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Characteristics of the Chinese Gaming and Esports Market. Applications for Polish Game Manufacturers

Abstract: Worldwide, information and communication technologies (ICT) are creating a new post-industrial revolution, the pace, scope and importance of which are unprecedented, without being reflected in the past. Its best manifestation is the Type 4.0 Industrial Revolution. having a huge impact today not only on the living and working conditions of billions of people, but also on the directions of specialization of production and the profits accompanying them. These changes can be described as a revolution based on information, an expression of increasing human knowledge and its application. One of the more interesting manifestations of it, relatively poorly known in Poland, is the increasingly profitable and increasingly important global gaming market and the accompanying e-sports market. The dynamic development of the computer games market in the People's Republic of China and the development of the e-sport discipline actively supported by the state authorities of this country fit perfectly into the perceived development paradigm. This research problem requires closer analysis also from a Polish perspective, motivated not only by cognitive desire, but above all by the utilitarian dimension. For the increasingly competitive polish video game manufacturers with CD Projekt SA at the forefront, the Chinese market is a great opportunity to increase profits, an opportunity – so far – still too underly used. On the way to increasing them, in addition to real challenges, chances and opportunities, there are several fundamental barriers and risks, undoubtedly worthy of the scientific diagnosis contained in the presented article.

Key words: Internet, gaming, e-sports, China, European Union, computer games

1. Introduction

In over forty years of intense economic reforms and social modernization, initiated in 1978 by Deng Xiaoping's "Reforms and Opening-up" policy, the People's Republic of China (PRC) has transformed from an internationally insignificant, extremely backwards economy to a power of enormous global importance enjoying rapid development and good prospects for the future. The development model adopted in the late 1980s allowed ca. 400 million Chinese to rise from extreme poverty. No other country in the global history of economy, especially such a large one, has managed to multiply its GDP so spectacularly at such a rapid pace. It has taken Western Europe two centuries to significantly improve the living conditions of its population. China has managed to achieve the same more than four times faster!

At present, the PRC is close to achieving the status of the top global economic power. In a relatively short time, it has been able to leap from the stage of manufacturing the cheapest and the simplest industrial products, as a subcontractor meeting the demands

of large international corporations (“the assembly plant of the world”), to competing on a global scale with products that are increasingly modern and technologically advanced, and at the same time still attractive in terms of prices, and more and more recognizable (“global techno-power”). In the field of producing modern commodities and providing knowledge-intensive services, the modern global economy has become a multipolar system in which the Classic Triad, namely the United States, Western Europe and Japan, are losing their dominant position and monopoly on global management to China.

Being a great, thousands-years-old civilization, which invented and shared with the world gunpowder, paper and the compass, for at least ten years or so China has been trying hard to regain its leading position in the sphere of technological innovation. The clearly rising level of modernity of the Chinese economy to a large extent results from the increasing financial outlays to this end and the effective, stimulative policies of the state. In order to understand the phenomenon of the Chinese transformations in the field discussed here, it seems necessary to take a closer look at the development of the IT market, including the very interesting issue of the gaming and e-sports market in China, a topic poorly known in Poland.

Information and communication technologies (ICT) are inspiring a new post-industrial revolution worldwide, the pace, scope and importance of which are unprecedented and have no equivalent in the past. These changes can be described in terms of a revolution based on information, which expresses increasing human knowledge and its application. Progress enables information to be processed, stored, retrieved and transmitted in every possible form, whether as oral, written or audio-visual messages. The information society (IS) is a new type of society which is clearly distinct from previous ones. Earlier societal forms (agricultural society or industrial society) were also based on inventions, but it is only in the IS model that the knowledge and information which facilitate the construction of the knowledge-based economy model have become essential. Success in the form of the increasing wealth of society has been achieved in countries that have been able to transform into this type of economy and avoid the so-called Middle Income Trap. This system is based on faster and more effective collecting, transferring and processing information, thereby generating knowledge on a specific topic, and its skillful use for the purposes of fast and stable economic growth. An indispensable factor here is an adequately developed data transfer network (facilitating access to high-speed internet and modern electronic equipment) and adequate computerization level of society (an increase in soft skills related to using various software and applications, as well as technological skills in developing them). China is pursuing this more and more effectively, and at a really lightning pace.¹ Highly developed countries from Southeast

¹ An information society (IS) is a society with advanced means of information processing and communication, the national income of which is primarily generated on the basis of information processing. The IS is based on using an increasing amount of information, and an important element is also the use of computerization, automation and robotization on an increasing scale. According to various authors specializing in this issue, the following basic phenomena must occur to talk about an information society: information must be an economic category, and the production and circulation of information have to become an economic activity. The IS is defined as “a society in which information processing using information and communication technologies represents a significant economic, social and cultural value.” All forms of social and economic activity should be supported by information technologies, and employment in the ICT sector should exceed 30 percent of the total number of employees. For more see: *Spoleczeństwo informacyjne – definicja, cechy, zalety, wady*, <https://www.erainformatyki.pl/spoleczenstwo-informacyjne-definicja-cechy-zalety-wady.html>, 21.02.2018.

Asia (with South Korea, Japan, Hong Kong and Singapore at the fore), the United States, Canada, Australia and the Nordic countries are the best examples of the opportunities offered by the e-economy and e-society. The Chinese are gradually taking the same post-industrial direction, albeit with many restrictions and idiosyncrasies (such as the ubiquitous online censorship and self-censorship, technological extortion, unauthorized copying/imitation, and alleged technological espionage). China is building a new model of economy and society, dubbed “Techno-China” or “China 4.0,” using artificial intelligence (AI) and a high-speed mobile 5G internet network. The Chinese have consistently implemented long-term strategies to this end, and it is only a matter of time before China will have more internet users than the whole of Europe (839 million in 2017) (*Digital in 2017: Global Overview*).²

The construction of a new type of innovative economy is based on a strategic document entitled *Medium- and Long-Term Plan on the Development of Science & Technology 2006–2020*. It is a concept of enhancing indigenous innovation (自主创新) with the ultimate goal of eliminating the heavy dependence of the Chinese economy on imported foreign technologies and know-how. It emphasizes the absorption of knowledge and technology by domestic enterprises and increasing their abilities in the sphere of creating their own innovative solutions. In contrast to the *Made in China 2025* program, which develops, and to a certain extent continues the *Medium- and Long-Term Plan*, the latter focuses almost exclusively on technologically advanced industries, including the ICT industry (e.g. with regard to the development of the production of highly efficient computers, fast and intelligent internet connections, modern platforms for digital media, virtual reality technology or the production of high-resolution large-format displays).

The dynamic development of the computer games market in China and the development of e-sports, both supported by the state authorities, are a perfect fit in the development paradigm perceived in this way. As mentioned above, this research problem is barely known in Poland and requires closer analysis, inspired by the cognitive desire, but even more so by the utilitarian dimension. For Polish developers of computer games, the Chinese market offers a great opportunity to increase profits, an opportunity underused so far. However, seeking to increase profits, Polish developers may encounter several fundamental barriers and threats deserving to be academically examined.

