



“The Growth in the Field of Gaming in India”

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PROJECT GUIDE

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I. INTRODUCTION

Due to factors such as rising income levels, shifting consumer game preferences, increased demand for mobile gaming, and growing individual escapism, the gaming industry in India has recently expanded at a healthy rate. The number of gamers in India has rapidly increased as a result of rising smartphone penetration, improved internet connectivity, and developing telecom infrastructure in the nation.

More gaming platforms, including mobile, console, and PC, are luring players to play a variety of game genres, including strategy, casual, action, sports, and more. In addition, more people are turning to mobile and online gaming because they use smart devices for longer periods of time. The country's gaming industry is also benefiting from the simple accessibility of free-to-play games via app stores and mobile carriers. India has emerged as a major outsourcing hub for tasks like game development and support services, among others, in the current environment.

Due to low costs and easy access to game developers with top-notch quality and experience, the nation is predicted to become the centre for the development, porting, and dubbing of various games across the globe in the upcoming years. India is also one of the biggest markets for businesses involved in the global gaming industry, with over 350 million young people living there.

A few of the most significant new trends in the nation's gaming sector are the growing use of augmented reality (AR) and virtual reality (VR) technologies, the adoption of platform as a service (PaaS) for simple game creation, the idea of soft

monetization, and freemium games, among others. To reach its full potential in the upcoming years, the industry must, however, overcome some significant obstacles like a funding gap and rising piracy.

As regards consumer spending and purchasing power, India is one of the largest economies in the world. The IMF projects India's GDP growth to be 7.6% in 2016 and 2017–18, which would make it the world's most fast growing economy. India's gaming industry is a significant contributor to GDP growth. Mobile, console and computer gaming is a part of this industry. A better demand and supply scenario gives rise to growth in the country's gaming sector. The increasing preference of Indian consumers for playing video games, the growing number of young people in India, rising per capita expenditure, etc. are major demand drivers. The main supply chain drivers for this sector are, on the other hand, the deployment of new technologies as well as the application of government policies related to the welfare of gaming industry and so forth. Various government initiatives boosting growth in the country's gaming industry include IPC, Indecent Representation of Women (Prohibition) Act, Nagaland Prohibition of Gambling and Promotion and Regulation of Online Games of Skill Bill, FDI Policy, etc.

Increased demand from the urban population, a growing number of smartphone users, and increased internet penetration throughout the nation have all contributed significantly to the growth of the nation's gaming business.

The country's rising IT & telecom development and rising urban income levels have given the gaming business the ideal foundation. Also, the country's gaming industry has become more well-known, which has accelerated the



expansion in recent years of sales of high-end gaming components.

Throughout the projection period, eSports is anticipated to be an expanding platform for gamers in India. Making eSports a legitimate career in the nation is necessary to ensure the longevity of players' interest in the eSports platform.

II. OVERVIEW

Electronic game playing on consoles, computers, mobile devices, or other platforms is referred to as gaming. The gaming industry encompasses a wide range of games that players regularly play. With the introduction of new gaming technology in recent years, the number of gamers has been rising globally.

Over the past ten years, the worldwide gaming business has experienced fast expansion as a result of an increase in the use of cutting-edge technologies for the global fusion of games and films. Also, effective synchronisation of diverse business models and platforms is fostering global gaming industry growth.

A substantial portion of the worldwide gaming market was made up of mobile games, thanks to the growing acceptance and popularity of large-screen smartphones, tablets, and other devices, as well as the expanding global internet penetration. Gamers are drawn to download various mobile game genres on their supporting devices due to the availability of numerous free mobile games. Due to the existence of numerous growing economies, an increase in the adoption of various games, etc., across the area, Asia-Pacific (APAC) has dominated the worldwide gaming business. China, Japan, South Korea, India, and other APAC countries have significant gaming marketplaces.

Companies are concentrating on games that support augmented reality (AR) and virtual reality (VR) as a result of technological developments in the gaming sector. The use of Head Mounted Displays (HMD) and other associated AR and VR goods for gaming is growing, and these products have improved the overall gaming environment globally.

