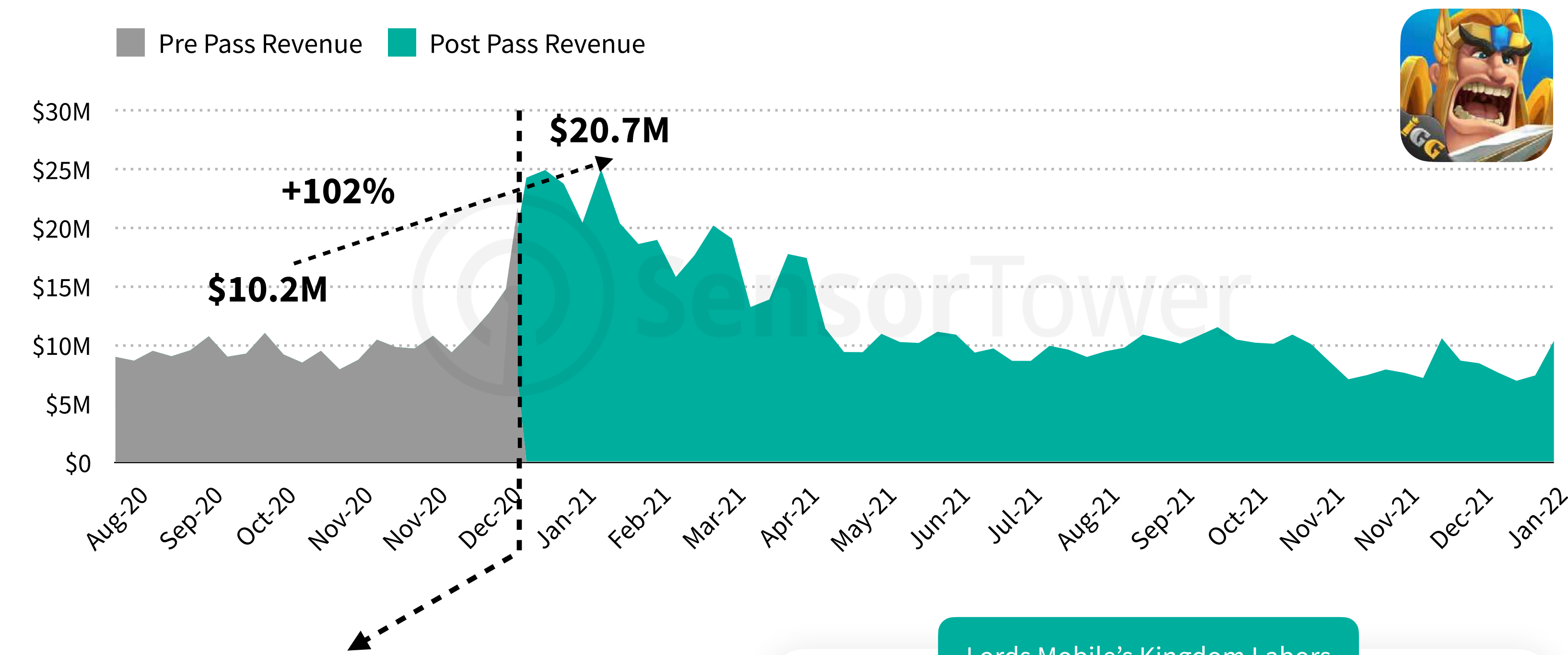
Half of the top grossing titles worldwide during 2021 featured a Season Pass among their monetization mechanics.

The Shooter genre accounted for three out of the top 10 earning titles that feature a Season Pass. The monetization model has its roots in the category, having been popularized by Fortnite before finding its way into titles including PUBG Mobile, Garena Free Fire, and Call of Duty: Mobile.

While the majority of the top titles that have implemented a Season Pass are Mid-Core games, **Casual titles have also started to add the feature.** Examples include Candy Crush Saga from King along with Homescapes and Gardenscapes from Playrix.

Season Pass Sparks 2X Revenue Increase in Lords Mobile

Worldwide weekly revenue of Lords Mobile on the App Store and Google Play



Player spending in Lords Mobile from IGG, released in 2016, doubled week-over-week to \$20.7 million in January 2021 following the introduction of the game’s new Season Pass, dubbed Kingdom Labors, Sensor Tower Store Intelligence data shows.

Lords Mobile players are able to purchase a monthly Gold Pass or use the default Silver Pass. Players can obtain prizes in return for completing weekly tasks.

