

DOI: <http://dx.doi.org/10.21686/2410-7395-2021-2-47-61>

МИРОВОЙ РЫНОК КИБЕРСПОРТИВНОЙ ИНДУСТРИИ: СОВРЕМЕННЫЕ ТЕНДЕНЦИИ

А. Б. Ильин

Московский государственный технический университет имени
Н. Э. Баумана, Москва, Россия

Ю. С. Сизова, Ю. Д. Пономарева

Российский университет дружбы народов, Москва, Россия

С. Д. Сизов

Российский университет дружбы народов, Москва, Россия;
АО «Свобода, Москва, Россия

Целью данного исследования является выявление аспектов коммерциализации киберспорта и анализ его предпринимательского ядра. На основе изучения исходных моделей экономической науки, исследования генезиса киберспорта, данных авторского социологического опроса и вторичных источников информации систематизируются элементы коммерциализации предпринимательского ядра киберспорта. Отслеживаются основные вехи развития киберспорта в мире в целом и в России в частности; даны примеры развития киберспорта в период пандемии COVID-19; определяются участники рыночных отношений в данной индустрии. Приводятся сравнительная характеристика многоуровневых экосистем спортивных соревнований в области традиционных видов спорта и киберспорта; статистика мирового рынка киберспорта с 2016 по 2019 г. и описание ресурсной базы киберспорта. Авторами систематизированы элементы коммерциализации и монетизации предпринимательского ядра киберспорта. На основании результатов авторского социологического опроса и анализа, проведенного в статье, делается вывод, что в основе предпринимательского ядра киберспорта заложена интеллектуальная и физическая деятельность людей, базирующаяся на электронных играх. Таким образом, киберспорт может рассматриваться как принципиально новая интеллектуальная дисциплина, образующая вокруг себя стейкхолдеров, способствующих ее монетизации. Делается заключение, что в основе предпринимательского ядра киберспорта находится физическая и интеллектуальная деятельность людей, базирующаяся на электронных играх. Результаты проведенного исследования могут быть использованы различными предпринимательскими структурами, работающими в спортивной отрасли.

Ключевые слова: киберспорт, пандемия, предпринимательство, стейкхолдеры, коммерциализация, предпринимательское ядро, монетизация.

E-SPORTS GLOBAL MARKET: CONTEMPORARY TRENDS

Andrey B. Ilin

Bauman Moscow State Technical University, Moscow, Russia

Yuliya S. Sizova, Yulia D. Ponomareva

Peoples' Friendship University of Russia, Moscow, Russia

Sergey D. Sizov

Peoples' Friendship University of Russia, Moscow, Russia;

AO «Svoboda»

The purpose of this study is to identify aspects of the e-sports commercialization and analyze its entrepreneurial core. Based on the of the economic science initial models, e-sports genesis, data from the author's sociological survey and secondary sources of information, elements of commercialization of the entrepreneurial core of e-sports are systematized. The main milestones of e-sports development in the world in general and in Russia in particular are monitored; examples of the e-sports development in the period of COVID-19 pandemic are given; market participants of the industry are identified. Comparative analysis of multilevel ecosystems of sports competitions in the field of traditional sports and e-sports is carried out; statistics of the global e-sports market from 2016 to 2019 and a description of the resource base of e-sports are given. The authors methodize the elements of commercialization and monetization of the entrepreneurial core of e-sports. Based on the results of the author's sociological survey, and the analysis conducted in the paper, it is concluded that the basis of the entrepreneurial core of e-sports is the intellectual and physical activity of people based on electronic games. Thus, e-sports can be considered to be a fundamentally new intellectual discipline, forming around itself stakeholders that contribute to its monetization. It is concluded that the e-sports business core is bottomed on the physical and intellectual activity of people based on electronic games. The results of the study can be used by various entrepreneurial structures working in the sports industry.

Ключевые слова: e-sports, e-sports global market pandemic, entrepreneurship, stakeholders, commercialization, business core, monetization.

