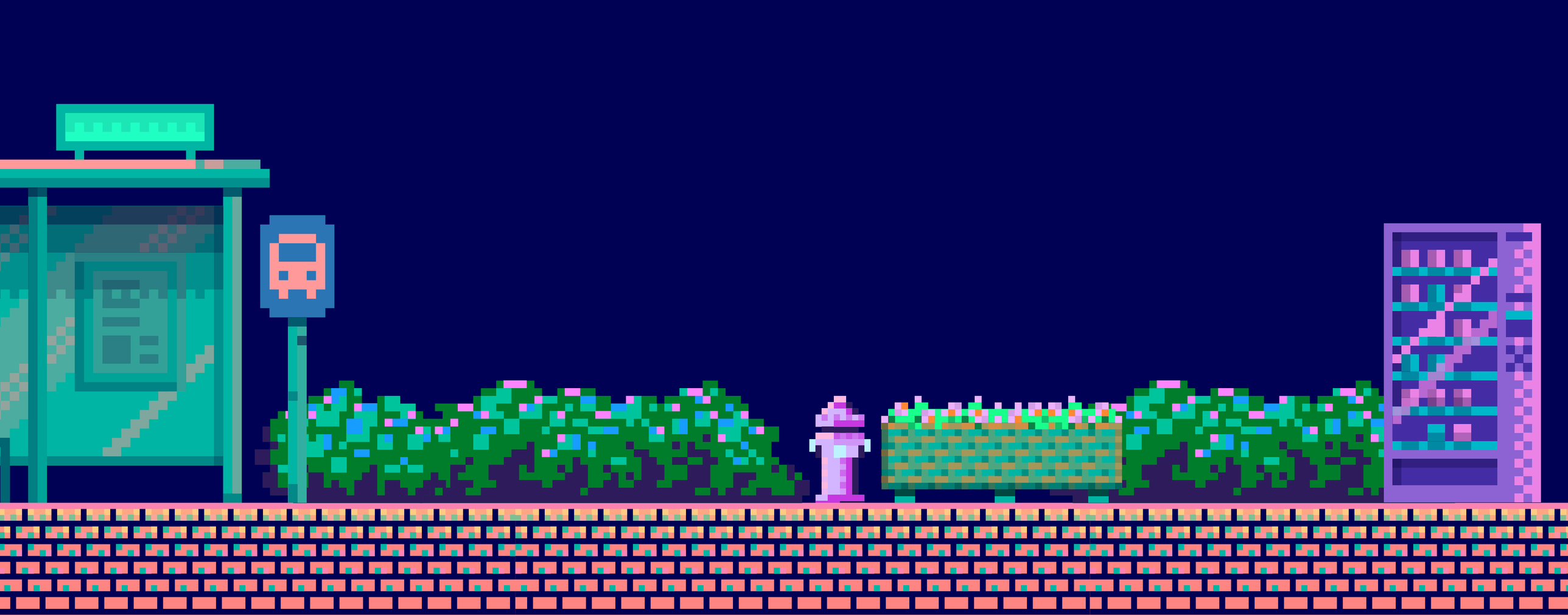
Eximius Ventures

# PLAYING TO WIN

## A THESIS ON INDIAN ONLINE GAMING



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# ABOUT US

Eximius Ventures is a dedicated **pre-seed fund** offering smart capital with deep knowledge. As a **sector-differentiated** fund, we invest up to $500k in the pre-product/early traction stage, employing a **thesis-driven approach** across **FinTech, Healthtech, SaaS, Online Media & Gaming.**

We strive to support exceptional operators in building groundbreaking solutions from India to the world. A substantial portion of our fund is reserved for follow-on rounds, showcasing our long-term support. Recognising the need for agility in the dynamic startup ecosystem, we've established an efficient and transparent decision-making process, ensuring founders receive capital without unnecessary delays.

Beyond capital infusion, our Eximius Edge Platform extends comprehensive support to founders.

- Strategy
- Network
- Hiring and GTM
- Future Investment

We aim to identify and back exceptional founders leveraging the strong demographic dividend of India to build from India to the world, helping them with a unique value-add.

## Our Value-adds

- Empathy & Personal Chemistry
- Speed of Decision and Execution
- Sector-specific Knowledge and Expertise
- Functional Support for the Business

## Our Portfolio

FINTECH

Jar, Finarkein Analytics, skydo, vegapay, ASPIRE, BIMAKAVACH, fleek, fego, iTRIBE

HEALTHTECH

eka.care

ONLINE MEDIA

Oyela, Kalagato, SHURU, HOOD

SAAS

Brance, Omnivio, blockfenders, alltius

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## The Gaming Lounge

To bolster the gaming community in India, we initiated The Gaming Lounge — a global virtual gaming event with keynote sessions, panels, a BGMI match, and a Gaming PitchFest for early-stage gaming startups. Our goal was to address the industry's supply-demand gap. While the demand for good gaming experiences is substantial, the supply falls short due to a lack of ecosystem, mentorship, talent, and capital. Through The Gaming Lounge, we aimed to contribute capital, community, and context to play a role in bridging this gap.

# ABOUT US

## GAMING STARTUPS IN OUR PORTFOLIO

### STAN

Founded by: Parth Chaddha, Rahul Singh, Shubham Gupta, Nauman Mulla

STAN is a gamified engagement platform for gamers, creators, and fans to play games, collect cards of pro players, and trade through auctions and marketplace with fellow fans.

- **Invested in**: 2022
- **Current Value**: <$50Mn
- **Funding Stage**: Seed
- **Other Investors**: General Catalyst
- **Reason for Investing**: With a surge in gamers and playtime, there's a need for infrastructure beyond games to engage fans and boost loyalty, particularly for e-sports players. STAN is leveraging gaming to enhance creator-fan interaction, potentially expanding the e-sports industry's viewership.

### Simple Viral Games

Founded by: Rahul K R, Sourav Badami

Simple Viral Games is a new-age comprehensive gaming platform that aims to host multiple studio-generated and user-generated casual games across various sub-genres.

- **Invested in:** 2022
- **Current Value**: <$50Mn
- **Funding Stage**: Pre-seed
- **Other Investors**: WEH Ventures
- **Reason for Investing**: As mobile use in India grows, 420+ million hyper-casual gamers seek lighter experiences. SVG, recognising this trend, has gathered exciting games on a user-friendly platform, offering developers a comprehensive space with a retained user base.

## CONTRIBUTORS

**Pearl Agarwal**
Founder and GP
Favourite Game: GTA V

**Laksh Sharma**
Investment Team
Favourite Games: Batman Arkham Knight and Football Manager 2020

**Pankhudi Kedia**
Platform lead
Favourite Games: Pokémon Go and Assassin's Creed Syndicate

# FOREWORD

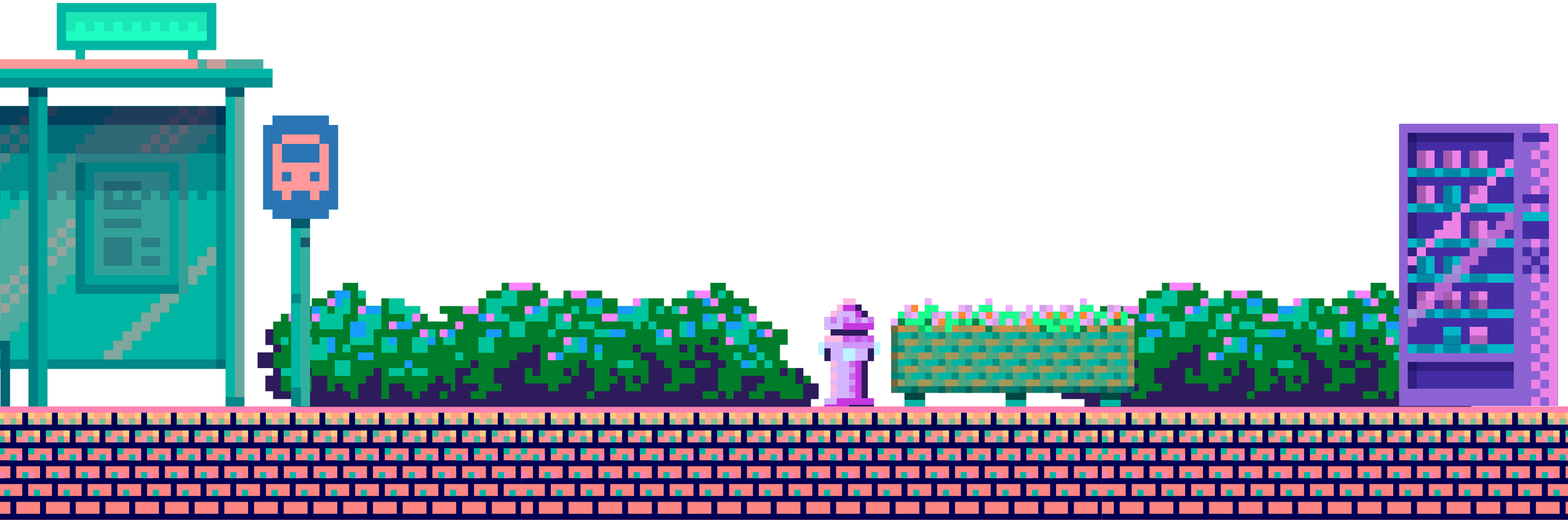
India's gamer ecosystem is experiencing a remarkable surge. In 2023, the ecosystem boasted a staggering 500 million active gamers, with a significant 200 million willing to pay to enhance their experience. This translates to more than 50% of smartphone users indulging in gaming, and out of that 50% willing to spend on games.

Moreover, the overlap between gaming and fintech is noteworthy. Of the 300 million active fintech users, nearly two-thirds of them can be labelled as paid gamers as well. This showcases an overlap of over 66%.

The concept of gamification has also proven to be a powerful catalyst by seamlessly introducing the next billion users to consumer platforms encompassing diverse sectors such as e-commerce, FinTech, and HealthTech. With this, the application of gaming platforms extends far beyond traditional games and studios, to touching the lives of the next 800 million users and making their digital migration considerably easier and more intuitive.

In the context of this phenomenon, Eximius Ventures looks to analyse the current scenario within the broader gaming landscape by unravelling key emerging trends that founders, studios, and investors can use to capitalise on this exciting market opportunity.

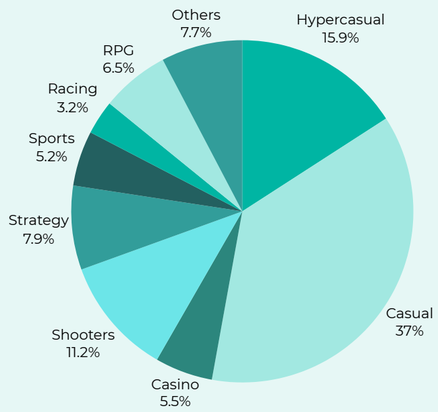
While the demand side in gaming and the potential that it holds are indeed impressive, the growth on the supply side needs to keep pace to effectively cater to this opportunity. With greater regulatory clarity emerging in 2023, this is the right time to build groundbreaking solutions for gaming powered by the modern India.



# RESEARCH METHODOLOGY

This report is a culmination of insights graciously shared by contributors who played a pivotal role in its compilation. We would like to thank all those experts for their support. Our research methodology primarily involves sourcing information via the following sources, ensuring a comprehensive and well-rounded presentation of the content.

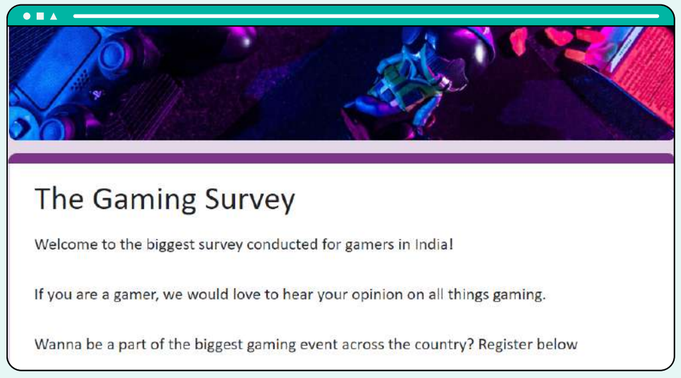
Interviewed experts from ~50% of companies (400/900) in India across genres.




**50+**

Interviews with experts working in top gaming companies.

zynga · Nazara · GAMEBERRY LABS · UBISOFT · EA · PLAYSIMPLE




Surveyed an Indian gamers' Reddit community with 400,000+ members.

data.ai · SensorTower · investgame · statista · newzoo · niko · NAAVIK

Referenced sources for secondary research, provided in the respective slides.

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# LEVEL 1

## THE HISTORY OF GAMING

Examining the gaming history reveals a constant evolution, driven by advancements in hardware and game development. Games have grown deeper and more immersive over the years, providing enhanced user experiences. Anticipating the impact of AI, mixed reality, and 5G, we foresee a similar transformative phenomenon on the horizon.

# 1.1 THE ARCADE GAMING ERA

- Processed player input through controls and displayed output on a monitor. Often required coin insertion for play or extra lives.
- Found in various locations like restaurants, bowling alleys, college campuses, and more.
- Arcades ruled from the 60-80s, but their "Golden Age" began in 1979 with Taito's Space Invaders, introducing novel features such as scoreboards.

## The Evolution of Arcade Gaming

**1962** — **SpaceWar!** developed at MIT using vector graphics on PDP-1

**1972** — Atari, Inc. launches **Pong**, the first commercially successful video game. It is also the first arcade sports video game.

**1978** — Atari released **Lunar Lander** and **Asteroids**, a major hit in the United States and Atari's best-selling game of all time. Namco releases **Galaxian**, which is in RGB.

**1979** — Taito releases **Space Invaders**, the first blockbuster arcade video game - start of golden age. Sets the template for the shoot 'em up genre, and influences nearly every shooter game released since then.

**1980** — Namco's **Pac-Man**, its best-selling game, was highly influential. It introduced the first gaming mascot, established the maze chase genre, appealed to female audiences, and pioneered power-ups and cutscenes.

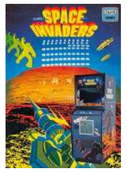
**1981** — Nintendo releases **Donkey Kong**, which was one of the first platform games. It was also the game that introduced **Mario** (named simply "Jumpman" at the time) to the video game world.

**1984** — Data East released **Karate Champ**, the first one-on-one arcade martial arts fighting game, defining the genre and paving the way for titles like **Street Fighter** and **Mortal Kombat**.

## Highest Grossing Games

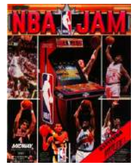
On the basis of revenue (Not adjusted for inflation)

*Pac-Man*
*1980*
**$3.5 billion**



*Space Invaders*
*1978*
**$2.7 billion**

*Street Fighter II*
*1991*
**$2.3 billion**



*NBA Jam*
*1993*
**$1.1 billion**

*Defender*
*1981*
**$1 billion**

On the basis on units sold

*Space Invaders*
*1978*
**750,000 (until 1979)**

*Pac-Man*
*1980*
**400,000 (until 1982)**

*Street Fighter II*
*1991*
**221,000+ (until 1995)**

*Donkey Kong*
*1981*
**132,000 (until 1982)**

*Ms. Pac-Man*
*1982*
**125,000 (until 1988)**

## Top Developers

**Atari | 1972 | USA**
Atari released some of the most iconic arcade games of all time, including Pong and Pac-Man (ported version).

**Taito | 1953 | Japan**
During the arcade era, Taito released several popular arcade games of the 1980s, including Galaga, and Bubble Bobble.

**Williams Electronics | 1943 | USA**
Williams Electronics released some of the most popular arcade games of the 1970s and 1980s, including Defender, Joust, and Robotron: 2084.

**Midway Manufacturing | 1956 | USA**
MM were popular for several pathbreaking games during the 1980s and 1990s, including Mortal Kombat, NBA Jam, and Killer Instinct.

As gaming hardware evolved to become more accessible, arcades fell in popularity against consoles and PCs, but several games that emerged in this era went on to shape the genre over the next decade.

Source: Expert Interviews

# 1.2 THE RETAIL GAMING ERA

- PC games began utilising the mouse and keyboard layout. Consoles provided keypads wherein all keys were mapped to certain commands.
- Games were sold individually in a portable format for one-time revenue at home play. This led to wider adoption.
- They were sold in traditional electronics stores or affiliated outlets.
- Wolfenstein 3D (1992) became popular for its 3D world and violent shoot-'em-up mechanics. Super Mario Bros (1985) turned out to be a killer app.

## The Evolution of Retail Gaming

**1961** — **OXO** was the first game developed for a computer. It was based on tic-tac-toe.

**1972** — **Magnavox** release the first home video console - Odyssey. It is credited for starting the first generation of consoles, and sold 350,000 units.

**1976** — **Fairchild Channel F** introduced the concept based on a microprocessor and ROM cartridges instead of having games built-in. **Mattel** released Electronics Auto Race - the first handheld game

**1979** — **Activision** was started as the first third-party developer. It started developing games for the popular Atari 2600 console.

**1981** — The IBM PC was launched whose specifications made it an excellent gaming device. **'Microsoft Adventure'** and **'Microsoft Flight Simulator'** became very popular games for it.

**1983** — Oversaturation in the market and poorly executed titles led to the primary **console crash of 1983**. PCs like Commodore 64 boomed in this period due to their lower cost.

**1985** — **Nintendo's Entertainment System**, launched globally, succeeded with impressive graphics and user-friendly design. Nintendo collaborated with third-party developers such as Namco and Capcom.

**1988** — **TurboGrafx-16** - a console - became the first to use CD ROMs. CDs offered more storage space than cartridges and could allow for full-motion video.

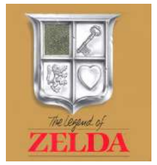
**1991** — **id Software's** release of **Hovertank 3D** foreshadowed their later successful first-person shooter franchises, **Wolfenstein** and **Doom,** as PC processors surpassed console counterparts in power.

**1994** — **Sony** released the **PlayStation** after a failed collaboration with Nintendo. The device was lauded for its extensive game library and lower retail price.

## Highest Grossing Games

For Consoles

*Duck Hunt*
*NES | 1984*
**28 million units**



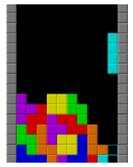

*The Legend of Zelda*
*NES | 1987*
**6.5 million units**

*Super Mario Bros*
*NES / 1987*
**6.5 million units**

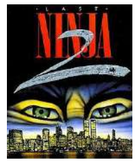
*Sonic the Hedgehog*
*Genesis |1991*
**24 million units**

*Gran Turismo*
*PS1 | 1997*
**10.8 million units**

For PCs



*Tetris | 1985*
**1 million units**




*The Last Ninja 2 | 1988*
**6.5 million units**

*Myst | 1993*
**6 million units**

*Warcraft 2 | 1991*
**2 million units**

*StarCraft | 1997*
**11 million units**

People were now able to play at home and own games, which led to a wider adoption of gaming across geographies.

## Top Developers

**Atari | 1972 | USA**
Created some of the most popular consoles in this era such as Atari 2600, Atari 7800, Atari Lynx. Also manufactured PCs such as Atari 800 amd Atari ST.

**Commodore | 1958 | US**
The American company, known for home computers and electronics, gained popularity with the Commodore 64, a widely used 8-bit platform for gaming on low-spec devices.

**Nintendo | 1889 | Japan**
Nintendo, a video game company, develops, publishes, and releases games and consoles. Key consoles from this era include NES, SNES, and Game Boy.

**Sega | 1960 | Japan**
Sega is recognised for its video game consoles, creativity and innovations. Its most popular consoles include Master System, Genesis, and Saturn.

Source: Expert Interviews

# 1.3 THE DIGITAL GAMING ERA

- Game layouts evolved for complexity. Smartphones introduced new gaming avenues. VR and AR have become more accessible.
- Digital marketplaces enabled post-release content additions, allowing monetisation through microtransactions and downloadable content.
- Steam and Epic Store emerged for PC gaming, capitalising on the consolidation of the console market with integrated marketplaces.
- Half-Life 2 (2004) drove Steam's popularity. The Elder Scrolls IV: Oblivion (2006) pioneered microtransactions.

## The Evolution of Digital Gaming

**1980** — **MUD1**, a text-based adventure game based on ARPANET, became the first where players could join in real time virtually.

**1983** — **Gameline** allowed Atari 2600 owners to connect through a phone line to a central server and rent a video game for 5–10 days.

**1984** — **Islands of Kesmai** became the first commercial multiplayer online role-playing game.

**1985** — **Habitat** became the first attempt at a large-scale commercial virtual community. It is amongst the progenitors of the MMORPG genre.

**1987** — Nintendo allowed **Famicom** users to copy from a jukebox style of rotating stock of the latest games to their floppy disks. They could keep each one for an unlimited time.

**1990** — Sega launched Meganet for its console Megadrive. It was an online multiplayer gaming service and functioned on a pay-to-play basis. This strategy would be mimicked by its rivals like Nintendo.

**1991** — **Spectre** for Apple's Macintosh was among the first video games to feature a LAN version, coinciding with the rise of massively multiplayer games.

**2001** — Stardock released **Stardock Central** to digitally distribute and sell its PC titles. This was amongst the online first distribution channels for PC games.

**2003** — **Valve** released **Steam** to provide automatic updates for their games. It's utility was expanded to distributing third-party game publishers' titles in 2005.

**2008** — Apple released the **App Store** for its mobile devices and the iPad. This would gaming more accessible for these platforms.

Therefore, the story of gaming has been one of rapid development and peerless innovation. With the rise of cloud gaming, generative AI, and 5G recently, we are in store for more exponential growth in the future.

## Highest Grossing Games

For Consoles

*Halo 2 | Xbox | 2004*
**8 million units**

*Nintendogs | NintendoDS | 2005*
**6.5 million units**

*Wii Sports | Wii | 2006*
**83 million units**

*Gran Turismo | PS1 | 1997*
**10.8 million units**

For PCs

*Half-Life 2 | 2004*
**12 million units**

*World of Warcraft | 2004*
**14 million units**

*Garry's Mod | 2006*
**20 million units**

*The Sims 3 | 2009*
**7 million units**

*Minecraft | 2011*
**33 million units**

As PCs and consoles boomed, developers looked for ways to enhance games' longevity and monetisability. This led to the digital era.

## Top Developers

**Microsoft | 1975 | USA**
Microsoft, a multinational technology conglomerate and one of the world's largest companies, is known for producing the popular **Xbox** series of consoles.

**Valve | 1996 | US**
Valve is a leading video game developer and distributor, known for franchises like Half-Life, Counter-Strike, and Dota. Steam, their distribution platform, dominates 50-70% of the market.

**Sony | 1946 | Japan**
Sony, a multinational conglomerate, is a major player in consumer electronics and is renowned for the highly successful **Playstation** series.

**Nintendo | 1889 | Japan**
Nintendo is a video game company that develops, publishes, and releases both games and consoles. Notable consoles from this era include **3DS**, **Wii**, and **Switch**.

Source: Expert Interviews

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# LEVEL 2

## LIFECYCLE OF A GAME

As users, our interaction with games is prominent, but the development experience relies significantly on available tools and infrastructure. While innovation has occurred in the development process, the surge in downloadable content, user-generated content, and AI necessitates further advancements in gaming infrastructure.

# 2.1 GAME LIFECYCLE OVERVIEW

The lifecycle of a game can be divided into four key parts; pre-production, production, publishing, and live operations. The best of developers pay due weightage to all of these and seek to excel at them to be able to craft special games.

---

## Key Processes

| | A Pre-Production | B Production | C Publishing | D Live Operations |
|---|---|---|---|---|
| **Definition** | During this phase, developers define the idea of the game. This includes key decisions on the genre, storyline, core gameplay, market, monetisation, etc. | The production stage involves using the ideas greenlit in the pre-production phase to draft a game from it and build it into reality. | Post completion, the process of publishing is started to solve for distribution. This includes marketing and releasing it on forums where players can access and play it. | Post the game's release, developers often introduce new content to bring in new players and retain existing ones. |
| **Time taken** | The pre-production phase takes up 20-30% of the total developmental cycle. | About 50% of the time for any game's development is expended during the production phase. | Efforts towards publishing the game comprise 10% of a game's developmental lifecycle. | In the downloadable content era, dedicating around 10% of development time allowed for post-release content. Live operations now extend game lifespans indefinitely. |
| **Major Companies** | data.ai, newzoo | UNITY, UNREAL ENGINE | Steam, Google Play | Developers handle live operations in-house, increasingly crucial with freemium gaming and escalating development costs. |

Source: Expert Interviews

# 2.1A THE PRE-PRODUCTION PROCESS

Pre-Production is when a game developer grapples with the contours of the game they wish to create by answering fundamental questions pertaining to the game. It is where the concept of the game takes shape.

---

## Key Processes

| Ideation → | Prototyping → | Market Test → | Production Plan |
|---|---|---|---|
| This process involves conceptualising gameplay fundamentals. A key part of ideation is validating the presence of a market by taking in precedents and identifying the user persona. This is important to wedge the user experience. | After the game's base pillars have been designed and the market is validated, a rough prototype is created to test the idea out and explore possibilities. Given the experience-driven nature of games, constant gamer feedback is essential to de-risk. | After soliciting internal feedback using prototypes, some developers may look to conduct external focus groups and other market tests to validate customer profile and preference often as soon as the vertical slice is ready. | Post receiving adequate feedback and a positive response from testers, the idea is greenlit. This is followed by the creation of departments, the assigning of key roles, etc. to initiate production. |

## Key Companies

| | data.ai | newzoo | |
|---|---|---|---|
| **Description** | **Data.ai** is an insights company headquartered in California. It produces market information on downloads, revenue, ratings, usage (MAU/DAU), search terms, etc. to support decision making. | **Newzoo** is a market research company based in Amsterdam that provides comprehensive game-level data along with gamer research and games market forecasts that describe the state of the industry. | California-based **Sensor Tower** is a top source of enterprise-grade market intelligence and performance metrics in the mobile app ecosystem, providing comprehensive insights across the app economy. |
| **Top Clients** | Google, Tencent, Epic Games | Activision Blizzard, Take-Two Interactive, Zynga | Warner Bros., Hershey, Activision Blizzard |



Source: Tracxn

# 2.1B THE PRODUCTION PROCESS

Production is the most strenous part of the game's development cycle as it involves taking the ideas and concepts green-lit and building a game out of them. This part of the lifecycle necessitates the most investment from the developer in terms of both personnel and resources.

## Key Milestones

**01. First Playable**
In this state higher quality assets and designs are incorporated into the game to get an enhanced idea of what the final product might look like.

**02. Vertical Slice**
A vertical slice is a fully playable sample that can be used to pitch the game to studios or investors and conduct initial market testing.

**03. Pre Alpha**
The majority of the content is developed in the pre-alpha stage. At this stage, major decisions on content and other gameplay mechanics are made.

**04. Alpha**
The game at this stage includes most envisioned features but requires refinement and cosmetic enhancements. Released for feedback.

**05. Beta**
At this stage, the focus turns to optimisation, with integrated content and assets. Influencers and high-potential user personas are granted access, while retention metrics are closely monitored.

**06. Gold**
At this stage, the game contains all the features the developer envisioned. However, the game still needs refinement and cosmetic embellishments.

## Key Tools Needed for Production

### Development

**(i) Game Engines**
A gaming engine is a software development environment to facilitate game development.

**(ii) Middleware**
A software that handles a specialised aspect of an engine such as physics, graphics or networking.

**(iii) Art Tools**
Art tools work on areas such as the in-game layout, GUI, the in-game graphics, and effects.

### Monetisation

**(iv) Analytics**
Platforms that allow developers a quantitative oversight into the game's performance.

**(v) Ad Monetising**
An ad monetisation platform allows developers to monetise their content through advertisements

**(vi) Ad Mediating**
Ad Mediation is a platform which enables app developers to connect multiple ad networks to their app



Source: Expert Interviews

# 2.1B(i) GAME ENGINES OVERVIEW

Game engines are central to game development, allowing creators to focus on gameplay, graphics, and content instead of building core systems. While large studios prefer custom engines, others use pre-made ones, with the choice greatly influencing gameplay.

## Key Game Engines

| | Description | Use Cases | Advantages | Drawbacks | Big Games |
|---|---|---|---|---|---|
| UNITY | Unity, a global engine with users in 195 countries, owes its popularity to user-friendly features. Its extensive knowledge database, flexibility, and tiered pricing make it the preferred tool for many developers. | The engine is good with world-building which is why it is particularly good for adventure and simulation games. | • Its visual scripting tool Bolt, makes it an excellent choice for aspiring developers to enhance their skills. It also boasts a well-stocked app store and a thriving developer community.<br>• Its iteration capability is a major advantage and portability is evident across 25 platforms. | • Unity isn't the best engine for AAA games due to its graphical limitations,<br>• Unreal allows artists more freedom and ease out of the box than Unity. | **Borderlands 2** >28 million units sold on PC and Console |
| UNREAL ENGINE | Unreal Engine stands as the pinnacle of graphic quality in video games, driven by Epic Games' emphasis on pushing the boundaries of photorealism. Its applications extend to sectors such as architecture, product design, and filmmaking. | Unreal Engine's toolset and codebase are specifically designed to excel at shooter games and any genre of games already published by Epic Games. | • It excels in building AAA experiences with a range of tools for scope.<br>• Its engine's rendering features make it ideal for multi-platform games.<br>• Custom license holders in Epic enjoy direct contact with developers.<br>• Unreal is essentially free until a game reaches $1M in revenue. | • Unreal Engine is intensive and requires and more complex than Unity.<br>• Processing huge data needed for open worlds, somewhat paradoxically, is a limitation of unreal engine. | **Human Fall Flat** >40 million units sold on PC and Console<br> **Genshin Impact** $2 billion grossed in its first year across platforms |
| CRYENGINE | CryEngine, known for its role in the original Far Cry, excels in supporting development across major gaming platforms, including Android, and is acclaimed for its capacity for photorealistic graphics. | CryEngine is originally supposed to be geared towards first person games and open world games. This aligns with the mechanics of its key IPs, Far Cry and Crysis. | • CryEngine, though specialised in certain areas, provides tools for easy project creation and is beginner-friendly.<br>• CryEngine's out-of-the-box versatile tools facilitate an iterative process. | • CryEngine lacks the scale of its major competitors. This results in lack of support to prospective developers.<br>• It is difficult to recruit experienced CryEngine developers due to the small userbase. | **Crysis** 3 million units sold on PC<br> **Far Cry** 2.5 million units sold on PC |

Source: Expert Interviews, Statista, The Verge, Take Two, PC Gamer, Pocket Gamer, Euro Gamer, Crytek

# 2.1B(ii) MIDDLEWARE TOOLS OVERVIEW

Middleware refers to software components or tools that game developers can integrate into their games to handle specific functionalities or tasks such as physics, sound, or networking, thus saving time and effort in development.

