

ПРОБЛЕМИ ЕКОНОМІКИ

UDK 330.322:004:796.08

JEL Classification Code G31, L63, L83, C71, D92

V. Ya. Havran¹, M. I. Havran², V. V. Mandrova³

Lviv Polytechnic National University,

^{1,3} Department of Management of Organizations,

² Department of Foreign Languages,

ORCID: ¹ 0000-0002-6833-941x, ² 0000-0003-1345-9235, ³ 0000-0003-0693-0068

ESPORTS MARKET DEVELOPMENT AND ITS INVESTMENT ATTRACTIVENESS

<http://doi.org/10.23939/semi2022.01.001>

© Havran V. Ya., Havran M. I., Mandrova V. V., 2022

Purpose. The purpose of the article is to study esports market, analyse data on esports dynamics in the world and Ukraine and possible investment areas of esports and its investment attractiveness.

Design/methodology/approach. Conducting the research, general scientific theoretical research methods have been used, namely, analysis, synthesis, systematization, explanation. The method of abstract and logical generalization was applied to study and analyze scientific publications, analytical reports, and legal documents.

Findings. The ways of receiving funds in esports are considered and the scheme of esports market ecosystem is given. The place of Ukraine on the world market of esports is determined. Authors have also analyzed the existing Ukrainian legal and normative framework which regulates esports processes. The sizes and mechanisms of taxation of esports profits, as well as the factors influencing attractiveness of the given market have been considered.

Originality/value. The scientific novelty of the study is that it has been proved that esports market is attractive investment area because it contains many business models, allowing each investor to find short- and long-term projects, which tend to be profitable, and possible investment areas in the esports market have been substantiated.

Practical implications. The investment attractiveness has been analyzed by considering price-earnings ratio for esports companies, as well as investment opportunities for large companies and individuals have been characterized.

Key words: *esports market; esports development; investments; factor; investment opportunities.*

Paper type: Research paper.

Formulation of the problem

In the contemporary world, information technology is used in all spheres of human activities. Due to rapid technological changes and expanding pandemic caused by Covid-19, the number of people using different online resources is increasing as never before. Informatization has also affected the gaming industry, thus creating opportunities for earning money through video games. One of the ways to receive revenue in the gaming industry is esports. The business sector attention to this area is growing fast, but there are a number of factors that repel potential investors.

First of all, there is lack of sufficient information about the dynamics and prospects of esports market development. As a result, esports market is often accepted as superficial and unimportant one. Considering prospects of the esports market, a study of its development and investment attractiveness will disprove misconceptions about esports and attract investors' attention.

Analysis of recent research and publications

Comparing with other topics, esports has been out of special scientific attention. Therefore, there are few scientific papers on this issue today. Reports from analytical and financial companies, such as Digital Development Management and Superdata were used to conduct this study. A large number of domestic and foreign authors' publications in Internet sources were analyzed. In order to analyze the current trends in the esports market, we studied the research works of K. O. Horova, D. A. Horovyi, I. O. Lazneva, D. I. Tsaranenko [1; 7]. To study the peculiarities of esports development in Ukraine and the world, the scientific papers of I. V. Lytvyn, S. V. Vakulka, A. O. Boiko, O. V. Kuzmenko, V. V. Koibichuk, O. S. Kushnerov were analyzed [9; 11].

Formulation of hypothesis and goal setting

The study is based on the assumption that esports is an investment-attractive market with rapid dynamics of development and a wide range of business models. The **purpose** of the article is to provide data on the dynamics of esports; to determine Ukraine's place in the world market of electronic sports; to analyze the legal documents regulating the field of esports; to consider the amount of taxation of profits from esports; to form a list of possible investment areas; to analyze the investment attractiveness.

Research methods

For conducting the research, general scientific theoretical research methods have been used, namely, analysis, synthesis, systematization, explanation. Scientific articles of domestic and foreign scientists, analytical reports, publications in the media, and legal documents were used as an information base for the research.