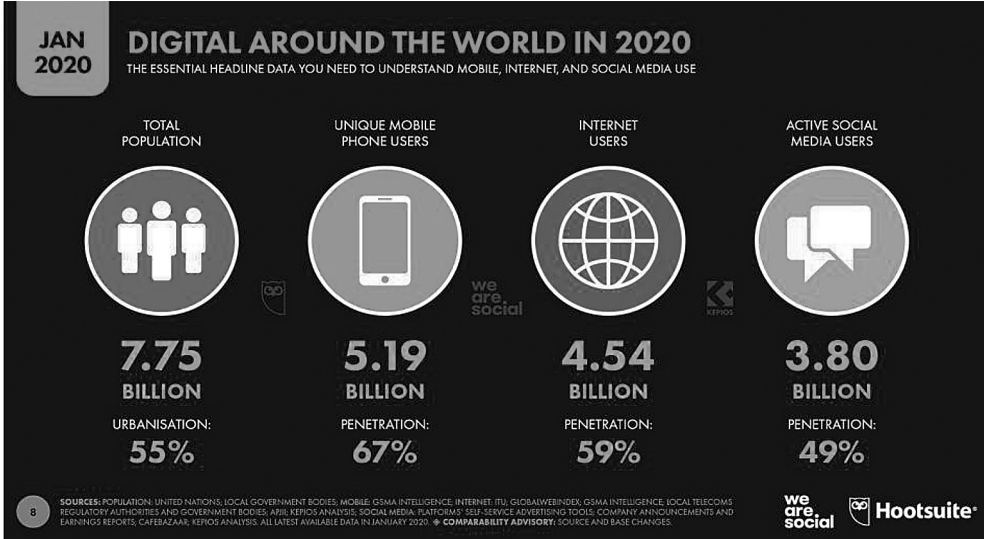
2. The Development of the Internet and Gaming Market Worldwide

New *Digital 2020 reports* – published in partnership with Hootsuite by We Are Social – show that digital, mobile, and social media have become an indispensable part of everyday life for people all over the world. More than 4.5 billion people now use the internet, while social media users have passed the 3.8 billion mark. Nearly 60 percent of the world’s population is already online, and the latest trends suggest that more than half of the world’s total population will use social media by the middle of 2020. The role of the digital in our lives has reached new heights, with more people spending more time doing more things online than ever before. The number of people around the world using the internet has grown to 4.54 billion, an increase of 7 percent (298 million new users)

² See also: Marina Yue Zhang, Bruce W. Stening, *China 2.0: The Transformation of an Emerging Superpower and the New Opportunities*, Singapore 2010.

compared to January 2019. Worldwide, there were 3.8 billion social media users in January 2020, an increase of more than 9 percent (321 million new users) since this time last year. Globally, more than 5.19 billion people now use mobile phones, with user numbers up by 124 million (2.4 percent) over the past year.

Fig. 1. The increasing importance of digitalization in the world (2020)



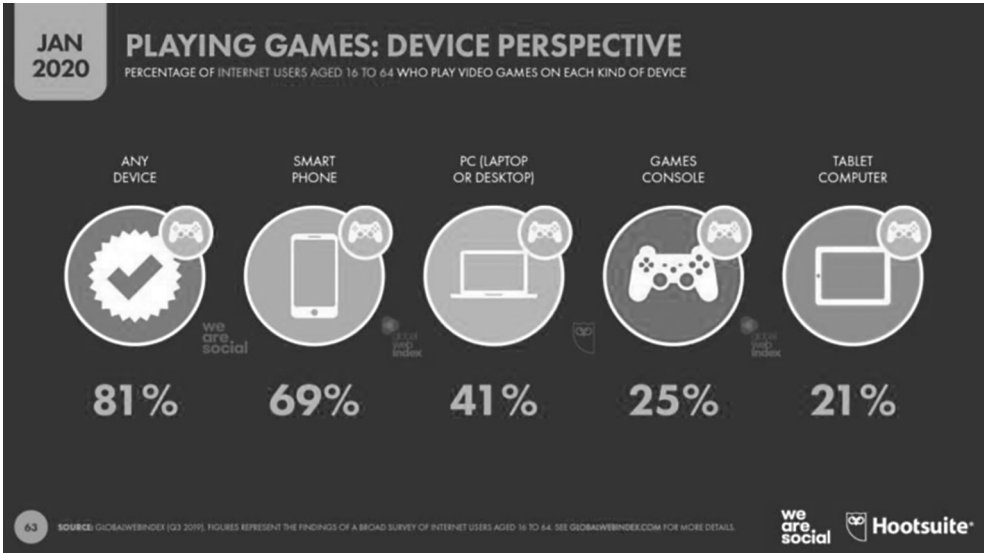
App Annie’s new State of Mobile 2020 report also reveals that games account for the greatest share of mobile app downloads – more than one out of five of the total – and drive 70 percent of worldwide consumer spending on mobile apps.

Fig. 2. Mobile apps ranking by category (January 2020)



More than four out of five internet users aged 16 to 64 around the world play video games every month, which would equate to a total global gaming community of more than 3.5 billion people if we applied that figure to the total internet user population. The majority of gamers play games on their smartphones (69 percent of all internet users), but 25 percent of internet users also report playing games on dedicated gaming consoles.

Fig. 3. Popularity of computer games by device (January 2020)



These more “dedicated” gamers spend an average of 70 minutes per day playing console games, but this rises to about 90 minutes per day for console gamers in Thailand, the Philippines, Saudi Arabia, U.A.E. and China. The Newzoo report also indicates that gamers spent more than USD 150 billion on games in 2019, an increase of almost 10 percent compared to the previous year. Similarly, Statista reports that internet users spent more than USD 83 billion on online game purchases in 2019, up by roughly 5 percent year-on-year. Mobile games are also big business, with App Annie reporting that the world’s mobile users spent more than USD 65 billion on game apps and game-related in-app purchases in 2019, accounting for more than 70 percent of total consumer spending on mobile apps in the past 12 months. It is also worth noting that in-app purchases are an increasingly important part of the gaming industry, with GlobalWebIndex reporting that 8 percent of all internet users aged 16 to 64 purchased some form of game-related DLC (downloadable content) in the past month alone. People are also spending more time watching other people playing games. One in five internet users aged 16 to 64 watched a live-stream of someone else’s gameplay during the past 30 days, while one in seven watched an e-sports tournament (<https://wearesocial.com/digital-2020>; <https://wearesocial.com/blog/2020/01/digital-2020-3-8-billion-people-use-social-media>).

In total, in 2012–2018, the gaming market doubled, and analysts forecasted that it would grow by another 29 percent over the next three years. The vast majority of

the aforementioned USD 152.1 billion is generated by Asia, with China in the lead, where – according to Newzoo – game developers were to generate USD 72.2 billion in 2019, i.e. 47 percent of the entire market. The global gaming market is highly heterogeneous. Currently, mobile games have the largest share, accounting for as much as 45 percent, 80 percent of which are apps downloaded on smartphones, and 20 percent on tablets (<https://www.bankier.pl/wiadomosc/10-wykresow-o-branzy-gier-ktore-wartoznac-7720188.html>).