## Key Middleware Tools

| | Description | Company | Key Features | Big Games |
|---|---|---|---|---|
| NVIDIA GAMEWORKS | Nvidia GameWorks is a middleware software suite that offers comprehensive offerings for integrating visual effects, physics, etc. | NVIDIA | • **VisualFX:** For rendering effects such as smoke, fire, water, etc.<br>• **PhysX**: For physics, particle and fluid simulations.<br>• **OptiX**: For baked lighting and ray-tracing.<br>• **Core SDK**: For development on Nvidia hardware. | **Witcher 3** 50 million units sold across consoles |
| havok | Havok is a middleware software suite developed by Microsoft. Havok provides a physics engine component and related functions to video games. | Microsoft | • **Havok Physics**: It allows for real-time collision and dynamics of rigid bodies in 3D.<br>• **Havok AI**: It provides navigation mesh generation, pathfinding and path following.<br>• **Havok Cloth**: Havok Cloth deals with efficient simulation of character garments and soft body dynamics. | **Dark Souls 3** 10 million units sold across consoles |
| Wwise | Wwise is a software for interactive media and video games by Sony. It features an audio authoring tool and a cross-platform sound engine. | SONY | • **Audio Import**: Import audio files for use in video games, manage sound integration<br>• **Audio Effects**: Apply audio plug-in effects, mix in real-time, define game states, simulate audio environments. | **Elden Ring** >20 million units sold across consoles in under a year |
| demonware | Demonware is an Activision subsidiary whose products enable games publishers to outsource their networking requirements. | ACTIVISION BLIZZARD | • **State Engine**: Eliminates the need to reinvent netcode in multiplayer games.<br>• **Matchmaking+**: provides services for multiplayer games such as matchmaking, user profiling, and gaming statistics. | **Call of Duty MW2** Grossed $1 billion within 10 days |

Source: Expert Interviews, IGN, Gamespot, Microsoft

# 2.1B(iii) ART TOOLS OVERVIEW

Art tools are integral to the production cycle as they help facilitate the creation of the game's entire world and all its inhabitants. Quite a few games attained notable success due to their unique art styles. While they can't compete with the graphical fidelity that large developers can bring, indies often look to create distinct art styles that don't rely on realism.

## Key Art Tools

| | Description | Company | Key Features | Big Games |
|---|---|---|---|---|
| Quixel | Quixel (owned by Epic Games) is a suite of software tools for creating and editing 3D assets for video games. | EPIC GAMES | • **Megascans**: A library of over 100,000 3D scans of objects from the real world<br>• **Bridge**: A tool for managing and importing 3D assets.<br>• **Mixer**: A texturing tool for assets<br>• **NDO**: A plugin for Unreal Engine to allow usage of Megascans assets in projects<br>• **Slave Material Editor**: A material editor that makes it easy to create and edit materials | **Fortnite** Grossed $9 billion in two years across platforms |
| blender | Blender is a software tool set used for creating animated films, visual effects, art, 3D-printed models, motion graphics, interactive 3D applications, etc. | blender | • **3D Creator**: Creating 3D objects, sculpting, applying textures, rigging for animation, keyframe-based animation, rendering realistic images/videos, and compositing multiple images or videos into a single scene. | **Hellblade: Senua's Sacrifice** >1 million units sold across consoles |
| SUBSTANCE by Adobe | Substance is a powerful toolset by Adobe for creating and editing 3D materials and textures. It is used by a wide range of professionals, including game developers, artists, and filmmakers. | Adobe | • **3D Designer**: Tool for creating and editing 3D materials and textures.<br>• **3D Painter**: Enables direct painting onto 3D models.<br>• **3D Sampler**: Creates 3D materials from photographs.<br>• **3D Stager**: Composes and renders 3D scenes. | **Cyberpunk 2077** **>**20 million units sold under two uears |

In game development, the choice of art tools depends on the game's genre, visual style, ease of use, and community support. Developers must decide between 2D and 3D models based on the game's needs. The selected style should align with the game's narrative and desired player experience. Tools should be chosen based on the team's proficiency, with consideration for community size, which affects support and asset availability.



Source: Expert Interviews, The Verge, IGN, Game Developer

# 2.1B(iv) ANALYTICS TOOLS OVERVIEW

Analytics platforms provide developers and publishers a comprehensive look at the game's performance with a host of relevant KPIs that track acquisition, retention, and monetization. These are particularly important for freemium games.

## Key Analytics Tools

| Tools | Key Features |
|---|---|
| Google Firebase | • Comprehensive **game and player analytics** to assess player behaviour.<br>• **Cloud messaging** to enable targeted messages and notifications.<br>• **A/B testing frameworks** to constantly improve the game through experimenting and gauging user response. |
| Amazon Web Services (AWS) | • Use **machine learning** to predict player churn and trigger retention actions.<br>• Access a comprehensive **cohort-based view** of your player base and their behaviour.<br>• Implement a codified, modular, and server less **analytics pipeline** that ingests telemetry events from game clients and backend services. |
| GameAnalytics | • Gather **real-time data** on player activity, session length, etc.<br>• Utilising **machine learning** for insights into retention, engagement, and monetisation.<br>• The platform offers **flexible reporting tools** for customisable user reports and seamlessly integrates with platforms like Google Play, App Store, and Facebook. |
| data.ai | • Downloads, installs, and revenue tracking for **app performance tracking.**<br>• Trends, competition, and pricing **analysis** of the mobile app market.<br>• **User demographics**, usage patterns, and retention understanding.<br>• Determine player preferences using **A/B testing.** |

## How to decide on a tool?

- **Publishing platform**: Publishing platforms tend to have the greatest clarity on platform-wide trends and the most precise player analytics. Therefore, smaller developers especially look to partner with solutions like Google Firebase for their clarity.
- **Specificity desired**: Gaming-centric solutions tend to have more specific metrics that can offer more insights to the developers. They also offer greater clarity on the gaming market as a whole.
- **Customisability**: Larger developers in particular look to avail solutions that can be tailor-made to fit their use-case.



Source: Expert Interviews

# 2.1C PUBLISHING OVERVIEW

Publishing a game is the process when a developer, satisfied with the final shape, intends to bring the intended game to the market. They can either work with pre-existing publishers and leverage their resources or look to self-publish their games for more control over their game and its distribution. Publishers are becoming more important with the rise of cloud gaming and multi-platform releases.

## How to Publish

### The Publisher Route

A video game publisher releases games developed internally or externally, leveraging financial resources and distribution expertise. Their revenue model often involves securing a share of the game's earnings and gaining control of the intellectual property (IP).

- Choosing the right publisher for the genre is critical for success.

### The Self-Publishing Route

Self-publishing involves developers bearing the full cost of project development, marketing, and distribution, limiting resources but providing freedom. Despite greater responsibility, developers retain revenue and control over the intellectual property (IP).

- Integrating with the right tools, effective monetisation, and strong marketing are essential for success.

## Where to Publish

| | Mobile | | PC | | Console | |
|---|---|---|---|---|---|---|
| **Revenue Share** | The Play Store solicits a 15% service tax on revenue from the in-app purchases. | The App Store charges developers a commission of up to 30% for digital goods and services. | The Epic Games Store receives a commission of 12% from games sold on its store. | Steam takes 30% of all sales made by the game until the first $10 million. | The Playstation Store charges a 30% commission from developers and publishers. | The Xbox Store solicits a 12% commission from developers and publishers. |
| **Games Published** | The Play Store had 0.39 million games by the end of 2022. | The App Store had 1.7 million game by the end of 2022. | The Epic Games Store possesses over 1,548 games. | Steam possesses over 50,000 games on its platform. | The PlayStation store has 7696 games on the platform. | The Xbox store has 9,730 games on the platform. |



Source: Expert Interviews, Google, Apple, Statista

# 2.1C ANALYSING PUBLISHERS

Publishers are an important part of the ecosystem as they help facilitate the delivery of the game to players. Their largest contribution is in facilitating the distribution of games and providing the needed resources to make the game as successful as possible. With their experience overseeing the development of games, they can also aid the game creatively and provide feedback.

## How to Decide

The biggest benefit of working with a publisher is the monetary resources they offer.

Publishers are typically experienced folks who can add a great deal of value to the game.

**PROS**

**CONS**

The biggest fear of working with a publisher is losing IP ownership and creative control.

While publishers provide extensive monetary resources, they also take a chunk of the revenue.

## Who are the Major Publishers

| | Activision Blizzard | EA | Kwalee | Voodoo |
|---|---|---|---|---|
| **Description** | Activision Blizzard is a well-known American video game developer and publisher, formed as a result of a merger between Activision and Vivendi Games in 2008. Despite major success in FPS and RPG, they are largely agnostic. | EA is a long-standing developer and publisher based out of California, USA. It is known for several popular franchises like FIFA, Mass Effect, and NFL. Their expertise is in sports simulation games. | Founded in 2011 by industry veteran David Darling, Kwalee has risen from mobile roots to become a prominent developer and publisher across platforms. They have publisher noteworthy games like Draw It, Teacher Simulator, etc. | Voodoo is a French mobile game developer and publisher headquartered in Paris, known for its significant presence in the hyper-casual gaming market. |
| **Biggest Games** | **Destiny 2** >$200 million in revenue.<br> **Sekiro** >10 million units sold | **A Way Out** 3.5 million copies sold.<br> **Jedi Fallen Order** 10 million units sold in a year | **Draw It** >120 million downloads across iOS and Android<br> **Teacher Simulator** >106 million downloads across iOS and Android | **Paper.io 2** >200 million downloads<br> **Helix Jump** >500 million downloads |

Source: Expert Interviews, CNET, IGN, App Magic,

Eximius Ventures

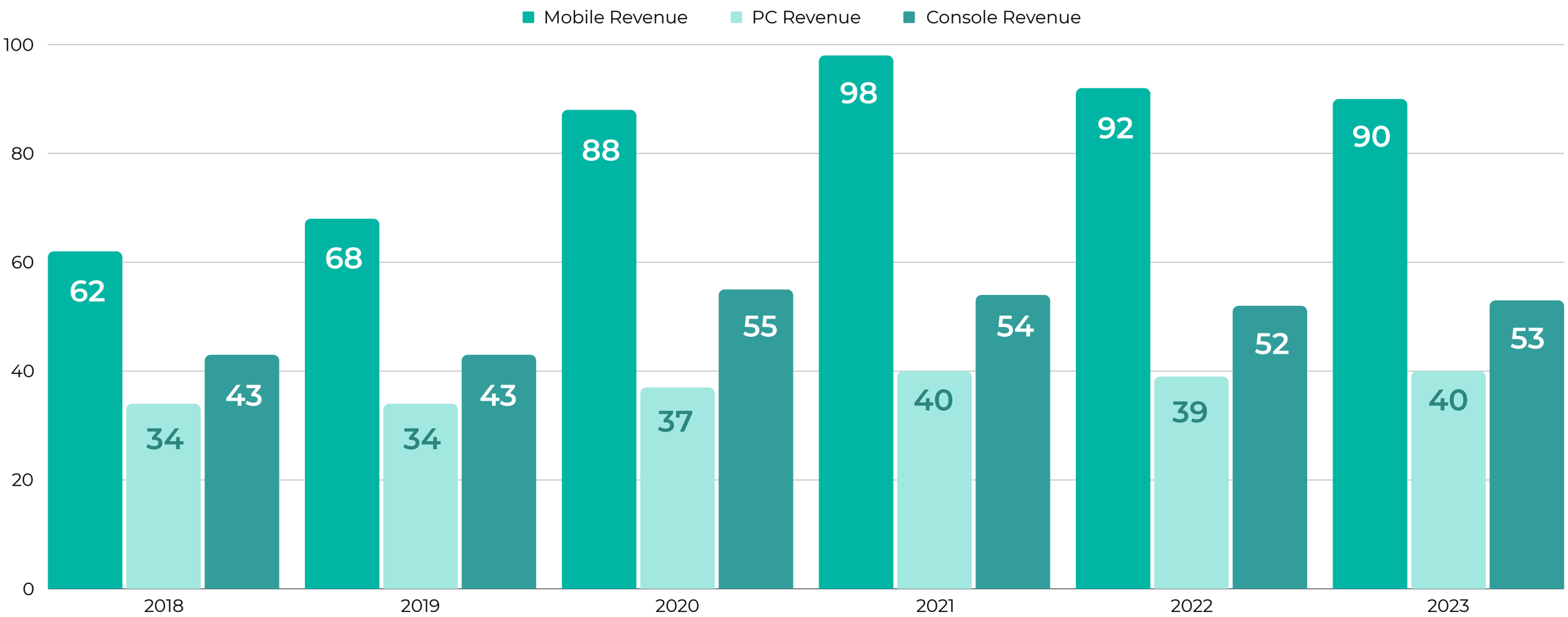
# LEVEL 3

## GLOBAL GAMING OVERVIEW

The global gaming market, valued at $200 billion and catering to 3 billion users, is shifting as mature markets such as China, the US, and Japan slow down, opening doors for emerging markets like India and Southeast Asia. This trend is accompanied by increased consolidation in the global market, offering favorable exit opportunities for emerging players seeking to leverage global expertise while granting larger entities access to new markets.

# 3.1 GLOBAL GAMING OVERVIEW

The gaming industry has witnessed tremendous growth over the past few years, with mobile specifically leading the charge. While 2022 and 2023 did turn out to be corrective years, the revenues were still higher than pre-pandemic figures.




**Global Gaming Market ($Bn)**

Despite the revenue slowdown in 2023, the industry has been very resilient. The global economic slowdown only had a minimal impact on its growth. Asia-Pacific remained the biggest region globally, contributing $84.1 billion to the industry.

Between 2018-2023, the mobile gaming industry has seen a CAGR of 7.7% with the adverse macro factors having relatively little impact:

- The changes in IOS's privacy policy restricted targeted ads from game developers and impacted CACs.
- With rising inflation across major global economies, consumers' disposable incomes took a major hit which reduced spending on games.

PC and Console market stayed strong compared to 2020 with $93 Billion:

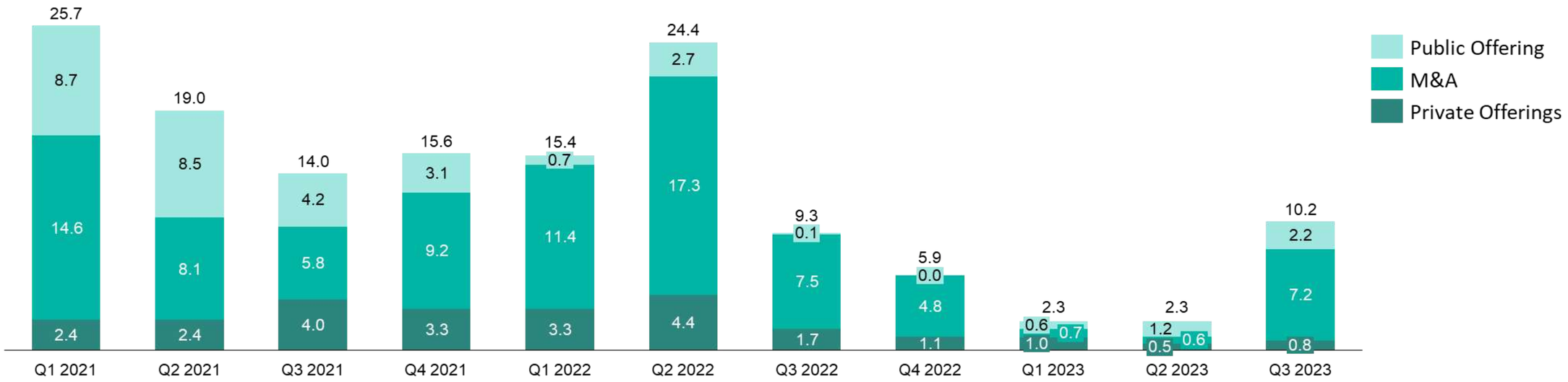
- Of the top 10 games for average MAU in 2023, COD Modern Warfare 3 was the only one released in 2023.
- Decrease in recent hit games also indicates longevity in the game life cycle.



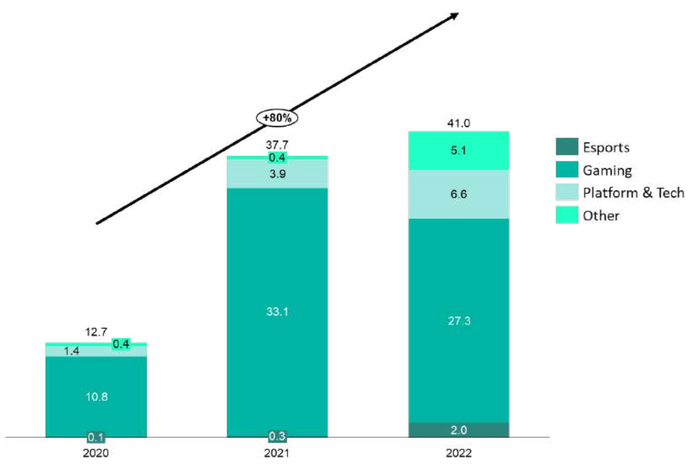
Source: Newzoo

# 3.2 GLOBAL INVESTMENTS OVERVIEW

Despite private investments remaining relatively robust, the gaming industry is undergoing a period of consolidation as indicated by the rising quotient of M&As. 2022 was a good period for early-stage VC investments which were the only sector to see an upswing.

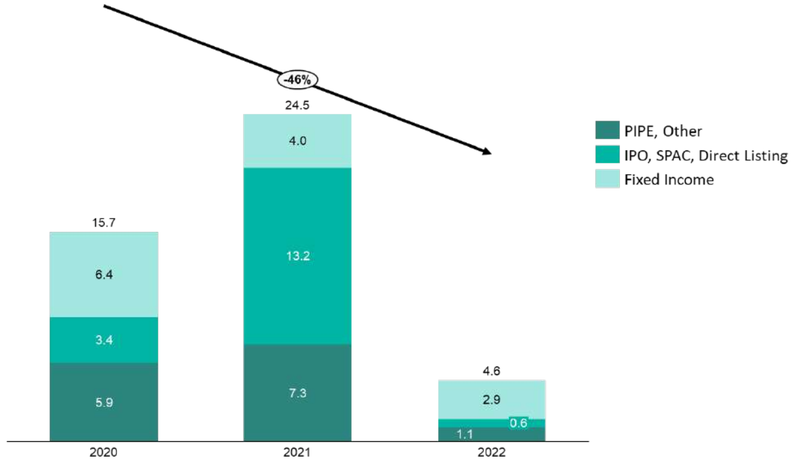



**Global Gaming Investment Trends ($Bn)**



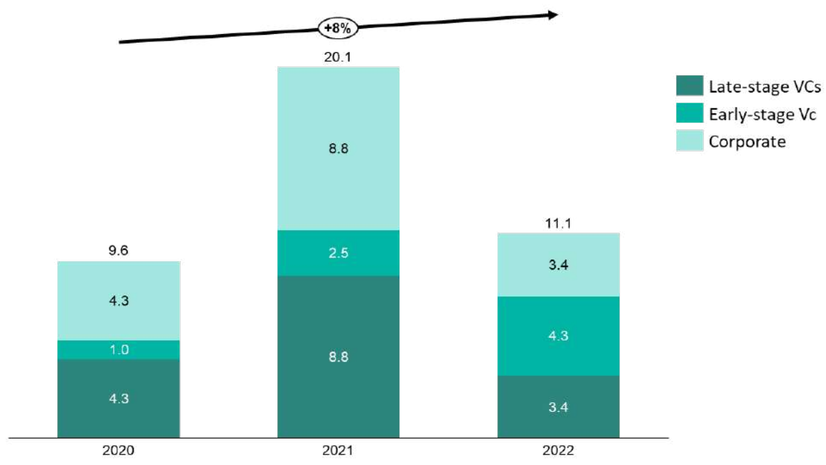

**Global Gaming M&A Trends ($Bn)**

- 2022 M&A peak: $41B closed deals, $70B announced deals.
- Shift from mobile studios (50% deal value in 2021) to PC, console devs, and mobile assets.




**Global Gaming Public Investment Trends ($Bn)**

- IPO and SPAC gaming companies saw notable decreases in share prices.
- Share issuance became expensive due to low trading multiples.




**Global Gaming Venture Investment Trends ($Bn)**

- Global funds with $6 billion by the end of 2022 in dry powder signal ongoing investments, especially in early-stage ventures.
- **Sector focus**: Concentrated investments anticipated in cross-platform games and generative AI solutions.

Source: Investgame

## 3.3 M&A ACTIVITY OVERVIEW

The past few years have seen some significant M&As as the industry moves towards consolidation. Larger studios and conglomerates are looking to purchase mobile developers in particular to add to their portfolio. This will make exits more viable for independent studios.

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### Top Deals in Gaming Over 2020-2022 ($Mn)

| # | Target | Buyer Name | Upfront EV | Revenue [1] | EBITDA [1] | EV/Revenue [2] | EV/EBITDA [2] |
|---|---|---|---|---|---|---|---|
| 1 | Activision Blizzard | Microsoft | 68,700 | 8,724 | 3,407 | 7.9x | 20.2x |
| 2 | zynga | Take-Two Interactive | 12,700 | 2,801 | 641 | 4.5x | 19.8x |
| 3 | ZeniMax Media Inc. | Microsoft | 7,500 | - | - | - | - |
| 4 | MOONTON | ByteDance | 4,000 | - | - | - | - |
| 5 | BUNGIE | SONY | 3,700 | - | - | - | - |
| 6 | BOLEGAMING | netmarble | 2,190 | 571 | 87 | 3.8x | 24.2x |
| 7 | glu | Electronic Arts | 2,100 | 541 | - | 3.9x | - |
| 8 | peak GAMES | zynga | 1,800 | 600 | 120 | 3.0x | 15.0x |
| 9 | Playdemic | Electronic Arts | 1,400 | - | - | - | - |
| 10 | LE YOU | Tencent 腾讯 | 1,400 | 199 | 87 | 7.0x | 16.2x |
| 11 | sumo GROUP | Tencent 腾讯 | 1,260 | 95 | 23 | 13.3x | 55.5x |
| 12 | CODEMASTERS | Electronic Arts | 1,200 | 156 | 40 | 7.7x | 29.8x |
| 13 | GSN games | SCOPELY | 1,000 | - | - | - | - |
| 14 | MY.GAMES | Alexander Chachava | 642 | 584 | - | 1.1x | - |
| 15 | Easybrain | EMBRACER GROUP | 640 | 210 | 70 | 3.0x | 9.1x |
| | | | | | Average | **5.3x** | **24.2x** |
| | | | | | Median | **3.9x** | **19.8x** |

(1) Basis the latest publicly available twelve months numbers as per the report's release
(2) Based on the upfront deal value

Source: Investgame

# 3.4B GLOBAL VC FUNDING OVERVIEW (2023)

## Fund Activity (Till Q3 2023)

| Rank [1] | Venture Capital Fund | # of deals | Deal Value $mn [2] | Select Lead Deals |
|---|---|---|---|---|
| 1 | BITKRAFT Ventures | 16 | 259 | Avalon Corp, HyperPlay |
| 2 | Sisu Game Ventures | 14 | 42 | Multiscription |
| 3 | Andreessen Horowitz | 11 | 162 | CCP Games, Proof of Play |
| 4 | GEM Capital | 9 | 21 | Made on Earth Games |
| 5 | vgames | 9 | 16 | Peerplay, Frantic Games |
| 6 | Makers Fund | 6 | 31 | Genpop Interactive, Grand-Attic |
| 7 | Griffin Gaming Partners | 5 | 133 | Harmony Games, Hardball Games |
| 8 | The Games Fund | 4 | 11 | Red Rover, Zakazune |
| 9 | Ludus Fund | 4 | 8 | Paxie Games, Fortune Mind Games |
| 10 | Play Ventures | 3 | 21 | Redemption Games, Scenario |

In spite of a slowdown, marquee funds still remained active in 2023. Along with sector dedicated funds, sector agnostic and sector differentiated funds globally also persisted with investing in gaming.

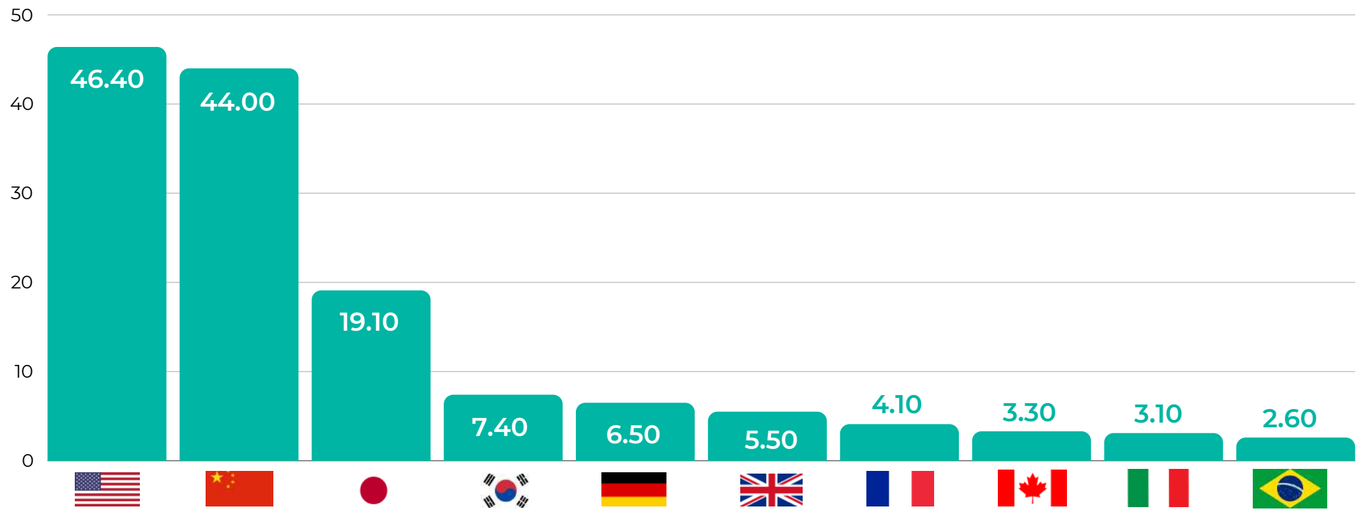
(1) Based on the number of deals, total value of deals, number of lead deals, and total value of lead deals
(2) Based on disclosed deal value (no Web3 gaming deals included)



Source: Investgame

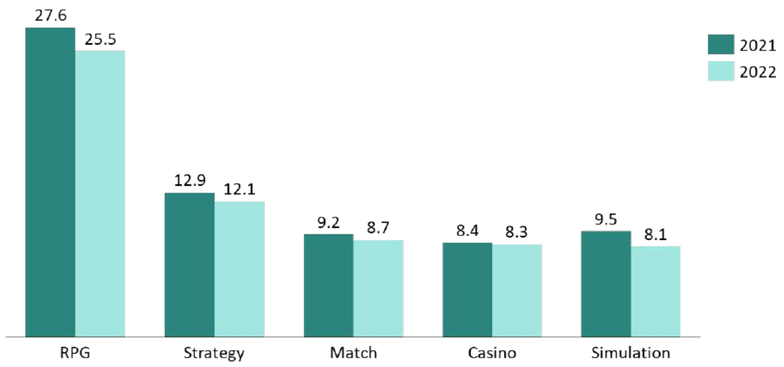
# 3.5 GLOBAL MARKET OVERVIEW

USA has long been the most dominant market player in the gaming industry with several large legacy players. Elsewhere, China has been the contender for the throne and has overtaken Japan to become the 2nd largest market for mobile specifically. In terms of genres, despite RPG's longstanding dominance, it has witnessed a correction recently. However, the recent numbers show a positive progression from 2020. To keep up, Indian players will need to think global as well.



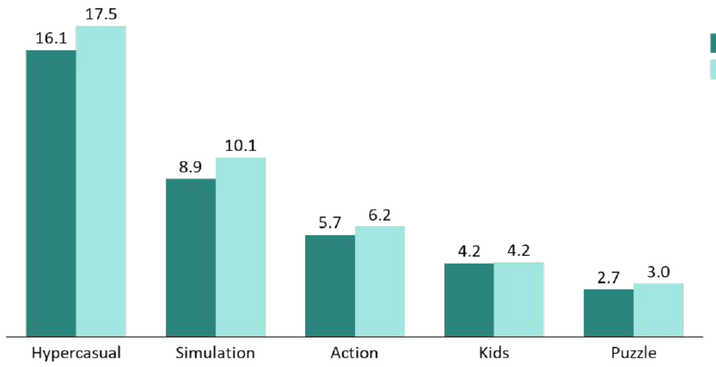

While the USA has been leading the gaming industry globally, China is slated to emerge as the biggest market in the coming years. The South East Asian market is emerging as the next hub for gaming, influenced by Manga and Anime culture, as well as deep gaming history.

## Global Gaming Market in 2022 ($Bn)




### Global Mobile Consumer Spends ($Bn)

- RPG is the biggest genre for customer spends with a global downloads share of 3% and an IAP share of 31%.
- Casino is the most resilient genre amongst the big 5, with only a 1.7% dip in IAP spend betwen 2021-22.




### Global Mobile Downloads ($Bn)

- Hypercasual is the bigger genre in downloads with a global downloads share of 29%, while an IAP share of only 0.3%.
- Simulation has seen the most growth between the top 5, with a 13.5% YoY increase in downloads.