Introduction

Researchers of global processes in different sectors and disciplines are now analyzing the impact of the pandemic on the economy, the growth or stagnation it has had on a particular segment of economic activities. The sports industry ended up coming out ill-prepared for the crisis unlike other economy segments, with its full recovery expected at the very least in 2022-2023. However, the spread of the coronavirus infection marked the significant upswing of e-sports. e-Sports is a top sport among the top 10 in terms of growth rate, ahead of football (2), basketball (3), street sports (4), tennis (5), golf (6), cycling (7), motorsport (8), rugby (9) and American football (10), according to the PwC data. E-Sports is widely covered by mass media; therefore, it has become rather popular during the lockdown. Furthermore, experts point out [2] that right-holders to introduce e-sports initiatives will

above all benefit from engaging new audiences, attracting commercial partners and sponsors and developing new sources of revenue. However e-sports poses new challenges: the right-holders face creating engaging content, developing an effective monetization strategy and finding the best competition arrangement. E-Sports thus, like any new introduction to the market, boasts advantages and disadvantages of commercialization, from the business idea itself to commercial impact. There is also a matter of ethics and mindset: can we really place e-sports alongside such traditional sports such as football, hockey and the like? The authors of this article conducted a sociological study into the monetization of e-sports organizations as business entities, as commercial potential of e-sports even now still faces mixed reactions. Experts [8] point out that a monetization strategy should be worked out; they believe that e-sports, with the right approach, can help attract new audiences, hence new categories of sponsors. It is still difficult to say whether a sports organization can continue following traditional business algorithms and still make money in the e-sports industry. We are witnessing sports organizations coming up with new, e-sports-specific approaches to monetization, especially recently. The importance of this study consists in finding the very business model.

Evolution of e-Sports in Russia and Worldwide

E-Sports is a sports competition using videogames, individually or as teams. E-Sports has gained huge popularity worldwide, as a lot of people engage in games and their elements. Where once e-sports was held in apartments and houses, with friends going for the prize of \$100, now these events are held in e-sports arenas, offering a prize of over \$15 million.

The sport's type origins date back to the 20th century, when games where you could compete against real people was being released. Gradually, the public realized that a lot of people would find it curious to take part in this form of competition; that prompted some stakeholders to dip their toe in this activity. This led to 24 Stanford students holding a Spacewar game tournament. The winner got a subscription to Rolling Stone. The Spacewar tournament is considered the first esports competition in history.

Before 1997, even if game tournaments were held, these were usually local and low-budget events. But in 1999, the American Angel Munoz decided to host a bigger Quake game competition. First, he set up an online tournament, otherwise his business would have failed. More than 2 000 gamers competed against each other, until there were only 16 remaining.

These 16 gamers then travelled to Atlanta for the Electronic Entertainment Expo, where they competed against each other. The final match was broadcast on the Internet. Even then, the tournament broadcast reached a high number of viewers, as the grand prize was a Ferrari 328 GTS. The tournament is considered to be the first mass esports tournament. It is

curious to note that it was A. Munoz who realized that esports could serve as a breeding ground for both gaming and business idea commercialization. He later founded the first eSports league, the Cyberathlete Professional League (CPL), still functioning to this day.

If we shift away from history and view e-sports in general, we should note that not every game has a tournament. This sport is all about two ultimate factors: reaction speed and team tactics. This can be attributable to the nature of games: competitions are devoted either to shooters (a computer game genre, in which gameplay is based on fighting with firearms or any other weapon from a first-person view so that the player sees what is happening as a protagonist) or to strategies (a genre of computer games; these games expect the gamer to employ strategic thinking).

In the last 2–3 years, people have become considerably more engaged in e-sports. The general opinion has changed: the initial skepticism has been replaced by acceptance and a search for opportunities. Many sports organizations have used e-sports to reach their audiences before, but the COVID-19 pandemic has reinforced this trend. This unprecedented time has fostered numerous promising cases where video games and sport merge into one. Popular video game developers benefited greatly from lockdown.

During the lockdown, when competitions were cancelled or rescheduled, many sports organizations focused their efforts on esports, which helped them keep in touch with their audiences. More specifically:

- Formula One considers e-sports a channel of communication with young audiences; the Formula One virtual Grand Prix series in the 2020 and 2021 off-seasons is breaking viewing records [4; 5; 12];
- NASCAR with its own e-NASCAR e-sports product, gathers a large TV audience [14];
- media company Eleven Sports sees e-sports as a new source of content [11];
- the growth of e-sports betting proves audiences are interested in e-competitions [10];
- the Union Cycliste Internationale and Zwift are organizing e-cycling competitions [16];
- the NHL keeps their fans interested through e-sports formats [13];
- Real Madrid have worked with EA to develop an approach for integration into Volta, the new game mode in EA Sports FIFA [15];
- the NBA and the Bundesliga are developing their e-sport areas based on an already established competition management structure [9];
- World Sailing, in collaboration with Virtual Regatta, hosted a virtual competition.