Season Pass Implementation

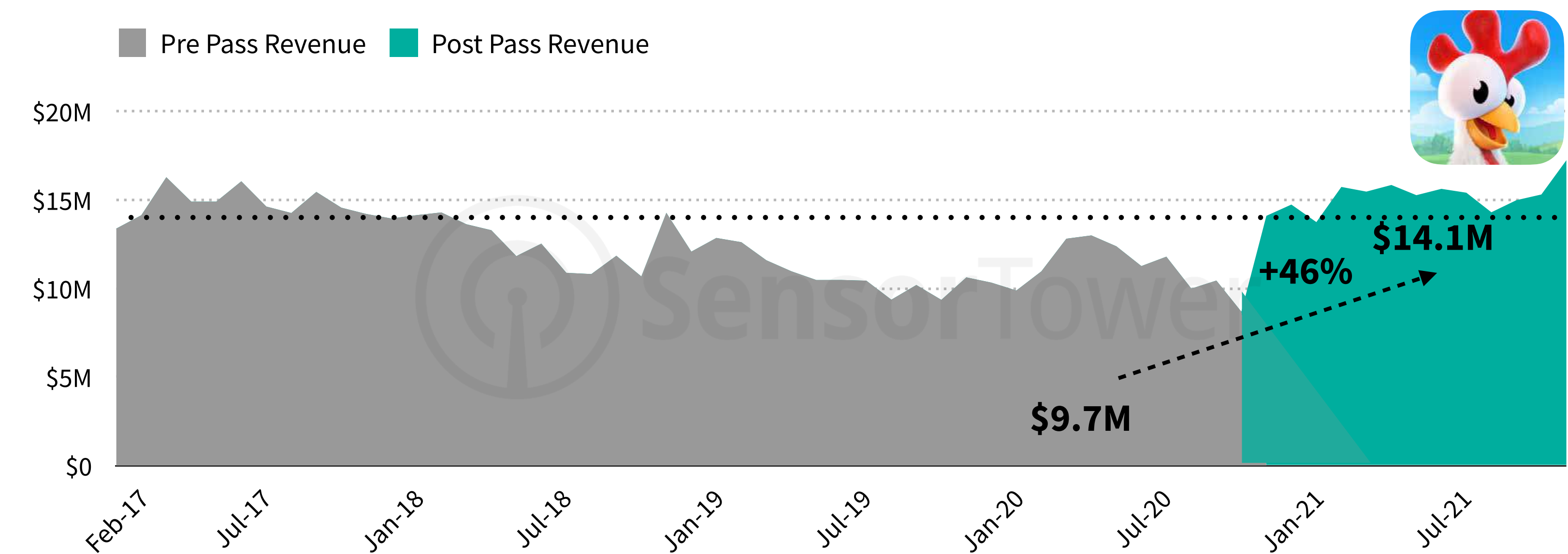
- Lords Mobile Version 2.37:
- New Event: Kingdom Labors
 - Complete labors to earn event points and claim rewards, including this month’s special: the Technolabe! Get the [Gold Pass] to claim more rewards!

Lords Mobile’s Kingdom Labors



Season Pass Can Revitalize Legacy Titles

Worldwide monthly revenue of Hay Day on the App Store and Google Play



Released 10 years ago, Hay Day was the first mobile title launched globally by Supercell. The introduction of the Farm Pass in December 2020 helped revitalize player spending in this legacy title, with revenue rising by 46 percent week-over-week.

As a result of the Farm Pass, Hay Day has seen revenue rise to levels not seen since 2017, now surpassing \$14 million on average per month.

Supercell has found some success with the Season Pass system, implementing it across its portfolio in titles such as Clash of Clans, Clash Royale, and Brawl Stars.

Season Pass Implementation

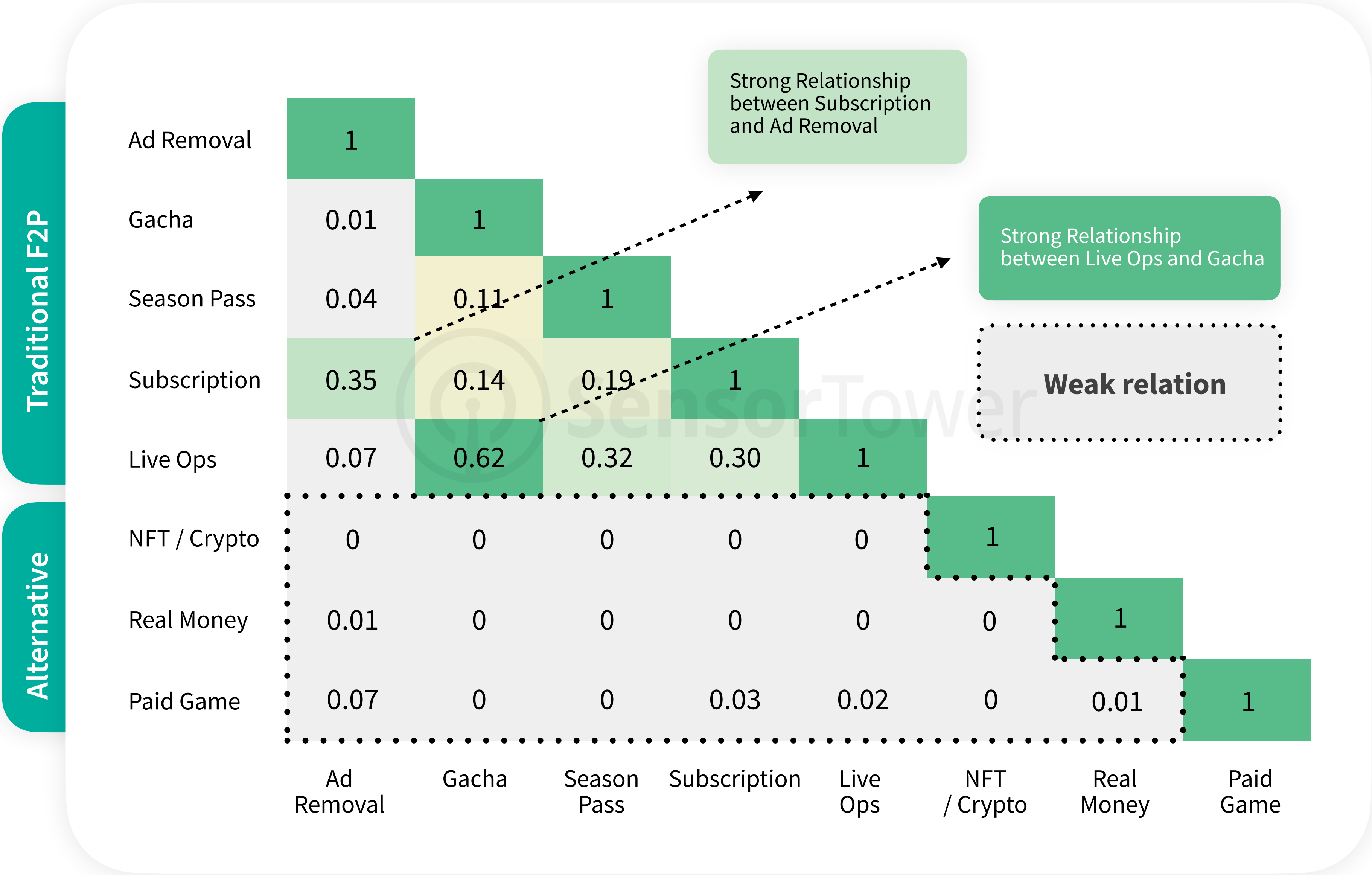
Hay Day Version 1.48.149:
Our FARMtastic update is finally here!
Introducing: Farm Pass, featuring the baby chicks!
• Farm Pass runs every month. You can earn extra rewards as well as fun, game-enhancing perks!
• Complete goals to gain pass points and follow the baby chick along the Farm Pass road.