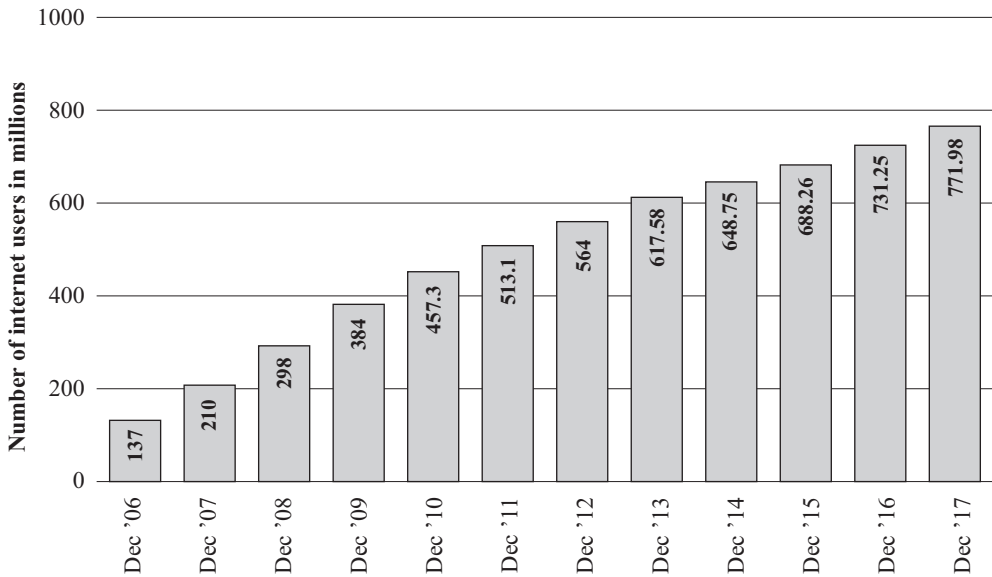
3. The Computer Games Market in China

In terms of population, the People's Republic of China is the largest country in the world. At the end of 2017, the Chinese population amounted to 1.390 billion (*Increase in Chinese population...*). According to the World Bank and the United States Census Bureau, in 2018 China had 1.393 billion citizens, only 40 million more than India, which ranks second in this respect. The United States comes third with 327.2 million people in 2018. In addition to the largest population, China has the largest number of internet users in the world. In December 2017, as many as 772 million people there had access to the internet. China was followed by India and the United States which were second and third, respectively. Data from mid-2018 shows that as many as 802 million people were actively using the internet in China. In the first half of 2018, 30 million new users connected to the internet for the first time. According to data from the China Information Network Center (CNNIC), part of the Ministry of Industry and Education, as much as 57.7 percent of the entire population regularly use the web (for comparison, the United States has around 300 million internet users). Most Chinese (788 million) connect to the internet through mobile devices equipped with cellular connectivity (which constitutes 98 percent of all people using the web). So the number of people currently using the internet in China is the equivalent of the populations of the United States, Japan, the Russian Federation and Mexico combined (<https://www.wnp.pl/tech/w-chinach-z-internetu-korzysta-juz-800-mln-mieszkanow,329073.html>).

The dynamic growth in the number of internet users translates into the number of people who choose entertainment in the form of online games. According to Newzoo, in 2016, 71 percent of internet users in China played online games (*Chinese Games Market, 2016*). In 2017, the number of people who played games of any sort, not only online, amounted to as many as 565 million, which accounted for almost one third of the country's population. Interestingly, China generates the highest revenues from online games in the world. In 2016, they amounted to USD 24.4 billion, and in 2017 it was already USD 27.5 billion. The United States came right behind China, with revenues of USD 25.1 billion, and Japan came third (data from 2017) (*Revenue of China's Mobile...*, 2017).

Along with the intensive transformation of the Chinese economy and society initiated by Deng Xiaoping's reforms in the late 1970s, mass entertainment such as computer and video games also reached China. Starting in the mid-1980s, game centers where one could play on a console began to appear in Chinese cities (Zhouxiang, 2016, p. 2188). At that time, Chinese society was still too poor for families to own devices such as original

Graph 1. Number of internet users in China (December 2006 to December 2017 in millions)



Source: Statista.com, <https://www.statista.com/statistics/265140/number-of-internet-users-in-china/>, June 27, 2020.

game consoles. Therefore, it became popular to use this form of entertainment for a small fee in special places that, perhaps a bit exaggeratedly, could be called internet cafes. It was not until the 1990s that, given the dynamic economic development, the population was able to afford to purchase their own game equipment – initially imitations, and later original devices. Pay-to-play outlets continued to be very popular, however, especially among children and teenagers. As this type of product became increasingly popular, the authorities became concerned that the violence that occurs in these games could have a bad influence on players. There were also concerns about game addiction (gamification) and the domestic conflicts that might cause (Wolf, 2015, p. 127). Therefore, at the end of the 20th and beginning of the 21st centuries, the Chinese government began to introduce numerous regulations on places where gaming was permitted, as well as on consoles and video games. Many non-compliant internet cafes were closed as a result. In order to circumvent government regulations, PlayStation 2 was introduced to the Chinese market not as a classic game console, but as a “computer entertainment system.” The restrictions also triggered illegal activities and the sale of illegal (pirated) games on a mass sale. The prices for unlicensed games ranged from RMB 5 to 20, while legal games cost around RMB 100 (Ibid., p. 129). Many consoles modeled after Nintendo or PlayStation were manufactured, which operated relatively well while being much cheaper than the originals. Chinese imitations were very popular (Zhouxiang, 2016, p. 21921). The illegally manufactured consoles and computer games imitating foreign originals were not banned or even restricted by the government for a very long time. For example, the Japanese Nintendo was imitated by various Chinese consoles, such as Xiaobawang, which, interestingly, was promoted as a “learning device,” rather than a game console.

This was how the government regulations were circumvented, and parents persuaded not to fear these devices in the context of the education and upbringing of their children (Ibid., p. 286). In connection with the social campaign warning against children developing game addiction, the products were introduced to the market employing different forms and sales slogans, in order not to scare customers away. Although Xiaobawang did have certain functions that facilitated learning, this device also allowed children to play various computer games without much problem when the parents were not controlling them. It should be emphasized once again that the government regulations that had been introduced in China then concerned the game content, while permitting copying, importing and distribution, thereby significantly reducing the profits of legal developers from Asia, the United States and Europe, and triggering increasing resistance on their part over time (Liao, 2015, p. 281).

As already mentioned, the citizens of the People's Republic of China had more and more access to personal computers (PCs) beginning in the mid-1990s. At that time, an increasing part of the population got access to the internet (Zhouxiang, 2016, p. 2192). As a result, more and more professional internet cafes began to emerge. The new era of using the internet in public places was initiated by the Beijing-based internet cafe Feiyu. In 1998, it featured 1,800 computers with access to the internet, the fees were low or did not apply at all at certain times of the day. Between 1999 and 2001, the number of people using internet cafes rocketed from 3 percent to 21 percent (Linchuan, Liuning, 2005, p. 266). After 2000, the authorities introduced decrees and regulations concerning, among other things, greater safety and health and safety requirements in such facilities. Numerous inspections were carried out to check whether the café owners were complying with the regulations. Establishments that failed to apply appropriate measures and did not meet official requirements were closed (Ibid., p. 267). Nevertheless, or rather because of that, the number of people who used the cafes gradually increased, bringing a rise in the number of modern facilities in China. Internet cafes appeared not only in large cities, but also in medium and small Chinese towns.

As the internet became popular nationwide, consoles and video games began to slowly disappear from the electric entertainment market, replaced by LAN parties and online games. In the first years of gaming, single-player games were very popular. However, MUD games (multiuser dungeons), i.e. online multiplayer games, whose plots are based on a fictional world, spread quickly. These games were initially non-commercial, and some titles were created by Chinese enthusiasts, often students (Chew, 2016, p. 4). The moment the considerable increase in their popularity was noticed, the first commercial companies began to appear and develop and distribute their products on the market.