The sports games witnessed unprecedented growth during the crisis, with the number of viewing hours tripling. Consumption figures for action (including shooters) and fantasy games increased by around 50%. We would

also like to note that the pandemic has had a positive impact on the popularity of games as a media product. When comparing pre- and post-lockdown data, we can notice a significant consumption increase after strict lockdown measures were introduced. The juxtaposition of sports games popularity with other genres suggests the following:

- In the first week, the top 100 action and fantasy accounts amassed 500 million hours of streaming views, significantly more than the 5 million hours for sports games;
- Action and fantasy games average more than 180 hours of viewing for every hour of streaming, as compared to the 23 hours for sports games. Thus, sports games have yet to become a popular media product;
- After the return of traditional broadcasting of sports events, the number of viewers experienced a significant downturn. During the lockdown, e-sports gained a large viewership; however, these streams cannot match a real sporting event.
- Monetization stakeholders should look first at video games in a broad sense, to cover both the competitive segment of games that is e-sports, and the amateur segment. e-Sports, on the other hand, should be addressed as a separate discipline, as a separate sport within a structure.

The development of e-sports has set the stage for a tiered system of competition (Table 1).

Table 1

Tiered Ecosystem of Sports Competition*

Maturity stage	E-sports	
	Birth stage	Growth stage
Traditional sports: using the current operational management system for the entire hierarchy; Using flagship events to promote new formats to potential participants and viewers	Hybrid sports model: connecting the physical and virtual worlds; replacing or complementing traditional sports; greater competition access; innovation development	Sports games: access to a wide audience through video games; no entry restriction for prospective competitors; real sport promotion through a virtual environment

* Source Table 1-2: PwC analysis [8].

Sports federations are highly likely to recognize virtual versions of sports as disciplines in their own right more often. It is therefore very important to develop a regulatory framework, involve relevant stakeholders and build a promotion plan for new types of competitions.

Once e-sports is recognized as actual sports disciplines, it will fill a niche in the general sports ecosystem, similar to the new formats of popular sports

such as Twenty20 cricket, FIBA 3x3 streetball and Hockey 5s hockey. Investment funds such as Monumental Sports & Entertainment and Harris Blitzer Sports & Entertainment have already featured e-sport organizations in their investment portfolio alongside traditional companies from the sports and entertainment industry.

In doing so, it is necessary to distinguish between e-sport sports game competitions (e. g. the FIFA-e-World Cup) and a hybrid sports model that marries the physical efforts of athletes and a virtual graphical competition environment.

PwC [8] projects the development of virtual disciplines to foster a tiered ecosystem, with physical sports represented as a virtual and hybrid model. Each sports variation will do its part and benefit the sports organizations. Building such a hierarchy takes time. Organizations that are focused on the long-term effects of commercialization, rather than short-term gains, will benefit more in the long term from the process of sport virtualization.

Developing e-sports can open the door for new audiences and lead to the development of new sources of revenue down the line.

Commercial opportunities in e-sports will take considerable time and effort to realize, particularly when it comes to building an effective monetization model. In addition, e-sports has proven that it can be efficient in engaging new and keeping old audiences. While many competitions have been cancelled or postponed due to the COVID-19 pandemic, e-sports is an asset for engaging sports fans who get anxious without any sports content.

E-Sports Business Core Analysis

The business core refers to [12] a unique business idea acting as a basis for a commercially profitable organization's project. E-Sports organizations now perform business functions, thus becoming part of the economic context of the sports industry.

In 2018 the global e-sports market was valued at almost USD 865 million. The e-sports global market revenue will reach USD 1.79 billion, according to the source [6]. The e-sports industry is expected to experience a dramatic upturn in the coming years. In 2017, the global e-sports market revenue amounted to USD 665 million. At the CAGR of 22.3%, market revenue is expected to reach around USD 1.8 billion by 2022.