Hay Day's Farm Pass



F2P Mechanics Show Greater Links than Alternative Methods

Jaccard Index Matrix of Monetization descriptors



Sensor Tower data reveals a strong association between Live Ops and Gacha. This is likely due to titles with Gacha mechanics requiring regular updates to keep users engaged with new and existing content.

Subscriptions and Ad Removal also show a strong association, as these monetization methods are both most popular with Casual titles, which also have a higher probability of utilizing in-game ads.

While traditional free-to-play mechanics are intertwined, emerging and alternative monetization methods such as Real Money and NFT/Crypto typically show a weak relationship with other features.

Jaccard Index
The Jaccard index is a statistic used for gauging the similarity and diversity of sample sets where binary data is used. The index is defined between 0 and 1. The higher the value, the stronger the relationship between the two sets.

Gacha Exhibits Strong Relationships with Anime Art Style

Jaccard Index Matrix of Monetization and Art Style descriptors



Monetization features can be crossed with other elements of Sensor Tower’s game taxonomy for deeper insights into the market.

Gacha is a very popular monetization mechanic in Japan, and Sensor Tower data reveals a strong association with games that feature Gacha features and the Anime Art Style, which is also hugely popular in Japan.

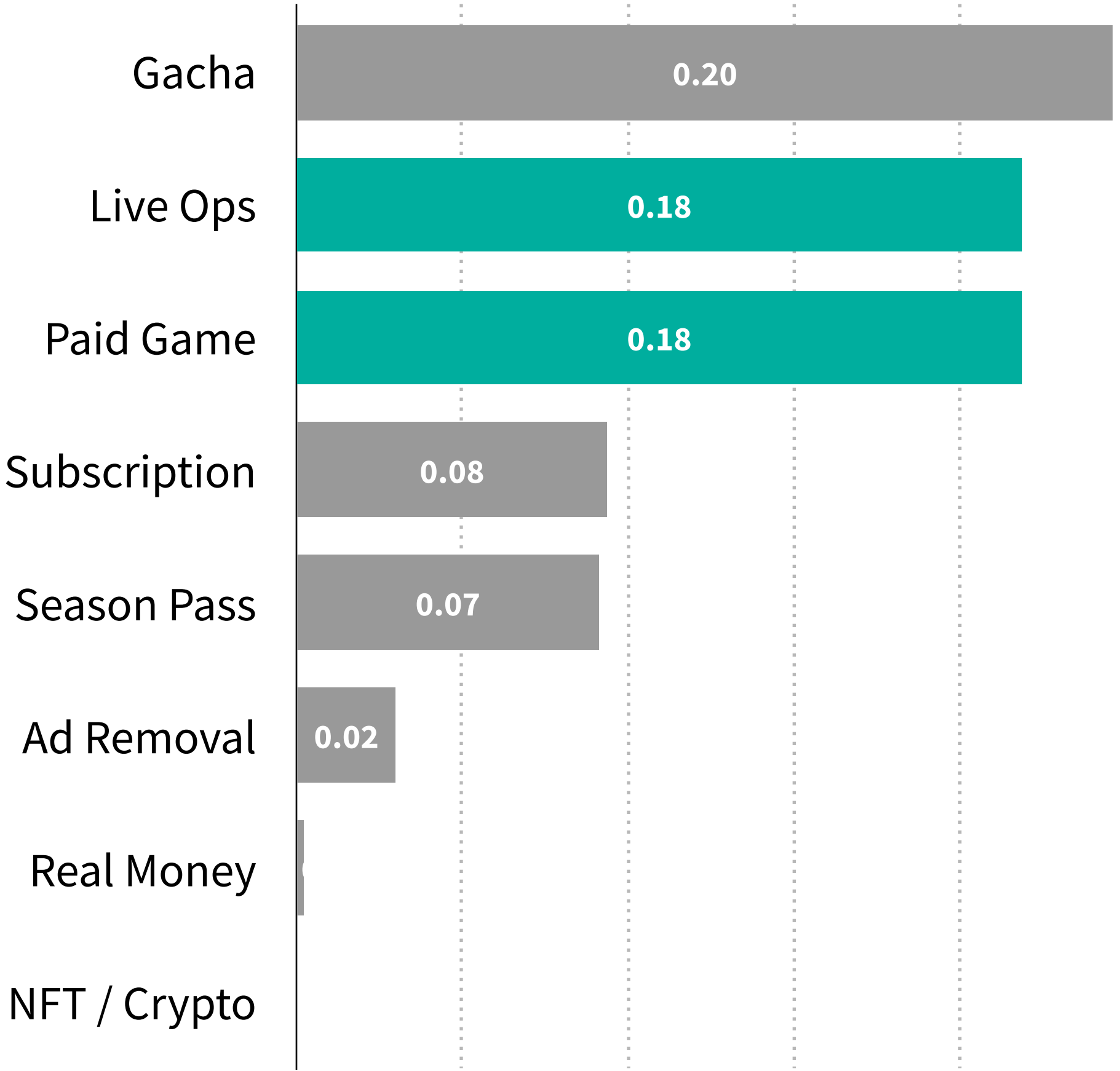
The Cartoon Art Style, which includes titles such as Lords Mobile, Clash of Clans, and Gardenscapes, also shows a strong relationship with the Season Pass and Subscription monetization descriptors.