Multiplayer games appeared in the late 1990s. Initially, these were games that were developed abroad, such as *Starcraft* by American Blizzard or *Counter-Strike* by American Valve Corporation. Importing and distribution of games from abroad was very popular at that time, because there were very few Chinese titles on the market, especially ones that were appreciated. After 2000, local distributors also began to import games from South Korea, the leader in production and sales on the Asian market at that time (Chung, Jianping, 2009, p. 2). Just two years later, however, the largest Chinese distributors of online games began to test new opportunities for the development of domestic games,

mainly through the successful recruitment of talented IT and programming compatriots, international mergers and acquisitions, and partnership agreements with smaller entities. Games from abroad continued to be sought, but the Chinese production line was already being built, and cooperation was being established with the universities, and research and development institutions that helped in the development of original Chinese products (Ibid., p. 4). The year 2005 marked a breakthrough for the Chinese gaming market, because it was when Chinese productions became more popular on the domestic market than foreign ones for the first time. By no means did this mean that imported games disappeared from the market, but consumers chose them less frequently. Nevertheless, Chinese products were far behind the greatest global hits. Another Blizzard game launched in China in 2005 – the popular *World of Warcraft* (WoW) – was well received by players and quickly spread across the country. The game continues to be a very frequent choice for Chinese players. In order to be allowed on the Chinese market, however, significant changes were required by the government and adaptations to fit the “specific Chinese character.” Hoping for large profits, Blizzard agreed to implement them. Censorship demanded that the skeletons known to WoW players from other parts of the world be turned into tombstones, while the blood in the Chinese version of the game had to look not so much like real blood. The Chinese version was therefore slightly different from the original, which continues to be a characteristic feature of this market to this day.

In 2006, China went ahead of South Korea, becoming the largest online gaming market in Asia. The Chinese gaming market was dominated by productions from local companies, the largest of which were Tencent Games, Shanda Interactive, 9You and Ne-Ease. Chinese game developers, who imported and introduced specific titles, from the very beginning based their own productions on foreign games, often using their graphics and plot in an unauthorized way, to create more or less successful imitations. This allowed them to avoid paying fees on profits of up to 30–50 percent, which were usually demanded by foreign developers (Ibid.), as well as make almost any changes in their productions, regarding the content or appearance of the characters without obtaining the consent of the developer and avoiding international sanctions. In 2003–2008, “adapted” games from abroad were introduced to the Chinese market by many local Chinese companies under different titles. For example, the game developed by the Korean company Nixon, whose original title is *Crazy Arcade*, appeared in China as *QQ Tang*, developed by Tencent Games. Shanda did something similar, duplicating the Korean game *Cream Poo* and transforming it into the Chinese *Magical Land* (Kim, Kang, 2018, p. 22). This practice lasted for many years, and the global game developers seeking to enter the receptive Chinese market and enjoy the related profits, accepted such actually humiliating conditions which were harmful in the long term to their own interests, not to mention the principles of fair international trade.

Generating enormous profits on the Chinese market at all costs, however, became a priority for the world’s leading developers, which was undoubtedly related to the fact that the Chinese online games could be played for a fee at first. Interestingly, similar models of payment for games, and the games themselves, were not invented in China, because they appeared in Korea or the US much earlier (Chew, 2016; Ren, 2010, p. 65).³

³ Modes of payment could be divided into two categories: time-based pricing, also known as pay-to-play, which meant that the game was free until downloaded and installed (you paid for the opportuni-

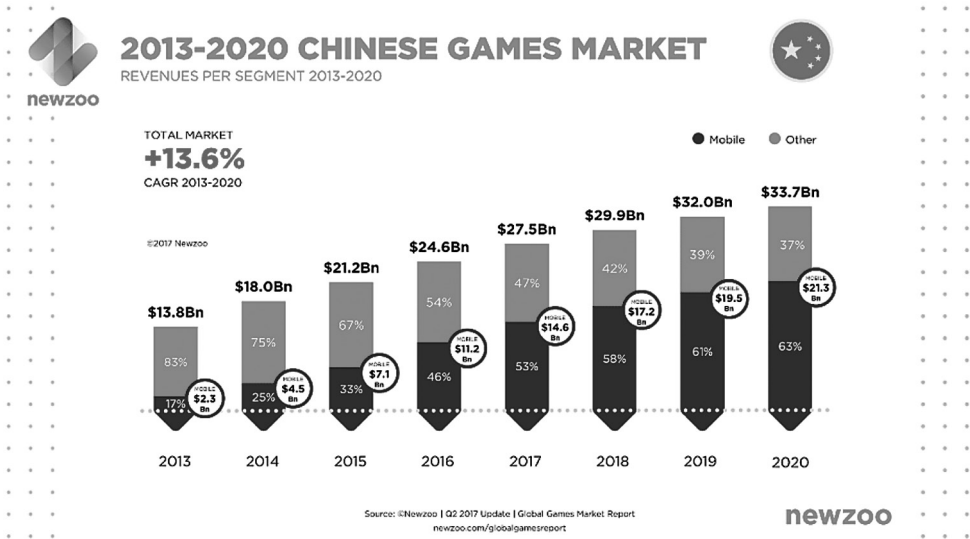
Let us return to the main topic of Chinese game developers and the specific features of this market. Shanda says on its official website that it was established in 1999, when only 1 percent of Chinese population had access to the internet and a similar proportion had credit or debit cards (*The Founding of Shanda...*). Shanda was the first game developer in China to introduce prepaid, hard-to-duplicate cards that made it easy to pay for online games and that could be purchased at over 400,000 outlets nationwide. Later, many other companies introduced cards of this type. In the following years, the games offered by Shanda could be played for free, but gamers could pay to buy additional items to facilitate the game. Another Chinese game giant – Tencent Games – was founded in 1998. According to Newzoo data from December 2017, Tencent Games is currently the largest company in the world in terms of revenues from this type of product and services (*Top 25 Public Companies...*). Tencent releases its games for smartphones, computers and consoles. One of the most popular and free online games in the world – the *League of Legends* (famous LoL) – is the property of Tencent Games, which bought Riot Games, the original developer of the game, in 2011. Aside from LoL, Tencent Games has released the popular game *Playersunknown's Battlegrounds* (PUBG) on the Chinese market. The game was developed in Korea, but like any product from a non-Chinese manufacturer, it had to be censored in order to be allowed onto the market. Tencent Games came to the aid of millions of waiting players and professionally adapted the game to Chinese conditions (*Tencent gets exclusive rights...*). As well as PUBG, Tencent has released other globally popular and well-known games on the Chinese market, such as *Call of Duty*, developed by Activision Publishing, a subsidiary of Activision Blizzard; *Candy Crush Saga*, a mobile game developed by the Swedish company King.com, belonging to Activision Blizzard; as well as *Clash Royale*, a cell-phone game by the Finnish company Supercell (*Tencent launches Candy Crush...*). Tencent has also acquired Epic Games and its global hit *Fortnite*. Most of the games distributed by Tencent are based on the dominant item-based pricing model. In 2008, this system was also adopted by NetEase, which, like Tencent, helps game developers in introducing their products to the Chinese market after its disappointment with *Tianxia II* (using time-based pricing). This facilitated the appearance of the extremely popular *Minecraft* game, developed by the Swedish company Mojang in cooperation with NetEase, in China. Chinese consumers have been able to play *Minecraft* since 2016, seven years after its world premiere (Ren, 2010, p. 67).

In China, the largest revenues are generated by mobile games (downloaded to smartphones), accounting for over 50 percent of total revenues of Chinese companies in this sector. In a country with well over a billion phones in use today, 95 percent of people access the internet via mobile devices. Almost 40 percent of revenues from mobile games were generated by a subsidiary of the global corporation Tencent Holdings Ltd. In the 2017 ranking of the top twenty most profitable mobile Android games in China, as

ty to play as well as for the time spent in the game); and item-based pricing, also known as pay-to-win, where you paid for virtual items, weapons, heroes' clothes, etc., which were better than free ones and gave you more chances of winning. The latter model was used much more often by Chinese developers. It was also possible to use both models at the same time. By the end of 2007, time-based pricing games were largely abandoned, while the item-based pricing model accounted for approximately 80 percent of the market.

many as seven titles had been released by this world-famous company (*Top 20 Android Games...*).

