
TRENDS AND IMPACTS OF GAMING IN MODERN SOCIETY

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ABSTRACT

Games have always been a part of humans, throughout evolution. All these years only the methods and medium of games have changed and not more. Earlier the games were just a mode of entertainments for people, but now it has become a huge stage for gaining audience and making revenue. In this modern world, the contribution of E-sports community in a country's growth is considered essential. By analyzing the impact of gaming in our modern society and its trends till date, we will get a clear picture of the industry. The Indian gaming industry alone is expected to generate \$3.9 billion per year by 2025. By taking right steps in its course, this industry can be made an essential part of the growth of a nation.

Keywords— E-sports, gaming industry, revenue, analysing

1. Introduction

The gaming industry is arguably one of the fastest growing and innovative sectors in tech today. Its importance to culture, social networking, and entertainment cannot be understated. Technological advancements in hardware and software are significantly propelling the industry's growth. Factors like high-speed internet connections and the increasing adoption of smart-phone have also increased demand in the gaming market. The Gaming Market was valued at USD 198.40 billion in 2021, and it is expected to reach a value of USD 339.95 billion by 2027, registering a CAGR of 8.94% over 2022-2027.

Globally, mobile gaming has surpassed both console and PC gaming in terms of popularity. The accessibility of smartphones is one of the primary factors in the success of mobile gaming. Future of the game business is being shaped by new technologies like augmented reality (AR), virtual reality (VR), and 3D graphics.

2. History of video games

Dr. Edward Uhler Condon presented the first known instance of a game machine at the New York World's Fair in 1940. During the six months it was on display, over 50,000 people played the game, which was based on the ancient mathematical game of Nim, with the computer apparently winning more than 90% of the games. However, it took Ralph Baer and his colleagues until 1967 to introduce their "Brown Box" prototype as the first game console intended for widespread commercial home usage. The "Brown Box" could be set up to play ping pong, checkers, and four different sports games, among other games. A lightgun for a target shooting game and a unique attachment for a golf putting game were added accessories using cutting-edge technology for the time.

1970s: The popularity of home and arcade gaming increased. The Minnesota Educational Computing Consortium's computer game The Oregon Trail, the Atari Video Computer System, and the arcade game Space Invaders were among the decade's top sellers (made by Taito).

1980s: The arcade game Pac-Man (Namco) launched the video game industry in the 1980s, and Nintendo's Donkey Kong soon after, introducing Jumpman, better known as Mario. With the introduction of the Nintendo Entertainment System (NES) in 1985, the role-playing game Legend of Zelda in 1987, and the portable Game Boy in 1989, Nintendo dominated the remainder of the decade.

1990s: Millions of people were introduced to gaming when Microsoft released Solitaire with Windows 3.0. Before Sony introduced the PlayStation to the American market, Sonic the Hedgehog and the Sega Genesis gaming system ruled the early to mid-1990s. Mortal Kombat (Midway Games), which was released in this decade, raised attention to video game violence and prompted hearings in the U.S. Senate.

The Sims, a life simulation video game produced by Electronic Arts (EA), marked the start of the 2000s. Microsoft introduced the Xbox game console in 2001, and the Xbox 360 solidified the company's position as a key participant in the market. The 2004 release of the Nintendo DS by Nintendo helped the company maintain its supremacy in the portable sector. Later, the business unveiled the Nintendo Wii, which had motion sensors. The most played games included Rock Band and World of Warcraft. Mobile games FarmVille and Angry Birds also shook up the market.

2010s: The popularity of mobile gaming increased as smartphones became more widespread. The video game industry has changed as a result of titles like the independently developed game Minecraft and Pokémon Go, which established augmented reality (AR) in video games. In response, Nintendo released the Switch in 2017, enabling users to take their favourite games from their home TV displays with them wherever they went. With the best-selling PlayStation 4 game system of the decade, Sony outsold all other game console manufacturers. An online, cross-platform battle game called Fortnite made \$2.4 billion in 2018 [1].

