

# eSports: a new industry

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## Abstract.

**Research background:** At the beginning of this century, the eSports industry was not yet a major player although it already existed as a niche of video and computer games. The importance and interest only began to increase with the rise of the internet and its infrastructure. Especially among the younger generation, eSports, today, has a significant meaning. Worldwide, professional players duel each other in countless tournaments online and offline and are enthusiastically celebrated by their millions of fans.

**Purpose of the article:** The purpose of this paper is to analyze how eSports has developed in recent years since its first boom phase as well as to analyze its growth factors and how it has benefited from the COVID-19 pandemic compared to traditional competitive sports.

**Methods:** The global eSports revenues and prize money values are analyzed. The first step is defining the eSports term. The second is looking at the development of eSports financials since its first boom and onward. The COVID-19 pandemic and its impacts are then looked at. Finally, growth factors for the increasing numbers are analyzed.

**Findings & Value added:** The findings show that eSports has gained significant importance in recent years. In particular, the strong increase in global eSports revenue and the associated increase in players' prize money clearly show that eSports will continue to gain importance and economic strength in the future.

**Keywords:** *eSport; Digitalization*

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## 1 Introduction

Competition, as we know it traditionally, takes place between human players physically and analogously and is also called competitive sport. Depending on which sport is more or less popular in a country, this can be ball sports, martial arts, or motor sports. These competitive sports are extremely popular and are a common way for people to spend their time.

In recent years, however, the traditional competitive sports have increasingly faced competition from a new phenomenon called eSports. If, for example, football is played in a traditional way, human against human indoors or outdoors, the trend of competition is shifting more and more toward digital platforms. Using various devices, suitable video and computer games, players compete against each other and duel in front of spectators in games such as League of Legends (LoL), Counter-Strike: Global Offensive (CS:GO), and Defence of the Ancients 2 (DotA 2). The fact that this is not a fad can be clearly seen in the increasing viewer and sales figures.[1-2] Also, the gaming industry of today is already bigger than the music and movie industries combined.[3]

Older generations in particular do not know or understand eSports well. The average eSports fan is only 26 years old according to PMG.[4]

In particular, approaching eSports from an economic perspective is still quite rare. There are a few business lyrical contributions, but there are hardly any empirical ones, since game producers protect their data like a holy grail.

## 2 Methodology

In this section, we provide the methodology we have used for this article. Since the eSports industry is a novelty to the majority of readers, we first introduce a definition of the term “eSports”. In the second step, we have a look at key financials of the eSports industry, such as its popularity and awareness, the global eSports revenue streams, viewership, and prize money. Then, we look at the COVID-19 pandemic since its occurrence and compare the eSports sector with traditional competitive sports to see how well they both have reacted to the crisis. Finally, we analyze key growth factors that have defined and shaped the eSports industry and that will also be important in the future.

## 3 Defining eSports

An official and globally accepted eSports definition does not exist, but recently more countries and organizations have started tackling this issue. The term “eSports” is relatively new and there are only a few definitions.

The German eSports association “eSport-Bund Deutschland e.V.” (ESBD) adopted the following definition at its general meeting on 26th October 2018 in Hamburg: “eSports is the direct competition between human players using suitable video and computer games on various devices and on digital platforms under defined rules. The comparison of sporting performance in eSport is determined by the interaction of a purposeful operation of the input devices in direct reaction to the game sequence depicted while at the same time tactically mastering the overall game action. The reference object of sports activities are video games whose structure and mode of operation meet the requirements for determining sporting performance, which do not leave the success of the game predominantly to chance and which offer a reproducible game framework for comparing the performance of the players.”[5]

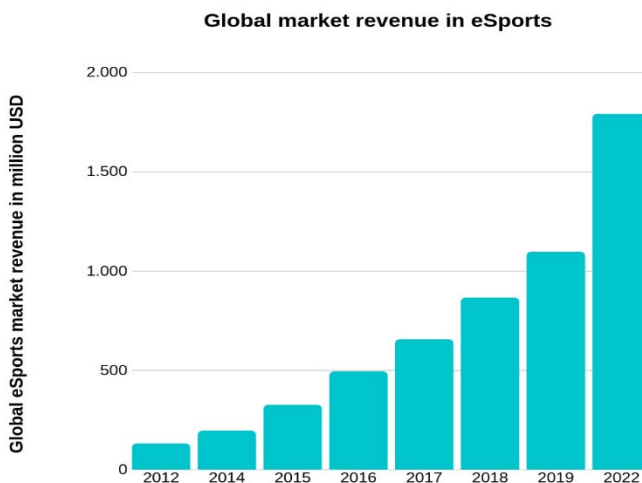
It is a common opinion that eSports is not physically exhausting or intense. However, a study amongst German eSports players showed that they are exposed to high levels of stress which are common for traditional sports. Up to 400 precise clicks on keyboard and mouse

