



# **UNCOVERING THE GAMING INDUSTRY'S HIDDEN USING MACHINE LEARNING**

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## 1. Introduction

The gaming industry in India is undergoing a tremendous boom with regards to future growth and overall market potential. Gaming industry, in the modern tech world we live in, is one of the most significant, creative, and inventive industries. Based on its effect on social, technological, and entertainment advancements, it is considered one of the most exciting industries in the world. With the advent of the online gaming industry as a major competitor in supplying entertainment to the masses, the word "Entertainment Industry" is no longer reserved in the sense of the movie industry or its different branches.

The very advent of gaming industry, more specifically the video-game industry or electronic-game industry, in India, dates back to the early 2000s with the introduction of console and PC games in India. It was an era where video games were frowned upon and seen only as a means for entertainment for children. However, the very idea and outlook towards such games has been ever changing and people (more specifically adults) have started to accept them with a slightly more welcoming and positive outlook. This can be owed to the introduction of smartphones and mobile games, which have paved an opening for many people to find gaming as a career option in India.

The Indian gaming industry has grown significantly over the past couple of years. It has seen a rapid growth owing to investments from big tech-based and tech-backed companies such as Alibaba, Nazara, Tencent, Azure among several others. The gaming industry in India was valued at around 62 billion Indian rupees in 2019 and is projected to rise to more than 250 billion rupees by 2024. The number of new job openings in the gaming industry in the country is a strong indication of the sector's constant evolution. By 2022, it is projected that the industry will employ over 40 thousand people.

The primary purpose of this research paper is to find out the viability of gaming in India and also the opportunities that this industry will create in terms of job creation, contribution towards the economy and GDP, skill development, technological advancement, among many others. Gaming as a career in India is comparatively new but full of potential and is believed to become a significant part of India's core industries by the year 2025. The research will also find out the standing of India's gaming industry with that of other countries, with respect to growth patterns and trends. The industry saw its highest boom till date during the lockdown, owing to the pandemic, when most people found mobile games as a source of socialising and entertainment.

The gaming industry in India has the potential to become one of the biggest and most successful industry in India and evidently, the winds of change can be seen all over the country

## 2. Methodology

For the purpose of this research paper, both Quantitative methodology and Qualitative methodology have been used on secondary data collected from sources like company reports, industry reports, journals, magazines, press releases etc. for making comparisons and finding out growth prospects of the gaming industry of India. SPSS has been used for doing (time series) forecasting of the only listed gaming company so as to determine the future viability of the company. Also, primary data has been collected through a small survey which was conducted through questionnaires. An attempt has been made to collect maximum facts and figures available and perform an analysis through –

**Market revenue estimation:** This was done on the basis of India's internet users, online gamer penetration, smartphone users and traffic through distribution channels. The volume forecast for 2021 is focused on comparable country standards, expected increases in internet penetration, and the growth of India's smartphone user base.

**Global Comparison:** The United States of America, Brazil, the United Kingdom, Malaysia, Thailand, Japan and China were among the top gaming economies surveyed. Consumer behaviour, market characteristics, industry structure, and stage of development were studied in order to support predictions for the Indian market.

No research study can be flawless because all research studies have some limitations. This work is no exception. It, too, has drawbacks. The following are only a few of them: -

This study is mainly based on secondary data which had already been processed and was in the public domain. Henceforth, reliability of conclusion of the study will depend upon the correctness of secondary data.

One of the major limitations of this study is the lack of availability of ample information owing to the fact that the industry is comparatively new in India.

The sample size for conducting study on primary data is small and limited. This was due to time constraints.

Consumer behavior is continually evolving, and the market environment is also extremely unpredictable. As a consequence, what is right today may no longer be correct tomorrow. As a result, this research may become redundant in the future.

### 3. Evolution of Gaming in India



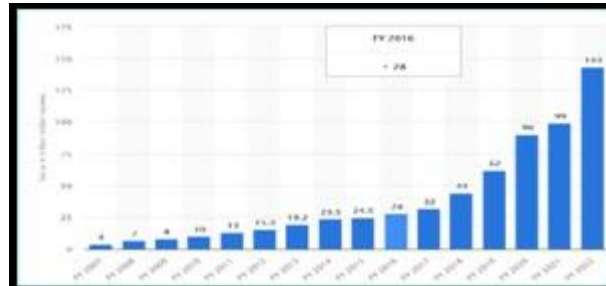
Gaming in India has come a long way since its inception. Video games in India have never had the greatest reputation and still do not in large part. However, since

mobile gaming has become synonymous with phone users, games are no longer frowned upon as they once were. That being said, in the past, games were thought to be a waste of time and money, a pastime reserved for children, and an embarrassment for a person to confess to his family that he enjoys or plays games. As a result, it's reasonable to think that the Indian gaming market was opposed.

The online gaming industry in India began in the early 2000s, when console and PC gaming introduced several middle-income Indians to digital gaming platforms. However, due to the high cost of PCs and consoles, consumption was limited to a small customer segment. This dynamic changed in the mid-2000s owing to piracy and the introduction of social media platforms. The internet community began to explore, learn, and share online games through various social media platforms. During this time, global publishers dominated the supply. To enter the Indian gaming industry, international gaming companies began to open local stores. By 2010, the number of local service providers had increased from five major gaming companies in 2005 to 25. During this time smartphones had also started gaining popularity in place of

feature phones. This provided an opportunity for Indian gaming companies to start developing their own games instead of being mere service providers.