Table 2

E-Sports Global Market

	2016	2017	2018	2019
Market volume, USD U.S.	892,8 million	1 billion	1,1 billion	1,23 billion
Audience, million people	214	239	275	303

In 2017, the e-sports audience in Russia reached 10.2 million viewers, with an average growth rate of 23–25% per year, according to the sports division Nielsen, a research company [6]. By ‘audience’ Nielsen refers to everyone who has watched broadcasts, attended tournaments, followed the news or joined competitions throughout the year. The core audience (over 50%) consists of people aged 18–34 with an average monthly income of over 42,7 thousand rubles per person. Meanwhile, men account for 95% of the e-sports audience; 64% of respondents have no intention of stopping even in the long term, and another 24% have no intention of stopping in the short term.

25% of the respondents started watching e-sports matches in 2020, of which women accounted for 54%, according to a new study by Nielsen [6]. However, there are more male fans of computer sports: overall, 64%. The average income of the audience amounts to 41,7 thousand rubles per person.

E-Sports comprises both e-sports competition and cyber-athletes and various e-sports stakeholders. Let us specify the resource potential of e-sports (Figure 1).



Figure 1. E-Sports Resource Potential

Broadcasting Studios are companies engaged in producing and publishing content. These organizations can also do host events.

Sponsors and Investors. More often than not, sponsors will be specific brands investing in particular teams, thus receiving indirect advertising in return (logo on T-shirts, overlay during streams, integrated sign, branded content and hidden ads).

Game Developers and Publishers. These teams develop and release games for public platforms. E-Sports has made its appearance thanks to these people.

Community Development Associations, Non-profit Organizations. They host specific events to support association members and new companies. These associations reach out to young people and promote e-sports via media.

Consulting Companies. These companies help e-sports organizations set up management, research audiences, increase revenues and brand presence.

E-Sports Arenas. Almost all large-scale e-sports tournaments take place in dedicated facilities, namely e-sports arenas. Competition hosts or opposing teams take it upon themselves to rent the premises.

Streaming Platforms. E-Sports tournaments are held on streaming platforms. Twitch is the best-known and largest platform.

But some corporations prefer their own streaming platforms, such as Overwatch. Its tournaments are held on its own streaming platform, The Overwatch League.

E-Sports Media are engaged in content creation and promotion.

Analytical Companies carry out research into e-sports. They conduct an analysis using the specific information collected, whether it is views and the average age of viewers, or the amount of earnings in relation to expenditures.

Marketing and Event Management Agencies. These agencies pursue creation and development of e-sports brands, as well as marketing and event management in e-sports.

Bookmakers. They accept bets on game tournaments. Fans of bookmaking turn to analytical organizations to see the win/loss statistics of any team and league.

Now that we have taken a closer look at e-sports competitions and e-sports in general, we find it important to begin analyzing and scrutinizing the ways e-sports can be monetized.

We would first like to review *tournament winnings* as it is the most obvious e-sports monetization method.

As we have mentioned earlier, almost all tournaments have a prize pool. At first glance, it seems like the main source of income in e-sports, but it far from truth. Winners are awarded a large amount of prize money; however, it is more complicated than that. For instance, an American team once defeated their German opponents, but the competition organizers demanded that they come to their head office in China to collect all the prize money. Even though it happened a long time ago, it is still relevant even today.

Next, we would like to delve into *sports clubs* as another earning opportunity. In fact, e-sports is no different from traditional sports. Naturally, there are different approaches to work, equipment and required skills, but the idea, brand, earnings, public relations, marketing and other factors are of the same kind. Already many experts say that cyber-athletes will soon become more famous and richer than football gamers. As we have mentioned previously, the viewers steer clear of traditional sports fans.

Professional gamers create special clubs, which are essentially esports organizations in all but the name. They recruit and train gamers, providing necessary devices.

There are real football clubs (such as Beşiktaş or Fenerbahçe) that recruit cyber-athletes for League of Legends. On the plus side, traditional football engages more fans who were initially interested in e-sports. In this case, cross-marketing techniques are beneficial to everyone.

Merch is the third most important e-sports monetization element. Almost all e-sports organizations make sure to be in this business. Gamers are not able to get involved since their income will depend heavily on whether the gamer and e-sports team are popular and in demand. It is crucial to engage in both the development of the organization and popularity of the cyber-athlete. It is the gamer and their personality that speak to many e-sports fans. That is why when an organization and a gamer sign a contract, their activity, attendance at events and communication with fans are taken into account. Fans, as in regular show business, are more than willing to spend money on merch associated with the icon. It can be anything, from ordinary league T-shirts to professional equipment. These companies tend to sell computer accessories, namely mice, keyboards, mouse pads, fans and the like.