Jaccard Index
The Jaccard index is a statistic used for gauging the similarity and diversity of sample sets where binary data is used. The index is defined between 0 and 1. The higher the value, the stronger the relationship between the two sets.

Most IPs Adopt F2P and Live Ops, While Some Premium Franchises Remain as Paid Games

IPS + Monetization

Jaccard Index between IPs and Monetization type



Options for IP Holders

F2P + Live Ops



Top 10 U.S. Games in 2021
Revenue: \$1.5B

Paid Game

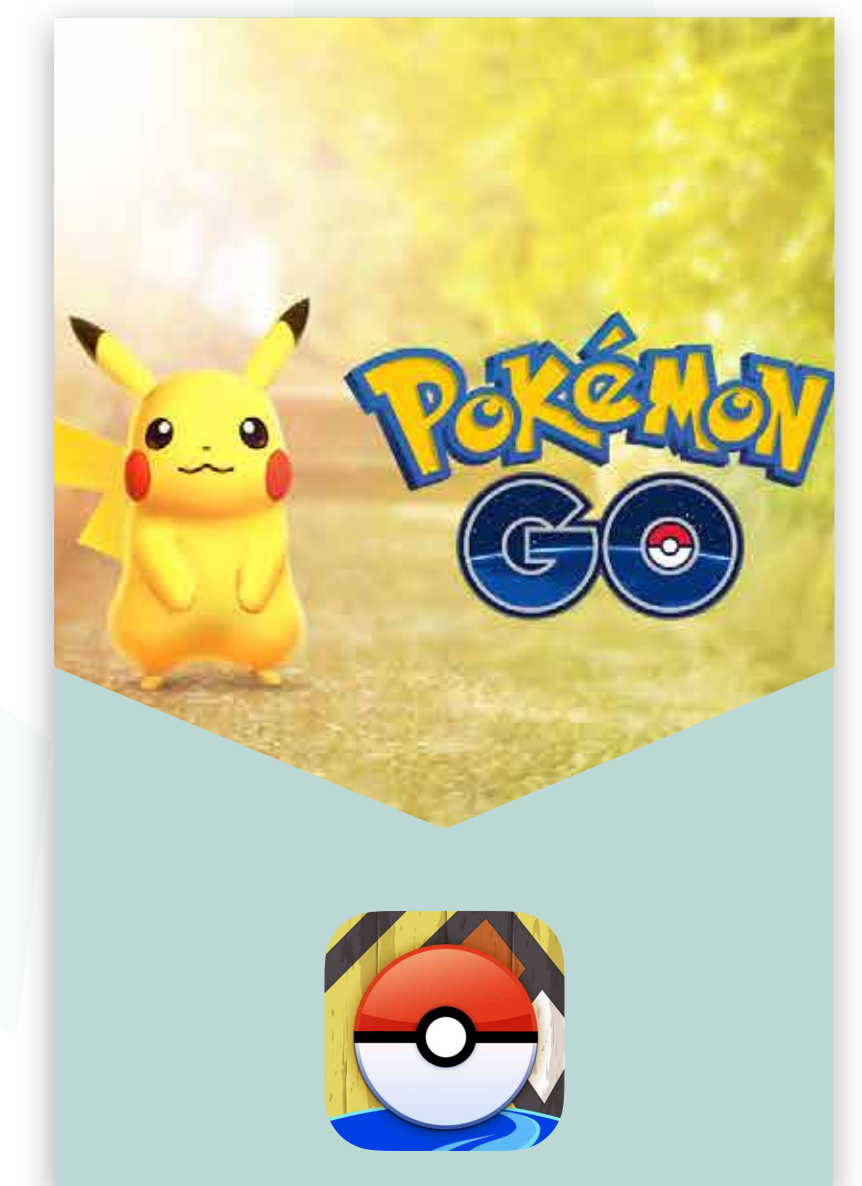
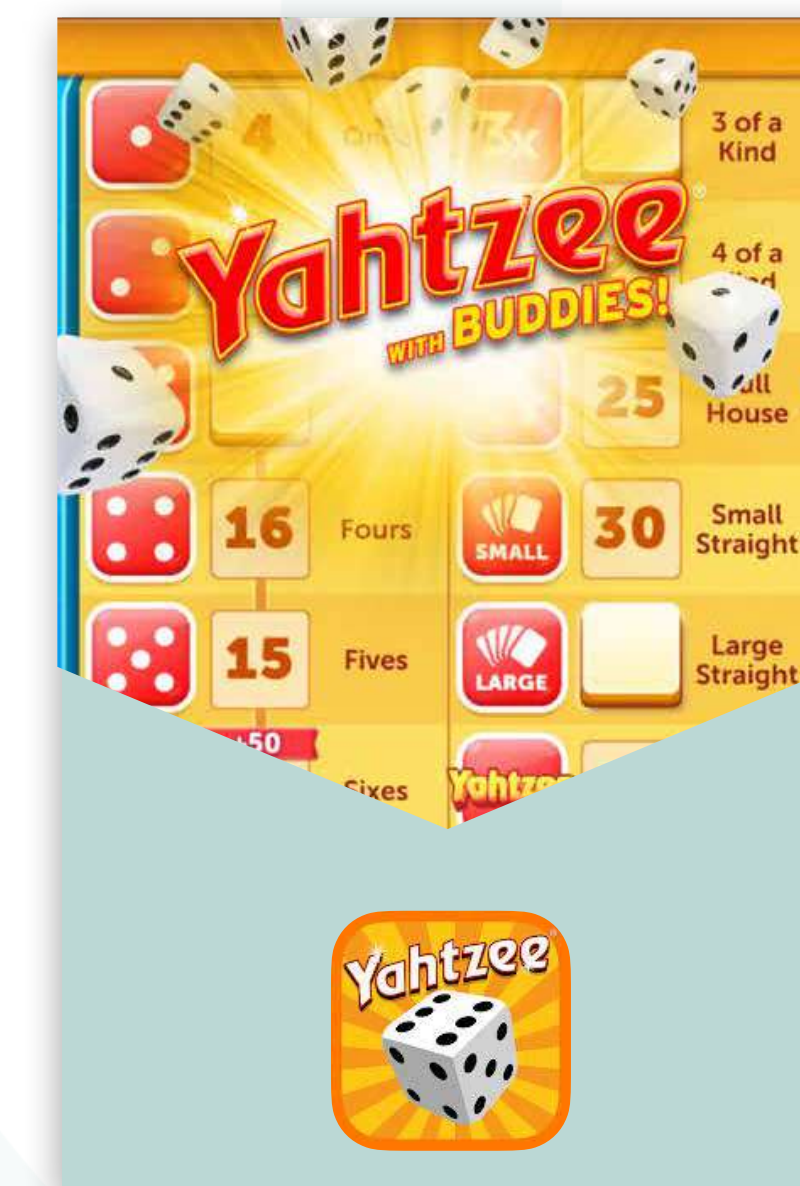
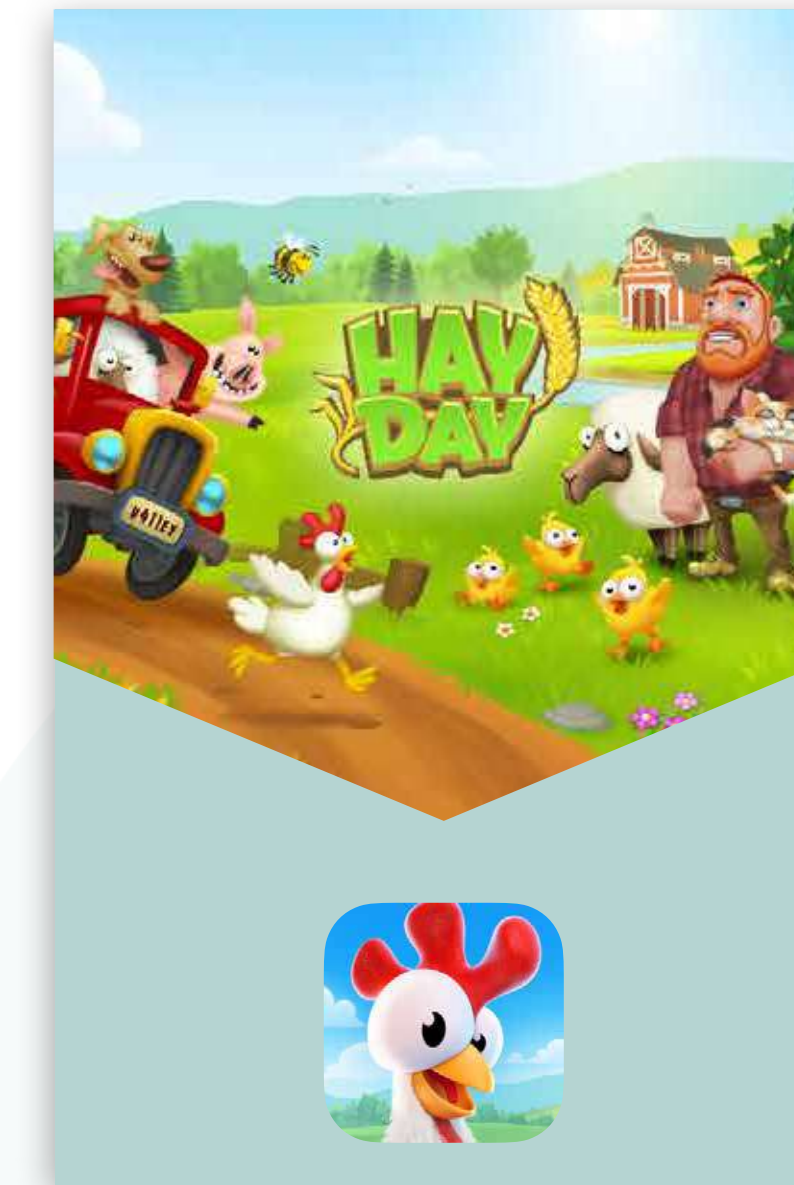
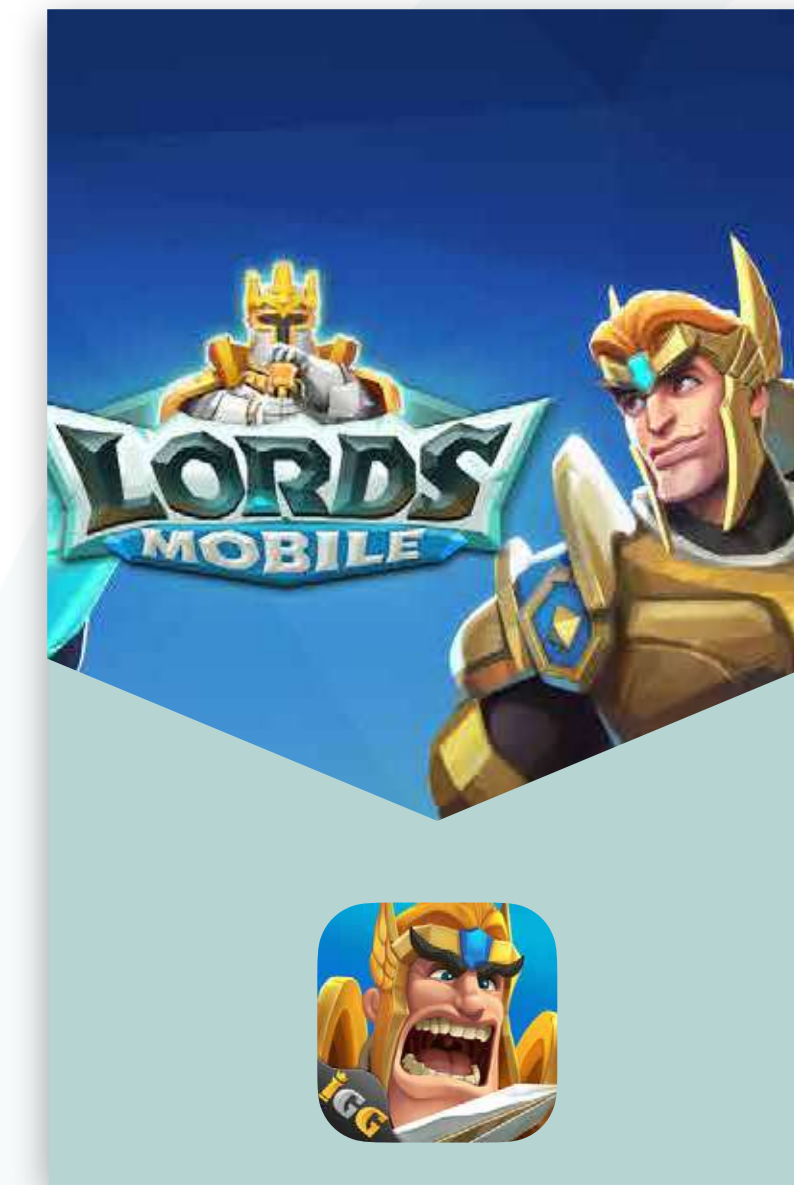