Main part

In the world, more and more attention is paid to esports (electronic sports) – competitions between players in popular video games. The emergence of esports can be interpreted as a logical and irreversible consequence of the transition from industrial to information and communication society [1]. This area has recently begun to acquire business features and attract the attention of investors, as it is young and has existed since 1997.

The global esports market shows a stable growth of 20–30 % per year. According to research firm Superdata, worldwide esports revenue will grow from \$ 2.1 billion in 2021 to \$ 2.3 billion in 2022 (Fig. 1). The target audience will also increase from 500 to 700 million people (Fig. 2).

The rapid growth of esports requires the creation of entire “ecosystems”, because there is a need to create collegial leagues, law firms and education institutions [4, p. 276]. Money comes to esports through media rights, event ticket sales, goods sales and in-game purchases, but most of the revenue (69 %) comes from sponsorship and advertising [5; 6]. There is a large number of esports stakeholders, and its ecosystem is complex and diverse (Fig. 3).

Esports has the greatest development in Korea and China, where esportsmen are better known and more popular than professionals in other types of sports and games. But esports development is not identical in all parts of the world; this is due to different levels of socio-economic and technical development of the country, as well as living standards of people [7].

Ukraine does not stand aside from the leading countries and ranks 13th position among the leading esports countries [8]. On average, over the last ten years, Ukrainian esportsmen have earned 144 % more than cyber players in the world, i.e. the level of domestic esportsmen was much higher than the world average [9]. In addition, in 2020, esports was officially recognized as a sport, which gave an even greater impetus to the development of this area in our country. Today, there are 4 million fans of esports in Ukraine [10]. Moreover, the Ukrainian Professional Esports Association has formed a strategy for esports

development for 2020–2025, which includes projects for creating some advantages for Ukraine, among them are: attracting more than 100 thousand tourists a year, receiving 40 million USA dollars per year in the form of tourist fees, the development of broadband Internet, promoting Ukraine as a brand all over the world [11]. Thus, at the moment, domestic investors can enter the esports market with quite reasonable money, but they should take into consideration that the entry threshold is constantly increasing [12].

The legal framework of Ukraine is developing towards the creation of special regulations and rules for esports; additionally, the regulation of the esports industry is carried out through the interpretation of existing laws, namely:

- Law of Ukraine On Stimulating the Development of the Digital Economy in Ukraine;
- Law of Ukraine On Copyright and Related Rights;
- Law of Ukraine On Distribution of Copies of Audiovisual Works, Phonograms, Videograms, Computer Programmes, Databases;
- Law of Ukraine On Advertising;
- Civil Code of Ukraine;
- Law of Ukraine On Ensuring the Functioning of the Ukrainian Language as the State Language;
- Law of Ukraine On Protection of Public Morality;
- Law of Ukraine On Protection against Unfair Competition;
- State sanitary norms and regulations on arrangement, maintenance, equipment and organization of work of institutions that provide services for computer gaming activities.

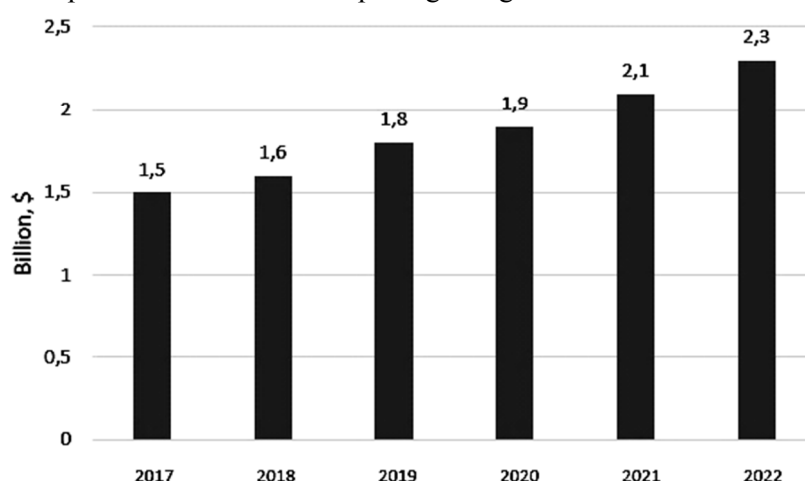


Fig. 1. Dynamics of the worldwide esports revenue

Source: [2].

