

ARTICLE

SOCIO-ECONOMIC CONSEQUENCES OF THE COVID-19 PANDEMIC FOR UNIVERSITIES

Nadezhda Victorovna Filinova*, Vladimir Petrovich Filinov, Elena Vladimirovna Luneva, Olga Nicolaevna Pogodina

Russian State Social University, Volokolamsk Highway, 20/1, Klin, Moscow Region, 141607, RUSSIA

ABSTRACT

The coronavirus crisis has huge impact on higher education, as well as on the economy and the lives of millions of people around the world. The immediate consequences and inconveniences will intensify as the coronavirus has spread to nearly every country and affects more and more people. The research aims at analyzing the socio-economic consequences of the COVID-19 pandemic for universities. In order to analyze the socio-economic consequences of the COVID-19 pandemic for universities, an analysis of scientific literature, analytical reports of international organizations in the field of higher education (European Students' Union (ESU), national academic exchange services), consulting companies, and opinions of experts in the field of higher education has been carried out. The article analyzes the opinions of scientists on the impact of the COVID-19 pandemic on the global and national higher education systems. Based on an expert survey, the impact of the COVID-19 viral spreading on the activities of higher education institutions is analyzed, and the consequences of the pandemic for universities, as well as changes in higher education, are predicted. It is shown that the COVID-19 pandemic will cause restructuring of the structure of students' mobility and will be a serious problem for society, individuals and higher education. It is proved that, on the one hand, COVID-19 has triggered a global crisis, which, on the other hand, can become an impetus for the transformation of educational systems and science, as well as contribute to the development of new strategies and mechanisms.

INTRODUCTION

News about the outbreak of new coronavirus infection in China has gradually spread around the world, seizing with anxiety more and more regions and areas of people's activities. Education and science being the most stable and globalized sectors of economic activity have experienced significant impact and expect extraordinary results of unprecedented restrictions for the entire history of mankind.

In the early days of the crisis, concerns focused primarily on the problems of serious disruptions that the pandemic caused in the destinations, structure, and volume of students' flows from China, as well as the economic impact on the higher education systems of all partner countries. Efforts to prevent the spread of the virus have ranged from extending, delaying, or postponing academic deadlines to banning students from enrolling in educational and research programs [2]. The British consulting company Quacquarelli Symonds has published the report "The impact of coronavirus on global higher education" [1] based on the results of a survey of about 11,000 international students worldwide, which was conducted from the second half of February to the end of March 2020. The main issues in this survey were the following ones: How did students respond to the coronavirus crisis? How did institutions respond to this global health emergency? As a result, it was revealed that 46% of respondents stated that the coronavirus had affected their training plans, and 25% were still undecided. Almost half of the potential international students intended to postpone their studies because of the pandemic, while only one in ten noted they no longer wanted to study abroad. Regarding distance learning, although 58% of potential international students expressed some interest in online learning, 42% said they had no desire to study over the Internet [3].

The report noted that universities were responding to the expected reduction in the number of international students by adapting the provisions on the English language proficiency testing, postponing the start dates of admission, and changing the application deadlines. Most of them offered to conduct digital events (75%), digital marketing (73%), and online meetings (70%). As for the admission campaign, 50% of universities noted that the pandemic would have a detrimental effect on the number of students' applications; 26% noted that the numbers would remain the same, and about a third (34%) of them noted they were seeking to diversify their source countries for recruitment.

Numerous publications and studies are devoted to the problem of the impact of COVID-19 on the global and national higher education systems, and the internationalization of education [Table 1].