Top 10 U.S. Games in 2021
Revenue: \$132M

Key Takeaways:

Game Monetization Trends

1. While traditional free-to-play mechanics are intertwined, **emerging and alternative monetization methods such as Real Money and NFT/Crypto typically show a weak relation to other features.**
2. Gacha is a very popular monetization mechanic in Japan, and has a strong association with games that feature Gacha features and the Anime Art Style, also popular in Japan.
3. **There is a strong synergy between Ad Removal and Subscription monetization, particularly in casual titles where ads are more prominent.**
The overlap between the two options is sometimes present where Ad Removal is included as part of a Subscription. This combination of mechanics is not often used in the ad-driven Hypercasual market, as the lack of long-term retention does not justify a subscription model.
4. The Season Pass monetization model, popularized by Fortnite and implemented across the Shooter ecosystem, has been integrated into a wider variety of genres. Season Passes can act as a method to monetize genres that otherwise might typically lack a full-fledged progression system. **Its success proves that monetization mechanics can be extrapolated to other game genres.**

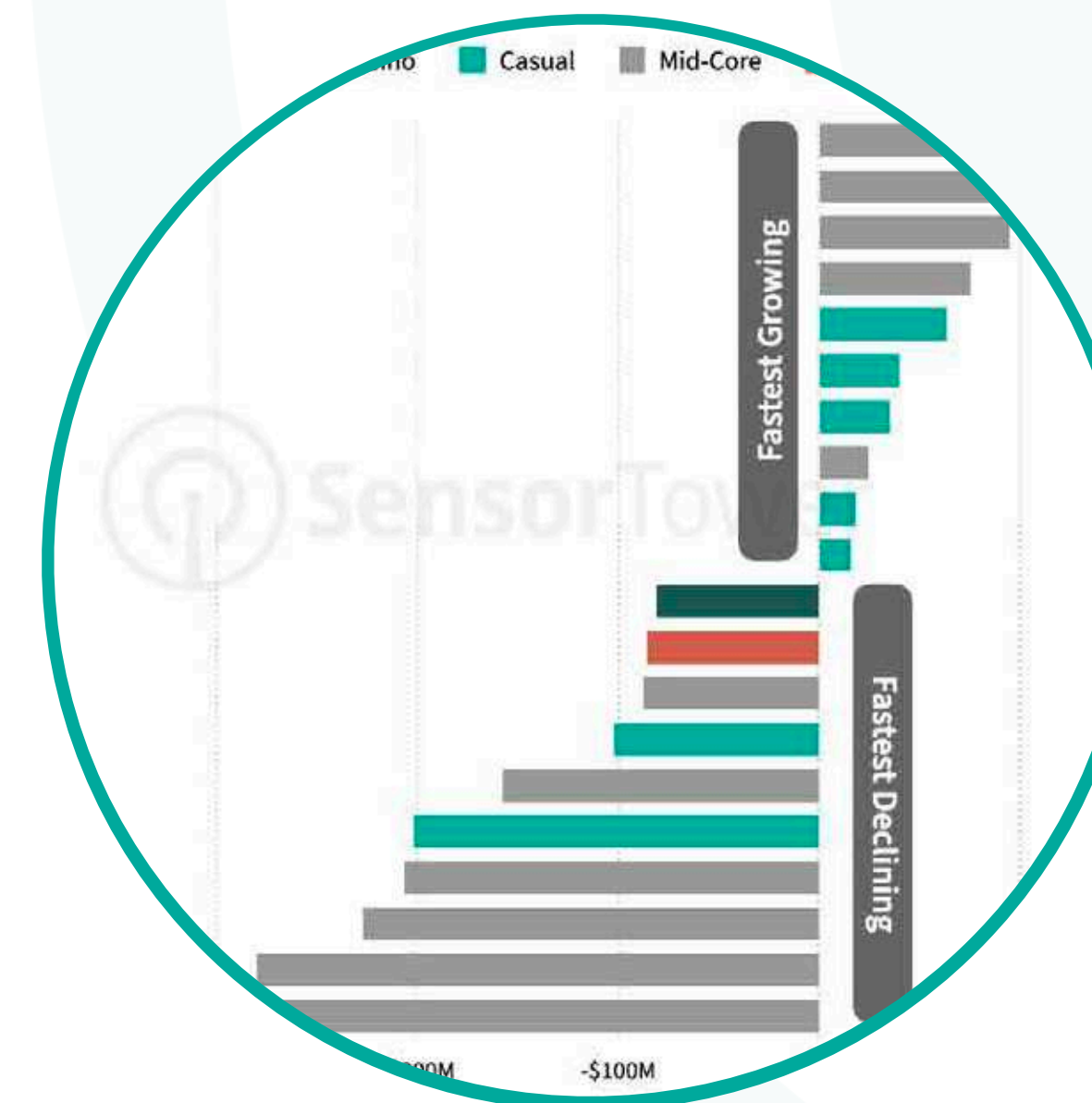
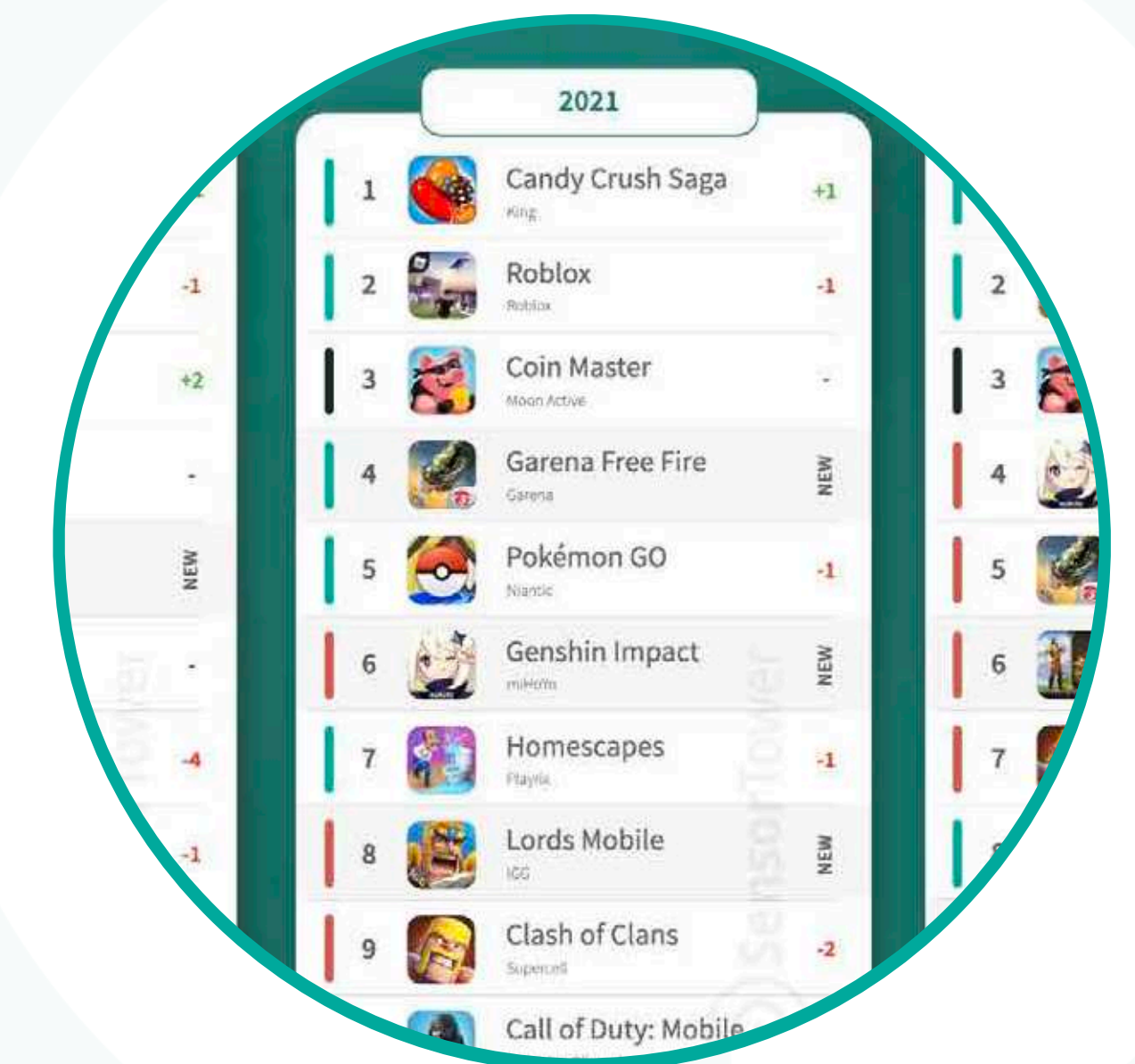
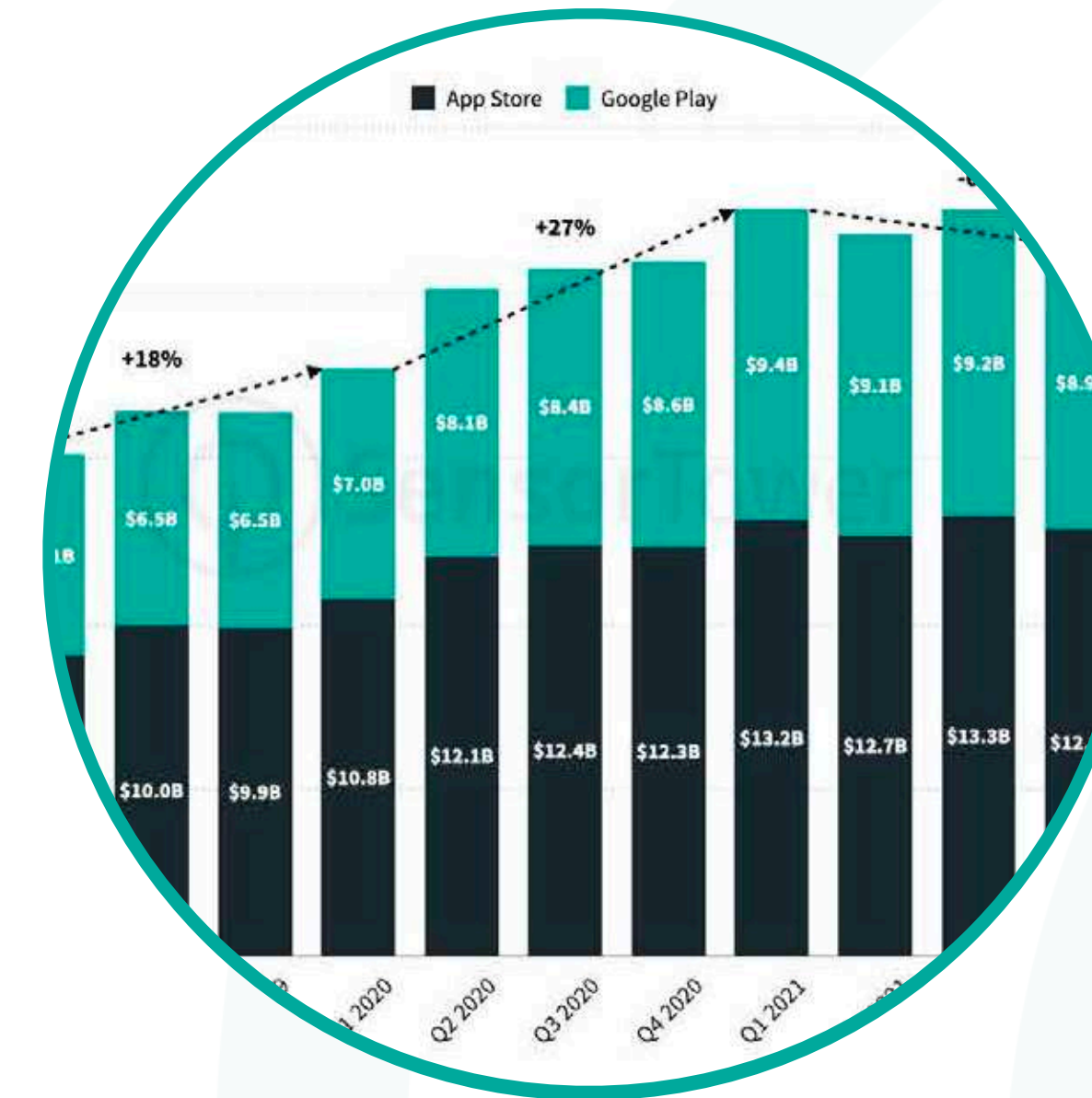