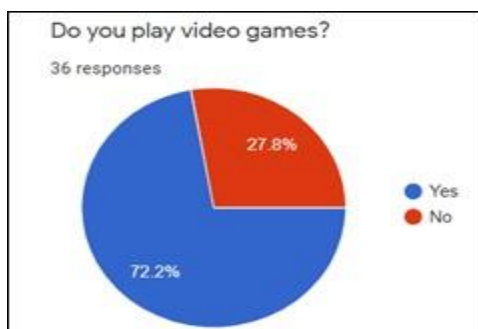
It was post 2010 when the gaming industry started witnessing rise in consumption volumes. During this time, the number of Indian gaming companies grew to 250 and they began to release their own games. A few of these games made it into the top ten most downloaded and highest-grossing games of all time, a list dominated by multinational corporations so far. Investments in gaming companies, on the other hand, remained low. Nonetheless, it can be said that this was the most important phase that was pivotal in shaping the future of gaming in India.



With major online video companies entering the market in recent years, India has seen tremendous growth in online entertainment. These businesses have had a huge impact on Indian consumer spending patterns. Consumers are increasingly gaining confidence in using digital payments and online entertainment content. Increased confidence and perceived importance of online entertainment is likely to give online gaming the boost it needs in the future. The number of investors in Indian developers has increased, and this trend is expected to continue. Indian developers are expected to concentrate on the local market, powered by evolved consumption, latent capacity, ample resources, and qualified personnel. In the near future, the emphasis shall remain on developing games for smartphones.

## General Perception on Gaming – Survey

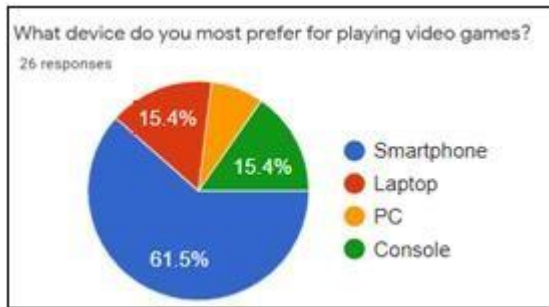
A survey using Google forms was conducted in which a total of 36 participants took part. The survey tries to analyze the general opinion of people towards gaming in India.



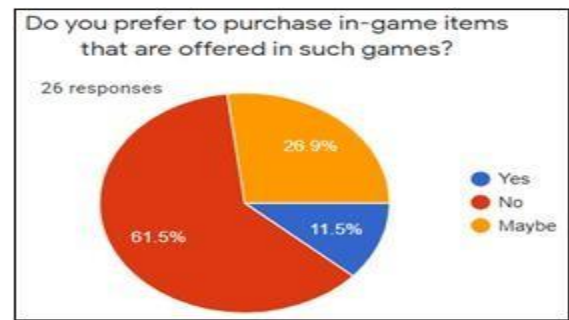
Of the 36 responses, 72.2 % (26 respondents) played video games while the others did not.

### People who play video games

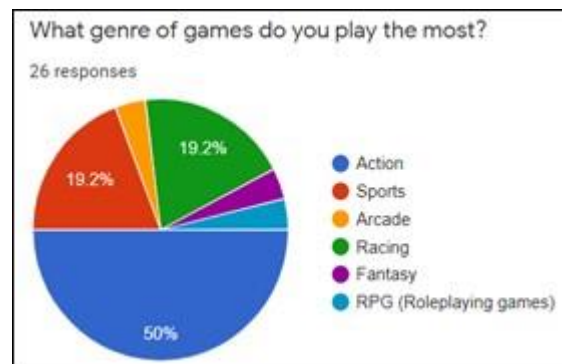
Of the 26 respondents who play games, 61.5% prefer smartphones, followed by 15.4% each for console and laptop and 7.7% for PC.



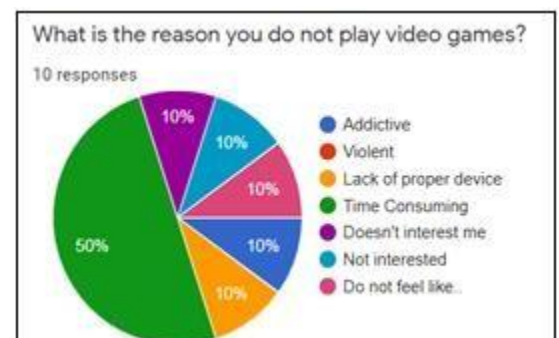
This shows that most people in the survey prefer action games followed by sports and racing



This shows that 61.5% do not prefer spending on in-app purchases



This shows the opinion of those people who play games. Most of the responses show that gaming is addictive while also showing that it promotes teamwork and communication.



## 4. Conclusion

There is very little doubt that the gaming industry in India will continue to grow over the next few years. As evidenced by the projected figures for the industry, this sector, going forward will constitute a major chunk of the entertainment industry in general, something which has not been seen in the past. Increased attraction towards gaming companies by investors and consumers alike which has led to heightened M&A activity and PE & VC investments as well as a successful IPO by Nazara Technologies are a further testament in this regard.

The growth of the industry is expected to be much higher than the world average. As already discussed, a large percentage of the population in the age range of 12-30, increasing reach of smartphones as well as greater adoption of Internet are the major factors which have given a boost to the industry. Also, the impact of Covid-19, which resulted in a spurt in the sector cannot be forgotten. Trapped in their homes due to restrictions by governments worldwide in order to deal with the virus, people across all age groups took to online gaming. This has also resulted in companies launching games focused not just at children but working professionals and home makers.

Lastly, the shortcomings that the industry suffers from in the form of addictive games, increased government regulations towards games involving money as well as apprehensions about high exposures to phone, computer screens must be dealt with by the companies.