Franchise profit from tournament is the fourth e-sports monetization element.

The e-sports market development being on the upswing means new monetization systems for profit distribution. However this was not always the case. All companies and gamers used to make money either individually or together. Consequently, a gamer used to work for themselves and use their own money to participate in e-sports competitions. But, even if they won, they used to get all the money, with no fee imposed. A gamer representing a large company has to comply with strict contract requirements. But, since such a company covers all expenses related to this gamer's e-sports activities, it gets a large fee from the money won.

However, many large companies do not manage to be in the black, despite the opportunities and size of the e-sports industry. The best solution here is to switch to a franchise system. The idea behind a franchise is that the league will share the profits with gamers or entire teams.

Admission fees paid in order to stay in the league and participate in subsequent tournaments are another key factor. These fees are paid by the company represented by the gamers or e-sports leagues.

Sports clubs, companies or businessmen have *invested* in e-sports teams, thus using the fifth source of e-sports monetization. Many businessmen have it all wrong when deciding to invest in e-sports: they follow a standard scenario, i.e. invest, develop the system, sell the product, make a profit. But, everything is different in this industry. Generation Z users account for the main target audience for e-sports. This generation, for the most part, have yet

to become prospective buyers, but they will, in the future. The audience is now in the millions, and it is growing exponentially. As professional investors realize that, they are adopting their own schemes and certain monetization systems. Professional investors also take into account the cost of the contract: it may be large now, but it can increase manifold in a few years.

Up to now, the following stakeholders have mostly worked with cyber-athletes:

- developers of gaming devices and special equipment;
- developers of electronic game keys;
- online platforms and casinos;
- banks;
- energy drink manufacturers;
- auto groups.

Far-sighted investors prefer to invest in e-sports right now. One of the most important factors for any investor to consider is that investment rates go up every year. e-Sports partners always look for similar investment opportunities. It is also worth saying that investing in e-sports is a way of reaching out to that team's audience and to the e-sports market in general. Over time, businessmen will be able to make a sufficiently high profit if they choose the right investment system.

Survey Results

The survey, conducted by the authors in November–December 2020, involved 100 respondents: 1st–4th year students from Bauman Moscow State Technical University, RUDN University, Plekhanov Russian University of Economics and MIREA – Russian Technological University.

Almost 93% of respondents stated that they consider esports organizations to be business activities (Figure 2).

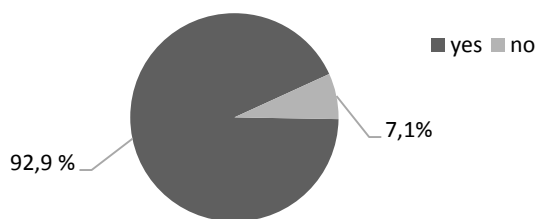


Figure 2. Distribution of responses to the question: 'Do you consider e-sports organizations a type of business?'

When asked why they think so, the respondent gave more or less similar answers. Those who said 'yes' in the previous question argued that e-sports is gaining popularity given the situation, and many mentioned the influx of funds from Twitch, advertising and stakeholder investment. Those who said 'no' in the previous question reasoned that this is only a hobby.

World-class e-sports organizations such as Na'Vi, NiP and VirtusPro were the most popular among respondents. Those are mostly focused on CS:GO and Dota 2. Approximately 5% of respondents got to participate in e-sports competitions, but only 1.2% managed to make money on the tournament (Figure 3). Approximately the same proportion of respondents invested their own money in shares in e-sports organizations. However 87% of respondents consider e-sports profitable (Figure 4).

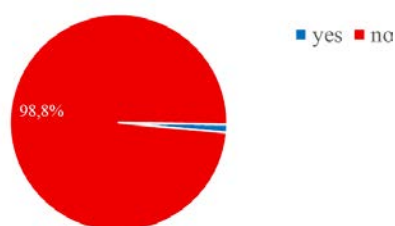


Figure 3. Distribution of responses to the following question:
'Have you made a profit by participating in events organized by e-sports organizations?'