Graph 2. Revenues generated by games in the Chinese games market 2013–2020 (by segment)



Source: Newzoo, <https://newzoo.com/insights/articles/the-global-games-market-will-reach-108-9-billion-in-2017-with-mobile-taking-42/>, July 27, 2020.

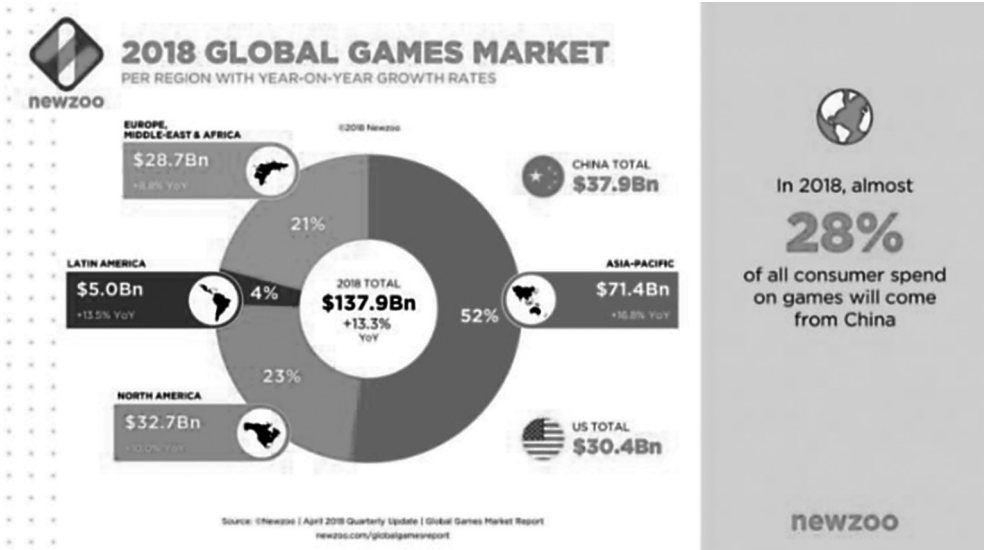
China’s mobile gaming revenue is expected to continue to grow. Mobile games are physically more accessible than classic computer games, and also easier to develop. They can be used at any time and place, for example when commuting to work by subway, or relaxing during breaks at work, in schools or universities, which is especially appreciated by the professionally active and educated Chinese.

Currently, Asian companies dominate among gaming enterprises in the world, spearheaded by Chinese, Korean and Japanese companies generating the highest revenues from the market. The leader, with revenue approximating USD 20 billion in 2018, was the aforementioned Tencent Games, which specializes in online multiplayer gaming platforms (MOBA – Multiplayer Online Battle Arena), and – as a co-operator and distributor – also earns money on the success of games such as *Fortnite*, *PUBG* or *League of Legends*. Japan’s Sony ranks second, with its most popular game console in the world, the PlayStation. America’s Microsoft with the XboxOne console ranks third. It was the Chinese giant that once paid USD 8.6 billion for 84 percent of the shares of Supercell, the developers of the mobile hit *Clash of Clans* (which was more than Microsoft spent purchasing *Minecraft*, and the Disney Studio buying the rights to *Star Wars*!). As mentioned above, the Chinese have also bought the Riot Games studio and have significant shares in Activision and Epic Games. The business model is simple. Like other Chinese companies of this type, Tencent simply buys studios that create high budget productions for the United States, South Korea and Europe. Importantly, they do not build their own

“brand,” which would require not only financial resources, but also knowledge and time, and would potentially be quite risky. Instead they buy the rights to existing productions at enormous prices. Having been censored, these titles can then enter the market as “Chinese productions,” like the famous Korean game *CrossFire*. The *CrossFire* (FPS) game was developed in South Korea in 2007, and is a classic example of how Chinese companies from the gaming industry operate. Like the America’s *Counter Strike* (by Valve Corporation), it was released by Tencent Games. In February 2020, the “Chinese game” already had 1 million registered accounts, thus becoming the top game in the world in terms of the number of players worldwide (Gryonline.pl). *CrossFire* is known and popular mainly in Asia, but it attempted to enter Western markets, too. However, despite all the similarities to the original *Counter Strike* (gameplay, maps, and in-game purchases), the global expansion has failed. Non-Asian players preferred the original. Nevertheless, the Asian market was won over at the expense of the original (Rudnicki).

According to analyses by Newzoo, in 2018 China became the largest gaming market in the world worth almost USD 38 billion, ahead of the United States and Japan. As mentioned above, the market for mobile games and free-to-play (f2p) games is growing the most. The Chinese have long loved all types of party games, gambling and the risks associated with it. This is another reason why this market potential is so huge. Polish gaming companies are currently also taking advantage of it. CD Projekt SA, 11 bit studios and PlayWay have already signed contracts with local Chinese partners such as Tencent or GAEA.

Graph 3. Global games market per region (2018)



Foreign game developers can basically choose between two main routes to enter the Chinese market. They can sell games either via foreign platforms (such as Steam or GOG), or via local platforms (such as WeGame, Xiaomi Game Center or TapTap). In the latter case, companies gain access to a larger market, but they are required to establish

mandatory cooperation with a local partner first. This is because only a company registered in China can submit a game to be approved by censors on behalf of the manufacturer. Only after the game is authorized by Chinese censors is it widely distributed and directly available on the Chinese market. The largest publishers in China are Tencent and NetEase, followed by Perfect World and GAEA. Local publishers, apart from publishing activities, also promote and sell the games of foreign developers. In fact, it is only possible to obtain relevant licenses to distribute games in China through them. The problem is not only having to submit to censorship, but also the risk that publishers such as Tencent Games will often use their position and access to a lucrative market to dictate terms of cooperation that are much less favorable than those typically offered by American or European publishers (<https://strefainwestorow.pl/artykuly/spolki/20180802/spolki-gamingowe-chiny>).⁴

Despite the difficulties in entering the Chinese market, foreign games generated as much as 60 percent of revenues in 2018. It has already been mentioned that in the 1980s and 1990s, purchasing games and the equipment necessary to run them legally was expensive and unavailable for the vast majority of the Chinese population. At that time, practically until China joined the WTO in 2001, popular titles were massively copied there without any sanctions. The situation changed not so much due to China joining the WTO, however, but due to the growing popularity of the original mobile games, especially for smartphones. This is currently the largest market, worth over USD 15.6 billion, and forecasted to increase to almost USD 25.5 billion in 2023. At present, almost every second Chinese person plays on a smartphone (598 million people), and by 2023 this number is expected to increase to 728 million players (<https://www.obserwatorfinansowy.pl/forma/analizy-debata/analizy/chinski-rynek-gier-komputerowych-ucieka-cenzurze/>; https://www.gamblingsites.com/pl/zaklady-esportowe/gry/#multiplayer_games).