GAMING INDUSTRY IN INDIA

There are 5 pillars that supports the indian gaming industry, as listed below:

- **Hardware:** The country's gaming sector has been developing steadily over the past few years in terms of better hardware being made

available for running games. The gaming community in India has evolved from recreational players to competitive players. The business is expanding quickly due to the availability of new and cutting-edge gaming platforms as well as the growing presence of gaming hardware manufacturers in the nation. The most popular hardware brand among Indian gamers for memory, storage, and headsets is Kingston's HyperX line. To give gamers a better gaming experience, the company unveiled next-generation SSDs and memory modules under the name.

The emergence of new technologies like 3D and Virtual Reality have also given gamers an incredible experience, and Nvidia and ATI have a tonne of hardware items in the works to meet demand for these technologies during the projected period. Due to the growing enthusiasm and passion among gamers, ASUS is also concentrating on offering hardware to players.

Gamers can benefit from AMD's asynchronous compute graphics hardware's better computing power and minimal rendering latency. Moreover, Acro Engineering Company has organised gaming events, roadshows, gamers meetups, etc. across the nation to raise awareness of gaming gear.

- **Software:** A normal game takes 24 months to build, and the production budget ranges from \$5 million to \$12 million. Because of this, the gaming industry (publishers and studios) are increasingly outsourcing development to cut costs and shorten development cycles. Due to the country's rapidly expanding gaming sector and the wide availability of qualified game developers, India is increasingly being used by gaming businesses as a location for outsourcing.

Animation programmes like 3D Studio Max, Maya, Lightwave, etc., as well as graphics programmes like Adobe Photoshop, are used in India for the creation of PC and console games. Nonetheless, graphic design programmes like Macromedia Fireworks, Adobe Photoshop, Freehand, etc. are employed in the creation of mobile games.

- **Publisher:** Publishers support the expansion of the gaming experience for Indian players.



Gamezone, Video game Publisher, gameguru, expresscomputeronline, nexus-nettech, Nazara, and other well-known game publishers are present in India. Publishers have a significant impact on the Indian gaming market. Similar to the software industry, publishers have begun to advance by dabbling in casual internet gaming. For the following five years, the Indian gaming sector is anticipated to grow as a result.

For the past few years, celebrity and persona-based games have enjoyed tremendous success. Bollywood and sports celebrity games with celebrity-based personas have enormous potential in a country like India, and over the next five years, this is anticipated to dramatically increase the country's consumption of gaming content. PlayIzzon, a division of Jetsynthesys, is a market leader in both the creation and distribution of celebrity and persona-based video games.

Jetsynthesys' PlayIzzon is not simply limited to these games; in August 2016, the business released Being Salman, a Bollywood-themed game that is not based on a movie. Games like Sachin Saga, Bajrangi Bhaijaan, and Hero: The Battle by Jetsynthesys' PlayIzzon have established a celebrity persona-driven platform across Bollywood and cricket, among other genres. Reliance Games is developing a platform that would enable Indian creators to gain visibility abroad and collaborate with foreign publishers.

- **Services:** Due to service providers' capacity to adapt to distribution-oriented development models, gaming services have a significant influence on the gaming market in India and have opened up new potential for gaming businesses there. Zapak, a brand of Reliance Entertainment, has introduced Zapak Plus, a gaming subscription service that gives users access to less expensive PC games. Also, the availability of additional hardware and game rentals has increased console gaming's appeal throughout the nation. Also, a variety of services are being outsourced to India, including technical support, contact centre, marketing automation, etc.
- **Distributors:** Major online retailers in India include, among others, Steam, Desura, and IndieCity. Players may now buy PC games online through Steam's Winter Sale 2016 using

Cash on Delivery, popular mobile wallets, local debit cards, and net banking. In India, Large Format Retailers (LFRs) also sell video games for consoles. Retailers like Croma, Reliance, and Landmark are among these LFRs. Amazon and Flipkart both provide online electronics ordering for gamers. A specialised distribution network in the nation helps gaming firms like EA supply games to clients.

OUTLOOK

Gaming did not previously take off in India due to both the country's lack of Computers and game consoles and its low level of societal acceptance. However, due to the country's economic growth and the increasing use of smartphones and the Internet, entertainment and digital content are now being widely consumed.

During the next five years, the value of the Indian gaming sector, which was valued at USD543.08 million in 2016, is expected to increase at a CAGR of 6.61%. During the past ten years, India's gaming market has expanded quickly, mostly due to increased smartphone and internet penetration rates as well as consumer income levels in the nation.