Table 1: Analysis of opinions on the impact of the COVID-19 pandemic on the global and national higher education systems

No	Reference	Opinion
1	Basset RM [2]	Higher education around the world has experienced impact not seen since World War II
2	Holmes K [3]	The first aspect of higher education affected by COVID-19 is internationalization, in particular, students' mobility
3	Kamarianos et al. [4]	The COVID-19 pandemic is slowing down higher education. The pandemic is a serious problem for higher education, but eventually, the crisis will pass and, at least in the areas of internationalization of higher education, the status quo will largely prevail

KEY WORDS

distance learning, higher education, international mobility, social distancing, information and communication technologies

Received: 2 Nov 2020
Accepted: 4 Dec 2020
Published: 7 Dec 2020

*Corresponding Author
Email:
FilinovaNV@rgsu.net

4	Bilecen B. [5]	The continuation of the COVID-19 pandemic is causing significant concern in the higher education sector, with devastating consequences, particularly, for students' exchanges. COVID-19 has sharpened the need to teach and learn about innovation, and it is also forcing the international educational community to rethink how conferences and professional development should be conducted. When the pandemic passes, hybrid or remote participation by presenters, instructors, and audience members is likely to become the new norm. COVID-19 can also be seen as a test of the ability of universities and their associations to adapt and accelerate the rate of changes. However, the long-term outlook is not promising: after the crisis, universities are likely to take retrenchment measures, starting with limiting travel funding and professional development.
5	Watermeyer et al. [6]	Mobility is a key component of internationalization, which bears the main burden of the COVID-19 crisis. Students' mobility as well as visiting missions and delegations were one of the international educational areas most affected by the COVID-19 crisis.
6	Toquero [7]	The COVID-19 pandemic indicates that strengthening online education contributes to improving public safety and health. In this regard, governments should encourage making them more accessible and invest in developing the capacity of universities to protect the higher education sector in the face of social uncertainty and emergencies in the world.

Malkawi [8] summarized the significant challenges and consequences that the COVID-19 pandemic had caused in the global higher education community in 20 countries, by analyzing secondary information using university and government sources. It was revealed that the range of responses of education professionals ranged from lack of responses through various strategies of social isolation on campus to rapid conversion of educational programs to full-fledged learning materials available on the Internet. An attempt has been made to assess the response of higher education in preparing for the pandemic and to learn best practices of the pedagogical developments of other universities in order to strengthen the collective response to COVID-19 now and in the future.

Research by J. Crawford et al. [9] is devoted to the problem of the quality of providing distance learning in the context of pandemic when the university staff is not ready for emergencies. In such cases, cooperation with governments, businesses, and nongovernmental organizations is vital. However, as noted by Marinoni and van Land [10], unequal access to information and communication technologies is obvious. In some countries, such as Brazil, access to the Internet for students is so limited that some universities in the country have decided to completely interrupt education.

Some researchers [11, 12] are skeptical about distance learning and transferring courses to the Internet. In their opinion, effective online training is possible but it requires time and support. Making these changes quickly will definitely result in poor quality. In contrast, based on the study of the experience of adapting the higher education system to the effects of COVID-19, Favale et al. [13] conclude that the transition from on-campus learning to online teaching has been surprisingly smooth due to huge investments in learning management systems and the digitalization of administrative services conducted in recent years. Obviously, one should agree with the opinion [14] that COVID-19 has both negative and positive impact on higher education.

The purpose of the present article is to analyze the socio-economic consequences of the COVID-19 pandemic for universities. The present research aims at considering the impact of the COVID-19 pandemic on the activities of higher education institutions; predicting the impact of the pandemic on universities; analyzing the changes in higher education. Research hypothesis is as follows: on the one hand, COVID-19 has triggered a global crisis, which, on the other hand, can become an impetus to transform educational systems and science, as well as to develop new strategies and mechanisms.

METHODS

The research was carried out from August 5 to September 21, 2020. To analyze the socio-economic consequences of the COVID-19 pandemic for universities, the authors analyzed scientific literature [2-22], analytical reports of international organizations in the higher education (ESU [33], as well as national academic exchange services), consulting companies, and opinions of experts engaged in higher education.

At the first stage of the research, the available analytical data and scientific works in the concerned topic were studied. At the second stage of the research, based on data analysis, the impact of the COVID-19 pandemic on the activities of higher education institutions was considered, as well as the consequences of the pandemic for universities and changes in the field of higher education were predicted. The research results were summarized at the third stage of the research.