This business model has worked well so far, at least from the Chinese point of view. In order to get access to the most receptive market in the world, non-Chinese gaming companies agree to their rights being purchased and the visual and textual content of their games being censored. A question arises whether this is profitable for them in the long term, if this is the right course of action, and also if it might be necessary, for example, for the EU to enact regulations limiting or even prohibiting this practice. The Chinese are certainly satisfied with buying know-how, producing their own imitations or intermediating in the distribution of games, but should non-Chinese gaming companies be satisfied? That is doubtful. It should be remembered that Xiaomi has been

⁴ Wishing to distribute their products on the Chinese market, gaming companies from around the world have to take into account numerous restrictions on their content. Anything that “harms public ethics or Chinese culture and traditions” and “anything that violates the Chinese constitution” is generally forbidden. Games that could in any way threaten national security or politics, or promote racism, religious cults, gambling, excessive violence or the use of drugs are prohibited. Chinese censorship does not permit excessive aggression, brutality or sex scenes in the games for players in China, which often distorts the game’s plot. The companies cooperating with the Tencent or NetEase platforms have to take this into account. Games are licensed for sale in China by the very restrictive Chinese State Administration of Radio and Television and the Ethics Council for Online Games. Censorship has so far not applied only to the Steam platform, which is treated as a kind of “safety valve.” The popular, although quite brutal game *GTA V* (next in terms of the number of copies sold only to *Tetris* and *Minecraft*), featuring the original content and graphics can only be purchased in China on Steam.

copying Apple solutions for years, and Huawei – those by Samsung. Sina Weibo resembles Twitter; WeChat, Youku or Renren, albeit modified, also have clear American prototypes. Chinese ICT companies have increasingly modern products, stronger brands and prices lower than their competition. They often have very elegant showrooms in shopping malls on the most expensive streets of cities worldwide. Copying know-how and the entire business model allowed Chinese companies to achieve a position which the industry giants from the USA or South Korea have taken decades to achieve (this applies to Apple most). In several years, maybe ten, China may no longer need original products, because it will have its own, deceptively similar examples of “indigenous innovation” (自主创新.). This obviously applies to the gaming market, too (<https://www.bankier.pl/wiadomosc/10-wykresow-o-branzy-gier-ktore-warto-znac-7720188.html>; <https://www.komputerswiat.pl/gamezilla/artykuly/chiny-nowa-potega-w-swiecie-gier-marne-podrobki-to-nie-wszystko/lyj6b3h>).

This approach is no longer universally accepted worldwide, however. The EU is certainly more restrained and cautious in its attitude to China than the United States. A regulation issued by the US administration in May 2019 prohibits American telecommunications companies from using devices from Chinese manufacturers. It also prohibits American technology companies from making their technologies available to the Chinese. Each order placed by Chinese companies with American manufacturers will have to be approved by the US government administration, and the list of manufacturers affected by this regulation includes as many as 70 companies referred to as “foreign adversaries,” with Huawei on top. Earlier, severe restrictions were introduced in the USA regarding the takeover of high-tech companies by foreign capital. There are also – justified or not – executive orders prohibiting transactions with the owners of the TikTok (Tencent) and WeChat (ByteDance) apps, who are accused of breaking security procedures and gaining unauthorized access to users’ personal data (<https://www.obserwatorfinansowy.pl/forma/analizy-debata/analizy/chinski-rynek-gier-komputerowych-ucieka-cenzurze/>; <https://www.chip.pl/2019/05/usa-nie-dla-chinskich-firm-telekomunikacyjnych/>).

4. The Development of E-sports in China

E-sports are an interesting and symptomatic manifestation of the popularity of computer games in China. E-sports started in South Korea in connection with the popularity of *StarCraft*. The beginnings of e-sports in China were associated with three games, one of which was *StarCraft*. The first official *StarCraft* tournament in China took place in Beijing in 2000, organized by Aomei Soft, its official publisher on this market (Zhouxiang, 2016, p. 2194). Several other official tournaments offering larger and larger cash prizes were organized in the same year. Another game that contributed to the rise of e-sports in the PRC, alongside *StarCraft*, was *Quake II* (Ibid., p. 2195). The third title that had a part in the development of this discipline was *Counter-Strike*, which has also become the most popular tournament title around the world. In 2002, Pepsi sponsored a huge media event in China, with 202 teams, including women’s teams and a team of people with disabilities. The winners received RMB 10,000 in awards and... 6 Philips PC display units. The organizers, Beijing Great Wall Broadband Network Service Co. and

Aomei Soft, expressed their hope that this tournament would promote e-sports in China and facilitate combating the widespread computer piracy (Ibid., p. 2196).

In order to relieve the concerns shared by a large part of the public about the harmful impact of games, in 2003, for the first time Chinese CCTV television showed a program from an e-sports tournament held in Seoul, presenting the Chinese players who won gold, silver and bronze medals. One month later, the government recognized e-sports as the 99th official professional sport and began to make greater efforts to draw public attention to e-sports as a source of national pride and a great international good that should be supported, popularized and publicized (Szablewicz, 2016, 2016). With this priority in mind, in 2004 the Ministry of Sport and the All China Sports Federation (ACSF) organized the first China E-sports Games (CEG) championship. The first final took place in Beijing. In the following years, the championships, sponsored among others by Intel or Tencent, were also organized in other cities. As well as organizing the championships, the government was involved in creating legal regulations concerning the new discipline. Backed by the government, e-sports have begun to develop rapidly in China. Special online platforms have been created, offering their services to fans of games and e-sports. These websites feature competitions related to games, interviews with gamers, coverage of gaming events and many other multimedia events. NEOTV.com was founded in 2006. Currently, however, the most popular websites of this type are Douyutv.com, Huya.com, and Pandatv.com, with nearly 70 percent of viewership in China combined (Dubelaar, 2017). Over time, these sites have begun to replace Chinese internet cafes, and some of them have started to sponsor e-sports teams. For example, in 2014 Zhanqi.tv sponsored the Chinese team, the champion of the DotA2 International in the same year and winner of USD 5 million. Over time, rich Chinese individuals have also become sponsors of players and teams. The best known example is the Invictus Gaming team, which was created in 2011 by Wang Si-Cong, who is the son of Dalian Wanda's Chairman, Wang Jianlin, the richest citizen of China, according to the current Forbes ranking. The development of e-sports and their increasing popularity has also translated into championships and tournaments being organized in China. The aforementioned China E-sports Games have been replaced by more professional and commercial events such as the National Electronic Sports Open (NESO) and the National Electronic Sports Tournament, professionally organized by the governmental sports administration (*National Electronic Sports Tournament...*). China has gradually become a country where the most important e-sports events in the world are organized. This has become another opportunity to apply soft power instruments and present the economy and society in a spectacular and favorable manner, as modern, progressive, open and innovative on the international arena. In 2013, the World Cyber Games were organized in Kunshan with teams from South Korea, Japan, Germany and Turkey among others. This was another excellent opportunity to present how technologically developed this city is, while showing its rich historical past and heritage to a global audience. As the host of the championship, China made great use of this opportunity to rebuild the tarnished reputation of Kunshan. The image of this city had been seriously undermined by reports about the inhumane working conditions of people in its plants. The last World Cyber Games were held in 2013. After Kunshan was chosen to host the championship, the World Cyber Arena – a continuation of the spirit of the WCG, also took place in China the following year, this time in a city in the west of

the country. This part of China is a sparsely populated and underdeveloped region, and choosing Yinchun as the host offered a chance for development and international recognition. Choosing this city was intended to inspire international interest in the region, also in terms of tourism, and potential investments (Szablewicz, 2016, p. 264).

As well as the gaming market, the accompanying e-sports market is also developing rapidly in modern China, which by no means is an Asian idiosyncrasy. The popularity of e-sports is growing at a dizzying pace all over the world. In order to accurately illustrate the scale of the phenomenon, it is interesting to examine the viewership of e-sports tournaments. Suffice it to mention that in 2018, the tournament of *League of Legends* gamers during the Mid-Season Invitational was followed by... 127 million viewers (<https://www.legalsport.pl/newsy/e-sport-top-10-najpopularniejszych-gier/>)!⁵

In 2018, one in four e-sports players came from China (28 percent share globally), and China became the number one market both in terms of the revenues from the sales of computer games and the number of tournament players (619.5 million people). The global rankings of Chinese players have also improved significantly in the last few years. The year 2014 was the year of Chinese players, who took the top eight places. In 2015, the highest scoring Chinese took sixth position. In 2016, the Chinese took the top five positions, and in 2017, the Chinese player with the highest position in the *Esportearnigns* ranking was seventh (*Esportearnigns.com*, <https://www.esportearnigns.com/history/2017/countries;> <https://www.legalsport.pl/newsy/e-sport-top-10-najpopularniejszych-gier/>).