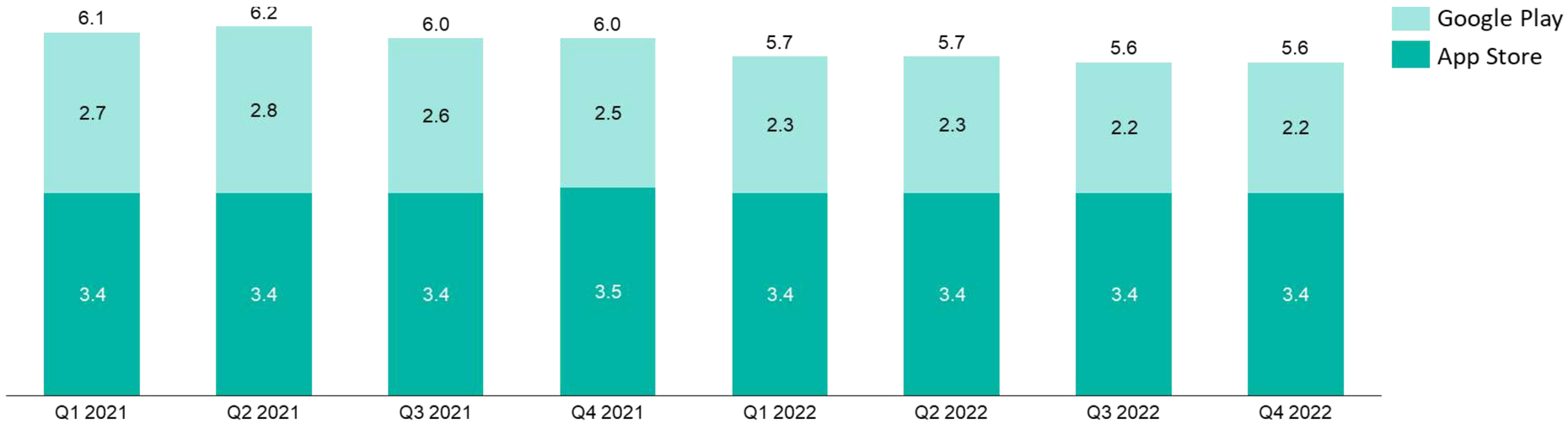
### Global Mobile Genre Preference

- The Asian market represents the most viable frontier for RPG games due to great local RPG developer heritage.
- Within the western markets, on the other hand, there is a greater degree of heterogeneity in terms of the genres preferred.

Source: Sensortower, Newzoo

# 3.6 USA MARKET OVERVIEW

The USA gaming market is a particularly lively one which has several large incumbent developers and publishers. While Casino has been the most popular genre for a while, there is a great deal of heterogeneity in play in the country. Gaming has also become deeply interwoven with the cultural fabric of the country.



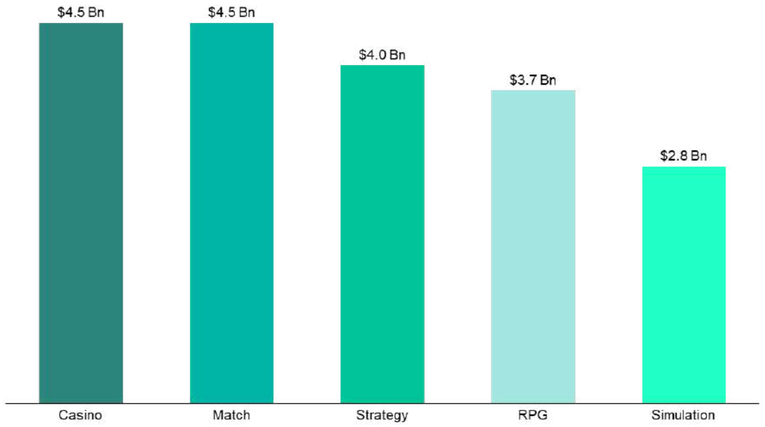

**Revenue Trends for USA ($Bn)**

## Growth Drivers

The disposable income per capita in USA is over $50,000 which is the highest in the world.

With a smartphone penetration of 81.6% and a large population, USA has a huge mobile gaming market.

With 33.2 million viewers on Twitch, USA has a massive streaming ecosystem.




**5 Genres That Americans Spend Most On**

**The Biggest Public Companies**

| Company | Market Cap | Revenue | EV/EBITDA |
|---|---|---|---|
| Activision Blizzard | $70.42 Bn[1] | $7.53 Bn[3] | 20.11x[1] |
| Electronic Arts | $37.04 Bn[2] | $7.38 Bn[3] | 18.95x[2] |
| Take-Two Interactive | $27.08 Bn[2] | $4.83 Bn[3] | 65.51x[2] |

1. As of the last day of trade.
2. As of the close of 10th January 2024.
3. As on CY2022.

Source: Data.AI, Yahoo FInance, Sensortower

# 3.6A ACTIVISION BLIZZARD CASE STUDY

## Defining Activision Blizzard

Activision Blizzard is a holding company based in Santa Monica, California. It was formed in 2008 through the merger of Activision, Inc., and Blizzard Entertainment. Activision Blizzard possesses iconic franchises such as Call of Duty, Diablo, Crash Bandicoot, and Overwatch. In recent years, we have seen Activision utilise their existing franchise and IPs to launch new experiences rather than experimenting with competing IPs.

## Most Popular IPs

**Gameplay:** Call of Duty games are FPS games known for their fast-paced and action-packed gameplay. Players take on the roles of soldiers in various historical, modern, or futuristic settings, engaging in intense team-based combat scenarios.
**No. of Games:** 22 Games
**Commercial Performance:** The series has made >$31 billion in revenue

**Gameplay:** The gameplay of Crash Bandicoot games is a platforming adventure that combines fast-paced action with precision-based challenges. The games are known for their challenging levels filled with tricky jumps, hazardous traps, and unique boss battles.
**No. of Games:** 8 Games
**Revenue:** The first two games are amongst the 10 highest-selling PS games of all time.

**Gameplay:** The Diablo series, in the ARPG genre, is set in dark fantasy worlds, featuring a core gameplay loop of exploring, looting, and levelling up characters through acquiring powerful gear and abilities.
**No. of Games:** 4 Games
**Commercial Performance:** $31 billion

**Gameplay:** Overwatch is a team-based FPS game where players select diverse heroes with unique abilities and roles, emphasising cooperative gameplay.
**No. of Games:** 2 Games
**Commercial Performance:** Overwatch 1 sold 50 million copies, while the sequel earned $100 million in net bookings in its first 3 months.

## Most Successful Recent Games

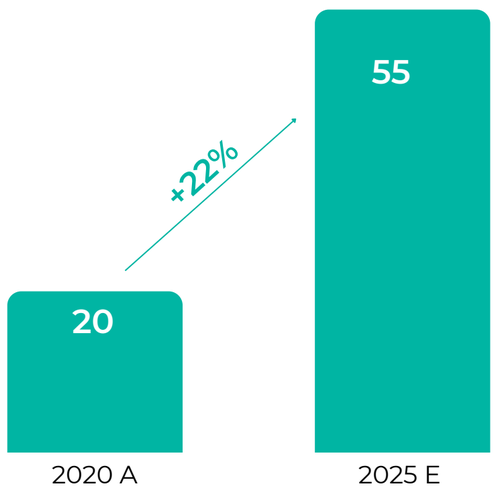
| | Call of Duty: Modern Warfare 2 | Diablo:Immortal | Diablo 4 | Overwatch 2 |
|---|---|---|---|---|
| **Released** | October 2022 | June 2022 | July 2023 | October 2022 |
| **Platforms** | Windows, PS4/5, Xbox One, Xbox Series X/S | Windows, Android, iOS | Windows, PS4/5, Xbox One, Xbox Series X/S | Windows, PS4/5, Xbox One, Xbox Series X/S |
| **Commercial Performance** | Earned $1 billion within 10 days of release | $500 million earned in the 1st year on mobile | Earned $666 million within 5 days of launch | Earned >$100 million in the first 3 months |



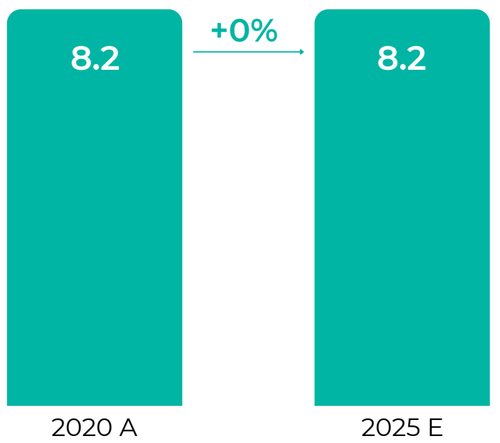
Source: Yahoo FInance, Expert Interviews

# 3.7 CHINA MARKET OVERVIEW

While the China market is quite lucrative, the government' policies are a hindrance. Regardless, the industry has several large player which put it on the gaming map. RPG is the biggest genre in keeping with the broader Asian market. While the number of downloads are expected to remain constant, the revenue per player is bound to increase.




**Revenue for China ($Bn)**



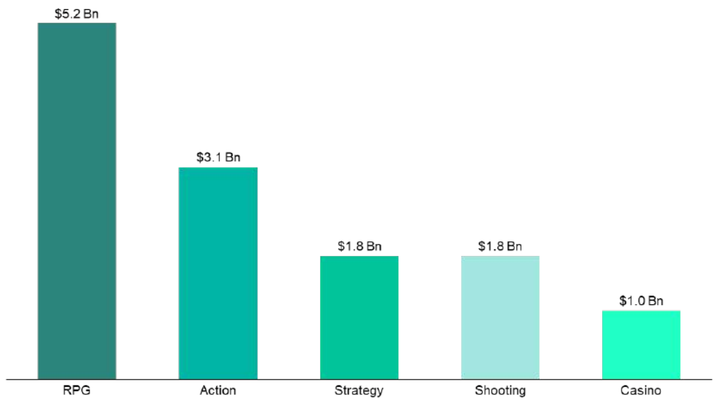

**Downloads for China (Billions)**

## Growth Drivers

With 699.6M gamers, China has the largest player-base in the world.

Chinese players spend 11.3 hours every week on gaming which is the highest in the world.

WeChat, China's most popular social media platform integrated mini-games which became very popular.




**What Genres Do Chinese Spend On?**

**The Biggest Public Companies**

| Company | Market Cap | Revenue | EV/EBITDA |
|---|---|---|---|
| Tencent | $338.3 Bn[1] | $77.33 Bn[2] | 12.05x[1] |
| NetEase Games | $57.75 Bn[1] | $13.45 Bn[2] | 1.55x[1] |
| 37GAMES | $8.19 Bn[1] | $2.29Bn[2] | 10.12x[1] |

1. As of close of 10th January 2024
2. As on CY2022



Source: Data.AI, Yahoo FInance, Sensortower

# 3.7A TENCENT CASE STUDY

## Defining Tencent

Tencent is the world's largest video game vendor and one of the most financially valuable companies. It is among the largest social media, venture capital, and investment corporations. It is the holding company for several key gaming companies like Riot Games and Epic Games. It has been successful in bringing several new IPs to the market and taking existing IPs to new geographies.

## Most Popular IPs

**Gameplay:** Honor of Kings is a multiplayer online battle arena (MOBA) game in which the player selects from a diverse roster of legendary heroes taken from Chinese history and mythological lore, each with distinctive abilities and tales, to engage in exhilarating 5v5 battles.
**Commercial Performance:** $1.65 billion in revenue in 2022.

**Gameplay:** PUBG Mobile is a player-versus-player shooter with up to one hundred players engaging in a battle royale. Participants can enter solo, as a duo, or with a small team of up to four people, aiming to be the last person or team standing for victory.
**Commercial Performance:** 5th-highest-selling video game of all time.

**Gameplay:** League of Legends is a multiplayer online battle arena (MOBA) game where players control unique characters ("champions") with distinct abilities. The primary objective is to destroy the opposing team's Nexus, the core of their base.
**Commercial Performance:** The mobile version of the game has crossed $1 billion in revenue.

**Gameplay:** Valorant is a team-based first-person tactical hero shooter where players assume roles as Agents inspired by global cultures. The main game mode features two teams—attackers and defenders—each with five players.
**Commercial Performance:** Average of 1.8 million in MAU in 2023.

## Most Successful Recent Games

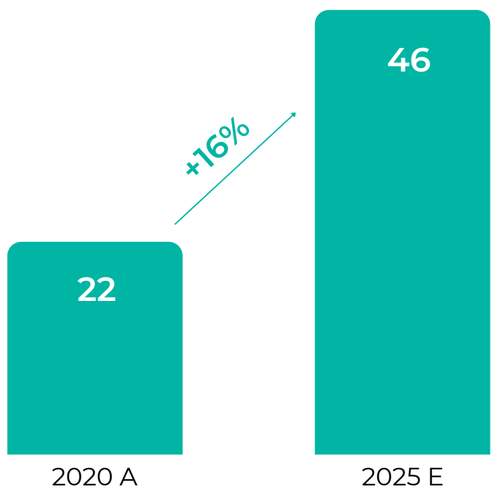
| | League of Legends: Wild Rift | Apex Legends: Mobile |
|---|---|---|
| **Released** | October 2020 | May 2022 |
| **Platforms** | Android, iOS, iPadOS | Windows, PS4/5, Xbox One, Xbox Series X/S |
| **Commercial Performance** | >$100 million in downloads | >$40 million in lifetime revenue so far |



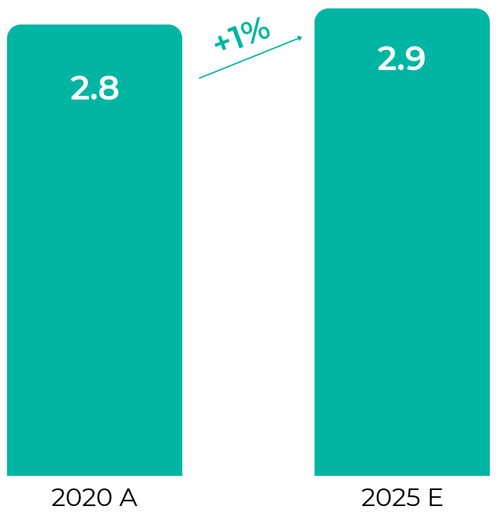
Source: Yahoo FInance, Expert Interviews

# 3.8 JAPAN MARKET OVERVIEW

Home of several large console manufacturers and iconic original IPs, Japan is a huge market. The players have a massive preference for RPG games across platforms, and with several large developers and publishers, they are spoilt for choice.




Revenue for Japan ($Bn)



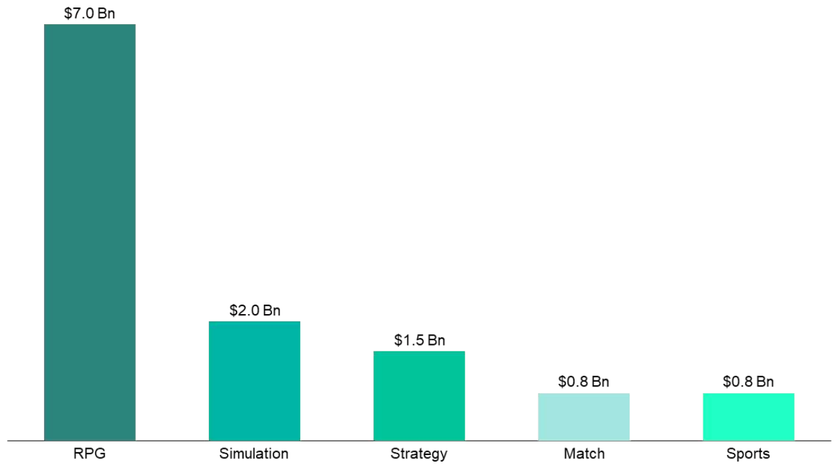

Downloads for Japan (Billions)

## Growth Drivers

ARPU in Japan for the past three years has crossed $300 per year, with $540 expected by the year 2026.

RPG is the #1 genre and with games like Genshin Impact on mobile, players can play them anywhere.

Downloads are expected to moderately increase.




What Genres Do Japanese Spend On?

The Biggest Public Companies

| Company | Market Cap | Revenue | Price | EV/EBITDA |
|---|---|---|---|---|
| Nintendo | $62.79 Bn[1] | $11.46 Bn[2] | $13.48[1] | 8.63x[1] |
| BANDAI NAMCO | $13.45 Bn[1] | $6.89 Bn[2] | $20.39[1] | 11.79x[1] |
| SEGA | $3.31 Bn[1] | $2.44 Bn | $3.77 | 0.03x |

1. As of the close of 10th January 2024
2. As of CY2022

Source: Data.AI, Yahoo FInance, Sensortower

# 3.8A NINTENDO CASE STUDY

## Defining Nintendo

Nintendo is a video game company headquartered in Kyoto. It develops, publishes and releases both video games and video game consoles. Alongside owning major IPs such as Pokemon and Mario, Nintendo has also manufactured consoles like the GameBoy, Nintendo Switch, etc. Over time, Nintendo has adopted several IPs for multiplatform releases.

## Most Popular IPs

**Gameplay:** Super Mario games feature side-scrolling gameplay, with players controlling Mario or Luigi through levels filled with enemies and obstacles. The objective is to reach the flagpole at the end, collecting coins and power-ups.
**No. of Games:** 21 Games
**Commercial Performance:** Sold 380 million units (2021)

**Gameplay:** In Pokémon games, players become Trainers, capturing and training Pokémon to become the ultimate Pokémon Champion.
**No. of Games:** 22 Games (Mainline)
**Commercial Performance:** The latest game sold 22.66 million copies

**Gameplay:** The Legend of Zelda games feature Link as the hero saving Hyrule from Ganon, known for their open-world exploration, puzzles, and combat.
**No. of Games:** 20 Games
**Revenue:** The franchise has sold 160.491 million units worldwide

**Gameplay:** Super Smash Bros. is a crossover fighting game series by Nintendo where characters from different Nintendo franchises battle on a stage to be the last one standing.
**No. of Games:** 6 Games
**Commercial Performance:** The latest game sold 31.77 million

## Most Successful Games (2023 YTD)

| | Pokémon Legends: Arceus | Pokémon Scarlet and Violet | Metroid Prime Remastered | The Legend of Zelda: Tears of the Kingdom |
|---|---|---|---|---|
| **Released** | January 2022 | November 2022 | February 2023 | May 2023 |
| **Platforms** | Nintendo Switch | Nintendo Switch | Nintendo Switch | Nintendo Switch |
| **Commercial Performance** | Sold >14.83 million copies | Sold >22.66 million copies | Sold 1.09 million copies in a month | Sold 2.24 million copies in the first 3 days |



Source: Yahoo FInance, Expert Interviews

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# LEVEL 4

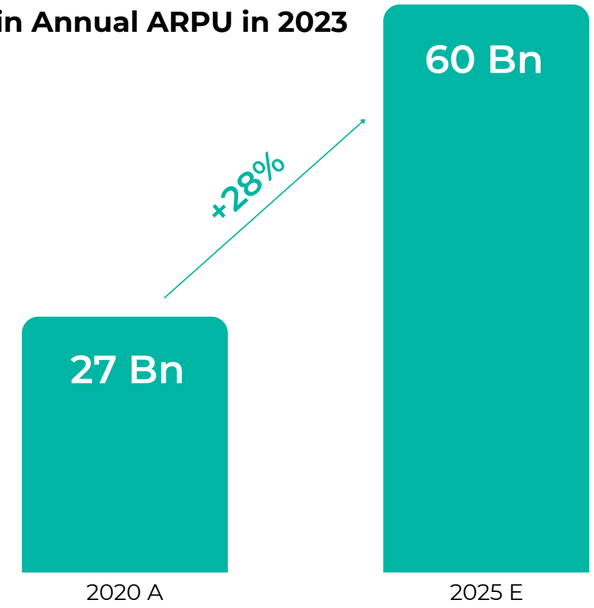
## INDIAN GAMING OVERVIEW

India's gaming landscape, boasting 500 million gamers and 200 million paid users, is a hotbed for new games across various genres. The user base is evolving to be more savvy, diverse, and willing to invest in superior gaming experiences. Initial unicorns and $100 million revenue companies had emerged in RMG, while successful companies like Nazara showcase revenue models spanning diverse genres. Since 2023, regulatory clarity has further bolstered this growth trajectory.

# 4.1 INDIAN MARKET STATE ANALYSIS

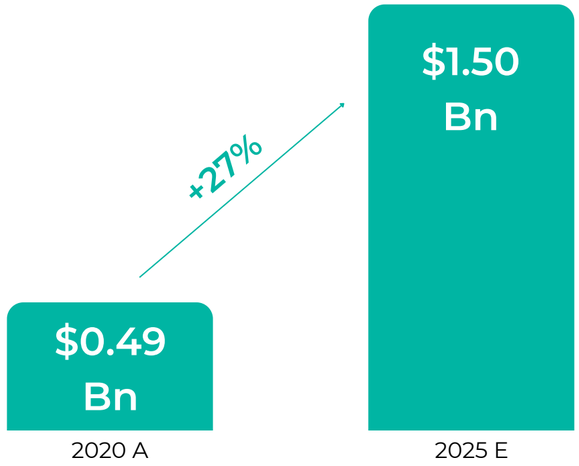
Since the pandemic, India has become a lucrative gaming market with strong download numbers but relatively low revenue. However, this is expected to change with the introduction of more immersive gameplay and localised storylines. India currently has 444.4 million gamers, including 138 million paid gamers.

**$6.38 in Annual ARPU in 2023**




**Indian Downloads**

**46 mins per Day Spent on Online Gaming in 2023**




**Indian Consumer Spend**

## Growth Drivers

65% of the Indian population is under the age of 35 which is the prime target audience for video games.

India is slated to have over 1 billion smartphone users by 2026 which would increase the target market.

The average cost of 1GB data in India is Rs 13.98 which is amongst the lowest in the world.

The onset of UPI has made people more comfortable with online payments that onlne games rely on.

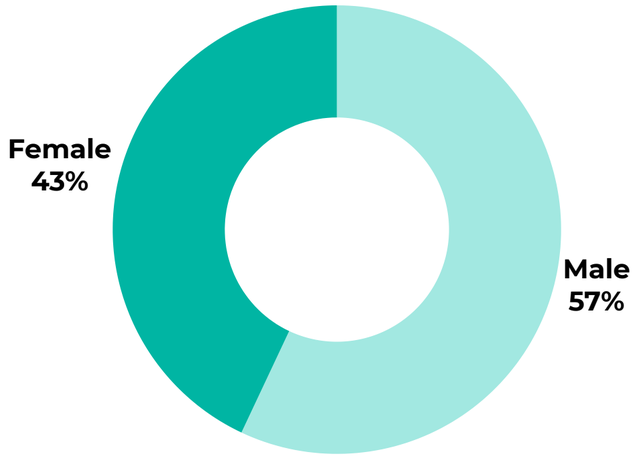


Source: Sensortower, Statista, Niko Partners, AWS, IIMA

# 4.2 DEFINING THE INDIAN USER PERSONA

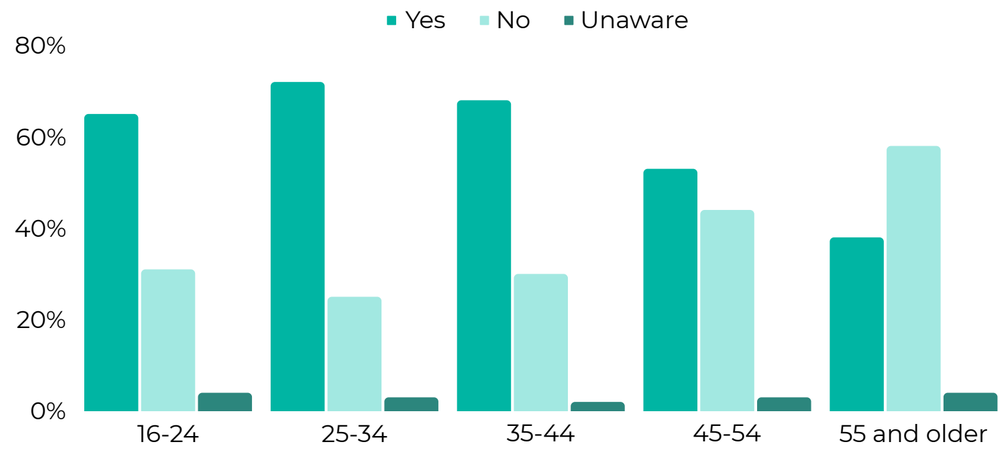
For a company to do well in India, understanding the profile of Indian gamers is imperative. It allows developers to be more precise with their offerings and derive maximum value. Below we assess Indian gamers using 4 distinct lenses.

## Gender Profile



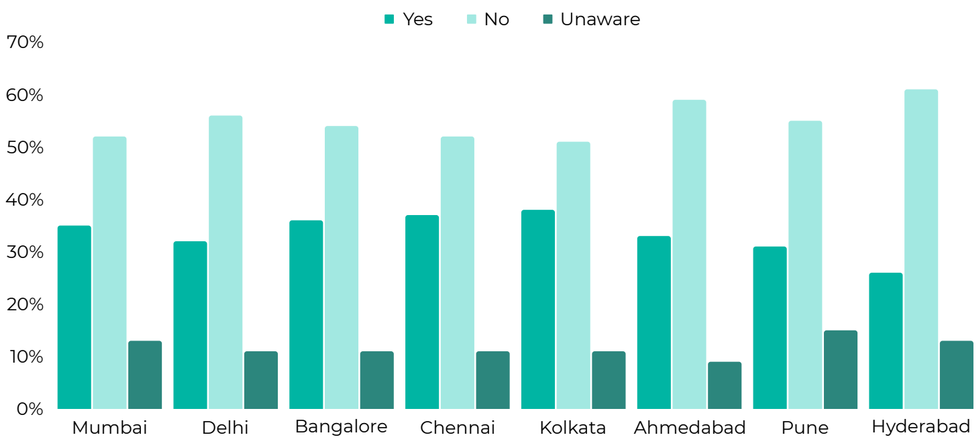

India has a high proportion of female gamers which is beneficial as women tend to play for longer hours, and have a higher propensity to pay.

## Gamers Across Age Groups



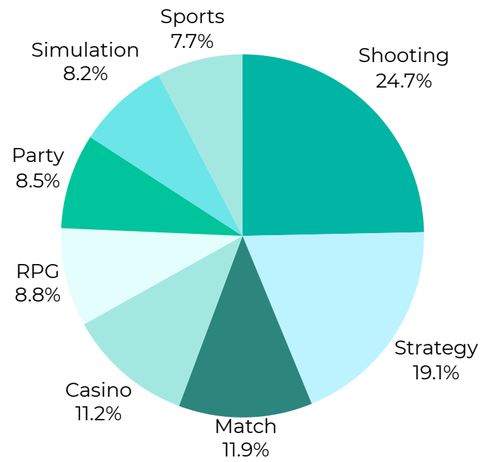

In India, the 25-34 age bracket has the proportion of gamers, while the 55+ bracket has the lowest. This is favorable as India has a young population.

## Gaming Frequency by Geographies




As per playing frequency, Kolkata and Chennai possess the most avid gamers in India. Most gamers tend to play on a weekly basis.

## Top 8 Genres Driving User Spend

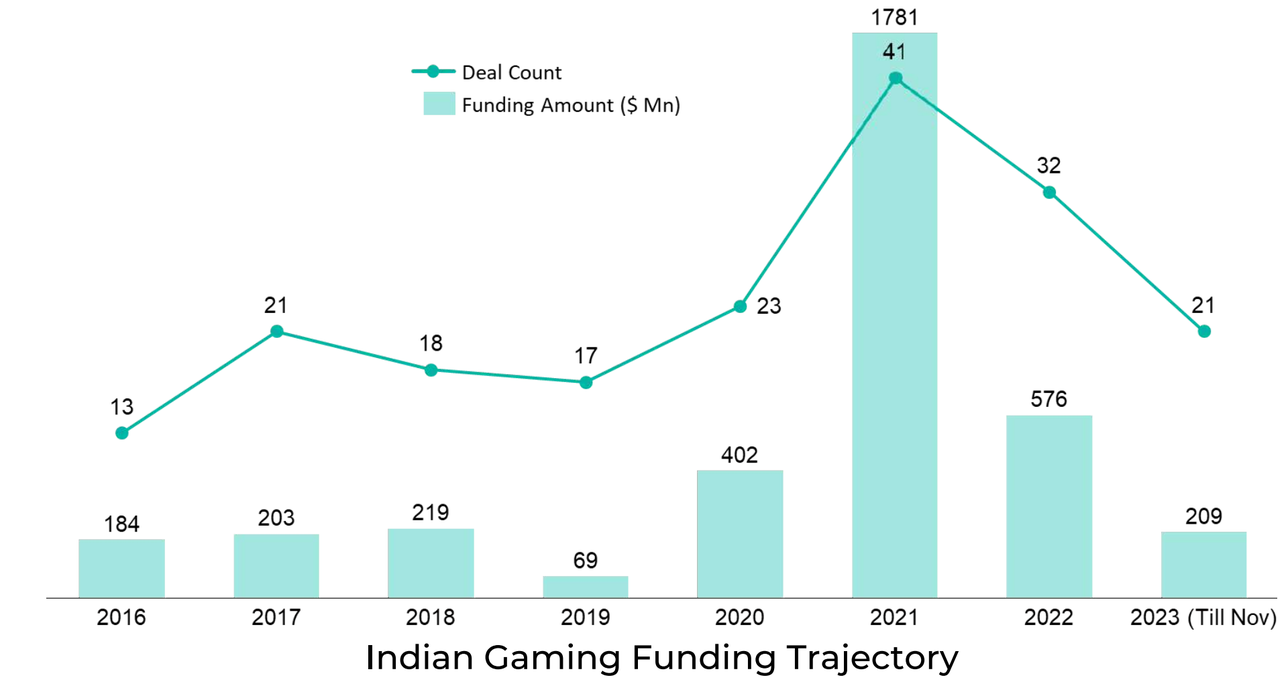



Shooting games derive the highest IAP spend in India with $41.6 million. Strategy, Match, Casino, and RPG round off the top 5.

Source: Dentsu, Rakuten, AWS, Data.AI

# 4.3 INDIAN FUNDING OVERVIEW

As the Indian market has grown in volume and paying propensity, we are witnessing increased investor attention diverted towards the sector. Despite 2022 and 2023's correction, we anticipate renewed investor interest particularly due to greater regulatory clarity and evolving gamer tendencies. RMG will be less favoured due to regulatory concerns and 28% of GST.



Indian Gaming Funding Trajectory

1. After the tremendous investment in 2021, 2022 and 2023 turned out to be corrective years. However, CAGR in the last 4 years has been ~32%.
2. The average deal size in 2022 stood at $3.4 Mn, a 38% decrease compared to 2021.
3. The sector minted one unicorn in the last two years as Games 24x7 attained a valuation of $2.5 Bn.
4. This growth is further propelled by the emergence of numerous new companies, with India boasting over 500 operating gaming studios.
5. The formation of an AVGC task force and the newfound regulatory clarity with the revised regulations will inspire more confidence in the sector from investors.
6. While Real Money Gaming (RMG) has been dominant in funding thus far, the landscape is expected to open up for the emergence of other genres in 2024.