Analysis of scientific and analytical materials allowed collecting a variety of information on the socio-economic impact of the COVID-19 pandemic on universities. In order to assess the quality of the selected sources, the authors conducted an expert survey to assess their reliability.

At the first stage of the research, the selected information was presented to a group of 13 higher education experts to assess its quality. The criterion for the selection of experts was the availability of at

least three author's articles indexed in Scopus or Web of Science. E-mail messages were sent to the experts with a request to assess the reliability of the selected material for this research according to the Harrington's scale. Summarized data with the results of assessment of the selected documents reliability by the experts are presented in the Table 2.

Table 2: Summary of results of assessment of the selected documents reliability by the experts

No	Main characteristics	Result
1	The number of proposals sent to experts	13 pieces
2	The number of questionnaires received from experts	11 pieces
3	Average reliability results of research/ expert information	0.69 points

On average, the experts rated high the selected documents (over 0.64).

At the second stage of the research, based on data analysis, the impact of the spread of the COVID-19 virus on the activities of higher education institutions and a forecast of the consequences of the pandemic for universities were determined, as well as changes in the field of higher education were revealed.

At the third stage of the research, the results were summed up with the construction of tables and the interpretation of the results.

RESULTS

Impact of the COVID-19 pandemic on higher education

According to researchers [15], the COVID-19 pandemic has revealed huge impact on higher education, as well as on the economy and lives of millions of people around the world [Table 3].

Table 3: Impact of the COVID-19 pandemic on higher education

No	Impact of the COVID-19 pandemic
1	The universities are closed, and the teaching is cancelled or carried out in online mode via the Internet
2	The conferences are not held or are held in remote mode over the Internet
3	Prospective students can't take exams, and international students cannot get to their campuses or come back home
4	Education programs abroad are cancelled
5	University teachers are advised not to travel to affected countries, or completely avoid trips abroad

Consequences of the COVID-19 pandemic in higher education

Experts in the higher education Altbach and de Wit [16] from the Center for International Higher Education (CIHE), Boston College (USA), outlined the likely consequences of the COVID-19 pandemic that would require special consideration [Table 4].

Table 4: The consequences of the COVID-19 pandemic in higher education

No	Consequences of the pandemic	Expert opinion
1	The strongest will survive	Research and leading world universities will be the first to recover. At the other end of the spectrum are those universities that are most at risk, i.e. private institutions that are poorly funded and completely dependent on tuition fees. This reality is particularly true in low-income countries, where higher education is increasingly dominated by the low-quality private sector. Much of the massification of higher education, as well as international students' mobility, have been driven by the emergence of the middle class – these groups are likely to be most affected by changes in higher education after the pandemic.
2	Financial crisis	During the COVID-19 pandemic, universities – both public and private – have immediately faced financial problems from the moment of closing for quarantine. Many universities have already stopped hiring new employees. For prestigious private universities, mainly in the USA, endowment funds have lost value with the fall of the stock market. Most of them will recover, but in the medium term, the impact of the crisis will be noticeable. Due to large expenditures aimed at stabilizing the economy during the crisis, future state allocations for higher education will be reduced.
3	Rising inequality	Higher education around the world and in individual countries is characterized by inequality of all types. The COVID-19 pandemic is likely to exacerbate these inequalities.

4	Distance education versus an intramural form of study	All over the world, universities were forced to switch to hundred-per-cent distance learning. Access to relevant technologies and the speed of the Internet have become significant challenges. While experience is being learned, educator skills are being improved (mainly through practice), as well as learning platforms and online curricula available on the Internet. Experts doubt whether the current situation will result in a deep and lasting technological revolution in higher education. However, the COVID-19 pandemic will significantly expand the use of distance education, and from now on teachers will use the opportunities offered by hybrid learning models. Nevertheless, for many reasons, students and teachers will continue to prefer full-time higher education. The traditional method of teaching can become a privilege for wealthier students studying at top universities.
5	International students' mobility	The education market will become a buyer's market, where universities will hunt for scarce international students in the coming years. The infrastructure of higher education that has developed in recent decades – agents, training programs, and staffing companies –will be drastically reduced, and new models will need to be adapted. Completing study programs abroad may experience even greater challenges since students now take into account the possible risks and challenges when getting training.