per minute are not uncommon. This uses different brain regions that are not accessed that much in any other sport. Furthermore, it was found that the cortisol level was similar to that of a racing driver. Also, a high pulse of 160-180 beats per minute was measured, which is almost on par with a marathon runner.[6] Nevertheless, eSports has existed for several decades and has now been expanding exponentially for a couple of years despite not having a worldwide standard regarding its definition and recognition as a sport.

## 4 The eSports of today

### 4.1 eSports growth since 2010

Gaming on consoles, computers, most recently smartphones, and other devices has now been a part of our society for several decades and has been growing tremendously fast in recent years. Nowadays, the acceptance among the mainstream is much bigger than it was just ten years ago. In 2018, gamers spent \$138.78 billion (\$ referring to USD) across all gaming platforms, with mobile games counting for 47%, or \$63.2 billion in total.[7-9] These numbers show that mobile gaming with tablets and smartphones has picked up momentum recently and has become the largest gaming platform of the entire industry. eSports awareness has been growing steadily with a number of 1.8 billion people aware of eSports in 2019, compared to 1.6 billion in 2018.[10] Already back in 2014, 56% of all gamers in the US and 50% of all Western European gamers aged 10 to 50 were aware of eSports.[11] The actual eSports audience recorded a number of 443 million people in 2019, with 198 million being eSports enthusiasts that follow eSports regularly. Projections to exceed 646 million regular eSports followers by 2023 have been made as well.[10] The constant growth of the gaming industry as a whole demonstrates a fairly widespread acceptance among the mainstream in 2019. Massive audiences in eSports suggest that the word “niche” is not the right way to describe it anymore as you cannot ignore these numbers.

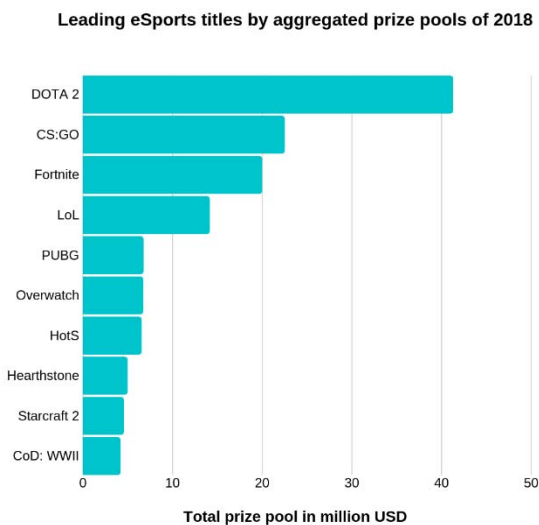


**Fig. 1.** eSports market revenue worldwide from 2012 to 2022 (in million USD).[12]

The industry as a whole generated a global market revenue of only \$130 million in 2012 but reached \$865 million in 2018 with Newzoo.com, the global leader in games and eSports analytics that also shared these numbers, projecting the eSports market revenue to be at \$1.79 billion by 2022. Looking at the segregated revenues of the global market revenue, sponsorships generate the biggest amount with \$456.7 million, followed by media rights with \$251.3 million, advertising with \$189.2 million, merchandise & tickets with \$103.7 million, and game publisher fees with \$95.2 million, experiencing a combined 26.7% of year-on-year growth.[7-9] Merchandise stuck out to Berenberg. According to them, merchandising is not utilized well in eSports yet. They showed that in regular sports, a fan generates on average \$54. Meanwhile, an eSports fan generates only \$1.8 on average.[13]

## 4.2 The ever-growing prize pools and exposure

Since eSports has been experiencing steady growth, the prize pools of tournaments have increased dramatically as well. The overall aggregated prize pool of all games was at a meagre \$3 million in 2010, while it reached over \$121 million in 2017 seeing tremendous growth every year.[14] Ranked by tournament prize pool in 2018, DotA 2 is leading the charts as shown at Fig. 4.3.