In 2020, China overtook the South Korean e-sports market, becoming the second largest market of this type, only behind the United States. The Chinese e-sports market is currently worth around USD 2 billion. E-sports tournaments bring together multi-million audiences with very specific interests in one place at the same time. These tournaments offer a great opportunity for every developer and advertiser of software, and other prod-

⁵ E-sports may also become an Olympic discipline. The decision of the International Olympic Committee in 2017 paved the way for virtual games to enter the Olympic Games, but the final decision will be made only after a tournament in Tokyo in 2021, an event postponed due to the SARS COV2 pandemic.

⁶ The most popular e-sports tournament games are MOBA games: *Dota 2*, *League of Legends*, and *Smite Heroes of the Storm*; FPS games: *Global Offensive*, *Halo*, *Battlefield*, *Overwatch*, and *Call of Duty*. Other popular titles include RTS games: *StarCraft II*, *Warcraft III*, *Age of Empires*, and *World in Conflict*; fighting games: *Street Fighter*, *Super Smash Bros*; sports and racing games: *FIFA*, *Rocket League*, *NBA 2K*, *Real Subspace Hockey League*, *Madden NFL*, *Need for Speed*, and more: *World of Tanks* and *Hearthstone: Heroes of Warcraft*. According to professional gaming data collected by eSportsflag, the most popular e-sports title in China is *Dota 2*, where China is represented by over one hundred professional teams. Chinese players are estimated to have won nearly USD 70 million in prize money alone. MOBA games are the favorite genre of Chinese e-sports players. During the last *League of Legends* world championship, the Chinese FunPlus Phoenix team defeated the European professional team G2 Esports, thereby marking Asia's absolute dominance in the genre and winning over USD 1 million. Team shooters, such as *Counter-Strike: Global Offensive* or *Overwatch* are also popular, the latter being sweepingly popular in East Asia. Another extremely popular title is *Honor of Kings*, which is specific to the Chinese market. It is a mobile MOBA game developed by the Chinese gaming giant – Tencent Games. Internationally known as *Arena of Valor*, at the peak of its popularity this title boasted a phenomenal 200 million players. *Hearthstone* also deserves to be mentioned – an online card game developed by Blizzard. While the Chinese do not dominate here as absolutely as in the case of *Dota 2*, *Hearthstone* is still one of the most popular professional games on the Chinese gaming scene.

ucts or services usually targeted at young players (including gadgets with the pictures of the most popular e-sports players). Some Chinese e-sports players are so popular and well-known that they have their own lines of snacks and energy drinks. That is why the authorities of the largest Chinese cities such as Hainan, Shanghai, Chongqing or Xi'an are making huge investments, developing the infrastructure needed to continue the expansion of the local and global e-sports scene. Shanghai has already officially announced its intention to become a global e-sports hub within the next few years. Being an e-sports player is recognized by the Chinese government as a full-fledged and very profitable profession. Such careers are highlighted as having a positive impact on Chinese society and culture, which conforms to the political message promoted by the authorities about building an open and modern e-society (Ibid.).

5. Potential of Polish Game Developers

The computer games market in Poland has been developing very dynamically for several years now, and the leading Polish developers are more and more boldly entering the receptive Chinese market. The global market offers incomparably greater opportunities to generate economy of scale profits than the domestic market, and the enormous Chinese market seems to be a particularly interesting option here. The fastest growing segment of mobile games (25.5 percent annually worldwide, including China), accounted for half of the entire global games market (USD 70.3 billion) in mid-2018. Polish developers are increasingly present on this market (*Raport „Forbesa”: Najwięksi polscy producenci gier*, <https://www.forbes.pl/biznes/najwieksi-polscy-producenci-gier-raport-forbesa/7q30dm3>).

For years, investors in the gaming sector have been increasingly interested in companies such as the absolute Polish gaming tycoon, CD Projekt SA (developer of the cult series *The Witcher*, including *The Witcher 3* – the game repeatedly recognized as the best debut in the world, the Witcher card game *GWENT*, or the most recent *Cyberpunk 2077*, which is highly anticipated on the global market), 11 bit studios (developer of, among others, *Frostpunk*, *Moonlighter* and *This War of Mine*), PlayWay (with *Car Mechanic Simulator 18* and an expansion to the game *House Flipper – Garden DLC*), Ten Square Games (developer of, among others, *Let's Fish*, *Fishing Clash*, and *Wild Hunt*) and Techland (developer of *Dying Light* or *Call of Juarez*, to name just these two). Apart from Techland, which is planning to enter the stock exchange after the premiere of *Dying Light 2*, all these companies are included in the WIG.GAMES industry index, which was launched on the Warsaw Stock Exchange on March 18, 2019. Cherrypick Games and Vivid Games also stand out (*WIG.Games. Najwięksi producenci gier mogą jeszcze drożeć*, <https://www.parkiet.com/Technologie/304039998-WIGGames-Najwieksi-producenci-gier-moga-jeszcze-drozec.html>; <https://www.bankier.pl/wiadomosc/Techland-rozwazy-debiut-gieldowy-po-premierze-Dying-Light-2-7832355.html>⁷).

⁷ Since the Warsaw Stock Exchange started publishing the WIG Games Index in March 2019, its value has increased by as much as 55.5 percent. No other of the fifteen industry indices calculated by the WSE achieved a better result in this period. Three out of five companies included in the index – CD Projekt, Play Way and Ten Square Games – regularly break valuation records. In January 2020, all three of them were above the average valuation recommended by analysts at that time. The prices of the clear

At the end of 2019, the total value of Polish game developing companies amounted to PLN 28 billion. The “20 top Polish game developers” are getting increasing global attention, for example at the Electronic Entertainment Expo – the largest exhibition of the computer games industry, annually organized in Los Angeles (*Ranking 20 najcenniejszych polskich producentów gier*; <https://www.forbes.pl/rankingi/ranking-najwieksi-polscy-producenci-gier-2019/hs5q071>; <https://strefainwestorow.pl/wiadomosci/20200116/producenci-gier-wchodza-w-2020-rok-z-rekordowymi-wycenami-analiza>).

Interestingly, Polish exports of games, consoles and video game devices in 2013–2018 increased by an unbelievable... 3,800 percent! Thus, Poland has become the fourth largest exporter in this industry in the world! While Poland is far behind China, which completely dominates in this sector, with gaming industry exports of EUR 9.35 billion and a 49.1 percent share in the global sales of games and consoles, Polish exports amount to EUR 1.24 billion, accounting for 6.5 percent of the global market, being ahead of Germany and the United States, among others. Poland is right behind only China, Japan (with EUR 1.95 billion and a 10.2 percent market share) and Hong Kong (with 1.74 billion and a 9.1 percent market share) (Trykozko, 2019b).

In 2019, the global value of exported games and consoles amounted to EUR 19 billion. The top ten exporters have a market share of 93.2 percent, which clearly makes Poland the world’s leading exporter of games. However, the top three importers of Polish products do not include China, which means that the potential of the Chinese market is still not being fully exploited and remains dormant from the Polish perspective. The main recipient of Polish games is the United Kingdom (33.1 percent of Polish exports in this industry), followed by Germany (30.7 percent) and Sweden (5.3 percent) (Ibid.).