India has a 0.5% market share of the global gaming market in 2016, and over the next five years, this market is expected to increase considerably due to macroeconomic reasons including improved demographics, growing disposable income, shifting consumer gaming tastes, etc.

In addition, the country's growing focus on games connected to augmented reality (AR) and virtual reality (VR) is anticipated to enhance the India gaming business during the next five years.

FORECAST

India's gaming industry has grown significantly during the past ten years, surpassing USD 540 million in 2016. The gaming market in the nation is characterised by an evolving gaming consumer environment and an increase in the use of cutting-edge gaming technology.

In addition, following the development and expansion of 3G/4G network mobile services as well as an increasing number of games being created, the country's gaming sector is anticipated to grow significantly throughout the period between now and 2022, reaching USD 800 million.



Fast developments in the gaming sector are likely to present fresh chances for future developers, publishers, and technology partners, which is anticipated to support market growth in India through 2022.

The gaming industry in India is divided into three categories based on technology: computer, console, and mobile. Half of the overall gaming industry revenues came from mobile gaming, which dominated the Indian gaming market. With the expansion and improvement of wireless connectivity throughout the nation, the gaming industry in India has seen a shift from console gaming to mobile gaming. The growth of mobile gaming in India over the past few years has been fueled by the simplicity of playing mobile games as well as an increase in mobile phone subscribers.

The country's mobile gaming market has been boosted by an increase in mobile internet users as well as the creation of new and sophisticated games. The number of mobile gamers in India is rising as the country's mobile phone and smartphone penetration rates rise. There are more of these players now.

Platform as a Service (PaaS), which is supposed to enable firms to create games in a short amount of time, is a priority for many mobile gaming companies. In addition, the market for mobile games in India is anticipated to surpass USD 400 million by 2022 as a result of the growing popularity of freemium and virtual reality games in the ensuing years.

Gaming on consoles came in second with the highest percentage (35.51%) in the Indian gaming industry in 2016. The price of purchasing due to the high costs associated with console games in the nation, the console gaming market in India has grown slowly over the past ten years. As India's gaming population changes and ardent players invest more money in dedicated console games,

In India's cities, there is an increasing demand for modern gaming consoles like the PlayStation 4, Xbox One, and others. Additionally, due to the country's subpar internet infrastructure, full value game download revenues from online retailers saw a decline, which in turn had an impact on the sales of gaming consoles in the nation over the previous few years. Due to Indian gamers' gradual shift to console games for accessing multimedia content, the console

gaming market is anticipated to grow over the course of the forecast period.

In 2016, the Indian gaming market's share of computer games was 15.54%. The market for computer games in India was worth USD84.40 million in 2016. The nation's computer gaming market is being driven by core players who do not plan to switch to console gaming and invest more money.

Additionally, due to gamers' growing interest in eSports and other electronic games, online PC gaming has grown in popularity. In the upcoming years, this is anticipated to strengthen India's computer gaming market.

The gaming market in India can be divided into strategy, casual, action, sports, simulation, and others, such as arcade, board, card, casino, educational, and puzzle games. The average amount of time spent playing games is rising quickly along with the number of games available and technological advancements. In 2016, the majority of games played in the nation were strategy games, which had a 16.30% market share in India. Casual, action, sports, and simulation games came next.

Clash of Clans, Call of Duty, Clash Royale, Counter Strike, Clash of Kings, Grand Theft Auto, Mobile Strike, etc. are some of the popular strategy games played in India in terms of time spent playing them. Increasing young populations and increased audience knowledge of various strategy games are driving up demand for strategy games in India, and this trend is anticipated to continue during the projected period.

POLICY AND REGULATION

- The government's role: For the past few years, governments from all over the world—especially Canada—have supported, initiated, and offered incentives for game development firms. In Canada, there are more than 350 game production businesses, and during the past several years, these companies have been able to provide a sizable return on investment, mostly because to the Ontario Media Development Corporation's helpful support (OMDC).

The Interactive Digital Media (IDM) financing programme is how OMDC provides cash to new gaming firms. covers \$150,000, up to 50%



of a project's expenditure, and helps firms create video games. Federal programmes like the Industrial Research Assistance Program (IRAP) and the Scientific Research and Experimental Development Tax Incentive Program (SR&ED) give game development firms a way to augment their annual development expenditures of \$50,000 to \$500,000 in a variety of ways. The Canadian government also offers a number of additional financial benefits to promote the gaming industry, including federal and provincial tax breaks, the ability to give securities and not pay capital gains tax, among other things. The Indian government should concentrate on enacting such financing and tax relief measures, especially for newly established game development enterprises.