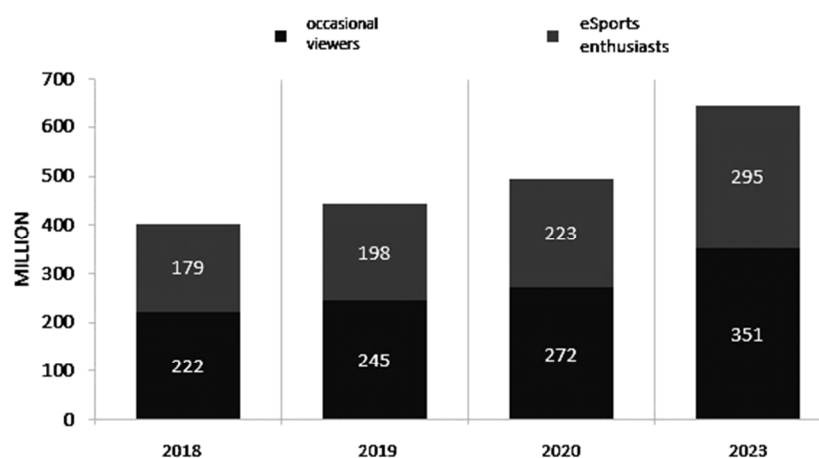


Fig. 2. Dynamics of the global esports audience

Source: [3].