## Notable Large Rounds Over The Last 2 Years For Platforms and Developers

| | | | | |
|---|---|---|---|---|
| **Amount** | $75 Million (Series C) | $72 Million (Series B) | $20 Million (Series A) | $10 Million (Series A) |
| **Genre** | RMG | RMG | Battle Royale (Shooter) | FPS (Shooter) |
| **Notable Investors** | Tiger Global Management, Raine, Malabar Investments | Nepean Capital, Matrix Partners India, WestCap | Sequoia Capital, Steadview, Hashed Emergent | Sequoia Capital, Rainfall Ventures, Krafton |

Source: Inc42, Tracxn

# 4.4 THE GAMING REGULATIONS 2023

Despite a vibrant user profile, investors were wary of the regulatory climate surrounding gaming. However, this was addressed this year. Below is a timeline for the release of the new regulations, along with key takeaways.

## Timeline for Release

**2nd January, 2023**
The Ministry of Electronics and Information Technology (MeitY) releases draft rules for online gaming in India, marking progress in gaming regulation.

**17th January 2023**
The deadline proposed by MeitY for public consultation on the draft rules expires. The Ministry commences contemplation on the same.

**25th January, 2023**
The government extends the deadline for public consultation on the draft rules to February 15, 2023 to invite more views on the draft.

**15th February, 2023**
The government receives more extensive feedback from key stakeholders on the proposed draft rules.

**March, 2023**
The government finalises the new gaming regulations basis the feedback received during public consultation.

**6th April, 2023**
The government tables the final regulations to be successfully passed an put into effect.

## Key Takeaways

### Definition of Online Games

Any game that is offered on the Internet and is accessible through a computer resource or an intermediary is an online game.

However, games that are involved in wagering and betting will fall foul of the new rules.

### Online Gaming Intermediaries

Any provider of online games is to be considered as an “intermediary”. While the definition is vague, it doesn't clarify whether publishers are intermediaries. Although MeitY had clarified that they don't, due to the phrasing of the definition, questions still linger.

### Responsibilities on Intermediaries

Gaming platforms need to prevent sharing inappropriate or unauthorised content, adhering to online game standards. In 2023, the government imposed a 28% GST on entry fees for online games, adversely affecting real-money gaming platforms like MPL.

### Self-Regulatory Organisations

The Online Gaming Self-Regulatory Body has the authority to validate real money games as permissible. While designing its framework, it must consider factors such as India's sovereignty, user protection, child safety, and addressing gaming addiction.



Source: Mondaq

# 4.5A NAZARA CASE STUDY - THE ONLY PUBLIC GAMING COMPANY

## Defining Nazara

Nazara Technologies operates across interactive gaming, esports, and gamified early learning for both Indian and global markets like Africa and North America. They achieve scale by producing in-house content for diverse audiences and have recently launched a publishing arm for Indian developers. Notably, they have achieved significant scale with less than 30% revenue from Real Money Gaming (RMG).

**Market Cap** (31/12/2023): $416.78 Million
**Revenue** (FY2023): $139 Million
**EV/EBITDA**: 34.32X

## Business Model Analysis

| | eSports | Early Learning | RMG+Skill Gaming | Ad-tech |
|---|---|---|---|---|
| **Revenue Contribution** | eSports contributes to 49% of Nazara's revenues. Nazara has established a foothold in the Indian subcontinent, and eastern Europe. | Early learning together with RMG and Skill gaming contributed 37% to Nazara's revenues. Kiddopia is the biggest performer in this category. | Along with early learning, this segment contributes 37% to Nazara's revenues. WildWorks, Nextwave, and Openplay are major subsidiaries. | This segment contributes 14% to Nazara's revenues. It is tied to Nazara's offerings across geographies like USA and eastern Europe. |
| **Business Model** | • Media rights, brand sponsorships and esports focused D2C Revenues.<br>• Advertisements through ad networks and programmatic demand channels. | Nazara create immersive, self directed learning experiences with content designed and developed in house for kids aged 2-7 years. Monetisation is subscription-based. | Nazara offers real-money gaming and skill fantasy gaming platforms to gamers. These range from sports' based games to popular RMGs like rummy. | Nazara is focused on accelerating user and revenue growth for clients through highly optimised digital advertising. They work with other publishers, agencies, and brands. |
| **Upcoming Trends** | • A 5.5x increase in broadcast hours.<br>• Prize money to reach Rs 100Cr by 2025.<br>• A 3x growth in sports media rights in India. | • More India-based IPs due to large market.<br>• New markets for Nazara like countries speaking Spanish, French, and German. | • With a sports fan base of 136 million, there is a market for sports-based games.<br>• The recent GST policy on RMGs can have an adverse impact. | • America will lead the total ad spend market while India will be the fastest growing.<br>• The ad spends are expected to touch US$ 738.5 billion mark with a growth of 8.7%. |
| **Major Subsidiaries** | **Nodwin** is the #1 esports company in India and South Asia. 78% market share based on unique IPs.<br><br>**Sportskeeda** is another major subsidiary in this space. | **Kiddopia** is #2 in apps in the US for kids under 5. | **Halaplay** offers fantasy sports based on Cricket, Football, and Kabaddi. The platform grew by 138% in FY 22. | **Datawrkz** is a US-based global ad-tech firm. It is working with 57 brands globally. |



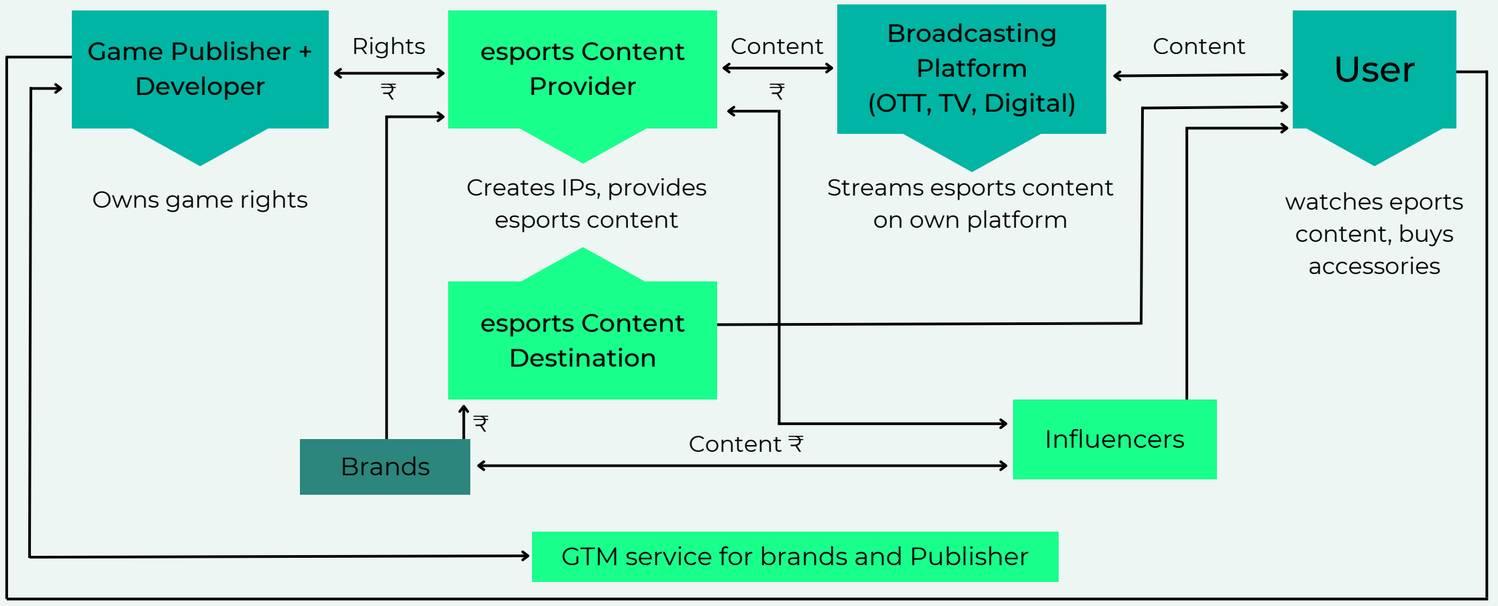
Source: Nazara

# 4.5B NAZARA CASE STUDY - THE ONLY PUBLIC GAMING COMPANY

Nazara's diversified approach in gaming enables extensive operations across verticals, emphasising adaptability. Emerging startups, post-RMG, may need similar diversification for scalability.

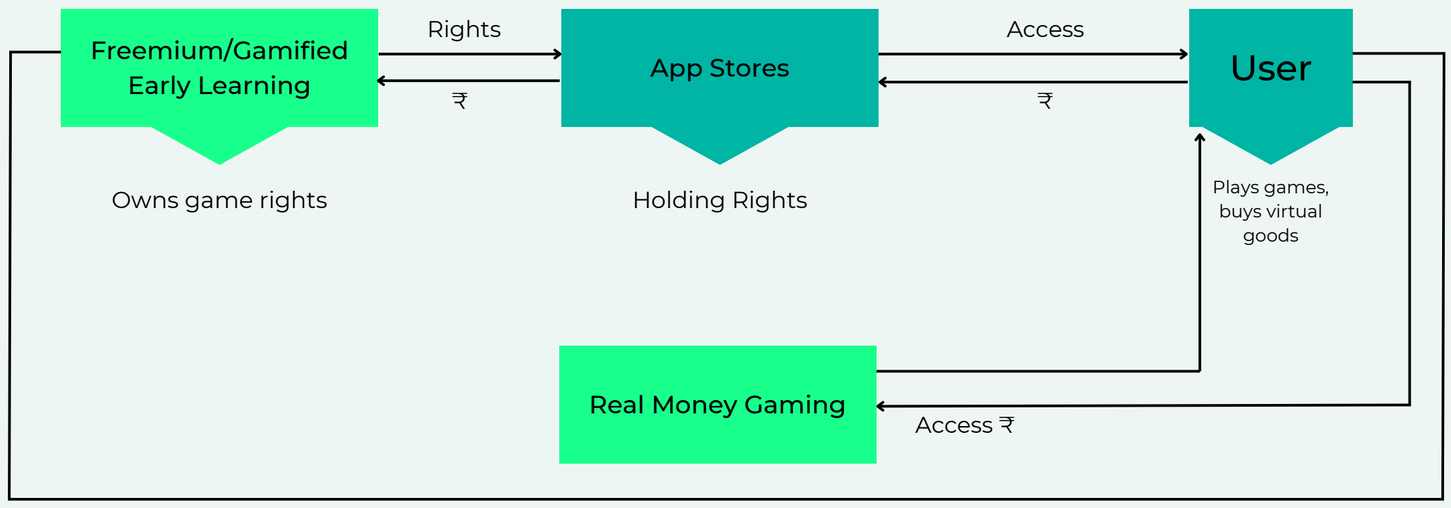
## esports Value Chain

(49% of Revenues)



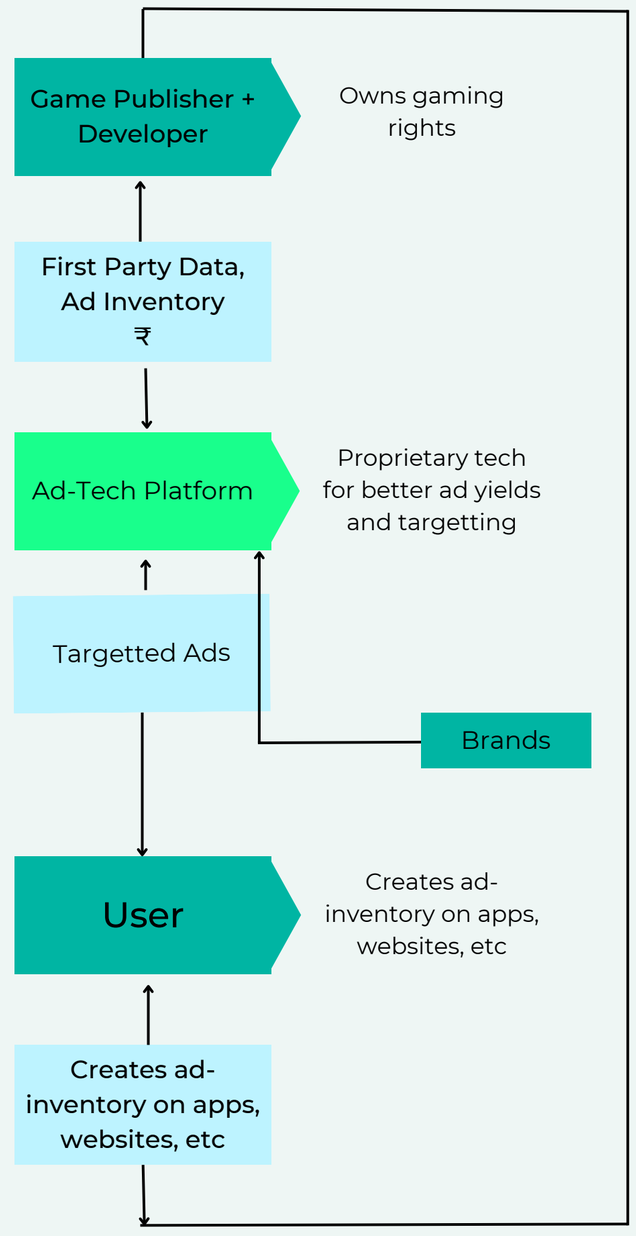

## Gaming and Gamified Early Learning Value Chain

(37% of Revenues)




## Ad-tech Value Chain

(14% of Revenues)




Nazara's Presence



Source: Nazara

Eximius Ventures

# LEVEL 5

## TOP GAMING GENRES

Beyond Real Money Gaming, various genres in India are showcasing promising outcomes. Over the past five years, numerous Indian studios have emerged, focusing on evolving genres and subgenres with a local twist in their content.

# 5.1A SHOOTING GAMES' OVERVIEW

Shooters are a subgenre of action video games where the focus is almost entirely on the defeat of the character's enemies using long-range weapons.

## Evolution of the Shooting Genre

**1973** — **Maze War**, a 3D multiplayer first-person shooter maze game, became of the earliest inspirations for the genre.

**1973** — **Battlezone** became the first successful mass-market game with a first-person viewpoint. It was a first-person shooter for arcades.

**1982** — **Wayout** featured the player trying to escape a maze, and used ray casting to render the environment which allowed for more freeform movement.

**1992** — **Wolfenstein 3D** was released. It leaned heavily towards gore and fast-paced action. It also used raycasting for its 3D environments.

**1993** — **Doom** elevated all aspects of Wolfenstein 3D including the game environments, and allowed competitive matches between multiple players.

**1996** — **Quake** featured fast-paced gameplay, within a completely 3D game environment, and used real-time rendered polygonal models.

**1999** — **Medal of Honor** gave birth to a long-running series of simulative first-person shooter franchises set during World War II.

**2004** — **Halo 2** elevated online gaming to the console market through Xbox Live, on which it was the most-played game for almost two years.

**2007** — **Crysis** would be credited for break new ground in terms of graphics and large, open-ended level design. It catapulted graphical fidelity to a new era.

**2017** — **PUBG** revitalised battle royale in which many players battle for survival on a large map to be the last man or team standing. This led to the rise of mobile shooters.

## Popularity of the Shooting Genre (For Mobile)

### Global Traction

**2.6 B** Downloads in 2022

**#7th** Most Downloaded Genre

**$4.8 B in (IAP) spends**
YoY IAP Spend -10.6%
YoY Downloads -0.9%
6% of All IAP spend
4% of All Downloads

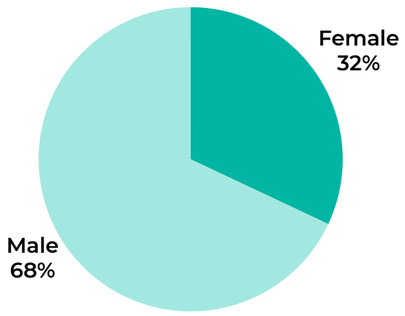
### India Traction

**$41.6 M in (IAP) spends**
YoY IAP Spend +44.7%
YoY Downloads -16.3%
22% of All IAP spend
6% of All Downloads

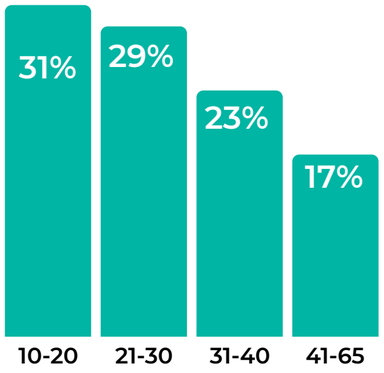
**78 M** Downloads in 2022

**#6th** Most Downloaded Genre

## User Personas it serves Globally




Gender Split




Age Demographics

**1.6** sessions per day (Rank by avg. daily sessions)

**19** hours per month (Rank by avg. monthly playtime)

Time Spent

Source: Newzoo, Data.ai

# 5.1B SHOOTING GAMES' CASE STUDIES

| | **PUBG Mobile** | **Free Fire** | **Call of Duty** | **Brawl Stars** |
|---|---|---|---|---|
| **Year of Release** | 2017 | 2017 | 2019 | 2018 |
| **Developer** | LightSpeed & Quantum Studio | Garena | TiMi Studio Group | Supercell |
| **Publisher** | Level Infinite (Worldwide) | Garena | Activision | Supercell |
| **MAU** | 298 MIllion | 195 Million | 56 Million | - |
| **Revenue (2022)** | $1.1 Billion | $310 Million | $306 Million | $172 Million |
| **Engine** | Unreal Engine 4 | Unity | Unity | In-house, based on C++ |
| **Gameplay Nature** | PUBG Mobile features an intense last player standing gameplay. Players scour for the best resources and look to defeat the remaining participants to be the only victor. | Free fire is a hero shooter-based battle royale with emphasis on being more accessible. It allows for lesser players on the map compared to PUBG Mobile. | COD uses an FPS based on the team deathmatch approach to encourage more synergised and tactical gameplay. It also involves a separate battle royal mode as well. | Hero shooter based battle royale. Players choose from existing 'heroes' and fight other players or AI. |
| **GTM Strategy** | The developers provided mid-tier streamers exclusive access for the game to generate initial hype amongst their audience.<br><br>They also created a community on Discord to build exclusivity amongst players. | They organised tournaments and championships for the game in local vernaculars to develop anticipation in local corners of the country.<br><br>Garena also worked with Bhuvan Bam to create content that clocked 74 Million views. | Activision heavily leveraged the legacy Call of Duty brand to entice their loyal players to try the mobile version.<br><br>To advertise the game, they produced crisp non-cinematic videos, showcasing the gameplay and UI in great detail. | To generate hype, they used a social media driven approach. They even reset the game's socials to create intrigue amongst the fans.<br><br>To expand, Supercell looked to create a community of Original Brawlers (early-players) to inspire loyalty. |
| **Monetisation Strategy** | Battle Pass remains a key monetisation pillar for PUBG Mobile. It can be used for unlocking better rewards for completing quests. Further, players can also purchase event-specific packs directly. | There is a store where player may use "gems" to buy skins. A vast majority of premier characters are behind a paywall. There is also a battle pass to grant players additional rewards. | The game features a robust store that allows players to purchase the in-game currency - 'coins', and special lootboxes containing weapons and other relevant gear. | While the game started with randomised lootboxes, due to backlash they moved to a standard merit-based reward mechanism. It also has a purchasable in-game currency for buying characters. |



Source: AppMagic, The Business of Apps

# 5.1C HOW DO WE SEE THE SHOOTING GAMES' LANDSCAPE EVOLVE?

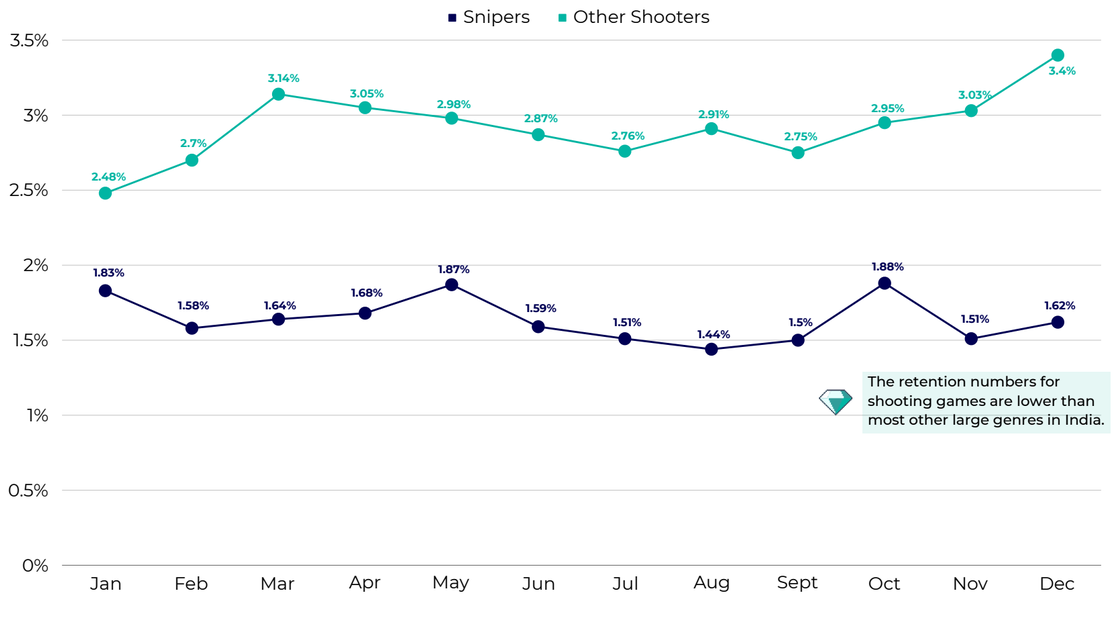
The shooting genre generates the most customer spending in India. While battle royale has been dominant, several new trends are also picking up steam. Quite a few great Indian startups like **Supergaming** and **Mayhem** are building for this genre.

## The Biggest Trends in the Shooting Genre

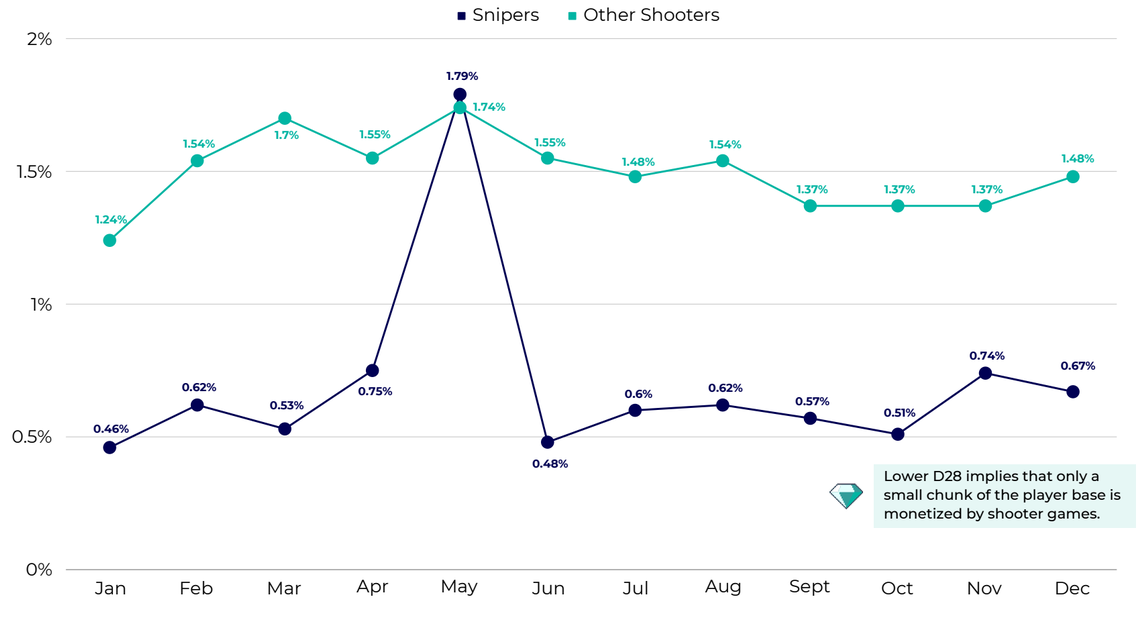
| | Definition | Validation | Players' Perspective | Killer Game |
|---|---|---|---|---|
| **Extraction Shooters** | Extraction Shooters are multiplayer games where the player must garner as much loot as they can before travelling to an extraction point to end the session and keep the loot. | Arena Breakout, one of the paragons of extraction shooters on mobile, ascended to the #2 position in terms of downloads and #5 position in terms of revenue in China in 6 months. | Players are drawn to these games due to their more methodical nature, and tactical nature. This makes them more engaging for players. | Arena Breakout |
| **Shoot'em Ups** | Shoot'em ups are games that ask players to combat a large number of AI-controlled enemies by shooting at them simultaneously while dodging their fire. | Surviwar!.io - a popular shoot'em up game released July of 2022, reached $75m in revenue from 37m downloads in just two months from its release. Battle Stars by Supergaming is a great example of this. | Shoot'em ups combine the intensive nature of shooting games with an intuitive approach. This makes the games easy to get into for players. | Battle Stars |
| **Tactical Shooters** | Tactical shooters usually involve team-based combat that incentivises planning and collaboration among the players. Players need to be able to synergise to win. | Aside from Battle Royale, Tactical Shooters generated the most revenue on mobile devices between 09/2021 and 10/2022, with $1 billion. Mask Gun by Supergaming has garnered >50 million downloads. | A huge reason for their popularity is the launch of several popular franchises like CoD, Rainbox Six, and The Division launching for mobile devices. | Mask Gun |
| **Hybrid Shooters** | Hybrid shooters involve merging the core loop of shooting games with the meta loop of other midcore genres. This adds a new layer of complexity to these games. | Shooting Towers by Freeplay, released in 2021, combines shooter mechanics with those of a tower defense game. The game has garnered over 5 million downloads. | These hybrid games enhance the appeal of the genre and give a unique experience to players. This also ensures that the gameplay doesn't feel generic or stale for players. | Shooting Towers |

Source: AppMagic, The Business of Apps, Naavik

# 5.1D SHOOTING GAMES' RETENTION BENCHMARKS FOR INDIA

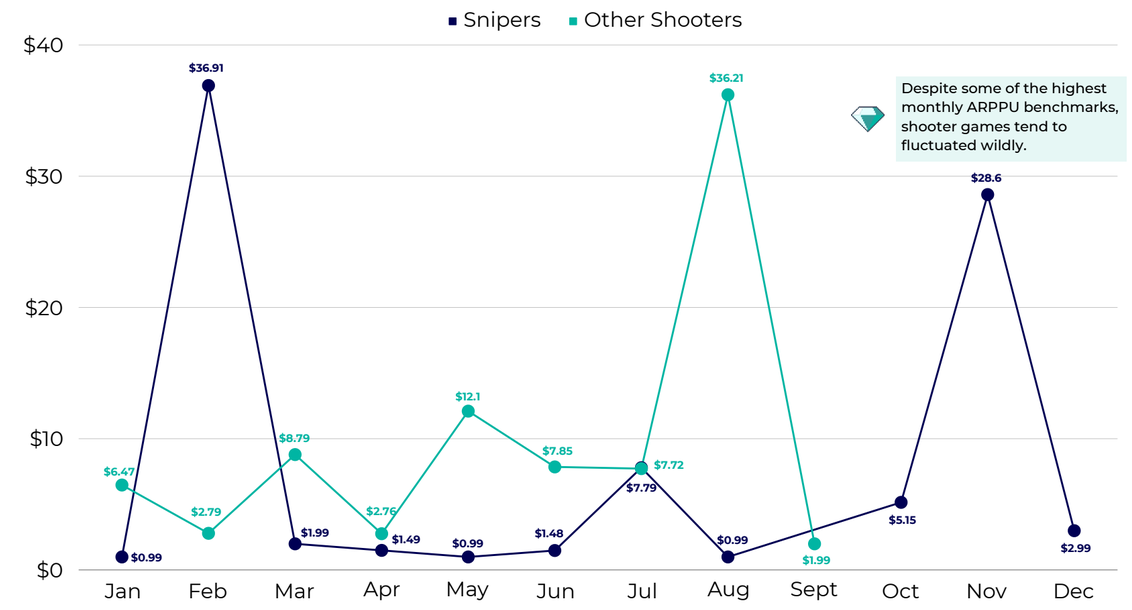



**D14 Retention**

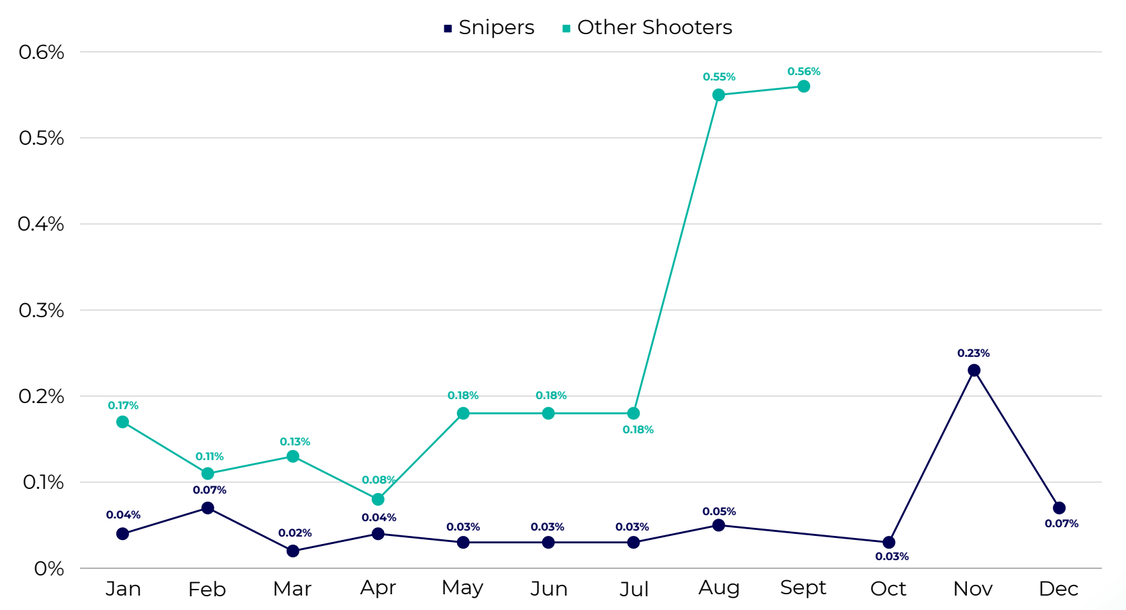



**D28 Retention**

# 5.1E SHOOTING MONETISATION BENCHMARKS FOR INDIA




**ARPPU (Average Revenue Per Paying User)**




**Conversion Rate (% of DAU that made a purchase)**

Source: Data.ai

# 5.2A STRATEGY GAMES' OVERVIEW

Strategy is a major video game genre that emphasises thinking and planning over direct instant action in order to achieve victory. The premise is to maneuver yourself optimally to triumph.