According to researchers [18, 31, 32], the immediate consequences and inconveniences will intensify as COVID-19 has spread to almost all countries and affects more and more people. However, the mid- and long-term consequences of the pandemic will not be so multiple. Some experts see the inadvertent positive impact of the pandemic on higher education revealed, in particular, in increased teaching and learning on the Internet and the associated reduction of the carbon footprint, as well as in more diverse international students' recruitment policies with reduction of their dependence on one or two major countries, especially on China.

Changes in higher education

According to some European experts [17], the implications for higher education will be significant and mostly negative, reinforcing the gaps and inequality among students, institutions, and countries [18- 20]. Significant changes will occur worldwide [21- 24]. Experts generally agree in their opinions with the previous works in this area; however, due to the development of global problems, such as COVID-19, believe that most likely the universities in the poorest parts of the world will suffer more seriously [Table 5].

Table 5: Changes in higher education

No	Changes	Expert opinion
1	Diversifying supplies from China	Universities around the world, especially those that rely heavily on international students – Australia, Canada, New Zealand, and the USA – no longer can expect the same number of Chinese students they have admitted for decades. The decline in the number of students from China has already affected the economies of Australia, New Zealand, and Canada.
2	Expanding distance learning	Most universities around the world have suspended or discontinued face-to-face education and replaced it with online teaching. The need to expand online learning options and massive open online courses (MOOC) can no longer be denied. The university authorities will have to reconsider which part of the training courses will be offered face-to-face and which part will be offered remotely.
3	Applying the methods of students' admission through the Internet	The practice of admission of students to study will change. Currently, entrance exams are postponed across Asia, which will eventually affect the fall admission of first-year students. To attract applicants in the future, deans and recruiters will use the Internet. Flexible application deadlines and review of qualification data require reassessment of current recruitment and students' admission practices.
4	Increasing the role of teleconferencing	Most universities have banned all non-essential travel for employees. Long-distance trips will be replaced by teleconferencing.
5	More and more students will be studying closer to home	Specific groups of students will decide to study closer to home, and they will increasingly turn to intraregional universities for higher education.

DISCUSSION

According to researchers [25 - 27], the consequences and inconveniences will increase as COVID-19 has reached almost all countries and affected an increasing number of people. But the medium- to long-term impact of the pandemic will not be too dramatic. Some experts see the unintended positive impact of the pandemic on higher education, in particular, in the increase in online teaching and learning and the associated reduction in the carbon footprint, as well as in a more diverse international students' recruitment policy, reducing its dependence on one or two major countries, especially on China.

The reality and trends that are observed in international higher education are likely to remain, and higher education will quickly return to the normal organization; however, it will possibly be characterized by less

financial stability than currently existing in many countries and institutions. There is no doubt that global mobility will decrease for a year or so, especially for students who come to other countries of the world.

After the end of the pandemic, the mobility structure may change. Time shows constant changes in the patterns and flows of international students. One of the main sending countries at one time was Iran, and now its influence is almost invisible. The flow of students from Brazil and Saudi Arabia has declined, while from Vietnam and to some extent from India, it has increased. The number of students from Africa, mainly from Nigeria and Kenya, is expected to grow in the future [28]. Some host countries, especially Australia and the UK, as well as some universities in the USA, have become financially dependent on international students' tuition costs. After all, international education is valued at USD 300 billion worldwide. The pandemic shows that this dependence raises many questions: institutions that depend on this income will likely face significant problems [29].