**Fig. 2.** Leading eSports games worldwide in 2018, by cumulative tournament prize pool (in million USD).[15]

Overall, the top 10 eSports games by prize pool paid out \$131.41 million in 2018 and roughly reflect the popularity of the games as well. Canaccord Genuity forecasts \$543.69 million annual price money by 2023. According to them, this estimated number is calculated conservatively.[16] In particular DotA 2, developed by Valve, has revolutionized the eSports industry. Every year since the release of the game, Valve organizes a world championship. For this championship, fans and players of the game are able to buy a so-called “compendium”. It provides the buyers with exclusive cosmetic items in the game. This way Valve has been able to generate massive prize pools for their championships, which has resulted in them being one of the leaders in prize money distribution. \$1.6 million came from Valve directly while the rest was crowdfunded by its fans. Several tournament organizers of

today have used a similar approach to make their tournaments more appealing to the audience with bigger prize pools.

In fact, DotA 2 fills the entire top five in overall eSports prize pools for one single tournament, with the former editions of each year being topped every following year due to its unique way of crowdfunding the prize pool. Citigroup compared these prize pools to traditional sports and showed that today, eSports can already hold up against them relatively well: Confederations Cup (Soccer, \$20 million), The Masters 2017 (Golf, \$11 million), Tour de France 2017 (Cycling, €2.29 million), Indy 500 2018 (Car Racing, \$13.07 million), just to name a few. Only the Confederations Cup came close to the one of The International 2018.[17]

Viewership is an increasingly important growth factor as well, but the big tournaments do not always translate 1-to-1 when it comes to the prize pool. The Mid-Season Invitational 2018 (LoL, \$1.37 million prize pool) reached a staggering viewership of 60 million unique viewers[18] compared to 55 million for The International 2018 (DotA2, \$25 million prize pool) over the timeline of this one tournament.[19] Companies are also slowly starting to broadcast eSports tournaments on television. Especially ELeague, which is produced by Turner Broadcasting System (TBS) in the US, has broadcasted several of their own tournaments on their television channels with some finals streamed during prime time on weekends. It is a statement that professional companies think eSports of today is ready for mainstream.

## **5 COVID-19 pandemic and eSports**

At the end of 2019, the coronavirus broke out in Wuhan, China. As of today, the entire world is fighting against the virus. The traditional sport came to a standstill for several months. For example, the German Bundesliga did not carry out a single game for 66 days. eSports has not been untroubled by the coronavirus as well. Many events had to be cancelled at short notice or had to be held online instead. One of the biggest German eSports events, ESL One Cologne, was cancelled due to COVID-19 and an online format was created instead.[20] Nevertheless, the digital characteristics of eSports have been a great advantage during this time, since most events can also be held online. The infrastructure has been in place for years. Even international tournaments within the same continent can be held without problems. During the first wave of the COVID-19 pandemic, both streaming and gaming experienced big growth. Up-to-date key numbers of Twitch can be found on twitchtracker.com. Major leagues, such as League of Legends Championship Series (LCS), managed to switch to an online format within a week.[21] Since many traditional sports leagues had no choice but to discontinue their regular league operations temporarily, many have ventured into eSports during these times. For example, Formula 1 has run an eSports league for three seasons. The drivers are under contract full-time at the official Formula 1 teams. Therefore, without hesitation, Formula 1 were able to hold a mini-league, in which the postponed Grand Prix was held online as entertainment.[22] Formula 1 drivers, F1 eSports drivers and other personalities from the Formula 1 universe raced against each other. The NBA has planned an online league of the official, which will be broadcasted on the ESPN television channel.[23] The German Bundesliga also decided to organize a virtual tournament in the game FIFA 2020.[24] The tournament was played with at least one professional soccer player in each team of two. 29 clubs of the 1st and 2nd Bundesliga took part in the Bundesliga Home Challenge.

## 6 Growth factors

Gaming itself has been growing fast and is now the biggest entertainment industry, as a report published on Reuters states. It generates a bigger revenue of over \$116 billion, compared to Television with \$105 billion, Film Box Office with \$41 billion, and Digital Music with \$16 billion.[25] This growth in gaming naturally results in growth of eSports as well as it gains popularity. The Business Research Company reported that eSports is going to be one of the most important growth factors for the traditional sports market. Since 2014, the global sport market has been growing by 4.3% annually. Due to the COVID-19 pandemic the eSports market is expected to grow by only 2.16% in 2020. The eSports market is then expected to grow with a compound annual growth rate of 23.82%.