## Evolution of the Strategy Genre

**1964** — The **Sumerian** Game was launched. It featured resource management systems that formed the backbone of the genre.

**1972** — **Invasion** was launched for the Magnavox Odyssey and became the first console strategy game. It was based on Risk - a popular board game.

**1980** — **Computer Bismarck** from Strategic Simulations became the first historical computer wargame.

**1983** — **Reach for the stars** featured gameplay that expanded the relationship between economic growth, technological progress, and conquest

**1983** — That same year, **Nobunaga's Ambition** launched as a conquest-oriented grand strategy war game with historical simulation elements. This proved to be a popular template.

**1984** — **The Lords of Midnight** got massive acclaim for its combined elements of adventure, strategy, and wargames

**1989** — **Herzog Zwei** combines arcade-style play with a simple, easy-to-grasp level of strategy. It is often considered the first real-time strategy game.

**1998** — **StarCraft** pioneered the use of unique "factions" in RTS gameplay. It was also praised for having a compelling story

**2002** — **Warcraft III** changed the norm massively through the addition of role-playing elements and heroes as units. Its robust World Editor also inspired several future games.

**2003** — **DotA** started as a mod for Warcraft III. It was popular due to its community-led development and immense multiplayer gameplay.

## Popularity of the Strategy Genre (For Mobile)

### Global Traction

**#2nd** Highest Customer Spend in 2022

**#13th** Most Downloaded Genre

**$12.1 B in (IAP) spends**
YoY IAP Spend -6.6%
YoY Downloads +10.0%
15% of All IAP spend
2% of All Downloads

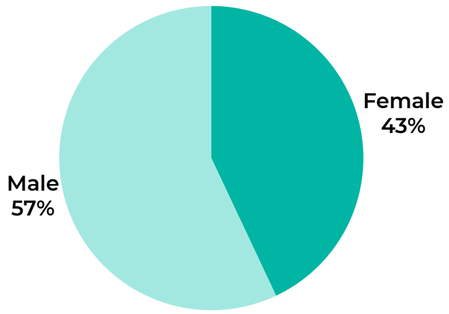
### Indian Traction

**$32.2 M in (IAP) spends**
YoY IAP Spend +13.0%
YoY Downloads -23.7%
17% of All IAP spend
1% of All Downloads

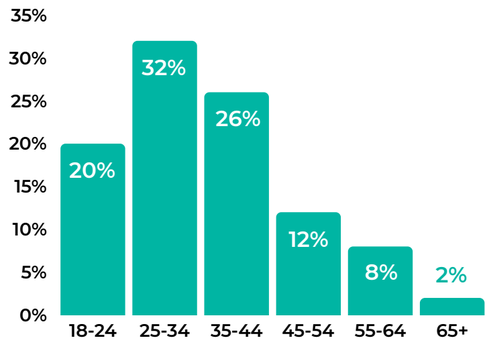
**#2nd** Highest Customer Spend in 2022

**#12th** Most Downloaded Genre

## User Personas it serves Globally




Gender Split




Age Demographics

- Despite fewer downloads, strategy games feature a higher ARPU against shooters.
- Strategy involves an older demographic compared to shooters. The gender split is healthier too.

Source: Data.ai, Newzoo

# 5.2B STRATEGY GAMES' CASE STUDIES

| | **Rise of Kingdoms** | **Evony: The King's Return** | **Lords Mobile** | **Clash Royale** |
|---|---|---|---|---|
| **Year of Release** | 2018 | 2016 | 2016 | 2018 |
| **Developer** | Lilith Studios | Top Games | IGG | Supercell |
| **Publisher** | Lilith Studios | Top Games | IGG | Supercell |
| **Total Downloads** | 100 Million+ | 100 Million+ | 380 Million | 583 Million |
| **Revenue (2022)** | $427 Million | $388 Million | $251 Million | $213 Million |
| **Engine** | Unity | Unity | Unity | In-house, based on C++ |
| **Gameplay Nature** | A real-time strategy game, ROK allows players to simulate ruling over a country as the world around them constantly changes as per their actions. | The game uses traditional real-time strategy themes set in a medieval timeline. It emphasises puzzles and mini-games to allow in-game progress. | Lords combines real-time strategy and city-building mechanics in gameplay and uses PVP battles and special events to engage players. | The game uses tower-rush gameplay where the objective is to destroy more towers than opponents. Players use card-collecting mechanics for building an army. |
| **GTM Strategy** | To build an initial base, partnered with Twitter to launch pre-launch campaigns to reward players for engaging with the game's promotions.<br><br>Also launched a slew of crisp ads to depict the game and its gameplay. Worked with influencers on this too. | Evony created playable ads involving incorrect gameplay from AI. This encouraged the players to correct those errors and try out the game.<br><br>They leaned heavily into launching in-game ads into similar games to have a more targeted campaign. | The game partnered with several global celebrities to generate initial hype and build a global player base.<br><br>The team also created exaggerated playable ads to present a glorified version of the gameplay. | Supercell used cross-promotions through its already successful games like Clash of Clans to convert players to Battle Royale.<br><br>They also encouraged player referrals through their extensive clan-based frameworks. |
| **Monetisation Strategy** | ROK uses IAPs to provide vital resources and in-game speedups to boost progress. ROK also runs events to offer lucrative discounts to loyal players. | Evony has an elaborate store that allows the player to purchase key buildings, personnel, speed-ups, and other resources. This drives most of the IAP. | Lords Mobile emphasises especially on allowing players to skip wait times using IAPs. Players can purchases gems from the store to use this feature. | Alongside a reduction in wait times and cosmetics, Clash Royale also features a card upgradation system that can be expedited using IAPs. |



Source: AppMagic, The Business of Apps

# 5.2C HOW DO WE SEE THE STRATEGY GAMES' LANDSCAPE EVOLVE?

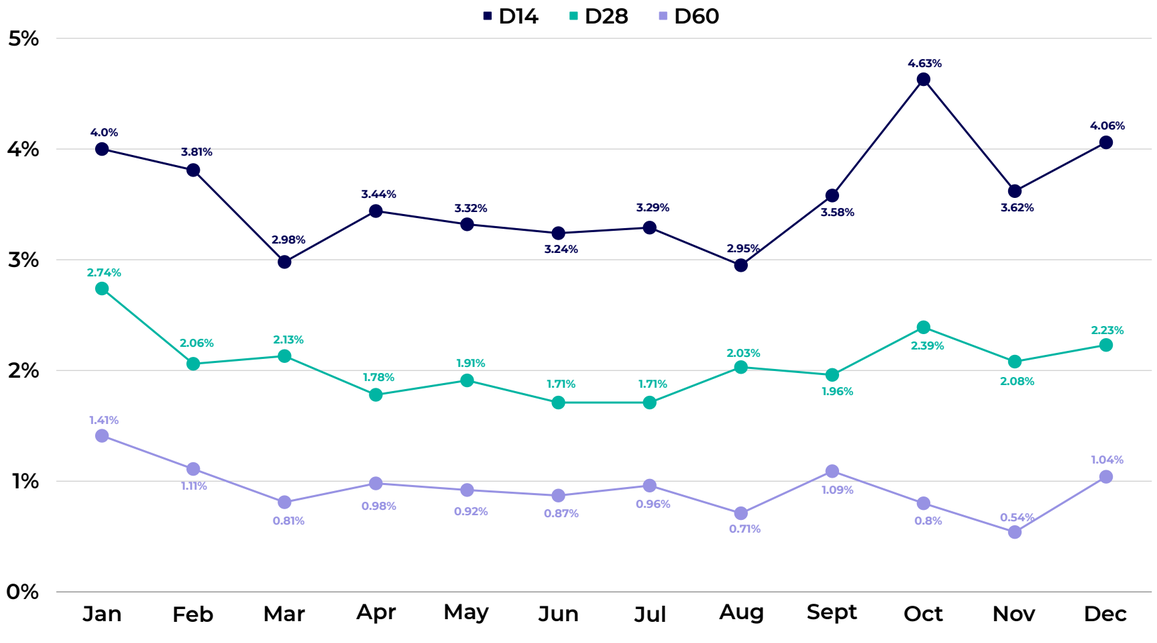
While the strategy genre does have quite a few heterogeneous subgenres, there are a couple of trends emerging that can result in major innovations across the landscape. This has resulted in the birth of new and exciting subgenres that can captivate players. We also see a lot of new Indian studios like **Hitwicket** innovating on this space.

## The Biggest Trends in the Strategy Genre

| | Definition | Validation | Players' Perspective | Killer Game |
|---|---|---|---|---|
| **4X Hybrid Strategy** | While 4X (grand strategy) has been a key pillar of the strategy genre due to its complexity and scale, developers are adding elements from other genres like puzzles and match 3 mechanics to innovate. | Puzzles & Conquest, launched in 2019, used match-3 RPG mechanics with 4X elements and earned $322 million in revenue in 2022.<br><br>**Asva by Atirath** has garnered over 100K downloads. | 4X games can often confound players due to their complexity. Combining more rudimentary mechanics from other genres can make the learning curve steeper for newcomers. | <br>Asva |
| **Tower Defence Strategy** | Tower Defence is a sub-genre. Here the goal is to defend a player's territories from the opposition. Lately, developers are incorporating RPG mechanics like 'Heroes' within the genre to reach a new audience. | Arknights is one of the earliest users of this gameplay style as it asks players to defend using 'operators' that have special abilities. It has a lifetime revenue exceeding $700 million, and total downloads exceeding 18 million. | These mechanics usually induce greater retention from players as the incentive for progression is laid out meticulously. Further, tower defense games are usually more simple in nature and invite more players. | <br>Arknights |
| **Action-based Strategy** | While the strategy genre is usually associated with static visuals and a more deliberate playstyle, newer games are more frequently incorporating fast-paced and frenetic gameplay. This makes more dynamic action in the game. | Games like Clash of Clans used more dynamic gameplay in battle sequences to enhance their appeal. Auto Chess more recently has gameplay which features the pieces fighting each other to decide the game. The game has garnered >10 million downloads in 4 years. | This gameplay style greatly enhances the satisfaction that the player receives from the game due to a more dynamic gameplay and exhilarating action. | <br>Auto Chess |

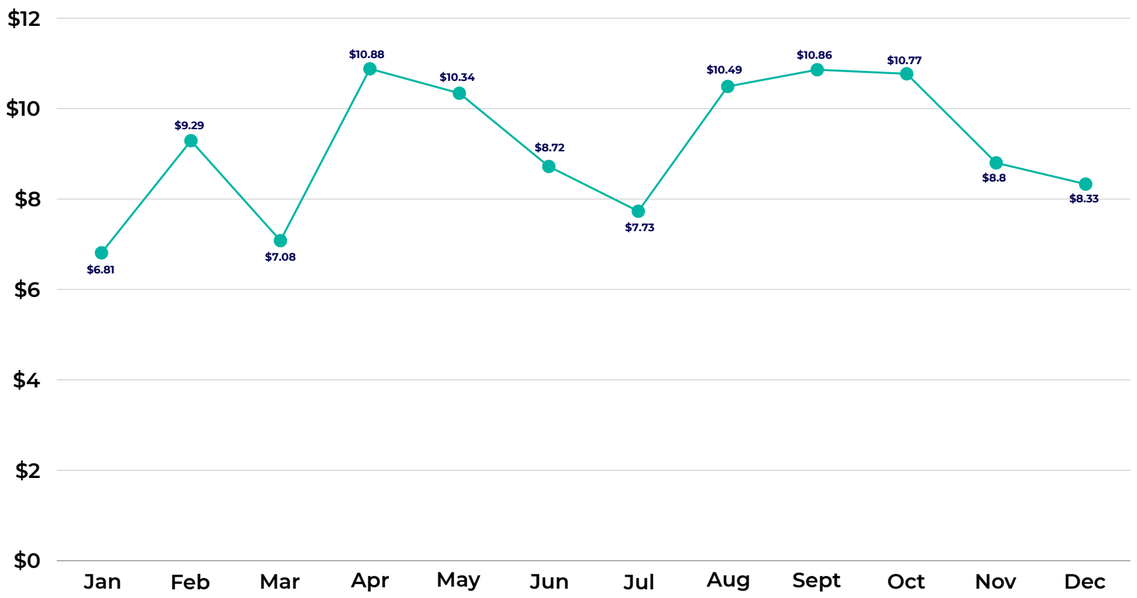
Source: Naavik

# 5.2D STRATEGY GAMES' RETENTION BENCHMARKS FOR INDIA

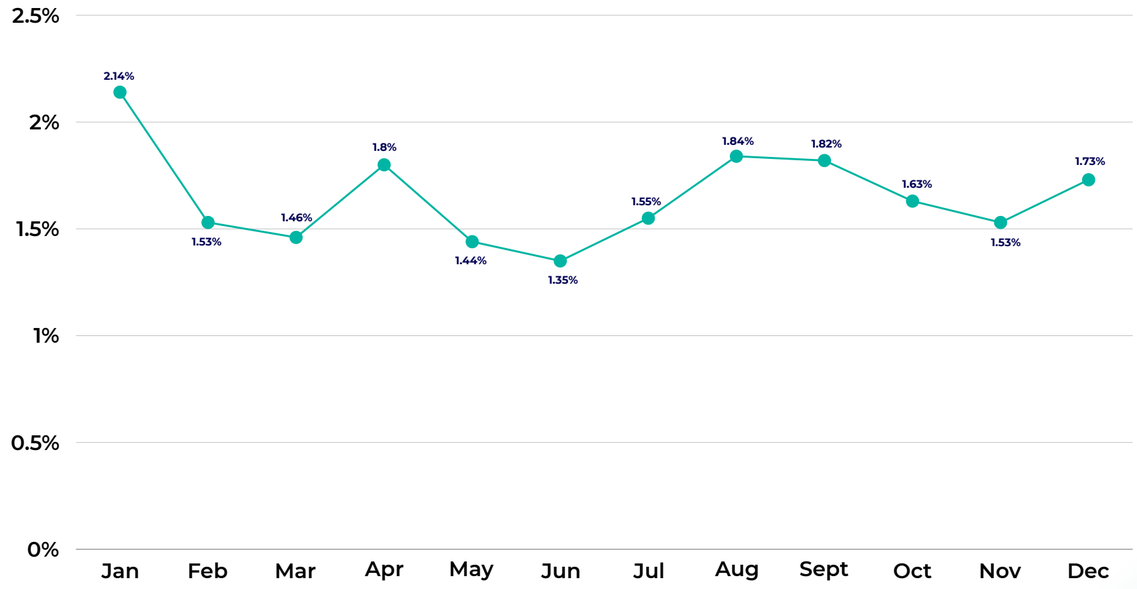



- Strategy games tend to have higher retention figures across the board against shooters.
- Alongside greater stability in benchmarks, ARPPU for strategy is at the higher end of the spectrum.
- India is seeing rising in-app purchase spends for this genre.

# 5.2E STRATEGY MONETISATION BENCHMARKS FOR INDIA




ARPPU (Average Revenue Per Paying User)




Conversion Rate (% of users that made a purchase)

Source: Data.ai

# 5.3A MATCH GAMES' OVERVIEW

Match Games are a type of puzzle game where the player manipulates tiles to make them disappear according to a matching criterion. They are designed to be as visually appealing as possible. Global match games have performed well in India.

## Evolution of the Match Genre

**1985** — **Tetris** was launched. It became the highest-selling game of all time based on its simple rules of completing lines by aligning descending shapes together.

**1990** — **Columns** became the template for the match genre. It's gameplay was based on Tetris but was more visually appealing with better progression.

**1990** — **Dr Mario** was designed as a falling block puzzle game where the players aligned capsules of the same colours to destroy viruses.

**1994** — **Shariki** founded the match 3 subgenre, it asked players to match three or more balls of the same color in a line, by swapping adjacent balls.

**1995** — **Panel de Pon** (Tetris Attacks) launched and popularised the mechanism of tile swapping in the match genre.

**1997** — **TetriNet** allowed up to six people to play Tetris together and popularised multiplayer in match games.

**2001** — **Bejeweled** became amongst the most popular match games by marrying match 3 mechanics with a captivating visual approach by using colorful gems.

**2007** — **Puzzle Quest** took match mechanics and combined them with the RPG framework. Players could fight opponents by making matches of coloured gems.

**2010** — **Triple Town** was amongst the progenitors of the merge-match. Here, making a match resulted in new objects being created with higher rewards.

**2012** — **Candy Crush** became massively successful and created a freemium model where players only had a finite number of moves.

## Popularity of the Match Genre (For Mobile)

### Global Traction

**#3rd** Highest Customer Spend in 2022

**#6th** Most Downloaded Genre

**$8.7 B in (IAP) spends**
YoY IAP Spend -5.4%
YoY Downloads +11.0%
11% of All IAP spend
5% of All Downloads

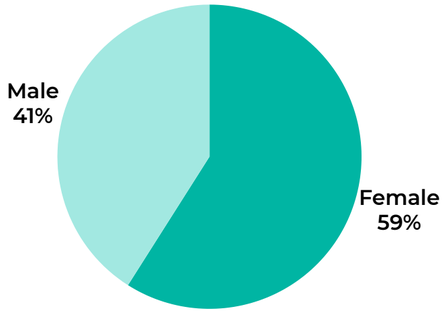
### Indian Traction

**$20.1 M in (IAP) spends**
YoY IAP Spend +28.6%
YoY Downloads +10.8%
11% of All IAP spend
6% of All Downloads

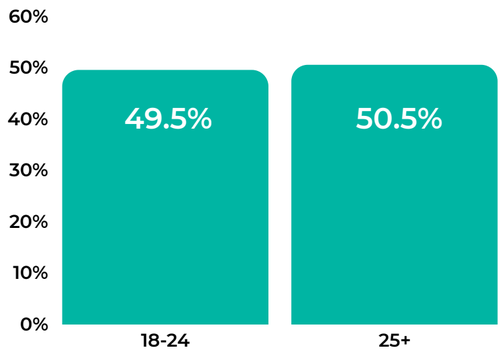
**#3rd** Highest Customer Spend

**#7th** Most Downloaded Genre

## User Personas it serves Globally




Gender Split




Age Demographics

- Match games receive a high proportion of downloads due to their light nature.
- The gender split in match games favours women more than men. This sets is apart from other genres.

Source: Data.ai, Newzoo

# 5.3B MATCH GAMES' CASE STUDIES

| | **Candy Crush Saga** | **Homescapes** | **Royal Match** | **Fishdom** |
|---|---|---|---|---|
| **Year of Release** | 2012 | 2017 | 2021 | 2015 |
| **Developer** | King | Playrix | Dream Games | Playrix |
| **Publisher** | King | Playrix | Dream Games | Playrix |
| **Total Downloads** | 2.7 Billion | 564 Million | 135 Million | 426 Million |
| **Revenue (2022)** | $1 Billion | $470 Million | $410 Million | $343 Million |
| **Engine** | Fiction Factory | - | Unity | - |
| **Gameplay Nature** | Candy Crush is a match 3 game where the core gameplay is based on making a sequence of at least three matching-colored candies through tile swapping. | Homescapes uses the match 3 mechanics and marries them with a home decorating simulator. Players unlock new areas of the house to decorate as they progress in the game. | The game utilises tile matching mechanics, where players assist the king in rebuilding his castle after a devastating fire. Each tile combination offers unique rewards. | The object of the game is to earn coins to set up and decorate a virtual aquarium. The Levels are based on a standard match 3 template. Minigames are also used to break monotony. |
| **GTM Strategy** | In its initial days, Candy Crush asked users to invite their friends on Facebook in exchange for extra moves. This was a big factor in its early virality.<br><br>As it expanded, King also utilised advertisements and influencer campaings to spread globally. | Playrix released misleading ads that exaggerated gameplay. Some of the ads were even banned for their false nature. However, they became quite popular.<br><br>The ads often also involved narrative elements that were designed to garner the sympathy of female players. | To build a global player base, Royal Match enlisted different celebrities for different markets. For example, the French ad had Pascal Légitimus.<br><br>The team also created exaggerated playable ads to present a glorified version of the gameplay. | Leveraging extensive player data, Playrix initiates targeted playable ad campaigns directed at player cohorts, considered to be the most receptive.<br><br>These ads either involve a call-to-action asking the players to solve levels, or showcase the reward mechanisms. |
| **Monetisation Strategy** | There are primary two sources for IAP; lives and boosters. The players start with 5 lives and need to pay to replenish. Boosters instead make levels easier. | Homescapes uses only a single currency: coins. These are used to purchase lives, moves, as well as boosters. They recently also launched a battle pass. | Royal Match does not have any ads which ensures higher retention, and thus a larger monetizable cohort. It only uses the option of refilling lives for IAPs. | Fishdom uses the sale of boosters, power-ups and lives for IAPs. Players can also buy additional moves if they fail a level. For every failure, the cost rises. |



Source: AppMagic, The Business of Apps

# 5.3C HOW DO WE SEE THE MATCH GAMES' LANDSCAPE EVOLVE?

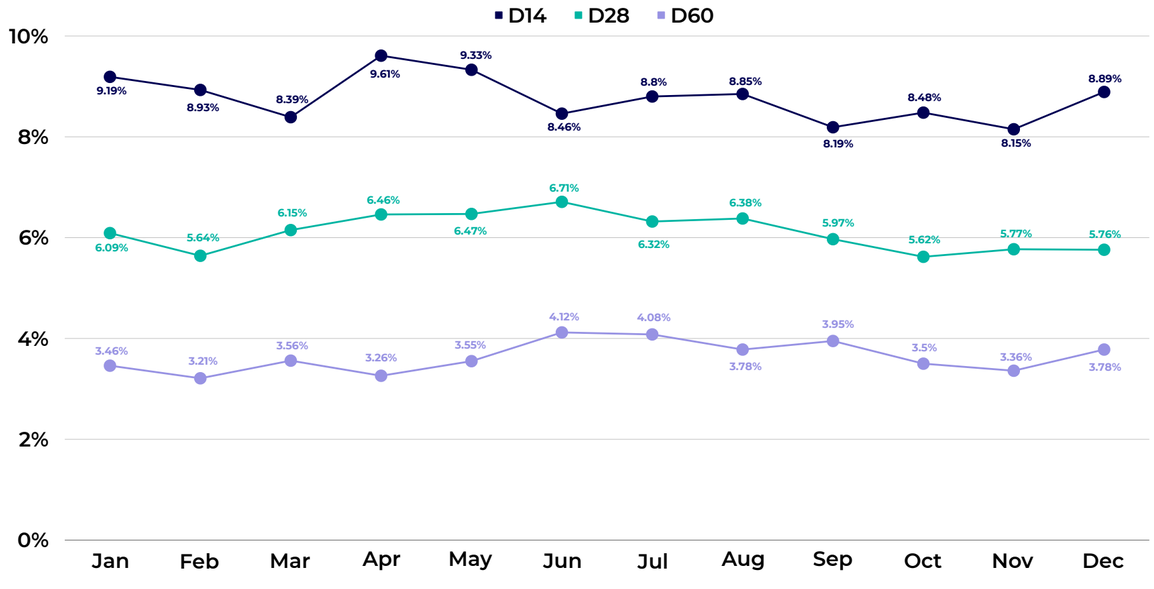
Match games, traditionally associated with casual gaming, are evolving to meet gamer demands for fresh experiences, resulting in significant changes to gameplay mechanics. Additionally, match-based games with Indian themes and deeper meta elements, like those from **Giga Fun Studios**, are emerging.

## The Biggest Trends in the Match Genre

| | Definition | Validation | Players' Perspective | Killer Game |
|---|---|---|---|---|
| **Merge-Based Match** | In merge-based games, the main goal is usually to merge three objects with each other by dragging them together to produce improved objects with higher rewards. | AppMagic shows that merge-based games have generated over $1.7 billion in revenue from 2017, with over 1.2 billion in downloads.<br><br>Bloom by Lucid Labs is a great example of this gameplay innovation. | Merge-based games look to enhance the value proposition from match 3 by emphasising more on completing milestones, and resource planning (like dead land for Merge Dragons). | <br>Bloom |
| **PVP-Multiplayer Match** | PVP (Player vs Player) match games allow players to play with/against other people. The game is usually presented as a 'duel' between players who seek to attain the highest score in a limited time. | Match Masters, one of the earliest mobile games in this space, attained an RPD (Revenue per Download) of $4.82 in 2022, which was even greater than that of Candy Crush Saga. | This trend is specifically attractive to men due to the more competitive nature that it represents. It also allows for a more social experience to the players. | <br>Match Masters |
| **Minigame-Based Match** | To optimise their retention and player engagement, some games have started introducing minigames and puzzles to break the monotony for the players. | Fishdom by Playrix is one of the biggest users of this strategy. It witnessed a 48% growth in the number of downloads over the previous year. It was also the 2nd most downloaded match game. | These additions bring about a change of pace for the player. Further, since these are usually designed with mid-core principles, they encourage higher engagement. | <br>Fishdom |

Source: AppMagic, The Business of Apps, Naavik

# 5.3D MATCH GAMES' RETENTION BENCHMARKS FOR INDIA

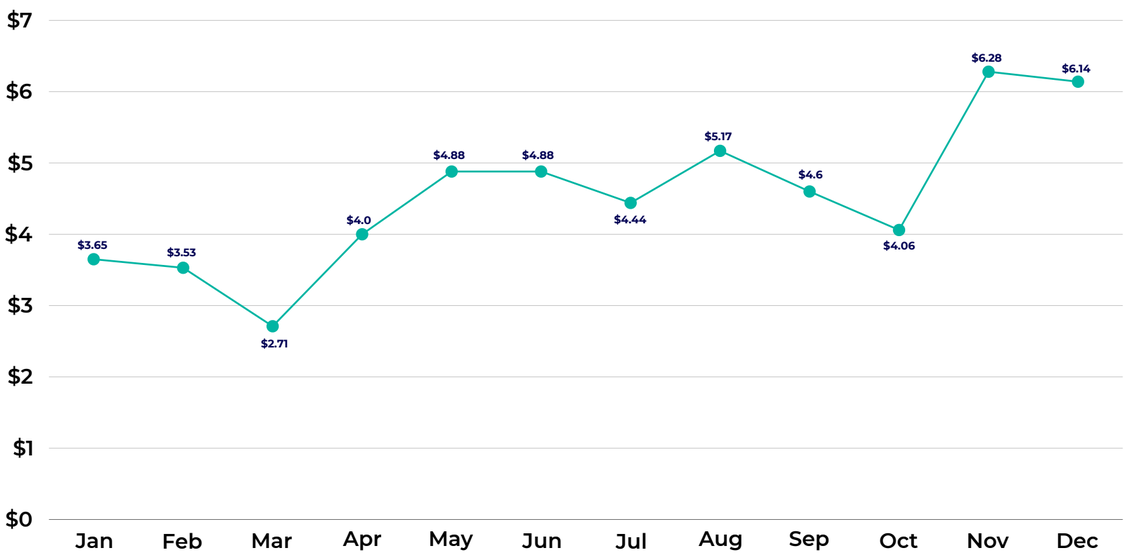



Due to the light nature of match games, they retain a higher chunk of players.

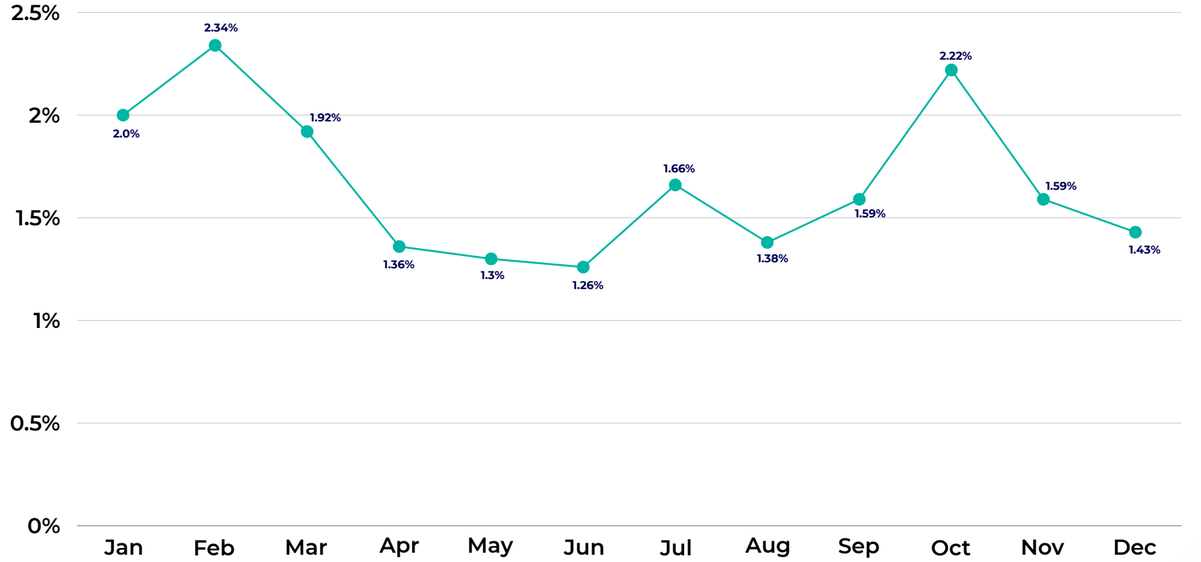
Despite high retention numbers, the ARPPU in match games is lower than for midcore genres.

Due to their light nature and lower ticket prices generally, match games convert users at a faster rate.

# 5.3E MATCH GAMES' MONETISATION BENCHMARKS FOR INDIA




ARPPU (Average Revenue Per Paying User)




Conversion Rate (% of DAU that made a purchase)



Source: Data.ai

# 5.4A CASINO GAMES' OVERVIEW

In casino games, players spend currency on various random outcomes, primarily driven by chance rather than skill, leading to regulatory concerns. The Indian Government has recently imposed a 28% GST on wagering amounts for these games.

## Evolution of the Casino Genre

**1994** — The Free Trade and Processing Act in USA provided **licences** for online gambling sites. This opened a massive market for the industry.

**1995** — **The Gaming Club** from Microgaming was amongst the first online casinos. It launched with blackjack, video poker, craps, and roulette.

**1996** — **CryptoLogic** launched InterCasino which had 18 online casino games. The casino payed out $3 billion in wins.

**1996** — **Reel 'Em' from WMS** Industries became the first video slot released with the bonus round being presented in a second screen

**1997** — **International Game Technology** brought out the Wheel of Fortune slot game which came with a bonus wheel and sound effects.

**1998** — **Planet Poker** became the first online site to provide online poker gaming options. It was also the first site to introduce an online version of Texas Hold'em Poker.