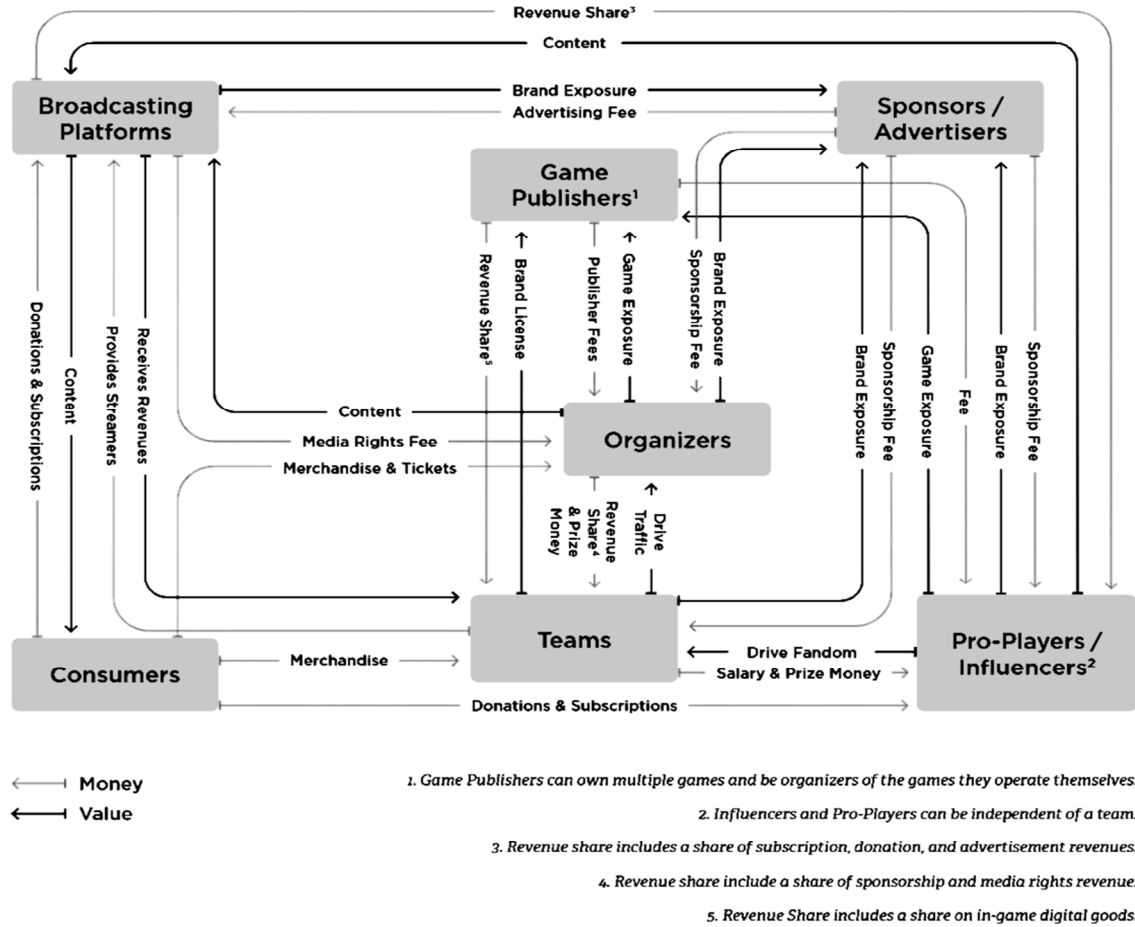


Fig. 3. Esports ecosystem scheme

Source: [6].

It should also be noted that on February 8th, 2022, Diia City (reads in Ukrainian as “Action City”), a special legal regime with special tax condition for the IT industry, was launched. It determines the organizational, financial and legal principles in order to establish in Ukraine the most powerful IT hub in Central and Eastern Europe [13]. The legal regime will avoid the limits for investments, job creation or the development of new technologies. It means that Ukrainians and entrepreneurs from all over the world will have the opportunity to quickly and effectively implement the most ambitious innovative and business ideas. During the week of this legal regime functioning, 55 participants have already joined it, and their number is rapidly increasing. Nowadays, there are many residents which are well-known and successful companies, such as: Reface, Roosh, Monobank, MacPaw, Ajax Systems, Revolut, EPAM Systems, Samsung, Genesis, NiX Solution, Softserve, Sigma.Software, RIA.com, Rozetka, Plarium, Deus Robots [14].

It would be of interest to explain the income taxation of esports, which is performed according to such procedure as:

- if the income was received abroad, it must be declared as foreign, i.e. a declaration must be submitted to the tax authority and paid to the deadlines: personal income tax is 18 %, and military duty – 1.5 %;
- if the income has already been taxed abroad, it should still be declared in Ukraine. However, the amount of Ukrainian tax may be reduced by the amount of foreign tax paid. It should be noted that if a double taxation agreement has not been concluded between Ukraine and the respective state, the tax should be paid both abroad and in Ukraine;
- if the remuneration is paid by the Ukrainian company, the organizers of the competition should act as tax agents and pay the funds already considering payment of taxes;

- if the remuneration was paid to a foreigner without the involvement of the Ukrainian organizer, he or she must submit a tax return and pay taxes in Ukraine;
- if the funds are received by minors, persons under the age of 18 years, then according to the current legislation of Ukraine, their obligations to pay taxes and fulfil other monetary obligations are assumed by their parents (or adoptive parents, guardians, trustees).

Today, esports offers business integration scenarios that are virtually unlimited in terms of creativity and budget: from one-time streaming broadcasts with large audience and cyber tournaments sponsorship to unique author integrations within specific computer games and booking in the cyber industry a whole class of activities for a specific brand [15]. In addition, over the last few years, the boundaries between esports, live broadcasts, and even influencer marketing have become blurred [16]. It means that in esports, there are many business models. Therefore, this area is one of the most promising. Investment is mostly made in the following projects: infrastructure (platforms, tournaments, and special software solutions), teams / clubs or specific players, development of esports disciplines (videogames). The company Digital Development Management has estimated that last year esports industry investments grew by 77 % reaching \$ 13.2 billion [17].