Today, the impact of technology on mobility is increasing. Now many universities teach their students remotely, but the quality of online education is still insufficient, and students are not always satisfied. Most teachers, according to researchers [30], do not learn to conduct distance courses, do not have the perfect technology necessary for high-quality teaching and learning, and have not adapted their curricula to the features of the Internet. There are many aspects and ways to consider: asynchronous or synchronous learning, effective management of group discussions on the Internet, organization of tasks, and exams using the Internet. At the same time, according to experts [31], there will be structural changes in the university research and teaching staff. A fairly large cohort of universities in the world proclaims a reduction in lecturing positions. In this regard, young educators entering the labor market will face the need to be tested, in particular, their professional competence in the organization of distance teaching.

Due to the increase in social distancing and reduction of geographical movements, the possibility of the personal acquaintance of applicants with university campuses has been reduced. Respectively, video acquaintance with educational institutions and their infrastructure is becoming more relevant. Virtual acquaintance is becoming the main way to get to know the university. And those institutions that have not invested in the development of virtual presence will lose a significant number of potential students [32]. Consequently, the value of the university website is growing drastically.

CONCLUSION

It is evident that in general, Russia and its education system have also been negatively affected by the COVID-19 pandemic and its consequences revealing vulnerabilities in organizational, managerial, and institutional support. However, it should be noted that the digitalization of higher education will certainly help to overcome today's challenges and gradually transform the higher education system, as well as implement new management mechanisms. Thus, the research results have confirmed the hypothesis that, on the one hand, COVID-19 has triggered a global crisis, which, on the other hand, can become an impetus to transform educational systems and science, and develop new strategies and mechanisms. However, it is necessary to keep in mind the requirements and expectations of society to ensure not only students' access to knowledge but also the provision of high-quality competitive education. The transition to receiving educational services based on online platforms expands the opportunities for higher education and international academic mobility, which in the future requires for scientific understanding of possible options for the development of the higher education digitalization process and its results to manage this process. Therefore, now the development of an innovative model of state management of the processes of higher education internationalization in the context of modern challenges should be considered as the urgent task of scientific research. In general, the authors believe that the modern model of public administration of the higher education internationalization should take into account both the requirements of external users of educational services regarding their volume and quality, as well as internal factors and the ability and readiness of domestic universities not only to switch to the latest technologies but also to provide competitive educational services.

CONFLICT OF INTEREST

There is no conflict of interest.

ACKNOWLEDGEMENTS

None.

FINANCIAL DISCLOSURE

None.

REFERENCES

- [1] The impact of the Coronavirus on global higher education. Report of Quacquarelli Symonds. [2020]. Retrieved from <https://www.qs.com/portfolio-items/the-impact-of-the-coronavirus-on-global-higher-education/>
- [2] Basset RM. [2020]. Sustaining the values of tertiary education during the COVID-19 crisis. *International Higher Education*. 102: 5-7.
- [3] Holmes K. [2020]. Sustaining learning communities through and beyond COVID-19. UNESCO. Futures of Education Ideas LAB. <https://en.unesco.org/futuresofeducation/holmes->