**2004** — **Microgaming** became amongst the first developers to launch a casino game on mobile devices - Double Magic.

**2005** — **Partygaming** launched its IPO at $8.46 billion to become one of the first casino gaming platforms to go public.

**2012** — **Big Fish Casino** and **Jackpot Party** by Big Fish Games Inc and WMS respectively were amongst the first casino games on mobile devices.

**2014** — Due to their popularity, casino games started using cryptocurrencies. **Bitcasino** was amongst the first crypto-based casinos.

## Popularity of the Casino Genre (For Mobile)

### Global Traction

**#4th** Highest Customer Spend in 2022

**#12th** Most Downloaded Genre

**$8.3 B in (IAP) spends**
YoY IAP Spend -1.7%
YoY Downloads +48.0%
10% of All IAP spend
3% of All Downloads

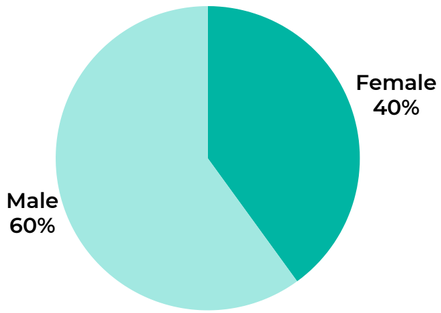
### Indian Traction

**$18.9 M in (IAP) spends**
YoY IAP Spend +26.1%
YoY Downloads +188.7%
10% of All IAP spend
5% of All Downloads

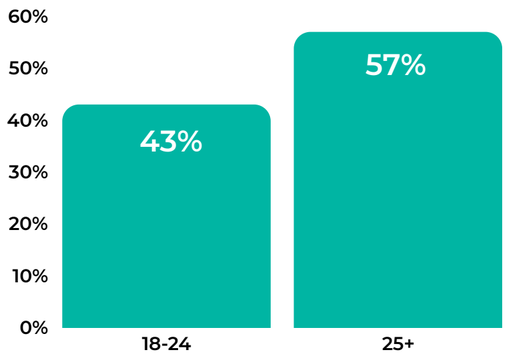
**#4th** Highest Customer Spend in 2022

**#8th** Most Downloaded Genre

## User Personas it serves Globally




Gender Split




Age Demographics

- Despite relatively lower downloads, the degree of monetisation in casino games is impressively high.
- Casino involves higher male audience. Further, the players are also older than most other genres.

Source: Data.ai, Newzoo

# 5.4B CASINO GAMES' CASE STUDIES

| | Coin Master | Bingo Blitz | Slotomania | Jackpot Party |
|---|---|---|---|---|
| **Year of Release** | 2015 | 2012 | 2011 | 2012 |
| **Developer** | Moon Active | Playtika | Playtika | Sciplay |
| **Publisher** | Moon Active | Playtika | Playtika | Sciplay |
| **Total Downloads** | >200 Million | >50 Million | >50 Million | 30 Million |
| **Revenue (2022)** | $769 Million | $255 Million | $212 Million | $206 Million |
| **Engine** | - | Monosyne Engine | Monosyne Engine | SciPlay Engine |
| **Gameplay Nature** | The gist of the game is to win coins to upgrade items for building villages. In order to build their villages or attack others' villages, users need coins that are obtained by spinning slots. | In the game, players select a city and compete in a bingo match with other players in the city's bingo room. The game uses powerups that grant prizes to the player to aid their win. | Slotomania simulates a slot machine and as players earn experience points by playing and winning they unlock new machines, each with their own visual unique themes. | Jackpot Party Casino is home to over 200 recreations of Vegas slots. The game also frequently introduces special events with specific in-game tasks/objectives that yield higher rewards for players. |
| **GTM Strategy** | Coin master asked players to send free spins to their friends to get in-game rewards. Players also got rewards for following the game's social media handles.<br><br>The game also partnered with major celebrities like the Kardashians to launch influencer campaigns. | Playtika collaborated with Luis Fonsi and Nicole Scherzinger on a viral promotional song for the game, gaining significant traction on reels.<br><br>Additionally, they partnered with international star Drew Barrymore to target European markets. | Considering that GenX were their primary market, Playtika worked with yesteryear celebrities like John Goodman to appeal to them. The ad had 12 million views.<br><br>In their ads they also sought to highlight the numerous different slots and themes the game provided. | Sciplay worked with Sofia Vergara to launch a campaigns that asked to players to play to win a chance to attain a trip to Hollywood.<br><br>Sciplay also highlight the different events they host on the game to both retain existing new players and bring new ones. |
| **Monetisation Strategy** | The IAP strategy for Coin Master is hinged on two elements; coins that are used to upgrade items, and spins that are used to attain more coins. | Players need credits and coins to play Bingo sessions and use power-ups. These can be bought with real cash along with power-ups and boosters. | Within the game, coins are necessary to continue playing the game, while gems offer boosts. Players can also opt for a subscription to enjoy boosters for a period. | Jackpot Party primarily tilts towards the in-game currency to drive IAPs. Players can purchase it using real cash to be able to bet. They can also buy additional spins. |



Source: AppMagic, The Business of Apps

# 5.4C HOW DO WE SEE THE CASINO GAMES' LANDSCAPE EVOLVE?

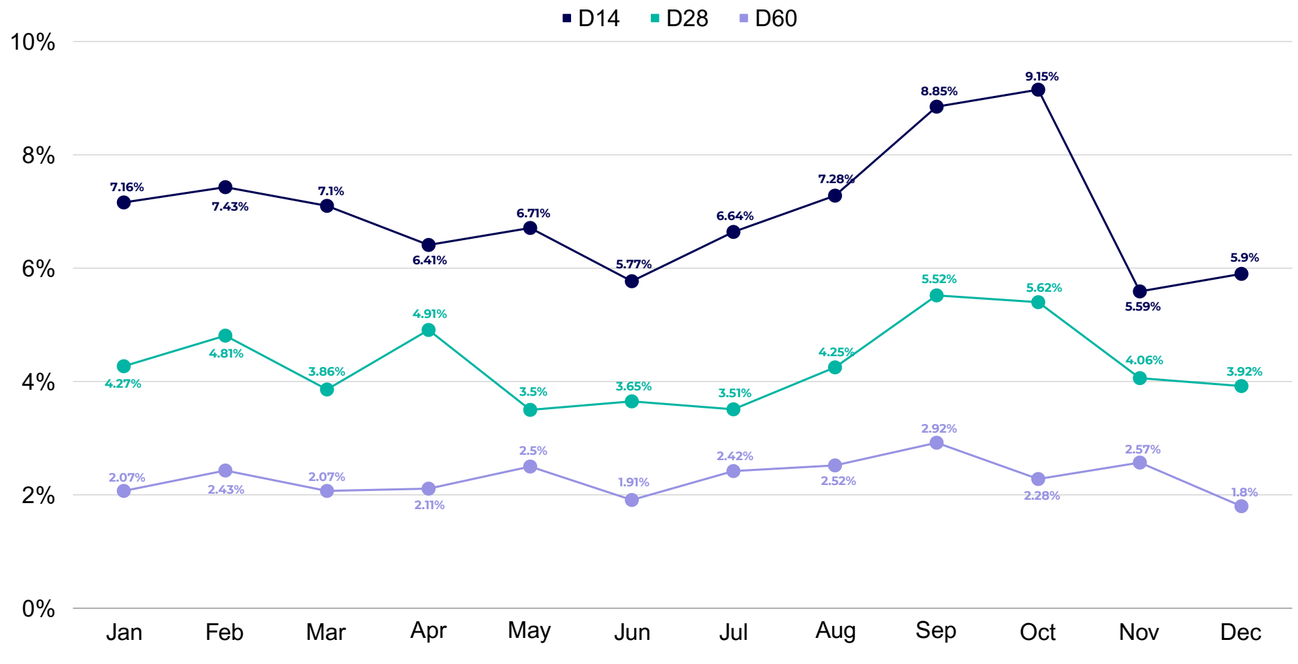
While the casino genre hasn't undergone a major revolution in a while, we do foresee a couple of trends emerging within the genre. These are mostly driven by new game types or the usage of casinos with more mid-core genres like 4X strategy to create sticky experiences. **However, there are regulatory challenges in India concerning real-money-gaming and casino gaming.**

## The Biggest Trends in the Casino Genre

| | Definition | Validation | Players' Perspective | Killer Game |
|---|---|---|---|---|
| **Hybrid-Casino Games** | To innovate in the genre, developers are adopting a hybrid-genre approach. Coin Master, for example, combined slots with a strategy-RPG approach. | Coin Masters is by far the highest grossing game in the genre. It generated $769 million in revenue in 2022. | While the casino market can become saturated, innovating using other genres adds a new dimension to the gameplay experience for the players. Players can add casino elements with non-RMG for Indian markets. | Coin Master |
| **Teen Patti Games** | Teen Patti is a simplified variant of three-card Poker. It is usually played by 3 to 6 players and uses a 52-card pack without jokers. | While there hasn't been an upheaval within casino, Teen Patti has seen consistent growth in recent years. Teen Patti Octro Poker & Rummy generated 6 million in India in 2022. | A major reason for the genre's popularity within India is its close connection with Indian social conventions. It is also easier to grasp for players. | Teen Patti |
| **Social Games** | Newer casino games feature more heavy usage of social features like chatboxes and even audio-based communication between different players. This is used to create a more lively environment. | Zynga's Poker revolutionised online casino gaming by integrating social features, allowing players to freely access casino lobbies, join tables with friends, and exchange gifts. Generating $88.5 million in revenue in 2022, it has inspired newer casino games to enhance these aspects. | More social features increase player retention as they find new friends to play with and progress through leaderboards that track their progress. It also encourages referrals as players bring in their friends into the platform. | Zynga Poker |

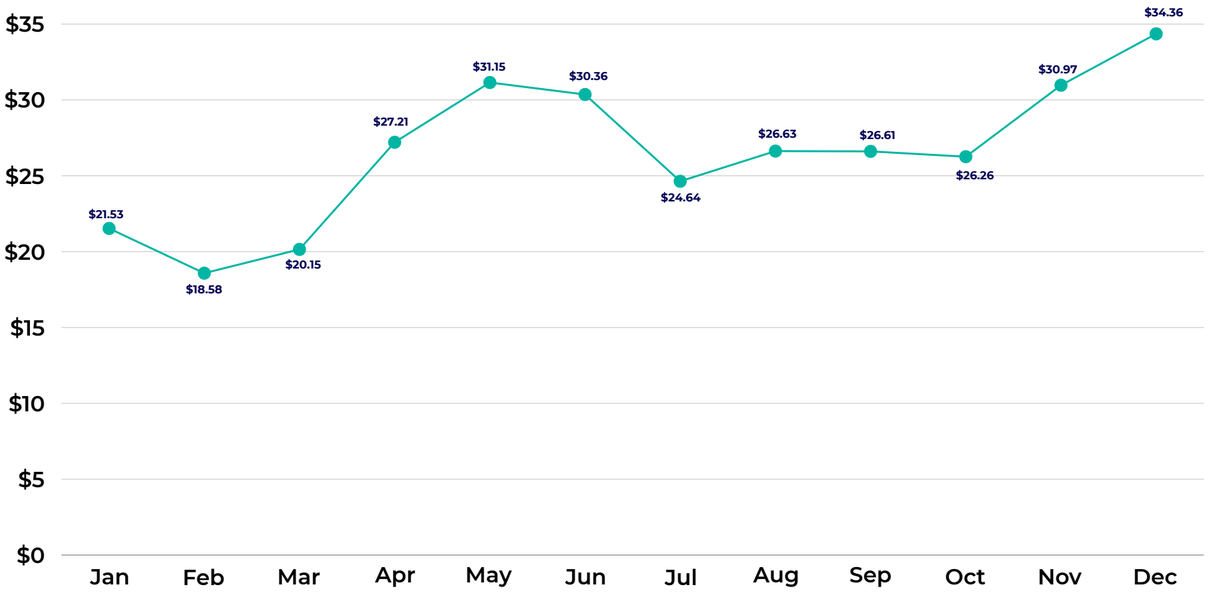
Source: AppMagic, The Business of Apps, Naavik

# 5.4D CASINO GAMES' RETENTION BENCHMARKS FOR INDIA

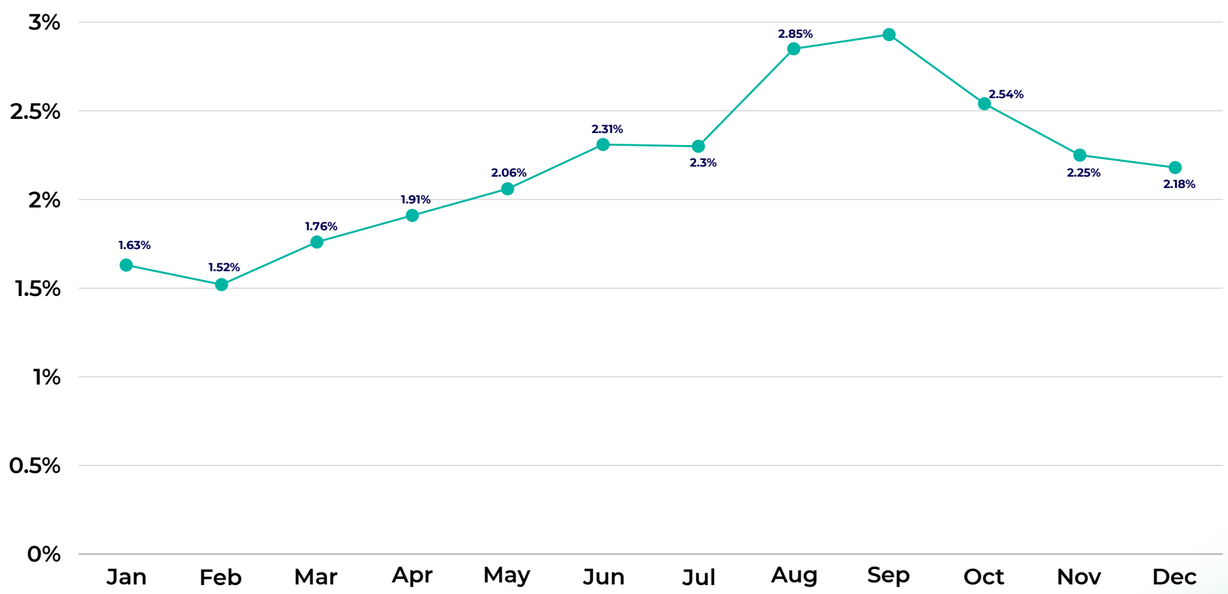



- While not as high as match games, casino games tend to have higher retention that even mid-core games.
- Due to their nature, casino games have amongst the higher ARPPU figures in India.
- The degree of conversion in casino games is also particularly impressive.

# 5.4E CASINO GAMES' MONETISATION BENCHMARKS FOR INDIA




ARPPU (Average Revenue Per Paying User)




Conversion Rate (% of DAU that made a purchase)

Source: Data.ai

# 5.5A RPG GAMES' OVERVIEW

RPG or Role-Playing-Games is a genre of video game where the gamer controls a fictional character (or characters) and roleplays as them while undertaking quests in an imaginary world.

## Evolution of the RPG Genre

**1981** — **Ultima** was one of the first definitive commercial RPGs released on computers. It created a gameplay template for the ages.

**1986** — **The Legend of Zelda** was released and became the spiritual forerunner of the modern role-playing video game genre. It's elaborate setting and gameplay gave birth to an iconic franchise.

**1986** — **Enix's Dragon Quest** introduced turn-based combat mechanics which still endure in a lot of RPGs, particularly those in Japan.

**1987** — **Dungeon Master** become one of the first to use 3D game design. It's first-person perspective was also quite revolutionary for the genre.

**1987** — **Final Fantasy** was launched by Square and became a cult classic. It's extensive class system in particular was much praised.

**1997** — Blizzard released **Diablo** which became one of the forerunners of the action-RPG genre. It's the gameplay, world design, graphical fidelity, loot system that was specifically lauded.

**1997** — **Ultima Online** was amongst the first RPGs to embrace multiplayer mechanics. it's known for its extensive player-versus-player combat system

**1999** — **System Shock** game perfectly fused RPG, FPS, and survival horror to create a hybrid game. It is considered one of the most tense and absorbing titles ever created.

**2007** — **Mass Effect** blended RPG and other game styles. A key feature of the game was allowing players to influence the story with their actions.

**2023** — The launch of AutoGPT explored **Autonomous Agents**, paving the way for interactive NPCs and environments, especially in RPG games.

## Popularity of the RPG Genre (For Mobile)

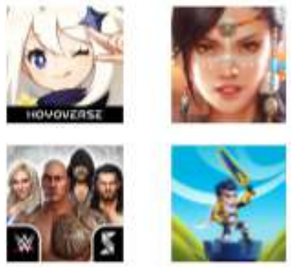
### Global Traction

**#1st** Highest Customer Spend in 2022

**#11th** Most Downloaded Genre

**$25.5 B in (IAP) spends**
YoY IAP Spend -8.3%
YoY Downloads +3.9%
31% of All IAP spend
3% of All Downloads

### Indian Traction



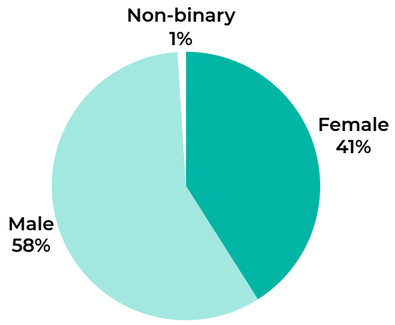
**$14.8 M in (IAP) spends**
YoY IAP Spend +1.0%
YoY Downloads +11.4%
8% of All IAP spend
1% of All Downloads

**#5th** Highest Customer Spend in 2022

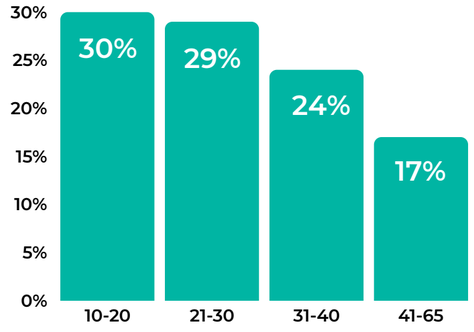
**#14th** Most Downloaded Genre

Due to their intensive nature, RPG games receive a high chunk of IAP spend, despite lower downloads.

## User Personas it serves Globally




Gender Split




Age Demographics

**1.43**
RPG game/player
(Rank by avg. titles; per player, per month)

**18.8**
hours per month
(Rank by avg. monthly playtime)

Time Spent

Source: Data.ai, Newzoo

# 5.5B RPG GAMES' CASE STUDIES

| | Genshin Impact | Lineage W | Pokemon Go | Raid: Shadow Legends |
|---|---|---|---|---|
| **Year of Release** | 2020 | 2021 | 2016 | 2018 |
| **Developer** | miHoYo | NCSoft | Niantic | Plarium Games |
| **Publisher** | HoYoverse | NCSoft | Niantic | Plarium Games |
| **Total Downloads** | 127 Million | >2 Million | 600 Million | >50 Million |
| **Revenue (2022)** | $1.2 Billion | $460 Million | $640 Million | $229 Million |
| **Engine** | Unity | Unreal Engine 4 | Unity | Unity |
| **Gameplay Nature** | Gensin Impact is an open-world, action RPG that allows the player to control four interchangeable characters. | A massively multiplayer online RPG that brings all its players into a common medieval fantasy setting. | Used augmented reality to turn players into 'trainers'. Players interacted with the real world to catch pokemon and battle others. | A turn-based RPG that uses fantasy themes for its world building. It also uses the gatcha system for rewarding players. |
| **GTM Strategy** | The game benefited in Asian countries from the similarity of its art style to that of the Legend of Zelda series.<br><br>The developers also adopted an omnichannel approach by conducting several offline events to bring fans together. | The fact that it had multiple people on a single server was a major selling point for players across the world<br><br>Lineage also incentivised pre-registration from loyal players of the franchise through lucrative rewards and incentives. | The use of augmented reality in the game allowed real-life interactions that generated buzz marketing.<br><br>Pokemon Go also benefitted from the original IP's immense popularity. | Plarium used popular influencers like David Dobrik and Logan Paul for promoting the game.<br><br>The game also used advertisements across the Play Store, Facebook and Youtube, and other mobile games. |
| **Monetisation Strategy** | Genshin uses the Gatcha model, having players try their luck for rewards. It is very similar to lootboxes. These can be bought using in-game currency and a battle pass. | Players are able to buy different weapons, gear, potions, and in-game currency within the game. These items are essential for the in-game progress. | The game uses 'PokéCoins' to allow players to buy premium items and upgrades. The game also sells its own merchandise through its official store. | The game uses two items for monetisation; shards that are used for summoning new characters, and hard currency which can be converted into as well as energy, arena tokens, XP boosts, etc. |

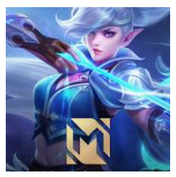


Source: AppMagic, The Business of Apps

# 5.5C HOW DO WE SEE THE RPG GAMES' LANDSCAPE EVOLVE?

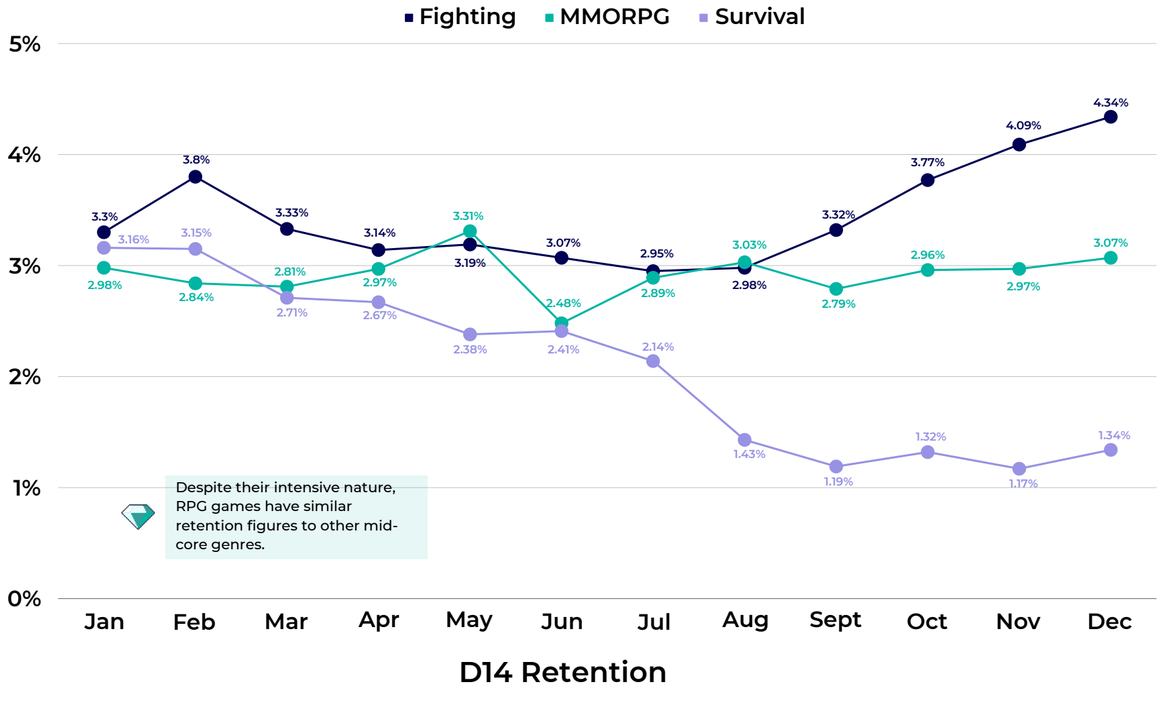
RPG has always been a multifaceted genre with numerous exciting subgenres. This explains why RPGs draw more core players who covet intensive experiences. To meet their demands, we see certain key subgenres rise in popularity recently that are looking fascinating. In India as well, we see local-content driven games like **Mayanagri, Mumbai Gullies**, etc. evolve.

## The Biggest Trends in the RPG Genre

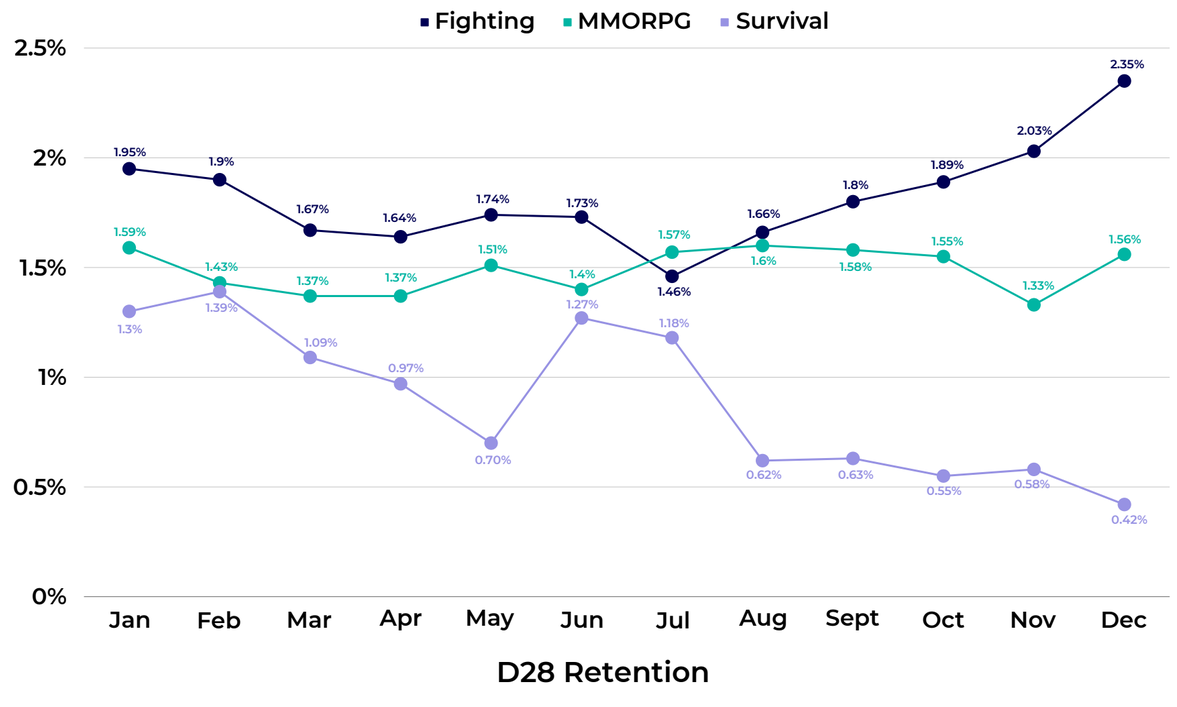
| | Definition | Validation | Players' Perspective | Killer Game |
|---|---|---|---|---|
| **Collectible RPGs** | Collective RPG allows players to collect new playable characters as they progress within the game. These games usually involve turn-based combat mechanics. | Raid: Shadow Legends from Plarium Games, one of the biggest games in the subgenre, earned $229 million in revenue in 2022. | Collectible RPGs encourage player retention by giving them an in-game incentive to keep playing. The turn-based mechanics also appeal to classic RPG gamers. | Raid: Shadow Legends |
| **MOBA RPGs** | These are multiplayer online battle arena games where players select the character they want to play as, and then combat each other in a shared multiplayer game-world. | MOBA game Honor of Kings was the highest grossing mobile RPG of 2022 with $1.6 billion earned. Mobile Legends: Bang Bang, one of the precursors of the genre, has over 500 million lifetime downloads. | MOBA tend to have very dynamic gameplay as a multitude of players share a single map. Further, the usual team-based nature of the combat adds a strategic angle to the gameplay. |  Mobile Legends: Bang Bang |
| **XR-Based RPGs** | Games are starting to use extended reality (AR+VR) to really immerse the players in the game's setting. It also encourages players to interact with other players in the real-world. This is further promoted by rapidly bettering technology like Vision Pro, and Quest 3. | Pokemon Go was the defining game for the AR-RPG subgenre and generated $645 million in revenue in 2022. It has been able to amass over $4 billion in lifetime revenue. | XR-RPGs succeed in intertwining the in-game world and the real world which adds immensely to the game's immersion. This is why they are often able to develop a more ardent player-base. | Pokemon Go |