We found out that there are several factors which influence esports market investors' interests: 1) growth of market capacity; 2) development of information technologies; 3) variety of investment directions; 4) recognition of esports as an official sport in many countries, number of which is constantly increasing.

One of the promising contributions for powerful investors can be the purchase of a license to hold tournaments (betting or amateur): rights to broadcast, rights to place logos and brand names during tournaments, rights to manufacture and distribute goods with game symbol, etc.

It is worth mentioning that esports market is more accessible to influential companies and investors who are ready to wait for 5–10 years. For example, in 2014, Amazon acquired Twitch, which is now the leader among streaming platforms. However, investing in esports is also available to individuals who are not engaged in entrepreneurial activities. The easiest way to invest in esports is to buy stocks of companies that create games, streaming video games platforms, gaming accessories. For instance, nowadays, there is even a list of companies with the most promising stocks, including Activision Blizzard, Tencent Holdings, Take-Two Interactive, Electronic Arts, Zynga [18]. It is recommended to create an investment portfolio that consists of small investments in different companies, instead of having only one large area of investment.

Considering the fact that esports teams also receive a significant share of profits, investments in this area will be profitable. However, limited resources can be a hindrance, so those teams belonging to companies represented in the stock market should be taken into account. In addition, investors should consider that VR has been developing more and more in recent years, and mobile gaming, being the fastest growing segment of the industry, has taken a special niche in esports. In 2022, the mobile gaming segment is expected to have 45 % of the global gaming market.

As far as we aware there are many popular video games, namely: Dota 2, Counter-Strike: Global Offensive, Fortnite, League of Legends, Arena of Valor, which are also known as 5 top games awarding prize money [5], along with them there are also StarCraft, Overwatch, Hearthstone, FIFA. Therefore, it is recommended investing money in projects related to them. Additionally, it is worth mentioning that in evaluating the costs of such projects, investors should focus attention on determining the amount of pre-project costs and analyzing results of the costs of completed projects [19, p. 172].

Regarding esports investment attractiveness, price-earnings ratio as one of the key factors should be considered. For esports companies, the figure ranges from 4 to 15. This ratio is considered stable and is a subject to the least devaluation in case of market turbulence. For example, Facebook shareholders believe that it will perform better than other companies (e.g. interactive media and services industry average price-earnings ratio is 19.7) with its relatively high 22.54 price-earnings ratio, indicating some degree of optimism towards its stock [20].

Conclusions

Thus, due to the fact that esports market is a new and promising area, the interest to it is rapidly growing all over the world. In addition, due to the pandemic caused by COVID-19, new audiences were attracted and stakeholders appeared. During the next few years, esports market is expected to grow rapidly in Ukraine, because esports was recognized as an official sport, and the state stimulates its development by creating a regulatory framework and a special legal regime Diia City.

The findings of this study indicate that esports market is attractive because it contains many business models, allowing each investor to find short- and long-term projects. There are several profitable areas for large investors, such as: investing in building gaming platforms, holding tournaments, in teams/clubs or specific players, creating new video games; rights to broadcast, rights to place logos and brand names during tournaments, rights to manufacture and distribute goods with game symbol. Individuals wishing to invest are recommended to buy shares of companies operating in the esports market.

The investment attractiveness is confirmed by price-earnings ratio, which is stable for esports companies. However, it should be noted that esports market experiences crises along with other market areas, so esports investors may also face failures.

Prospects for further research

We are confident that in the nearest future esports will still be popular, as its development is very dynamic now, games and startups are constantly being developed, and new requirements for participants in this field are emerging. Therefore, there is a need for further studies aimed at substantiating and improving mechanisms of interaction between market participants.