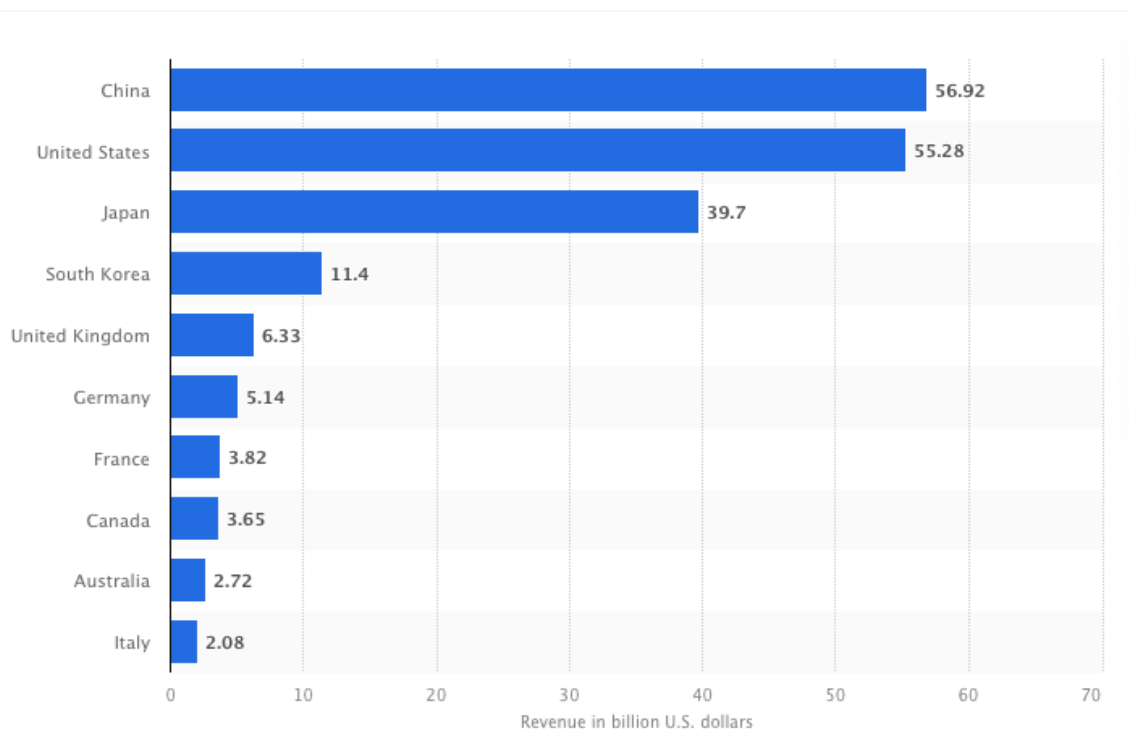
Companies that aren't often associated with gaming, including Meta, Apple, and Google, are entering into the gaming industry. The tech sector is exploring methods to make streaming video games as natural as streaming music from Spotify or a movie from Netflix.

3. Impact of Gaming

In this section, we examine the effects of the gaming industry on several industries and discuss potential solutions to promote growth.

3.1 Tech industry

According to reports, the video game business will generate over \$90 billion in sales by 2020, up from \$78.61 billion in 2017. The market is anticipated to expand at a rate of 2.29 percent annually from 2020 to 2024, according to statistics on the video game industry's revenue by year [2].



Although there has been speculation about virtual reality for years, it is now likely that it will become a significant cornerstone of the game business. Gamers will spend USD 4.5 billion on immersive entertainment by 2020. In comparison to conventional alternatives, it is 20 times more pleasurable and practical [3]. Nearly half of all video game sales globally in 2021 came from mobile games, and this trend doesn't appear to be slowing down anytime soon. Globally, mobile penetration rates and smart-phone gaming usage are both continuing to soar [4]. Razer is well-known for its gaming accessories and peripherals. Reports indicate that the eSports company has shown keen interest in the growth of the Singapore gaming market. In a bid to bolster the gaming niche in the country, Razer is looking to underwrite gaming companies and eSport teams based in the country [2].