Source: AppMagic, The Business of Apps, Naavik

# 5.5D RPG GAMES' RETENTION BENCHMARKS FOR INDIA

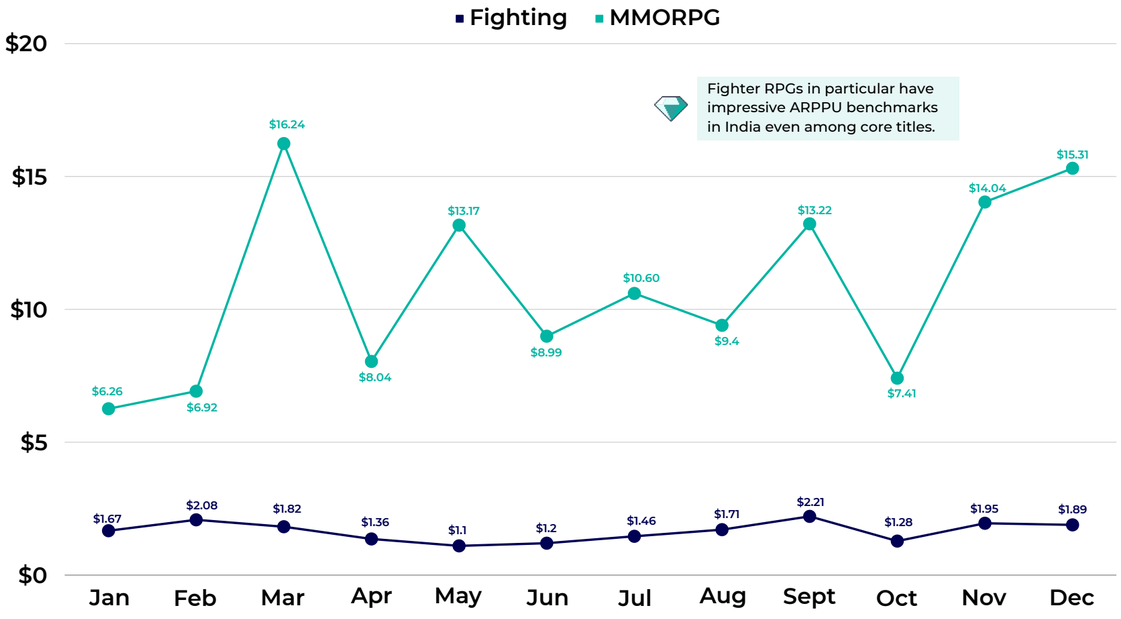



D14 Retention

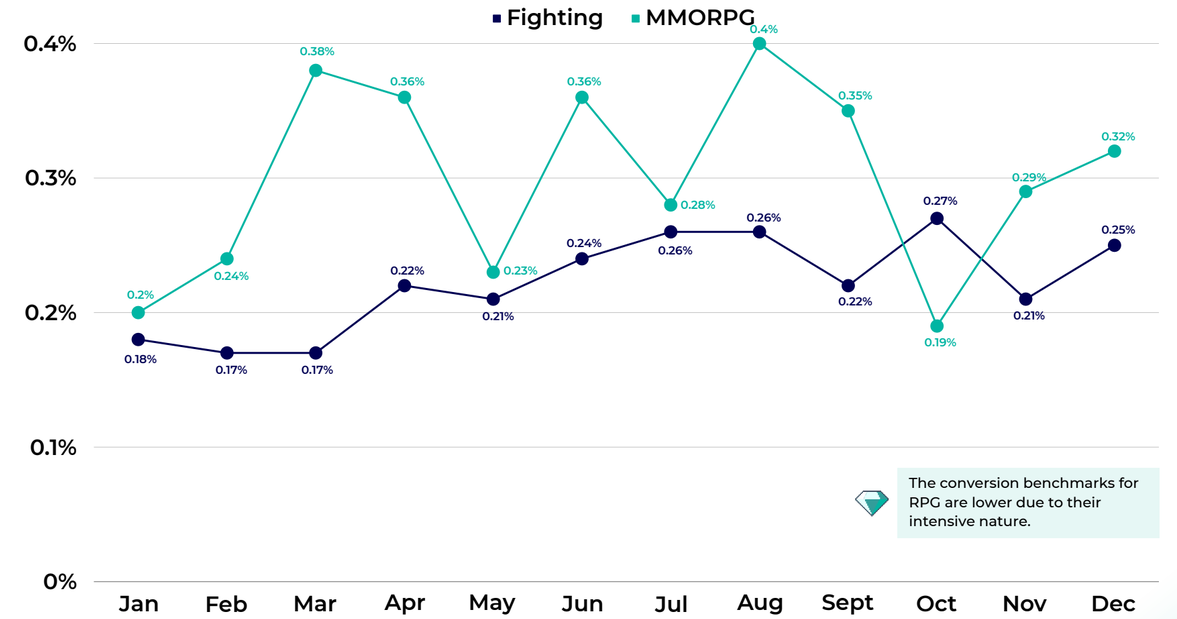



D28 Retention

# 5.5E RPG GAMES' MONETIZATION BENCHMARKS FOR INDIA




ARPPU (Average Revenue Per Paying User)




Conversion Rate (% of DAU that made a purchase)



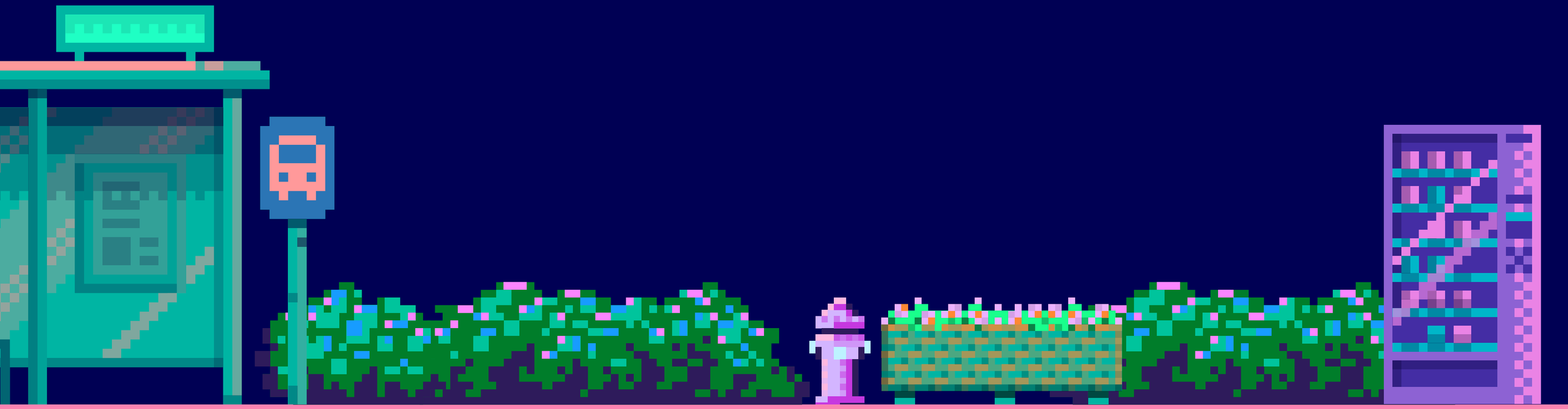
Source: Data.ai

Eximius Ventures

# LEVEL 6

## GLOBAL CASE STUDIES ON KEY TRENDS

Creating a game presents unique challenges, but sustaining the intellectual property value and user interest demands continual innovation in content, characters, and game mechanics. Successful studios adeptly leverage this approach to prolong the lifespan of their IPs.



# 6.1 HOW TO SAVE A FRANCHISE

Clash of Clans

Clash of Clans is a 2012 free-to-play mobile strategy game developed and published by Finnish game developer Supercell. The players can build their village, train their army, and fight against other players in wars. Players can also join or create a clan with other players and cooperate with them in various events.

---

## Developer Profile

**Description:** Supercell is a Finnish mobile game development company. The company has fully released five mobile games: Hay Day, Clash of Clans, Boom Beach, Clash Royale, and Brawl Stars, which are freemium fast-paced multiplayer games and have helped the company generate $1.87 billion in revenue in 2022.

**Current Standing:** Over the past 2 years, Supercell has generated over $4 billion in revenue. While the company needs to find another 'hit', Supercell has been able to create a loyal fanbase through its current portfolio of games.

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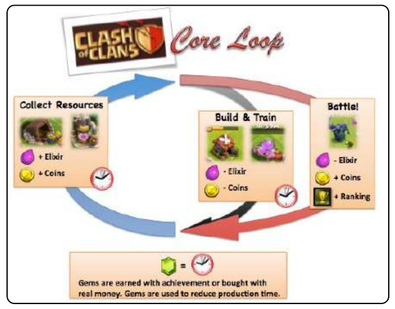
## Clash of Clans - Gameplay

### Core Loop




A flowchart for the core loop

A base facing an attack

- The core premise behind Clash of Clans is to take control of a village and upgrade buildings, troops, and other structures constantly to optimise resource gathering and attack.
- To achieve the above, the player must maximise resource gathering in the form of Gems, Diamonds, and Elixirs.
- Players can pillage other players' villages to gather their resources.

### Meta Loop

- The game is set in a fantasy-themed animated persistent world where the player is the chief of a village.
- To assist the chief, there is a vibrant cast of troops with differing characteristics and backstories to make the game-world more vibrant.
- As the player progresses, they unlock new characters to be deployed in their army.
- Players can also upgrade characters to unlock new capabilities.

Source: The Business of Apps, Statista

# 6.1 HOW TO SAVE A FRANCHISE

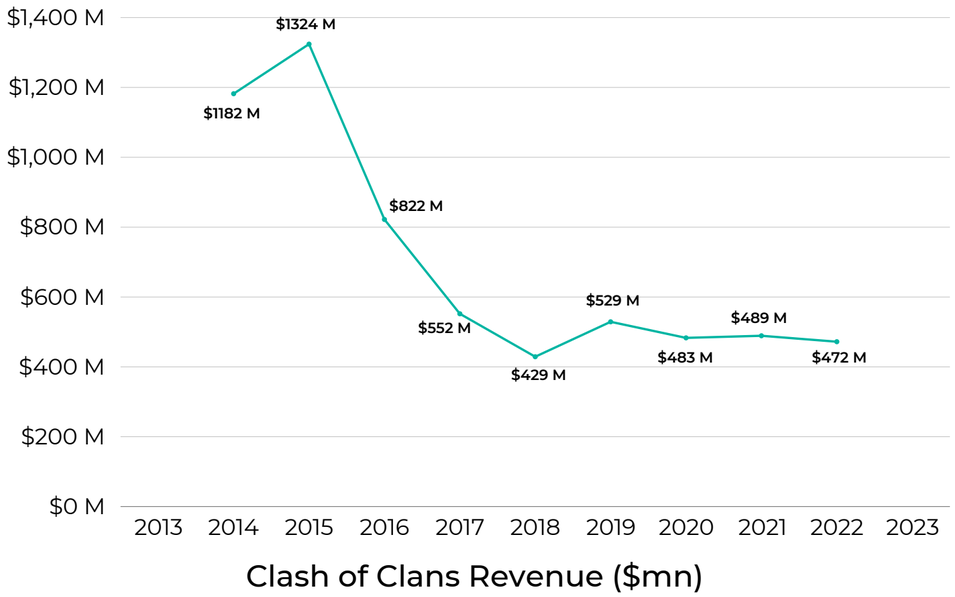
## Clash of Clans - Milestones

>$10 billion in revenue generated across its lifetime

500 million downloads on Play Store and App Store

5th fastest game to reach 4 billion in revenue

## What Went Wrong?




**1**

Player saturation due to low innovation in content resulted in declining revenue with the game peaking in 2014.

**2**

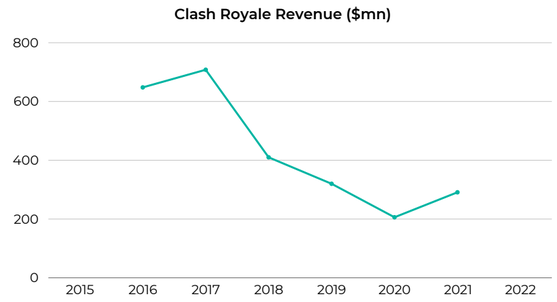
This led to declining MAUs as well with the company struggling to retain existing power users for Clash of Clans.

**3**

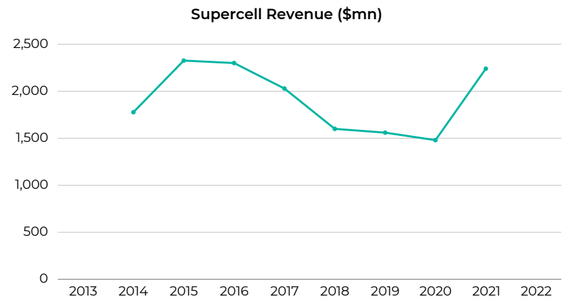
To resolve this issue, it became important for Supercell to innovate on it IP and generate new experiences to entice fans.

## Course Correction

To reinvigorate their portfolio, Supercell launched Clash Royale in 2016 - a PVP tower defense game with familiar mechanics and characters to Clash of Clans.




While the game did go on to have a fall-off of its own, it was immensely commercially successful in 2016 and 2017. It was able to capture a lot of players who were churned out of COC.




Clash Royale's launch was able to steady the ship significantly after the decline from 2017.

Therefore, after Clash of Clans peaked, Supercell leveraged the IP while innovating on the gameplay to create a new moonshot success.

Source: The Business of Apps,

# 6.2 HOW TO KILL A FRANCHISE

Angry Birds

Angry Birds is an iconic casual game developed by Finnish video game developer Rovio Entertainment in 2009. Inspired primarily by a sketch of stylized wingless birds, the game was first released for iOS and Maemo devices starting in December 2009. The game helped launch a trans-media series that attained immense popularity.

## Developer Profile

**Description:** Rovio Entertainment is a global, games-first entertainment company that creates, develops and publishes mobile games which have been downloaded over 4.5 billion times so far. Rovio is best known for the Angry Birds brand, which started as a popular mobile game in 2009 and has since evolved from games to various entertainment and consumer products in brand licensing.

**Current Standing:** Rovio was acquired by Sega for an all-cash deal worth $775 million in April of 2023. While the early years post the launch of Angry Birds led to an IPO worth $1 billion in 2017, many subsequent releases were received dismally, leading to a sharp decline. Sega will look to make better use of Rovio's IPs to rejuvenate its fortunes.

## Angry Birds - Gameplay

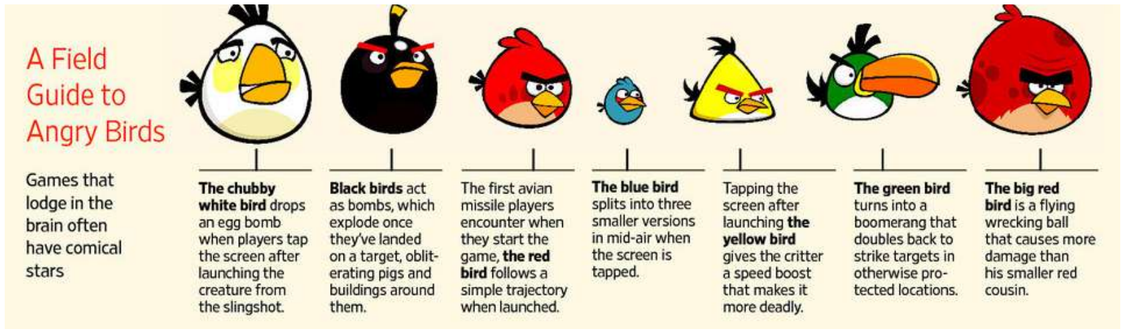
### Core Loop

Using the slingshot

Structures and pigs to be toppled

- The player uses the slingshot to set the trajectory of the birds, and the force with which they are to be released.
- The objective of the above is to find a trajectory and a degree of force that can topple the structures created by the pigs, and kill them.
- As the player progresses, the levels become much more intricate with multiple differing structures present in the same map.

### Meta Loop




- In the game, the bird faction seeks to protect their eggs from green-colored pigs who seek to acquire them.
- Alongside this, the player also gets an opportunity to choose from a slew of different birds with differing players.
- Acquiring these birds indicates progression as well since some birds level-locked.

Source: The Business of Apps, Statista

# 6.2 HOW TO KILL A FRANCHISE

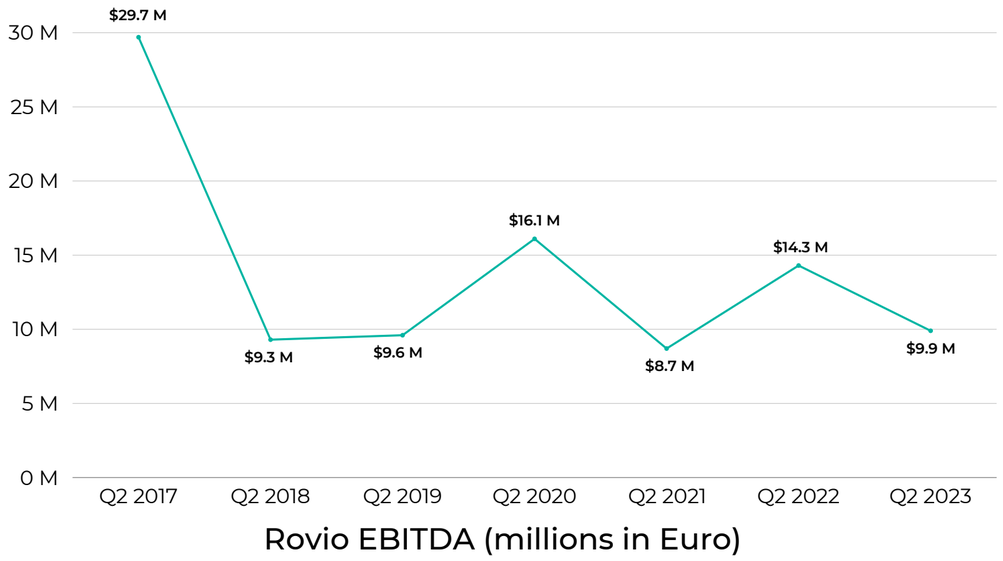
## Milestones

The first game to hit 1 billion downloads

Generated >$500 Mn in revenue in first 5 years

Launched a franchise with >5 billion downloads

## What Went Wrong?



Rovio EBITDA (millions in Euro)

While the initial game was incredibly successful and launched a trans-media franchise, Rovio failed to innovate on its offerings, despite multiple spin-offs, and became overly reliant on Angry Birds 1 and its sequel.

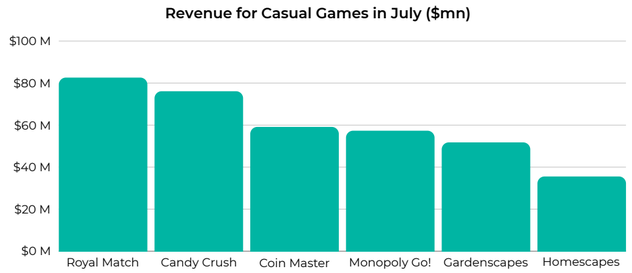
The revenue plummeted from $100 million in 2017 to ~$40 million in 2023.

## Course Correction

| App | Category | Installs | Recent Installs | Average Rating | Rating count | Launch date |
|---|---|---|---|---|---|---|
| Angry Birds Journey | Puzzle | 10,000,000+ | PREMIUM | 4.53 | 212.0K | 2021-01-13 |
| Angry Birds Match 3 | Puzzle | 10,000,000+ | PREMIUM | 4.57 | 306.0K | 2017-04-12 |
| AB Evolution 2023 | Role Playing | 10,000,000+ | PREMIUM | 4.33 | 448.0K | 2016-10-03 |
| Angry Birds Blast | Casual | 10,000,000+ | PREMIUM | 4.46 | 266.0K | 2016-09-23 |
| Battle Bay | Action | 10,000,000+ | PREMIUM | 4.14 | 361.0K | 2016-03-12 |

Rovio did attempt to launch quite a few new games to leverage their IP. While they were objectively successful, none of the them captured the public's fantasy and became massively popular.

Then, they tried to leverage the IP in multiple entertainment mediums like movies, but due to the volume of games, people's association with Angry Birds got very diluted.




Rovio's competition also evolved considerably. As user preferences changed, new games emerged that catered to new players better.

Therefore, to create sustainable IPs, it is important to keep innovating on the content and gameplay. At times, developers also look to redefine IPs to grant them longevity.

Source: The Business of Apps,, Statista, Appbrain

# 6.3 HOW TO LEVERAGE UGC SUCCESSFULLY

Roblox

Roblox is an online game platform and game creation system developed by Roblox Corporation that allows users to program games and play games created by other users. The platform is known for its wide variety of games, which range from simple minigames to complex RPGs and simulations that can cater to gamers of all personas. The company's platform is used by over 200 million active users every month, and it hosts over 50 million games created by its community of developers.

## Developer Profile

**Description:** Roblox Corporation is an American game developer based in San Mateo, California. Founded in 2004, the company attained success primarily due to its platform - Roblox which became a hub for multi-gaming experiences and UGC. The company employs 2,100 people across the globe.

**Current Standing:** The company made a revenue of $2.2 billion in 2022, while the platform averaged a DAU of 56 million. The company has a market cap of $16 billion.

## Roblox - Business Model

### Core Loop

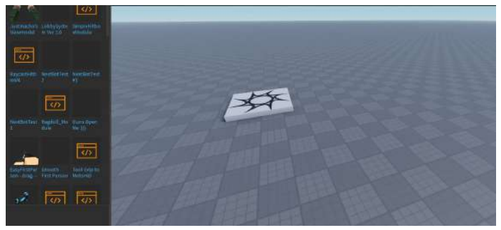
A high quotient of games

Visual indicating the general gameplay

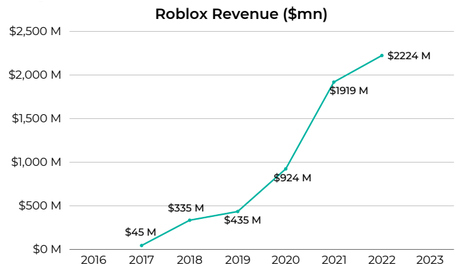
- Roblox is centered on providing the player with access to a vast multitude of distinct 3D ‘games’ in a single platform.
- These games are user-generated and differ greatly in their meta
- Most games follow an RPG route where the player creates their character to insert into the game.
- Most games also have a social angle that allows players to speak with other players and form new bonds

This model has led to the rise of a unique creator economy that has in turn made the platform more diverse in games and content.

### Meta Loop



The Roblox Studio to build game worlds




The Roblox Studio to allow UGC

- Roblox has an easy-to-use studio tool that can be used by players to design their games across multiple genres.
- It also has a UGC program that only selects the best builders whose creations are featured in the studio.
- Roblox paid >$500 million to creators in 2021.
- Roblox’s increased focus on UGC has led to higher revenue.

The game's multiplayer feature attracted players who used its user-friendly engine for creating and socialising. To innovate further, adding tools for diverse game genres and utilising AI would be valuable. User-generated content (UGC) can significantly increase the game's longevity.

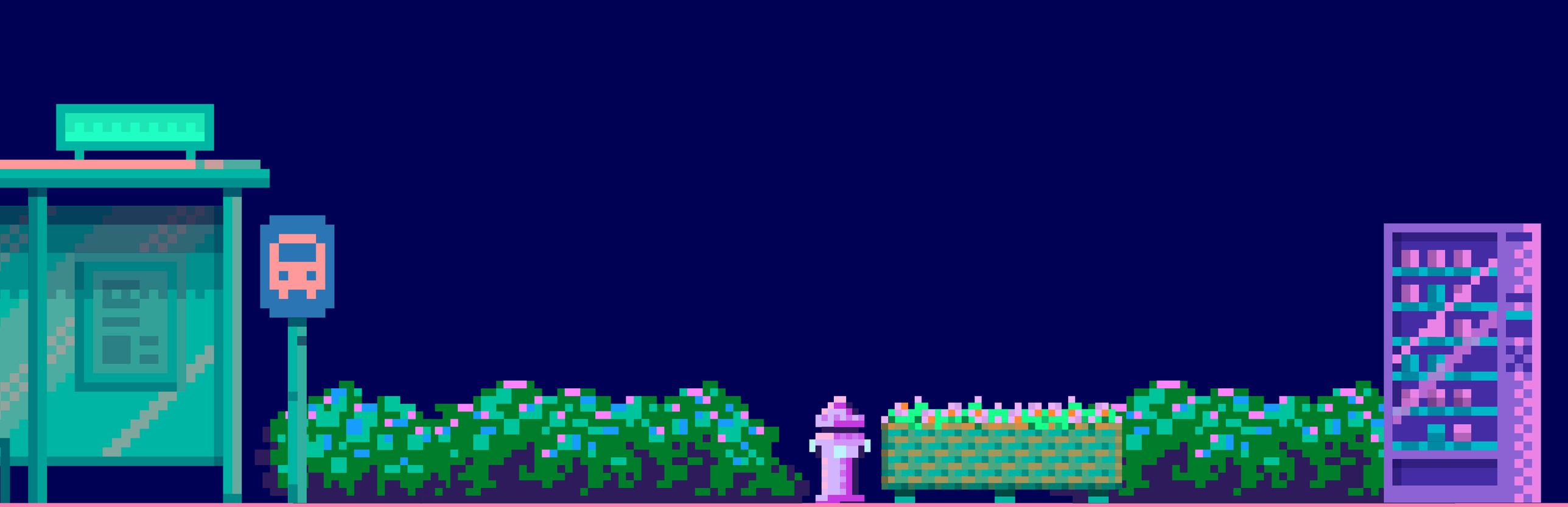
Source: The Business of Apps, Statista

Eximius Ventures

# LEVEL 7

## WHITESPACES IN GAMING

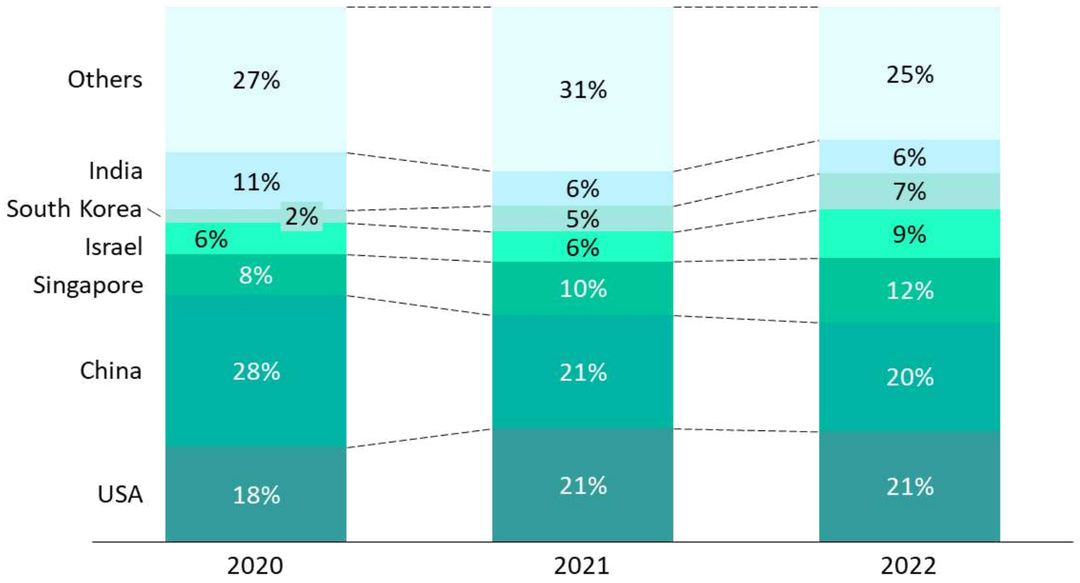
After an in-depth study of gaming genre trends worldwide, Eximius believes that certain areas hold immense potential for newer emerging companies from India.



# 7.1 WHITESPACE #1 - PUBLISHER ECOSYSTEM

A video game publisher is a company that publishes video games that have been developed either internally or externally. They usually have extensive monetary resources or knowhow in distributing the game. Despite our robust developer ecosystem, a dearth of publishers has severely hindered game discoverability in India.

## Problem Statement Validation




**Distribution of Indian Customers Spend for Publishers**

1) Within India, publishers from the USA derived the most customer spend in 2022 with a 21% share.

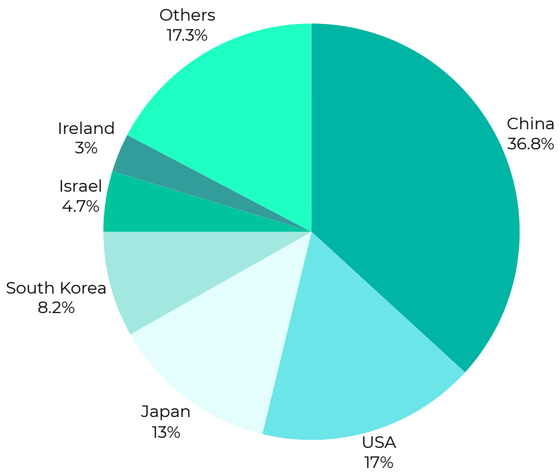
2) Indian publishers have seen a reduction in customer spending in 3 years with a 45% decline.

3) While 2020 had China completely dominating the market, it has seen a 28.6% decrease in three years.

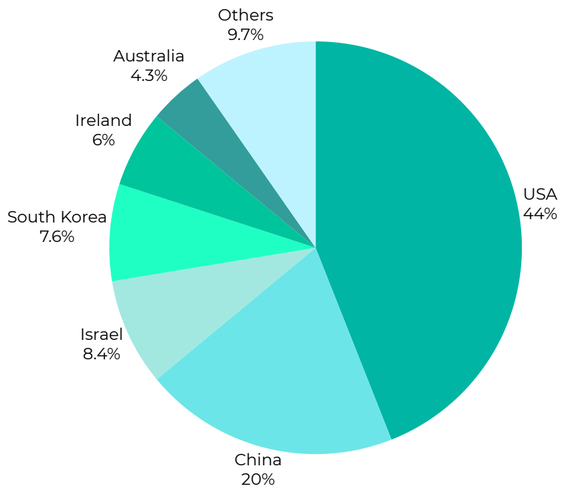
4) Publishers from Singapore saw the highest % increase with a 50% increase.

5) Israeli publishers also grew at a good rate with nearly 50% increase themselves.

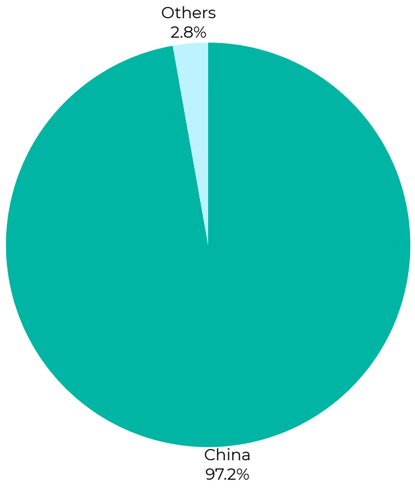
6) India has an appetite for newer local publishers to take this space.




**Distribution of Global Customers Spend for Publishers**




**Distribution of American Customers Spend for Publishers**




**Distribution of Chinese Customers Spend for Publishers**

As any developer ecosystem bolsters, a greater presence of domestic publishers is expected to occur. This is also indicated by the above case studies of the USA and China where the largest share of the customers' spend is of domestic publishers. Further, India is not even among the 6 largest publisher markets globally, it only commands 6% of local customers.

Source: Data.ai

# 7.1 WHITESPACE #1 - PUBLISHER ECOSYSTEM

While the publisher market is indeed quite lucrative globally, it is heavily skewed towards casual, hypercasual, and puzzle games. As the gamers mature, they will look for more engaging experiences and more rewarding games.

## Biggest Global Publishers

| Game | Nationality | Genre of Focus | Milestone |
|---|---|---|---|
| Voodoo | France | Hypercasual | >6 Billion Downloads |
| SayGames | Cyprus | Casual | >4 Billion Downloads |
| goodjob games | Istanbul | Casual | >4 Billion Downloads |
| Lion Studios | USA | Puzzle, Hypercasual | >2 Billion Downloads |
| Rollic | Istanbul | Casual | >2 Billion Downloads |

As this list indicates, the publisher market has had quite a few large outcomes, with Rollic being a more recent one. Moreover, it also denotes that the largest segment of the market is skewed towards casual and hyper-casual primarily. This shows a clear whitespace in the favour of mid-core and hardcore games. Currently, most mid-core and hard-core publishers have published self-developed games.

There is potential for Indian publishers with genre-specific and geo-specific knowledge to rise.