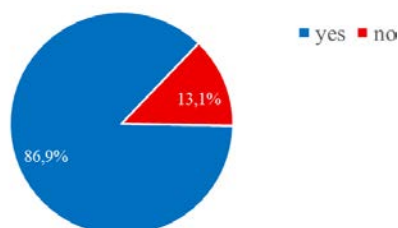


Figure 4. Distribution of responses to the following question:
'Do you consider e-sports to be a profitable industry?'

Most of those who said 'yes' argue that e-sports has become hugely popular recently and is something new, and can be highly profitable on account of that. Some have compared e-sports to football. Those who said 'no' refused to elaborate.

A total of about 130 e-sports clubs were found in Moscow and the Moscow Region. A lot of e-sports arenas have their own team. From an interview with a visitor: 'Sports fans have stadiums, film buffs have cinemas, music lovers have concert venues, but gamers used to have nothing'.

We can therefore conclude that e-sports has become an industry in its own right, with its own aspects of monetization and commercialization, based on the business idea of sport, video games, streaming and visual appeal.

Conclusion

In the medium or long term, e-sports disciplines based on sports games will grow popular among a large audience of fans. New game formats are expected to be developed with not only an audience of amateur gamers in mind, but also the e-sports potential and visuals for non-gamer audiences. Young athletes who have grown up with video games act as a link between traditional sports and e-sports. For this reason, we consider sports games a great chance to raise awareness of e-sports among a wider audience.

E-Sports is more than just an activity for fans; it is a separate discipline with its own rules and culture, with its own heroes and fans. The development of eSports, like any new product, is a long-term process. Sports organizations should now focus on developing a long-term plan to exploit e-sports opportunities. A clear development plan for e-sports initiatives is a prerequisite for sustainable, long-term success in this market for the e-sports industry's business structures.

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Сведения об авторах

Андрей Борисович Ильин

кандидат экономических наук,
доцент кафедры инновационного
предпринимательства МГТУ
им. Н. Э. Баумана.
Адрес: ФГБОУ ВО «Московский
технический университет имени
Н. Э. Баумана», 105005, Москва,
ул. Бауманская 2-я, д. 5, стр. 1.
E-mail: ilandeducation@yandex.ru

Юлия Сергеевна Сизова

кандидат экономических наук, доцент
кафедры теории и практики
иностранных языков РУДН.
Адрес: ФГАО ВО «Российский
университет дружбы народов», 117198,
Москва, ул. Миклухо-Маклая, д. 6.
E-mail: Sizova.YS@rea.ru, ju-si@mail.ru

Сергей Дмитриевич Сизов

студент факультета нанотехнологии
РУДН; специалист АО «Свобода».
Адрес: ФГАО ВО «Российский
университет дружбы народов»,
117198, Москва, ул. Миклухо-Маклая,
д. 6; АО «Свобода», 127015, Москва,
ул. Вятская, д. 47.
E-mail: ser-siz2002@yandex.ru

Юлия Дмитриевна Пономарева

студентка аграрно-технологического
института РУДН.
Адрес: ФГАО ВО «Российский
университет дружбы народов»,
117198, Москва, ул. Миклухо-Маклая, д. 6;
E-mail: panamka99@rambler.ru

Information about the authors

Andrey B. Ilin

PhD, Associate Professor
of the Department of Innovative
Entrepreneurship of BMSTU.
Address: Bauman Moscow State
Technical University, 5, building 1,
2nd Baumanskaya Street,
Moscow, 105005,
Russian Federation.
E-mail: ilandeducation@yandex.ru

Yulia S. Sizova

PhD, Associate Professor of the Department
of Foreign Languages' Theory and Practice
of RUDN University.
Address: Peoples' Friendship University
of Russia, 6 Miklukho-Maklaya Street,
Moscow, 117198, Russian Federation.
E-mail: Sizova.YS@rea.ru, ju-si@mail.ru

Sergey D. Sizov

Student of Nanotechnology Faculty
of RUDN University;
Specialist AO «Svoboda».
Address: Peoples' Friendship University
of Russia, 6 Miklukho-Maklaya Street,
Moscow, 117198, Russian Federation;
JSC «Svoboda», 47 Vyatskaya Street,
Moscow, 127015, Russian Federation.
E-mail: ser-siz2002@yandex.ru

Yulia D. Ponomareva

Student of Agro-Industrial Institute
of RUDN University.
Address: Peoples' Friendship University
of Russia, 6 Miklukho-Maklaya Street,
Moscow, 117198, Russian Federation
E-mail: panamka99@rambler.ru