1. Горова К. О., Горовий Д. А., Кіпоренко О. В. (2016). Основні тенденції розвитку ринку кіберспорту. *Проблеми і перспективи розвитку підприємництва*, № 4 (2), С. 51–55.
2. К 2022 году выручка от киберспорта может вырасти до \$2,3 млрд. Available at: <https://dota2.net/news/11164/>
3. Задворський М. Як кіберспорт перетворився на бізнес з шаленими прибутками: аналіз причин. Available at: https://games.24tv.ua/kibersport-peretvorivsysa-biznes-shalenimi-novini-ukrayini-i-svitu_n1482521
4. Інноваційні та інформаційні технології у фізичній культурі, спорті, фізичній терапії та ерготерапії (2019). Матеріали II Всеукраїнської електронної науково-практичної конференції з міжнародною участю. Ред. О. А. Шинкарук. Київ: НУФВСУ, 285 с.
5. Esports ecosystem in 2022: Key industry companies, viewership growth trends, and market revenue stats. Available at: <https://www.insiderintelligence.com/insights/esports-ecosystem-market-report/>
6. Global esports & live streaming market report (2021). Newzoo, 43 p. Available at: <https://newzoo.com/products/reports/global-esports-live-streaming-market-report>
7. Лазнева І. О. Цараненко Д. І. (2018). Кіберспорт та його вплив на зміну структури світового ринку комп'ютерних ігор. *Науковий вісник Ужгородського нац. ун-ту. Серія: Міжнародні економічні відносини та світове господарство*, Вип. 22, ч. 2, С. 63–67.
8. Esports earnings. Available at: <https://www.esportsearnings.com/tournaments>
9. Бойко А. О., Кузьменко О. В., Койбічук В. В., Кушнерьов О. С. (2021). Роль та місце українських кібергравців у світовому кіберспорті. *Вісник Хмельницького нац. ун-ту*, № 4 (299), С. 175–181. DOI: <https://doi.org/10.31891/2307-5732-2021-299-4-175-181>.
10. Українська федерація кіберспорту. Available at: <https://esports.ua/about>.
11. Литвин І. В., Вакулка С. В. (2021). Кіберспортивна індустрія: сутність, елементи екосистеми та особливості розвитку і залучення інвестицій в Україні та світі. *Молодий вчений*, № 1 (89), січень, С. 167–173. DOI: <https://doi.org/10.32839/2304-5809/2021-1-89-35>
12. Новосельська З. Що таке кіберспорт? Досвід та перспективи України. Available at: <https://pravdatutnews.com/society/2021/12/06/10604-shcho-take-kibersport-dosvid-ta-perspektyvy-ukrayiny>
13. Diia City. Available at: <https://city.diia.gov.ua/>
14. Павлиш О. (2022). Статус резидента “Diia City” отримали уже 55 компаній: скільком відмовили. *Економічна правда*. Available at: <https://www.epravda.com.ua/news/2022/02/16/682420/>

15. Миллиарды в игре: за что спонсоры любят киберспорт. Available at: <https://www.forbes.ru/biznes/388765-milliardy-v-igre-za-cto-sponsory-lyubiat-kibersport>
16. Hall S. B. (2020). How COVID-19 is taking gaming and esports to the next level. *World Economic Forum*. Available at: <https://www.weforum.org/agenda/2020/05/covid-19-taking-gaming-and-esports-next-level/>
17. Харебава Т. (2020). П'ять запитань юристу про кіберспорт. *Юридична газета online*. Available at: <https://yur-gazeta.com/publications/practice/sportivne-pravo/pyat-zapitan-yuristu-pro-kibersport.html>
18. Rossolillo N. (2022). Investing in esports stocks. Available at: <https://www.fool.com/investing/stock-market/market-sectors/communication/esports-stocks/>
19. Havran V. Ya., Hrytsai O. I., Havran M. I. (2014). Controlling the costs of industrial enterprises innovative processes. *Вісник Нац. ун-ту "Львівська політехніка". Проблеми економіки та управління*. Львів: Видавництво Львівської політехніки, № 799, С. 168–173.
20. What is Facebook's (NASDAQ:FB) P/E ratio after its share price tanked? (2020). *Simply Wall St*. Available at: <https://is.gd/Dt5ejx>