## Biggest Indian Precedents

| | MPL | JioGames |
|---|---|---|
| **About** | Mobile Premier League (MPL) is India's largest eSports and mobile gaming platform that offers 60+ games for free download in categories such as fantasy sports, card games, arcade games, puzzle games, action games, and more. | JioGames contains one of the largest collection of mobile games across genres like Action, Adventure, Arcade, Board, Cards, Casual, Puzzle, Racing, Strategy, and Sports. It offers 250+ games on a single platform. |
| **Milestones** | 100 million users on the platform. Operating revenue of $65.6 million in FY22 | >14 million downloads of the platform. Crossed 5 million downloads in a year. |

However, they are generic platforms not focussing on any sector in particular and have focused previously on monetisation via real money gaming.



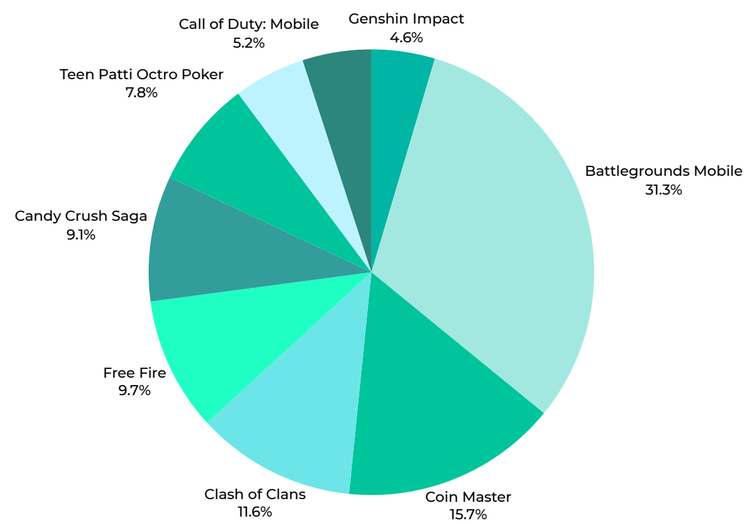
Source: Data.ai, MPL, Jio Games

# 7.2 WHITESPACE #2 - DOMESTIC STUDIOS

While India is a well-served market in terms of the volume of content available for gamers, most of them feel alien to the Indian sociocultural landscape. A great benefit of the Indian gamer boom has been foreign developers setting up studios in India. We expect veterans from these esteemed studios to start studios of there own and build gaming experiences that solve for relatability.

## Whitespace Validation

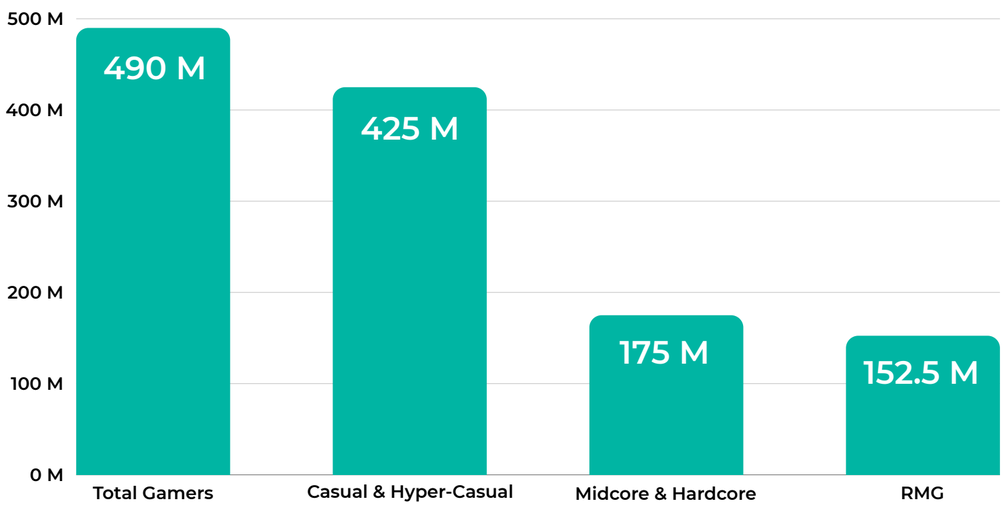
| Game | Developer | Genre | Revenue in India (2022) |
|---|---|---|---|
| Free Fire | Garena | TPS | $90.4 Million |
| Battlegrounds | Quantum Studio | TPS | $24 Million |
| Coin Master | Moon Active | Casino | $12 Million |
| Clash of Clans | Supercell | Strategy | $8.9 Million |
| Candy Crush | King | Match-3 | $7 Million |
| Teen Patti | Octro | Casino | $6 Million |




**Revenue Share Among the 6 Biggest Games in India**

The table shows the top 6 revenue-grossing games in India. Only one, Teen Patti, is developed by an Indian studio, generating 6.64% of Free Fire's revenue. This highlights the potential for Indian studios to adopt global best practices and create successful games for the Indian market.

## Evolving Gamer Tendencies




**Indian Gamer Landscape FY23 (Millions)**

1) The largest market in India continues to be casual and hyper-casual. These players aren't demanding in content.

2) Midcore and hardcore gamers now command ~46% of the market which denotes evolving content needs.

3) Midcore and hardcore games receive 50% higher ARPPUs than casual and hyper-casual.

Source: Redseer, Business of Apps

# 7.2 WHITESPACE #2 - DOMESTIC STUDIOS

With India now successfully exporting its culture and content across different mediums, gaming is the next frontier to be unlocked. Further, with several large precedents of globally acclaimed Indian titles now existing, Indian studios are on the path for further glory globally.

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## Indian Cultural Exports

| Game | Developer | Gross |
|---|---|---|
| Dangal | 23 December 2016 | $238 Million Overseas Gross |
| Secret Superstar | 19 October 2017 | $140 Million Overseas Gross |
| Bajrangi Bhaijaan | 17 July 2015 | $80.4 Million Overseas Gross |
| Baahubali 2 | 28 April 2017 | $59.3 Million Overseas Gross, Saturn Award for Best International Film |
| RRR | 25 March 2022 | $44 Million Overseas Gross, Oscar for Best Original Song |

Therefore, there is also scope for cultural export for games to garner a broader audience.

However, despite critical acclaim, monetisation remains a challenge both globally and domestically.

This should encourage domestic developers to create RMG-like dopamine effects for newer users.

As denoted above, Indian movies and IPs in general are enjoying a buoyant period. This is very important because the entertainment industry's acceptance for Indian themes and concepts opens the doors for developers to not just build for India, but also take their games global.

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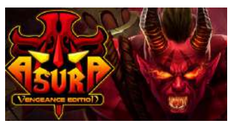
## Biggest Indian Precedents

**Raji - An Ancient Epic**



**Asura**

**Rainswept**

| | | | |
|---|---|---|---|
| **Developer** | Nodding Heads Studios | Ogre Head Studios | Frostwood Interactive |
| **Genre** | Action-adventure, Traversal | Roguelike, Adventure | Detective, Interactive Fiction |
| **Milestones** | Best Debut Game nominee at The Game Awards, Indie Game of the Year nominee at SXSW 2021 | The International Game Award @ Bit Summit 2017, Game Of The Year Award at NGDC 2017 | Featured in Strasbourg Indie Games Festival, Official Selection for Dreamhack Beyond |



Source: Steam, Box Office Trade Analysts

# 7.3 WHITESPACE #3 - INFRASTRUCTURE

The above two points highlighted the gap that exists in terms of game development and deployment. However, with constantly bettering technology, developing quality games has become more demanding in terms of resources needed. It has also widened the gap between large studios and smaller developers. We expect generative AI to be a great leveller in this regard.

## AAA Game development cost

| Game | Genre | Publisher/s | Release Date | Budget (Adjusted for Inflation*) |
|---|---|---|---|---|
| **Cyberpunk 2077** | Action role-playing | CD Projekt | 2020 | $313/313 million |
| **Final Fantasy XV** | First-person shooter | Microsoft Studios | 2012 | $100/115 million |
| **AC Unity** | Action role-playing | Square Enix | 2016 | $275/294 million |
| **Clash of Clans** | Action-adventure | Ubisoft | 2014 | $137/148 million |
| **Horizon** | Action role-playing | Sony Interactive Entertainment | 2017 | $47/50 million |

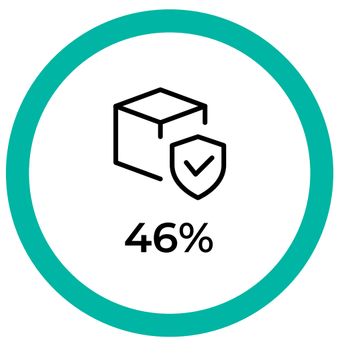
1) AAA game budgets are expected to be >$200 million for games released in the next couple years.

2) In 2014, the budgets for such games were around the $40 million threshold.

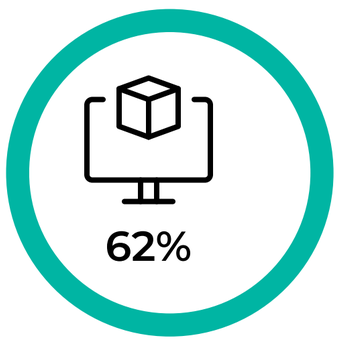
3) Marketing budgets for large games are often as high as 80% of the development budget.

With themes like photorealism and ray-tracing becoming commonplace, development costs have been incredibly high. Aside for the cost of using cutting-edge equipment, manpower is also a huge part.

## Indie Studios' Process




The prototyping phase for 46% of indies lasts less than a month.




62% of indies complete game development within a year, from start to ship date.

1. To remain competitive, indie studios around the world are looking to accelerate their development times by availing the best technology available, while still maintaining the quality of a large studio.
2. To keep teams' lean costs under control, and TAT faster, we need tools that accelerate game development and enable more seamless development of UGC and live operations.
3. AI can be an immense boost in this to maintain quality and offer better deployment tools.



Source: Unity, Kotaku

# 7.3 WHITESPACE #3 - INFRASTRUCTURE

UGC is also emerging as a key trend in the gaming space. To constantly engage their players and offer rewarding experiences, major developers are introducing UGC mechanics in their games. With the rise of UGC and AI, we expect new tools that can expedite game development, facilitate UGC, and make game lifecycle management more seamless.

## UGC Opportunity

| Game | Developer | Genre | Milestones | UGC Opportunity |
|---|---|---|---|---|
| **Fortnite** | Epic Games | TPS | >400 Million Gamers | Allows the players to build custom maps |
| **Roblox** | Roblox | Multi | Revenue of $2.2 billion in 2022 | Players can design their own games across multiple genres |
| **Fall Guys** | Mediatonic | Platformer | Generated $185 Million in 1st Month | Players can use to design their own levels. |
| **Ready Player Me** | Ready Player Me | Metaverse, Open World | Raised $56 Million | Player and developers create 3D characters for different games. |

1) Epic will share 40% of Fortnite's revenue with UGC creators building for the game. Roblox shares 30%.

2) Epic has also released a custom engine to make developing UGC easier. Roblox also has similar.

3) We have also seen more casual games, puzzle games, in particular, opting for UGC to engage players.

To keep engaging existing users, large games are integrating UGC to not only encourage them to keep playing, but also invite new players to the maps/worlds/levels that they create. This creates virality effect.

## Biggest Whitespaces for Tools

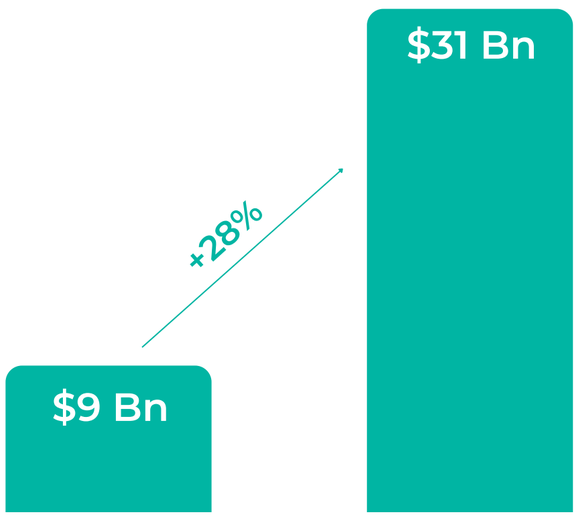
| | World-Creation | AI Behaviour Mapping | Live Operations | Creator Tools | User Acquisition |
|---|---|---|---|---|---|
| **Opportunity** | AI speeds up game world creation, reducing the need for large teams and time-intensive processes. | Generative AI simplifies NPC AI design, creating autonomous agents that react dynamically to player actions. | AI tools streamline content generation for freemium games, enhancing the importance of live operations in the market. | The rise of hardcore gaming has led to over 68% spending over an hour on game streaming platforms, fueling a new economy. | Post IDFA, developers struggle to identify target audiences. AI automates this, streamlining user acquisition. |
| **Upcoming Solutions** | Maya is the industry standard for 3D modeling, Blender is popular among smaller studios, and Unity and Unreal are common for environment design. However, with new-age AI tools like Unity's Muse AI is speeding up game world creation, enabling procedural generation in gaming. | Unity, Unreal, and Godot offer powerful AI design tools. Muse by Unity enhances this process with generative AI, making it seamless. We need more AI solutions to support this behavior. | Studios currently plan and create content in-house, requiring extensive developer input. AI can expedite content planning and deployment, streamlining the process. | Platforms like Twitch, Loco, and Rooter have connected streamers with their audience. We anticipate new monetisation solutions catering to the growing tipping economy in this sector. | We expect to see more solutions like UA Hero emerging to both enable a more precise user-persona identification and a greater degree of automation across the process. |

Source: Expert Interviews, Redseer

# 7.4 WHITESPACE #4 - GAMIFICATION

Gamification entails embedding traditional elements of game design within existing non-gaming platforms to enhance the experience. This allows such platforms to for massive improvement in terms of user retention and user engagement.

## Gamification Market




**Global Gamification Market Size**

1) The global gamification market is projected to grow at a CAGR of 27.4% between 2020-2025.

2) 70% of businesses belonging to the Global 2000 have already adopted gamification in their operations.

3) Gamification in retail has fuelled a 700% boost for businesses in customer acquisitions.

4) Integrating gamification induces a 48% increase in engagement amongst users.

5) Creating gamified loyalty programs provides a 22% increase in customer retention.

6) Companies who use gamification in their sales processes experience a 25.3% increase in sales conversion.

## Biggest Companies

| | Gamezop | Appcues | Zynga |
|---|---|---|---|
| **Nature** | Gamezop is a plug-and-play gaming platform that any app or website can integrate to bring casual gaming for its users. | Appcues is a user onboarding software solution used to educate new users, create product tours, or guide users to adopt new features. | Zynga builds games meant to captivate large audiences. They have built several large social gaming platforms for varied audiences. |
| **Use Case in Gamification** | Gamezop has 100s of HTML5 games that are easily integratable into products. Integration can be done easily in 30 minutes. | Appcues provides a no-code solution to analyse product usage, and publish in-app onboarding tours, announcements, and surveys, in minutes. | Due to its gaming expertise, particularly casual and social gaming, Zynga has consulted several large companies in building their gaming spaces. |
| **Stature** | >5,000 platforms from >70 countries have partnered with Gamezop. >45 million users engage with Gamezop every month. | Raised $48 million in funding. Working with companies like Amplitude, MongoDB, and SquareSpace. | Acquired by Take Two for $12.7 billion. $2.1 billion in revenue in FY23. |

Source: Markets and Markets

# 7.4 WHITESPACE #4 - GAMIFICATION

With gamification garnering more focus amongst consumer facing brands, there is precedence in terms of large corporations like Amazon, Flipkart, and Starbucks using it to bolster their operations. With such case studies already existing, new-age companies are also beginning to develop similar solutions. This is where companies can jump in to help them create such platforms.

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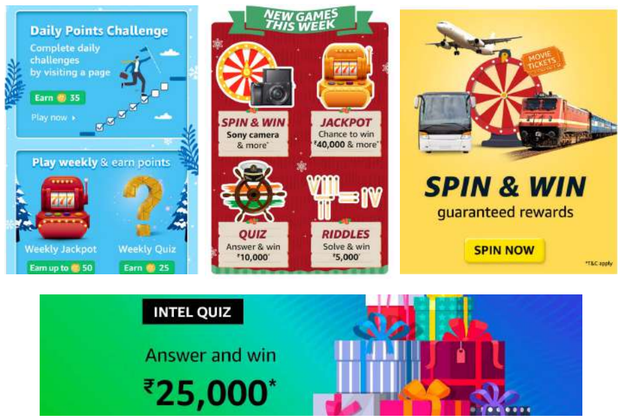
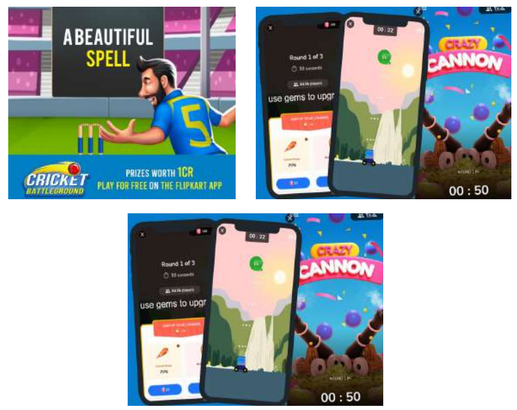
## Biggest Case Studies

| | amazon | Flipkart | TM |
|---|---|---|---|
| |  |  | |
| **Use Case in Gamification** | • Amazon's Funzone features several mini games either rooted in the casual genre or the puzzle genre to entice people with rewards.<br>• Amazon also partners with companies to launch games/puzzles centred on them to promote their products<br>• The platform also features an activity log that rewards the player for repeated engagement.<br>• Funzone gives Amazon an avenue for cross-selling and up-selling. | • Flipkart kicked off their games platform with Cricket Battleground (a T20 cricket simulator) and Crazy Cannon in 2020 which led to 10 million minutes played on a single day.<br>• Following their success, Flipkart launched a gaming division designed to build a space on their platform dedicated to gaming.<br>• These games have gems that convert into SuperCoins, which they can spend on Flipkart for purchasing products. | • The rewards program started in 2009 with a visit-based business model to reward customers for buying Starbucks products.<br>• The program involves an intensive progressive tier system which provides users with stars that can be used to make purchases.<br>• Starbucks uses a comprehensive app companion that provides customers with visibility on which tier of reward they are at and the rewards available to them. |
| **Stature** | In the three years, since it doubled down on Funzone, Amazon's revenue in India grew by over INR 14,000 crores. | Over the 2 years since the launch of Flipkart Games, the company has added nearly INR 5,000 crores in revenue. | After a decade since launch, the platform had 16 million active members with an 11% growth of their user base. |

Source: Flipkart, Amazon, Starbucks

# CONCLUSION

The global gaming industry today stands at an inflexion point. Decades of technological developments, distribution improvements, and business model innovations have made gaming an industry worth $184 billion with several large incumbents across every layer of the gaming lifecycle. With the dawn of new technologies like AI, cloud gaming, 5G, and XR, the industry seems slated to unlock exponential growth.

This growth prospect along with the recent wave of mergers and acquisitions by large players has made the industry more viable for investors with over $32 billion deployed over the last three years. However, while countries like the USA, China, and Japan are already home to a matured ecosystem, investors globally are turning towards emerging markets like India which can rival more established markets in the future.

Powered by over 500 million gamers with a vibrant user persona, India as a market is expected to reach 60 billion in downloads and $1.5 billion in customer spending by 2025. The rapidly improving enabling infrastructure has made gaming more accessible for the Indian player base and made the industry more lucrative. As recent years have seen more regulatory clarity emerging, investments in India have exceeded $2.5 billion in the last three years. This belief has been vindicated by large Indian case studies like Nazara, PlaySimple, and Moonfrog.

A key reason for India's growth as a gaming nation has been the movement towards mid-core genres amongst the player base. While RMG has been the dominant market in India, we expect its growth to slow down due to regulatory concerns, greater taxation with 28% levied on net deposits, and evolving gamer persona in India. It must be noted, though, that RMG has been the budding ground for the largest outcomes from a returns perspective. It has also introduced a new audience to the joy of gaming and made the transition as seamless as possible. These audience are already showing signs of also migrating to other forms of gaming. More specifically, 4 of the 5 highest customer-spending generating genres in India are either core or hard-core and contributed over $107 million in customer spending in 2022.

As the industry thrives, several gaps exist in the publisher ecosystem, including domestic studios, AI-powered infrastructure, and gamification tools, which have the potential to yield significant results. However, monetisation remains a challenge for major studios in India, hindering industry growth. To unlock greater prosperity, enhanced monetisation strategies are crucial, along with expanding beyond the Indian market.

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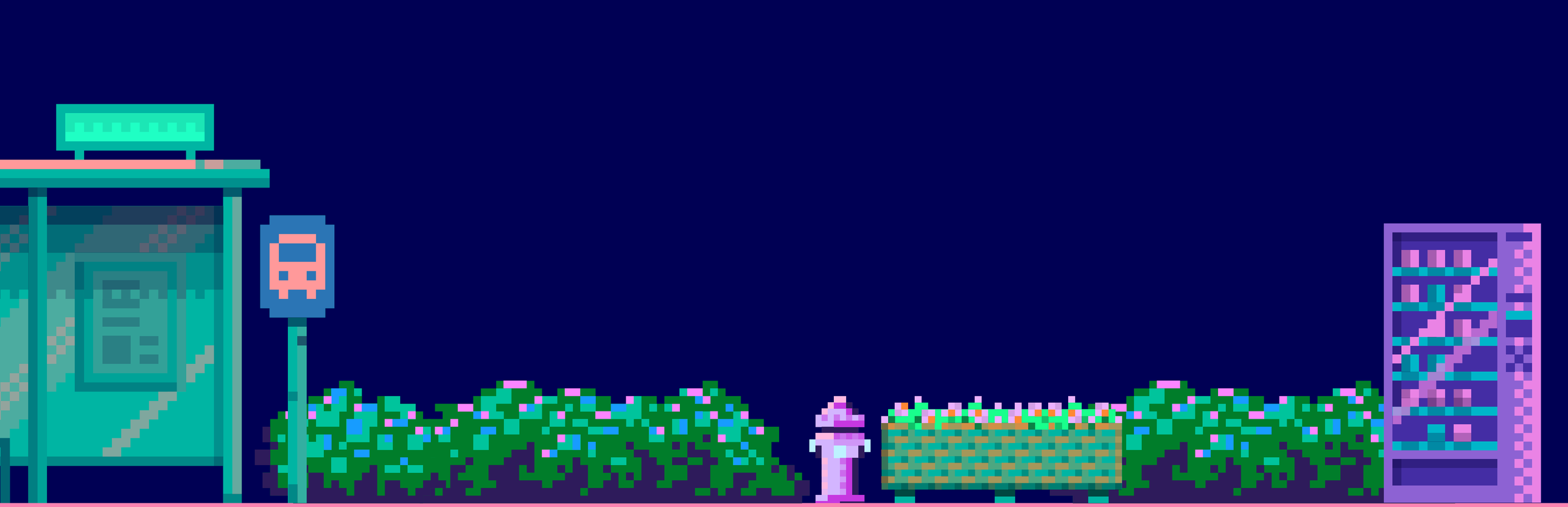
We are eager to connect with founders aiming to generate non-linear outcomes in this space. If you are one, please reach out to us at pitches@eximiusvc.com.

Eximius Ventures

# ANNEXURE

## HOW DO STUDIOS OPERATE?



# BEST PRACTICES OF A STUDIO - PRE PRODUCTION

Within pre-production, developers aim to complete the conceptualisation part of the game. Here, the nature of the game along with its core loops, mechanics, and monetization levers are decided by the development team. A team is also set in place to execute this vision.

## Ideation Process

| Whitespace Analysis → | User Persona Analysis → | Prototyping → | Market Test |
|---|---|---|---|
| The ideation process starts with whitespace analysis. To facilitate this, any developer looks at three things; the capabilities of their existent team, genres/subgenres with large outcomes, and opportunities to innovate on them to create new experiences. | Once a space/theme to innovate on is identified, developers work to identify the specific user persona that they are looking to build for. This is usually in terms of geography, gender, age, and player type. | Once a concept has been derived, team begin work on micro-sized games based on the concept to test them. These prototypes are tested by the team at large and feedback is provided. If it received enough acclaim, the project is greenlit. | Often, even before the vertical slice is ready, a playable version is soft-launched to test for users' reception. This can not only validate the game's design and concept, but also indicate its marketability very early in the development lifecycle. |

## Team Creation Templates

**Lean Team**

- 3-10 Full-time in Design, Tech and Art
- Art often outsourced

Building less intensive casual experiences

**Average Team**

- 10-50 Full-time
- Tech is the most important vertical
- Art often outsourced

Building more intensive midcore experiences or large scale casual ones

**Large Team**

- >50 across in Design, Tech
- Art is the smallest department
- Competent PMs and Producers focused on game design.

Building highly intensive hardcore experiences

1) With the onset of generative AI tools, art development in particular has become more democratised.

2) While India does have competent personnel, game directors and game producers are a noted whitespace.

3) Lack of mentorship for up-and-coming developers and studios is a clear whitespace in India.

4) We need more academies and upskilling platforms to meet the above needs.

Source: Expert Interviews

# BEST PRACTICES OF A STUDIO - PUBLISHING

Publishing revolves around bringing the game to the market. It is not just about ensuring distribution, but also ensuring that the game's prospects for discoverability are optimised. While may studios partner with publishers to achieve this, some prefer to self-publish their titles.

## Marketing Mechanisms

| Community Building | Early Gameplay Release | Omnichannel Launch | Event-Based In-Game Marketing | Multi-Media Tie-Ins |
|---|---|---|---|---|
| Quite a few developers, particularly indie ones, often look to develop communities around their game very early. This allows them to solicit early feedback.<br><br>*Eg: Larian Studios for Baldur's Gate 3.* | To build hype for the game, developers partner with influencers to launch early gameplay snippets. This makes people invested in the game's development.<br><br>*Eg: Hypernova for Mayanagri* | To prepare for a launch, developers often conduct hype-generating events both physically and virtually. The former especially generates great WOM.<br><br>*Eg: Supercell for their games.* | Even after a game's release, content is poured in. Developers often launch special in-game events that reflect real-life ones. This helps greatly in user engagement.<br><br>*Eg: Candy Crush's Christmas events.* | To boost a popular IP's reach or re-engage users with new content, big developers often create additional media like comics or movies, either in-house or through partnerships.<br><br>*Eg: CD Projekt Red made an anime series to promote Cyberpunk 2077.* |

## Publishing Considerations

| IP Control | | User Acquisition | | Publisher Know-How | | Revenue Share | |
|---|---|---|---|---|---|---|---|
| **PUBLISHER** | **SELF PUBLISHER** | **PUBLISHER** | **SELF PUBLISHER** | **PUBLISHER** | **SELF PUBLISHER** | **PUBLISHER** | **SELF PUBLISHER** |
| Often agreements with publishers involve them taking control of IPs. | Studios often prefer to keep complete control of IPs. This prevents them from taking publishing deals. | Often the biggest help of publishers is in facilitating the game's GTM and discoverability. | User acquisition is the biggest thorn for indie studios. To compensate, studios' self-publishing needs to have extensive GTM plans. | Developers often look to work with publishers who have a good degree of know-how and success so they can assist in the game's development. | When self-publishing, a studio can only rely on the competence and know-how that they possess internally. | In exchange for their services, publishers generally take a cut out of the total earnings of the game. This is usually in the 20%-40% realm. | A major benefit of self-publishing is that the studio retains the profit share they would have ceded. This enhances their bottom line. |

While self-publishing helps retain IP and profits, it requires deep pockets and expertise. Self-publishing studios must work on building strong marketing mechanisms and marketing levers.

## Monetisation Levers

| User Persona Analysis | Level Design Optimised for Dopamine | Retention-Centric Monetisation | Focus On Power Users |
|---|---|---|---|
| Deciding on monetisation levers begins with analysing the user persona that the game is looking to serve. Clarity on gender, geography, age group, and engagement type is the first step towards creating monetization levers. | A major feature of RMG games is their ability to provide dopamine to players at high frequency. To enhance their monetisability, the best games follow the same policy while designing their in-game levels. | Monetisation items are designed to focus on the session types of users. The idea is to design monetisation levers that can keep playing base and D28 base high rather than exclusively aggressive monetisation. | While designing their monetisation frameworks, studios should develop content that resonates with their paying audience primarily instead of conversion. This allows them to optimise the audience with an intent to pay. |



Source: Expert Interviews

# BEST PRACTICES OF A STUDIO - LIVE OPERATIONS

With freemium games taking over, live operations are becoming more and more important for games to retain users and enhance the game's longevity. Therefore, developers are paying more attention to create elaborate plans for developing post-release content.

## Key Metrics

### SESSION COUNT

This metric indicates the number of times a player has played daily.

**Benchmark**
**Casual**: 4-5.6 times
**Midcore/Hardcore**: 4.5-7 times

### SESSION LENGTH

This metric indicates the length of time a player spends on the game.

**Benchmark**
**Casual**: 6-9 mins
**Midcore/Hardcore**: 9-11.5 mins

### D28 RETENTION

The retention curve is flat and lasting audience is derived at D90.

**Benchmark**
**Casual**: 1.9-2.2
**Midcore/Hardcore**: 1.5-8.4%

### D90 RETENTION

The retention curve is flat and lasting audience is derived at D90.

**Benchmark**
**Casual**: 0.5-1.7
**Midcore/Hardcore**: 0.3-4.3%

### CONVERSION%

Indicates the % of DAU converted into a paying audience.

**Benchmark**
**Casual**: 0.8-0.96%
**Midcore/Hardcore**: 1-1.95%

### ARPPU

ARPPU stands for the average revenue per paying user.

**Benchmark**
**Casual**: $5.8-$11.0
**Midcore/Hardcore**: $11.5-$20.7

## Best Practices For New Content

### Plan During Production

To streamline the process, developers often begin working on downloadable content and live operations during production. After launch, the standard practice is to plan 5-6 months.

### Optimise for Paying Audience

While working on post-launch content, many developers look to overemphasise on the conversion. However, it is more important to optimise the revenue from the already paying audience.

### Frequent Patches

While focussing on additional content is important, releasing patches frequently is also important to balance the existent content in the game. This is specifically true for eSports games due to their competitive nature.

### New Game Modes

While games pull in players on the basis of their core loops, new-age games, mid-core in particular, are instead looking to offer multiple different game modes and loops in the same game. Through this, one game can still pull in different player types.

### Cross-IP Content

In addition to event-based live operations, developers, particularly larger ones, often add content about other IPs. This results in an amalgamation of audience bases.

### Allowing for UGC Economy

A new mechanism for this is building a structure that allows for user-generated content. This creates the scope for diverse levels and content that can suit diverse players. Further, this creates a self-sustaining cycle for producing content.



Source: Expert Interviews, Data.ai

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