The largest global importers of gaming products are the United States (EUR 4.69 billion, 24.6 percent of market share), Germany (EUR 1.91 billion, 10 percent of market share) and Hong Kong (EUR 1.58 billion, 8.3 percent of market share). Poland ranks fourth with EUR 1.43 billion and 7.5 percent of the market. Poland continues to import more gaming products than it exports. Given the large domestic potential in this industry, this is somewhat surprising, and the Chinese gaming market and the potential of e-sports in this country provide the best opportunity to change this situation under certain conditions (Trykozko, 2019b; Trykozko, 2019a⁸).

industry leader, CD Projekt, rose by 92 percent in 2018. At the beginning of 2020, the company was valued at almost PLN 30 billion, being the fifth company in the WIG20 index. In terms of capitalization, the developer of *The Witcher* series was even ahead of the Polish national Bank Pekao. The stock exchange valuation of 11 bit studios – the second company with the highest share in the WIG Games index – increased by 67 percent in 2019. The share price of Ten Square Games increased by 148 percent in 2019. This was the largest growth among companies from the WIG Games Index.

⁸ Bloomberg Intelligence analysts who investigate enterprises in such sectors as energy, technology, trade and finance, selected 50 enterprises that are preparing a product or service in 2020 that could become a global hit. Revenue growth, margins, market share and other economic factors were taken into account. It was CD Projekt SA that ranked first, both in terms of the forecasted sales growth (especially sales of the premiere *Cyberpunk*) and increasing earnings per share (EPS). This Polish company has actually crushed the competition, leaving far behind the digital economy giants from the American Silicon Valley. In terms of sales growth, the Chinese e-commerce platform Pinduoduo came second with a forecasted increase of 97.7 percent. In the ranking of the estimated growth of earnings per share, the US insurer AIG came second with a forecast of a 153.9 percent growth. So far, CD Projekt SA has been the only company from the Polish stock exchange that has a chance to compete with global

In general, despite its specific character and certain barriers, its size and growing demand makes the Chinese gaming market extremely attractive for Polish game developers. First and foremost, it offers an opportunity for a dynamic increase in sales, which translates into increased revenues, as in the case of 11 bit studios and *This War of Mine* released in Chinese. Despite the difficulties associated with finding local partners and the requirement to agree to the ubiquitous censorship, introducing gaming products for direct sale in China continues to be profitable for game developers. Both the companies developing the best-rated AAA games and those offering free-to-play (f2p) mobile games are likely to rapidly increase their revenues. However, while it might be acceptable to have distribution middlemen or even censorship, potential mergers and acquisitions (M&A), joint-ventures with access to know-how, or technological extortion should be the last options worth considering. There should also be no “silent consent” on these companies’ own solutions being imitated in Chinese-made games (Mazurek, 2018).

6. Conclusions

The importance of the internet in human life, as well as the number of internet users in the world will continue to grow. The smartphone will remain the device most readily used to communicate on-line, and computer games (mobile apps) will be the most readily downloaded apps. Almost half of the world’s population regularly use this form of entertainment (including games for consoles and PCs), spending more and more money on it. Importantly, the gaming market is one of the few in the world which have benefited from the lockdown enforced by the SARS-Cov-2 virus pandemic, as evidenced by the clear increases in stock market indices of gaming companies on all stock exchanges worldwide. The largest number of internet users live in China, and the Chinese market generates the highest revenues from the sales of games, especially mobile games. The Chinese are developing their gaming market at an impressive pace, albeit in a way that raises some controversy. The effective ways of promoting their country internationally through the organization of professional e-sports tournaments deserve attention. At the same time, China is building a community of tens of millions of mainly young people whose above-average computer skills and understanding of virtual reality can be successfully used to build the post-industrial, digitized, automated and robotic “China 4.0” model. Chinese experience in this matter should provide valuable guidelines for the governments of other countries, including Poland. The potential for the development of gaming and events associated with it in Poland is large and growing. Polish gaming companies today generate greater export profits than many a traditional industry, and the Poznań Game Arena is the largest computer games and multimedia entertainment exhibition in Poland and Central and Eastern Europe. It is organized both for industry representatives and individual visitors. So far, the 14 editions of the PGA have been visited by nearly 600,000 fans from various

leaders. The capitalization of the developer of *The Witcher* and *Cyberpunk* is several times larger than that of all the other, almost 30 game developers listed on the Warsaw Stock Exchange. This situation can only change with the debut of Techland, the revenues of which were roughly half of CD Projekt’s revenues in 2018.

countries. The receptive Chinese market offers a great opportunity for Polish gaming companies to increase their turnover and profits. While finding an appropriate Chinese distributor, who additionally often censors the product, is typically necessary due to the specific nature of the Chinese market, Polish technology companies agreeing to their Chinese partners obtaining know-how through mergers and acquisitions (M&A) should be a last resort. Technological sovereignty is a priority in the economic policy of many countries, including the USA, and Poland should also urgently begin to think about the advantages associated with it. Hostile takeovers in particular should be prohibited, not only as regards critical infrastructure entities, but also ICT companies. The technological sovereignty of all software development companies, especially those of strategic importance for the economy, should become a priority for the Polish government and should be specifically monitored by the competent authority (Office of Competition and Consumer Protection – UOKiK). The same regulations should also apply to the Polish gaming industry, taking into account its growing position and importance in the world. The Chinese authorities are increasingly successful in implementing a long-term plan to support and build “domestic innovation,” which should inspire respect and admiration. However, this does not mean that all the methods and ways to implement this vision should be accepted, as demonstrated by the US experience in this matter, which should be a warning to the European Union and its member states.

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Charakterystyka chińskiego rynku gamingowego i e-sportowego. Wnioski dla polskich producentów gier

Streszczenie

Na całym świecie technologie informacyjno-telekomunikacyjne (ICT) wywołują nową rewolucję postindustrialną, której tempo, zasięg i znaczenie są bezprecedensowe, nie mając odzwierciedlenia w przeszłości. Jej najlepszym przejawem jest rewolucja przemysłowa typu 4.0. mająca już dziś ogromny wpływ nie tylko na warunki życia i pracy miliardów ludzi, ale też na kierunki specjalizacji produkcji oraz zyski im towarzyszące. Zmiany owe można określić mianem rewolucji opartej na informacji będącej wyrazem rosnącej wiedzy ludzkiej i jej zastosowania. Jednym z bardziej interesujących jej przejawów, relatywnie słabo znanych w Polsce, jest coraz bardziej dochodowy i nabierający na znaczeniu globalny rynek *gamingowy* i towarzyszący mu rynek *e-sportowy*. W tak postrzegany paradygmat rozwoju świetnie wpisuje się dynamiczny rozwój rynku gier komputerowych w Chińskiej Republice Ludowej oraz aktywnie wspierany przez władze państwowe tego kraju rozwój dyscypliny e-sportu. Ów problem badawczy wymaga bliższej analizy także z polskiej perspektywy, motywowanej nie tylko chęcią poznawczą, ale przede wszystkim wymiarem utylitarnym. Dla coraz bardziej konkurencyjnych w świecie polskich producentów gier komputerowych z CD Projekt SA na czele, rynek chiński stanowi bowiem wielką szansę na wzrost zysków, szansę – póki co – nadal zbyt słabo wykorzystywaną. Na drodze do ich zwiększenia oprócz realnych wyzwań, szans i możliwości, pojawia się kilka zasadniczych barier i zagrożeń, niewątpliwie wartych diagnozy naukowej zawartej w prezentowanym artykule.

Słowa kluczowe: Internet, gaming, e-sport, Chiny, Unia Europejska, gry komputerowe