- Laws: IPC forbids the sale, rental, distribution, display, and circulation of any pornographic or obscene material in physical copy or electronic format. Persons or organisations who engage in, attempt, or promote any pornographic material are subject to legal sanctions. The Information Technology (IT) Act of 2008 makes it illegal to transmit or share any sexually explicit or filthy information in electronic form, including child porn.
- IP Laws: The gaming business in India has a great deal of potential for job growth. Yet strict domain-specific IP laws must be introduced and put into place if the market is to continue growing. The following are a few changes to the country's IP environment that are anticipated to have a favourable effect for the gaming sector in India:
 1. The Trademark Act provides that, within twenty to 24 months after the application for registration has been filed, a Canadian trademark can be registered and granted an exclusive right of use in Canada over fifteen years with subsequent potential extensions up to 15 more years without payment of renewal fees. However, the Indian Law on Trademarks is valid for a maximum period of 10 years and may be extended to another ten years.
 2. The Patent (Utility) Law: As India lacks this law, the patenting procedure is exceedingly tedious and non-residents file more than 70% of the country's patent applications. The Patent Utility Law is necessary in India since it would streamline the present patenting procedures.

Also, it will assist entrepreneurs which lack the funding necessary to test and trial the present patenting process.

- The Indecent Representation of Women (Prohibition) Act of 1986 forbids the depiction of any woman in an indecent manner in any form of advertising, publication, writing, art, or electronic media.
- Act of 1956 Concerning Young Persons (Harmful Publications): The Act forbids the internet and hard copy publishing, distribution, and sale of any material that depicts the conduct of crimes, violent acts or occurrences, or unpleasant or horrifying events. Punishment Implied: If found guilty, you might get a fine, a prison sentence, or both.
- Rules for Commercial Telecom Customer Preference, 2010: According to the Act, SMS communications cannot be sent to subscribers who have chosen not to receive commercial SMS messages. Moreover, the Act prevents gambling firms or telemarketers from receiving inbound communications in response to any transactional messages.
- The 2013 National Cyber Security Policy: In order to promote adoption of international best practices in information security and compliance, the policy intends to provide an infrastructure for conformity assessment and offer a framework for assurance. Moreover, the policy strives to require and promote secure application/software development methods based on international best practises.
- Telangana's 2016 Gaming and Animation Policy
The goal of the policy is to establish a Telangana Animation and Gaming-IMAGE City and make Hyderabad the most sought-after location for investments in the Animation, Visual Effects, Gaming, and Comics (AVGC) industry. The policy also intends to make it easier to establish a legislative framework for the development and defence of Internet Protocol (IP) in the state.
- Policies on Foreign Direct Investment: The Ministry of Trade & Industry has announced a policy that forbids both public and private lotteries, as well as gambling and betting, across the nation.



- Nagaland's 2015 Ban of Gambling and Promotion and Regulation of Internet Games of Skill: The goal of this Law is to control and advance the behaviour of online "Games of Skills," which favour talent over betting. The Law also attempts to generate income through royalties and licence fees.

ANALYSIS OF SUPPLY CHAIN

Publishers incur significant costs for packaging, inventory, administration, etc., and they are also obligated to make a down payment and a 15% royalty payment to the developer. Moreover, distributors and resellers receive 35% of the money earned from the games. In the game sector, there are three monetization strategies: Free, Freemium, and Premium.

With the free gaming model, players do not have to pay for the games they play; instead, the games' adverts generate revenue. Mini Militia, Infinity, the 2048 Number Puzzle, and more well-known games that are available for free in India.

The Freemium gaming model allows users to download and play game apps for free, but some game elements are only accessible with a paid subscription. Some of the most played freemium games in India are Clash of Clans, Candy Crush, Pokemon Go, Temple Run, etc.

Similar to this, players must be paid for their games before they are downloaded and played in a premium gaming model. That's because there's an upfront cost for these games. Grand Theft Auto, Temple Run Oz, and Inferno 2 have been played on premium gaming models across India.