Conclusion

Key Takeaways from the Report

Key Takeaways: Overall

- Following the positive impact of the pandemic on the mobile games market, **consumer spending retracted globally in Q1 2022**. Worldwide revenue still surpassed \$21 billion in Q1, but was down 6 percent year-over-year.
- Inflation and rising living costs in the U.S. may be affecting game revenue on Google Play**. While consumer spending remained flat on the App Store, Google Play revenue declined 22 percent Y/Y.
- While Japan is the largest market in Asia and the second largest market in the world, it experienced a double-digit revenue decline during Q1 2022**, down 18 percent Y/Y.
- Over the past several years, Turkey has become the Silicon Valley of the mobile gaming industry**. Peak Games, a Turkish company based in Istanbul, was acquired by Zynga in 2020 for \$1.8 billion. Meanwhile, another local studio, Dream Games, publishes Royal Match, a Puzzle game that reached the Top 10 grossing games in the U.S. Turkey is not only a hub for mobile game development, but also stands out as the fastest growing market in Europe.
- The five largest game genres registered revenue declines during Q1 2022**. Among them, Strategy had the least drastic decrease, able to stay above \$4 billion of gross revenue each quarter since Q4 2020.
- The Season Pass monetization model, popularized by Fortnite and implemented across the Shooter ecosystem, has been integrated into a wider variety of genres. **Season Pass mechanics can act as a method to monetize genres that otherwise might typically lack a full-fledged progression system**. Its success proves that monetization mechanics can be extrapolated to other game genres.

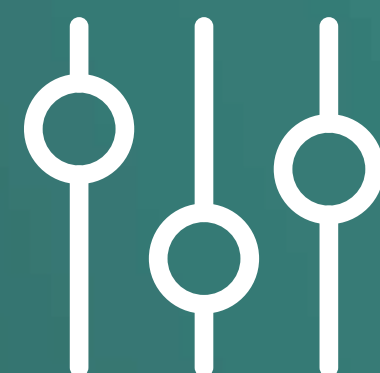


Sensor Tower Solutions



Store Intelligence

Make strategic decisions with the industry's most accurate estimates.



App Intelligence

Drive organic growth with the leading App Store Optimization platform.



Ad Intelligence

Develop winning User acquisition campaigns with crucial mobile advertising insights.



Usage Intelligence

Benchmark app usage, engagement, and demographics.



App Teardown

Evaluate which SDKs apps are using and measure SDK adoption across market segments.



Consumer Intelligence

Access unfiltered mobile user engagement for financial analysis.

Sensor Tower

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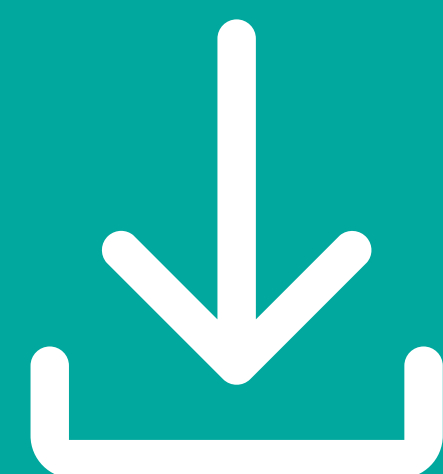
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About Sensor Tower

Sensor Tower is the leading solution for mobile marketers, app developers, and industry analysts who demand competitive insights on the mobile economy. Sensor Tower's product suite includes: Top Charts, App Intelligence, Store Intelligence, Ad Intelligence, and Usage Intelligence.



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