- sustaining-learning-communities-COVID-19 (Accessed April 27, 2020)
- [4] Kamarianos I, et al. [2020]. Towards an understanding of university students' response in times of pandemic crisis (COVID-19). *European Journal of Education Studies*. 7(7): 20-40.
- [5] Bilecen B. [2020] Commentary: COVID-19 pandemic and higher education: International mobility and students' social protection. *International Migration*. 58(4): 263-266.
- [6] Watermeyer R, et al. [2020] COVID-19 and digital disruption in UK universities: Afflictions and affordances of emergency online migration. *High Higher Education*. DOI:10.1007/s10734-020-00561-y
- [7] Toquero CM. [2020]. Challenges and opportunities for higher education amid the COVID-19 pandemic: The Philippine context. *Pedagogical Research* 5(4): em0063.
- [8] Malkawi BH. [2020]. COVID-19: 20 countries' higher education intra-period digital pedagogy responses. *Journal of Applied Learning & Teaching*. 3(1): 1-20.
- [9] Crawford J, et al. [2020]. COVID-19: 20 countries' higher education intra-period digital pedagogy responses. *Journal of Applied Learning and Teaching*. 3(1): 9-28.
- [10] Marinoni G, van Land H. [2020] The impact of COVID-19 on global higher education. *International Higher Education*. 102: 7-9.
- [11] Cao W, et al. [2020] The psychological impact of the COVID-19 epidemic on college students in China. *Psychiatry Research*. 287: 1-5.
- [12] Espino-Díaz L, et al. [2020] Analyzing the Impact of COVID-19 on Education Professionals. Toward a Paradigm Shift: ICT and Neuroeducation as a Binomial of Action. *Sustainability*, 12: 5646.
- [13] Favale T, et al. [2020] Campus traffic and e-Learning during COVID-19 pandemic. *Computer Networks*. 176: 107-290.
- [14] Nicola M, et al. [2020]. The socio-economic implications of the coronavirus and COVID-19 pandemic: a review. *International Journal of Surgery*. 78: 185-193.
- [15] Macgilchrist F, Allert H, Bruch A. [2020]. Students and society in the 2020s. Three future 'histories' of education and technology. *Learning, Media, and Technology*. 45(1): 76-89.
- [16] Altbach PG, de Wit H. [2020]. COVID-19: The internationalization. The revolution that isn't. *International Higher Education*. 102: 16-18.
- [17] Di Pietro G, Biagi F, Costa P, Karpiński Z, Mazza J. [2020] The likely impact of COVID-19 on education: Reflections based on the existing literature and international datasets. Luxembourg: Publications Office of the European Union.
- [18] Filinova NV, et al. [2015] The socio-economic foundations of the development of contemporary economic innovations. *Asian Social Science*. 11(6): 150-160.
- [19] Rozhnova OV, et al. [2018] The role of trade in the socio-economic development of Crimea. *International Journal of Civil Engineering and Technology*. 9(12): 48-54.
- [20] Bobinkin SA, et al. [2015] The influence of individual psychological abilities on managerial activities of line managers. *Asian Social Science*. 11(7): 208-214.
- [21] Luneva EV. [2015]. Key performance indicators (KPI) system in education. *Asian Social Science*. 11(8): 194-200.
- [22] Mayorova A, et al. [2019] State and development of retail chains in the Russian regions. *Proceedings of the 33rd International Business Information Management Association Conference, IBIMA 2019: Education Excellence and Innovation Management through Vision 2020*.
- [23] Filinova NV, et al. [2015] The influence of individual psychological abilities on managerial activities of line managers. *Asian Social Science*. 11(7): 208-214.
- [24] Samylina YN, et al. [2020] Key indicators of the economic activity of educational institutions: Modeling and prospects. *Revista Inclusiones*. 7: 1-14.
- [25] Blankenberger B, Williams AM. [2020]. COVID and the impact on higher education: The essential role of integrity and accountability. *Administrative Theory and Praxis*. 42(3): 404-423.
- [26] Viktorov VY, et al. [2020] Economic and social processes in education: Development of universities in the context of international trends. *Revista Inclusiones*. 7: 72-84.
- [27] Matveeva S, et al. [2020] Digitalization of higher education and professional development of educators: Technologies and new opportunities. 9(29): 77-86.
- [28] Aucejo EM, et al. [2020] The impact of COVID-19 on student experiences and expectations: Evidence from a survey. *Journal of Public Economics*, 191: 104-271.
- [29] Bedford J, et al. [2020] COVID-19: Towards controlling of a pandemic. *The Lancet*. 395: 1015-1018.
- [30] Cecilio-Fernandes D, et al. [2020]. The COVID-19 pandemic and the challenge of using technology for medical education in low and middle-income countries. *MedEdPublish*. 9(1): 1-7.
- [31] Affouneh S, Salha SN, Khlaif Z. [2020]. Designing quality e-learning environments for emergency remote teaching in coronavirus crisis. *Interdisciplinary Journal of Virtual Learning in Medical Sciences*. 11(2): 1-3.
- [32] Dhawan S. [2020]. Online learning: A panacea in the time of the COVID-19 crisis. *Journal of Educational Technology Systems*. 49(1): 5-22.
- [33] European Students' Union. Retrieved from <https://www.esu-online.org/>