Over the past years, cheaper hardware such as computers, smartphones, and gaming consoles has made eSports accessible for almost everyone. According to Newzoo, especially Latin America and Asia will benefit from portable devices such as smartphones and tablets. These continents are expected to be the fastest growing eSports regions and, as a result, would soon be of high importance for the industry.[10] Many countries are still limited by their infrastructure and wealth. As the internet and cheap technology is expanding, countries like India and Brazil are likely to become important for the growth of eSports. As stated by Long et al.,[4] the average eSports enthusiast is only 26 years old. In 2017, Indian gamers generated a market value of \$290 million, according to KPMG.[26] However, there are over 600 million people under the age of 25 in India.[27] The potential of the Indian market could become an opportunity in the billions. As emerging economies grow, eSports will benefit greatly.

The most important and biggest contributor to eSports growth in recent years has been live-streaming, particularly using the platform Twitch.tv, but also YouTube. Twitch came to life in 2011 and has since then completely changed the gaming industry and still does so. Before Twitch, it was a costly and complicated procedure to get gaming content released in real time, but Twitch allowed content creators to live-stream their gaming content effortlessly. Since the website is focused primarily on gaming, there is now a way to reach a large number of fans simultaneously. In addition to an easy way of streaming eSports content, Twitch has given organizations the ability to demonstrate their value in numbers, which in turn makes it easier to negotiate sponsoring deals. Twitch has become the central platform for live-streaming gaming content, which also includes eSports events and eSports players streaming their gameplay. In recent years, broadcasting deals as they are known in the traditional sports have become more popular as well. Amazon saw the potential of this platform early on, acquiring it for \$970 million back in 2014.[28] Twitch has changed video games and particularly the niche eSports into a spectator sport, thus stimulating tremendous growth for years and continues to do so as the leading platform for eSports related content.

## 7 Conclusion and discussion

eSports has developed over the past decades with highs and lows until it developed a rather stable position in society. Twitch.tv has been a big contributor to the stability of eSports and its growth. They continue to be one major growth factor as they bring together millions of fans from around the globe.

In recent years, this new kind of sport—eSports—has established itself in society. The ongoing COVID-19 pandemic has shown this. Popular sports and motor sports used the pandemic as an opportunity to venture into eSports. It shows that the enormous network behind these traditional sports (companies, sport clubs, sponsors etc.) think eSports is ready for mainstream. The digital character of eSports has shown that during this crisis, it is a valuable competitive outlet with a big advantage over the traditional sports. For further research it would be interesting to find out whether eSports is similar to traditional sports and

could thus be recognized as a sport by governments. Advantages and disadvantages that would come with this could be analyzed.

We have learned that there is huge potential in untapped markets. Mobile eSports is growing tremendously fast. Emerging economies are quickly developing but are still lagging behind in eSports. Countries like India will provide big growth rates in the following years as they take advantage of mobile hardware and also have high population numbers in young ages.

Companies such as Twitch (transforming eSports into a spectator sport) and Valve (crowd-funding gigantic prize pools) keep innovating the market and stimulating development of the industry.

The global eSports revenue annually grows quickly and has surpassed the \$1 billion mark. Despite the growth, still untapped potential in merchandising could lead to a stable income pillar in the future. Regarding merchandising, a more detailed breakdown could be interesting to see why there is such a big difference between its effectiveness in traditional sports and eSports or whether it has become more profitable already. As the argument whether eSports is a sport is going on, researchers have identified the eSports market (23.82% CAGR) as one of the most important growth factors for the traditional sport market (4.3% CAGR).

Games such as LoL, Dota 2, and CS:GO have established themselves as growth drivers and unite a large number of fans. The awareness of eSports is growing quickly considering almost two billion people have at least heard of eSports by now. At the same time, demand for eSports events is growing at a double-digit rate each year.[7-9, 29] While prize money was not common in the past, the amounts are now in the millions and took an important role which is not necessarily the case in traditional sports. Crowd-funding prize pools and thus creating higher prize pools than those found in popular traditional sports has been a great way of attracting millions of viewers. As a result, more and more players want to play eSports professionally and actually have the opportunity to do so. This development increases the quality and also the interest in eSports. The quality of eSports games is getting better and better and is slowly moving into the homes of citizens. It remains to be seen to what extent eSports will be able to compete with established sports in the future. At least it can be said that the generational change and also that the interest in eSports is in full swing. In the future, the interest of the societies for sport and eSports will merge, and the discussion of recognition will be forgotten.

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