The use of start-ups, the emphasis on developing games for smart-phones and tablets, the use of their free sharing features, and the ability to earn investment through in-app purchases were some of the most crucial factors in the development of the gaming industry. These factors have had a remarkable short-term impact. Clash of Clans may be a successful example of this strategy. With the rise of educational facilities, training and attracting skilled game developers is also way to promote growth.

3.2 Entertainment industry

International investors, businesses, and media organisations are all keeping an eye on how competitive video games are becoming more and more prevalent in popular culture. Likewise, are the consumers. In fact, according on our projections, there will be 29.6 million monthly esports viewers in 2022, an 11.5 percent increase from 2021.

The industry has experienced a sharp increase in venture capitalist and, more recently, private equity firm involvement. According to Deloitte, the number of esports investments increased in 2018 from 34 to 68. The overall amount of money invested also reflects this: According to Deloitte, investments have increased to \$4.5 billion in 2018 from just \$490 million the year before, representing a startling YoY growth rate of 837 percent. In order for the ecosystem to operate and develop, these investments are transferred to participants across it, including esports organisations, tournament organisers, and digital broadcasters [5].

Esports teams have owners, franchises, sponsorship agreements, financial prizes from tournament victories, and more, just like regular professional sports teams, all of which contribute to their annual revenue and overall valuation. Esports leagues will likely restart their efforts to grow their fans once the plague has passed by holding live gameplay with local esports teams in a manner that more closely resembles traditional sports leagues.



The social aspect of live streaming and gameplay is a major reason why esports have reached such heights. Fans can interact directly with players and teams through video game-specific streaming services like Twitch and YouTube Gaming, while more widely used social networks have fostered these relationships.

4. New trends in Gaming industry

4.1 E-sports in Commonwealth Games

The Commonwealth esports championships, which will take place from July 28 to August 8 in Birmingham in connection with the Commonwealth Games 2022, are regarded as the CWG's test esports competition. The Commonwealth esports championships will have their own medals and branding even though they are not official CWG medal events. There will be an open category and a women's only division for each of the three titles, according to announcements made on Tuesday by the Global Esports Federation and the Commonwealth Games Federation (CGF)[6].

4.2 Cloud Gaming

The gaming industry has adopted the idea of Gaming as Services(GaaS) as a result of the popularity of Software-as-Service (SaaS) and Platform-as-Service (PaaS). The game business could undergo a transformation thanks to this model. Many video console manufacturers are anticipated to transition to this business model in the near future. A service like this would let users play online games on any PC or mobile device, independent of its setup. To put it another way, an end user would be able to play online games on a typical device without any performance drops. Furthermore, since all the games would be updated and available to play, such a system would fully do away with the need for software upgrades [7].

4.3 5G

The launch of 5G mobile services is a significant step that most likely will significantly speed up upload and download rates for mobile devices. Given that the bulk of online games require fast internet speeds to operate at their optimum, it is especially crucial. Additionally, more individuals will be able to broadcast and play games on their smartphones and tablets via 5G, which will increase the gaming industry in India.

4.4 Augmented & Virtual Reality (AR & VR)

AR & VR have an advantage when it comes to immersive game experiences. Both augmented reality and virtual reality have come a long way from their inception to become what they are now. The technology behind both AR and VR is probably going to advance by 2021 to provide a more lifelike visual experience. Without the requirement for a display monitor, video game firms might employ this technology to improve the whole gaming experience. According to the calculations, both of these technologies will generate close to \$20 billion in income by 2021.

CONCLUSION

The video game market is still developing. Revenue from the video gaming industry is enormous. One of the finest chances for the strong economy right now is the gaming sector. Government assistance is required for the entertainment sector to grow. If the government encourages start-up business expansion and the educational system can shift toward developing exceptional individuals for the game business. employment growth and economic prosperity are its initial successes. Supercell, for instance, pays the highest tax in Finland because it is a major game development company there [8].

Reports claim that domestic gaming companies only control 5% of the global gaming market [9]. Therefore, one of the steps that the nation must do to stop the spread of cultural offence through video games is to support domestic gaming studios by enticing game designers to create video games in accordance with their respective countries' cultures and customs.

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