1. Horova K. O., Horovy D. A., Kiporenko O. V. (2016). Osnovni tendentsii rozvytku rynku kibersportu [The main trends in the esports market]. *Problemy i perspektyvy rozvytku pidpriemnytstva [Problems and Prospects of Business Development]*, No. 4 (2), pp. 51–55.
2. K 2022 roku vyručka ot kibersporta mozhety vyrosty do \$2,3 mlrd [By 2022, esports revenue could rise to \$2.3 billion]. Available at: <https://dota2.net/news/11164/>
3. Zadvorskyi M. Yak kibersport peretvoryvsya na biznes z shalenyymi prybutkami: analiz prychn [How esports has become a lucrative business: an analysis of the reasons]. Available at: https://games.24tv.ua/kibersport-peretvoryvsya-biznes-shalenymi-novini-ukrayini-i-svitu_n1482521
4. Innovatsiini ta informatsiini tekhnolohii u fizychnii kulturi, sporti, fizychnii terapii ta erhoterapii [Innovative and information technologies in physical culture, sports, physical therapy and occupational therapy] (2019). *Materialy II Vseukrainskoi elektronnoi naukovo-praktychnoi konferentsii z mizhnarodnoiu uchastiu [Proceedings of the II All-Ukrainian Electronic Scientific-Practical Conference with International Participation]*. Ed. O. A. Shynkaruk. K.: NUFVUSU, 285 p.
5. Esports ecosystem in 2022: Key industry companies, viewership growth trends, and market revenue stats. Available at: <https://www.insiderintelligence.com/insights/esports-ecosystem-market-report/>
6. Global esports & live streaming market report (2021). Newzoo, 43 p. Available at: <https://newzoo.com/products/reports/global-esports-live-streaming-market-report>
7. Lazneva I. O., Tsaranenko D. I. (2018). Kibersport ta yoho vplyv na zminu struktury svitovoho rynku kompiuternykh ihor [Esports and its impact on changing the structure of the global computer gaming market]. *Naukovyi visnyk Uzhhorodskoho natsionalnoho universytetu. Seriya: Mizhnarodni ekonomichni vidnosyny ta svitove hospodarstvo [Scientific Bulletin of Uzhhorod National University. Series: International Economic Relations and the World Economy]* Issue 22, part 2, pp. 63–67.
8. Esports earnings. Available at: <https://www.esportsearnings.com/tournaments>
9. Boiko A. O., Kuzmenko O. V., Koibichuk V. V., Kushnerov O. S. (2021). Rol ta mistse Ukrainskykh kiberhravtsiv u svitovomu kibersporti [The role and place of Ukrainian cyber players in world esports]. *Visnyk Khmelnytskoho nats. universytetu [Bulletin of Khmelnytsky National University]*, No. 4 (299), pp. 175–181. DOI: <https://doi.org/10.31891/2307-5732-2021-299-4-175-181>.
10. Ukrainska federatsiia kibersportu [Ukrainian Federation of Esports]. Available at: <https://esports.ua/about>.
11. Lytvyn I. V., Vakulka S. V. (2021). Kibersportyvna industriia: sutnist, elementy ekosystemy ta osoblyvosti rozvytku i zaluchennia investytsii v Ukraini ta sviti [Esports industry: essence, elements of ecosystem and features of development and attraction of investments in Ukraine and the world]. *Molodyi vchenyi [Young Scientist]*, No 1 (89), January, pp. 167–173. DOI: <https://doi.org/10.32839/2304-5809/2021-1-89-35>
12. Novoselska Z. Shcho take kibersport? Dosvid ta perspektyvy Ukrainy [What is esports? Experience and prospects of Ukraine]. Available at: <https://pravdatutnews.com/society/2021/12/06/10604-shcho-take-kibersport-dosvid-ta-perspektyvy-ukrayiny>
13. Diia City. Available at: <https://city.diia.gov.ua/>
14. Pavlysh O. (2022). Status rezidenta "Diia City" otrymaly uzhe 55 kompanii: skilkom vidmovyly [55 companies have already received the status of a resident of "Action City": how many have been refused]. *Ekonomichna pravda [Economic truth]*. Available at: <https://www.epravda.com.ua/news/2022/02/16/682420/>

15. Mylliardy v igre: za chto sponsory liubiat kibersport [Billions in the game: why sponsors love esports]. Available at: <https://www.forbes.ru/biznes/388765-milliardy-v-igre-za-chto-sponsory-lyubiat-kibersport>
16. Hall S. B. (2020). How COVID-19 is taking gaming and esports to the next level. *World Economic Forum*. Available at: <https://www.weforum.org/agenda/2020/05/covid-19-taking-gaming-and-esports-next-level/>
17. Kharebava T. (2020). Piat zapytan yurystu pro kibersport [Five questions to a lawyer about esports]. *Yurydychna hazeta online [Legal newspaper online]*. Available at: <https://yur-gazeta.com/publications/practice/sportivne-pravo/pyat-zapitan-yuristu-pro-kibersport.html>
18. Rossolillo N. (2022). Investing in esports stocks. Available at: <https://www.fool.com/investing/stock-market/market-sectors/communication/esports-stocks/>
19. Havran V. Ya., Hrytsai O. I., Havran M. I. (2014). Controlling the costs of industrial enterprises innovative processes. *Visnyk Nats. universytetu "Lvivska politehnika" Problemy ekonomiky ta upravlinnia [Bulletin of Lviv Polytechnic National University. Problems of Economics and Management]*. Lviv: Lviv Polytechnic Publishing House, No. 799, pp. 168–173.
20. What is Facebook's (NASDAQ:FB) P/E ratio after its share price tanked? (2020). *Simply Wall St*. Available at: <https://is.gd/Dt5ejx>

В. Я. Гавран¹, М. І. Гавран², В. В. Мандрова³
Національний університет "Львівська політехніка",
^{1,3} кафедра менеджменту організацій,
² кафедра іноземних мов

РОЗВИТОК ТА ІНВЕСТИЦІЙНА ПРИВАБЛИВІСТЬ РИНКУ ЕЛЕКТРОННОГО СПОРТУ

© Гавран В. Я., Гавран М. І., Мандрова В. В., 2022

Мета статті – вивчення ринку кіберспорту, даних про динаміку кіберспорту в світі та в Україні та аналіз можливих напрямів інвестування кіберспорту та його інвестиційної надійності. Під час дослідження використано загальнонаукові теоретичні методи дослідження, а саме аналіз, синтез, систематизацію, пояснення. Метод абстрактно-логічного узагальнення застосовано для вивчення та аналізу наукових публікацій, аналітичних доповідей, правових документів. Розглянуто способи отримання коштів у кіберспорті та наведено схему екосистеми ринку кіберспорту. Визначено місце України на світовому ринку кіберспорту. Автори також проаналізували чинну українську законодавчу та нормативну базу, яка регулює процеси кіберспорту. Розглянуто розміри та механізми оподаткування прибутку від кіберспорту, а також фактори, що впливають на привабливість цього ринку. Наукова новизна дослідження полягає у доведенні того, що ринок кіберспорту є привабливою зоною для інвестування, оскільки містить багато бізнес-моделей, які дають змогу кожному інвестору знайти коротко- та довгострокові проєкти із тенденцією до прибутковості, та в обґрунтуванні можливих напрямів інвестування на ринку кіберспорту. Проаналізовано надійність інвестицій із урахуванням співвідношення ціна/прибуток для кіберспортивних компаній, а також охарактеризовано інвестиційні можливості для великих компаній та фізичних осіб.

Ключові слова: ринок кіберспорту; розвиток кіберспорту; інвестиції; чинники; інвестиційні можливості.