Prospects of Creating a Unified Information System for Admission To Universities In Russia

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Abstract: *The article deals with the problems faced by entrants for admission to Russian universities in modern conditions: the need for decision-making under uncertainty, the compressed time frame when moving between selected educational organizations. An approach to solving these problems is proposed, which consists in creating a unified information system that integrates information resources of admission commissions of all universities of the Russian Federation with the portal of state and municipal services. To serve applicants, it is proposed to use a network of multifunctional centers for the provision of state and municipal services. The proposed approach will provide applicants with the opportunity to remotely quickly change their decisions without a personal visit to the admission commission, while its implementation does not require significant costs from universities or the Ministry of science and high education of Russia. The creation of a unified system of admission to universities to increase the openness and accessibility of the admission campaign for higher education programs will allow more objective distribution of applicants between universities, as much as possible to satisfy their wishes in accordance with the scores on the results of entrance examinations. In creating a unified information and communication system of admission to universities are interested not only applicants and their parents who receive timely information about the recruitment process and their chances of admission to the University, but also the University management, who need operational information to analyze the course of the admission company and strategic planning, as well as the staff of the technical staff of the admission commission, receiving effective tools for the performance of duties and local operational decisions.*

Index Terms: entrant, university, information system.

1. INTRODUCTION

The current procedure for admission to universities under higher education programs in Russia is very difficult for applicants to understand, despite the fact that its purpose is to ensure high openness and transparency of the admission procedure. The main source of information for applicants in accordance with the current Russian legislation is the official website of the University on the Internet, which publishes mandatory information about the rules of admission, the number of budget and paid places, and so on.

Also, during the entire period from the date of submission of applications for admission to the moment of enrollment, the University is obliged to publish daily rating-lists of applicants. Rating-list is a list of applicants ranged in descending order by the amount of competitive balls, applying for admission to the same conditions of study. Knowing your position in these rating-lists and number of budget places in the respective directions of training, the applicant must determine the location of training and specialty and to apply for consent for enrollment with the application original document about the previous education. Only in this case he can apply for admission. In accordance with the existing order of admission to universities, the applicant can apply for admission to the budget places no more than 5 universities, and no more than 3 areas of bachelor's or specialty in each University. The difficulty of making a decision on admission in these conditions is that in most cases the result of admission to a higher educational institution depends on the choice of other entrants unknown to any entrant.

II. THE PROBLEM

Consider a number of possible situations that may arise in the most simple embodiment, when the applicant applies for admission only in two universities: A and B. Let priority for admission is the possibility of training in high school B. If the preliminary ranking-list will be clear that it is guaranteed to be among the 80 percent coming through the General competition in the University B, in the case of filing a consent, the applicant will be enrolled to study at the University of B. Quite a different situation occurs, if the applicant is not included in the 80% limit of the rating list of the University B. Since the applicant can not accurately predict the actions of other applicants with a higher amount of competitive points, subject to the submission of consent for admission to University B, he risks not to pass the competition for training in both educational institutions. If at the same time the applicant decides to give consent to enroll in University A, it may well be that he could pass through the competition and in University B, as not all of its competitors have agreed to enroll or someone refused to enroll (withdrew his application for admission in connection with the choice of another University).

The problem under consideration is complicated by the presence of space - time constraints. The possibility of further training of the applicant in the desired University is often solved negatively not because he did not pass the competitive selection, but because of the strict deadlines for submission of original documents. Since the universities to which the documents are submitted may be located in different regions of Russia, applicants and their parents are

 forced to move between universities and cities, taking the originals of the document on education from one selection Committee and transferring them to another. At the same time, applicants are allowed to use the services of postal operators and courier delivery services, but this does not fundamentally solve the question of responsiveness when making a decision. As a rule, the result of enrollment is determined in the last hours or minutes allotted for the submission of consent to enrollment by the admission procedure, when it is not possible to move the original document on education. For example, an applicant visits the site and sees that in the "desired" University standing above him in the rating list of applicants refused to enroll, and before enrollment are a few hours. The applicant has the opportunity to go where he wants, but physically does not have time to be in the right University to provide the original documents. In this regard, it seems that there are two ways to improve the current system of admission to universities. The first is associated with the abolition of the requirement to provide the original documents, the second – with the creation of a mechanism for instant transmission of the original documents of the applicant from the University to the University. The first way is impossible without changing the regulatory framework. In addition, the need to provide the original is an additional control tool that prevents illegal receipt of citizens of two or more higher education at the expense of budget funds. But the ways to implement the second way are quite possible with a slight modification of the existing order of enrollment in universities, for example, through the use of modern telecommunication Internet technologies and the existing infrastructure of electronic provision of state and municipal services in Russia.

The peculiarity of the proposed approach is the possibility of its consistent implementation first within the framework of individual subjects of the Russian Federation, and then throughout the country as a whole [1, 2, 3, 4].

III. RESULTS AND DISCUSSION

The basis of such system may be a modified version of the Federal information system (FIS) provide state final examination (GIA) trained, mastered the main educational programs of basic General and secondary General education, and FIS reception of citizens in the educational organizations for receipt of secondary professional and higher education and regional information systems of ensuring carrying out the state final certification of students who have mastered the basic educational programs of basic General and secondary General education (further - FIS, GIA and reception) [5, 6]. The first stage of transition to this centralized system without

significant changes to the legislative framework could be the integration of information systems of the universities with the FIS, GIA and reception (which is mandatory), but also on the portal of state and municipal services (https://www.gosuslugi.ru) and a network of the multipurpose centers. At the same time, interaction with bodies providing public services or bodies providing municipal services is carried out by a multifunctional center without the participation of the applicant [7].The main purpose of the interaction of universities with the portals of public services and the network of MFC – the release of the applicant from the need to move the original document on education between the selected universities. To implement this measure, it will be necessary to develop the regulations of the relevant public service, the corresponding application on the portal of public services, as well as the formats of its automated interaction with information systems of universities. It is assumed that the applicant will be able to fill out an application for admission to the portal of public services independently or in the nearest MFC. At the same time, he / she submits the original of his / her document on education and other documents (if necessary) to the MFC. Next, the applicant will be able to manage their applications for admission to universities with the help of a personal account on the portal of public services. At the time when the applicant agrees to enroll in a certain University for a specific specialty, form of training, category of admission, the MFC will automatically send a courier service or otherwise a set of documents submitted to the relevant University. When providing this service, it will be necessary to establish the payment of the state fee to cover the costs of sending documents, but its size will be several times less than the costs of applicants and their parents in the personal movement between universities. It is understood that the host University will take into account the availability of the original document on the education of the applicant, as soon as the applicant submits an application for consent in the application on the portal of public services. MFC in this situation acts as a guarantor of the transfer of the original to the University. It should be noted that this service will be able to interest foreign students. On the territory of foreign countries, this function can be carried out not by the IFC, but by embassies or their subordinate structures.An additional advantage of the proposed approach is that applicants will be able to submit an electronic application, submit original documents to the MFC and go anywhere in the world (for example, for summer holidays), where there is access to the Internet to remotely control the process of their admission. Note that the current capabilities of the portal of public services allow, firstly, to provide secure processing of personal data of the applicant, and secondly, to check the results of the exam incoming passport data.

The application can be

implemented and automatic decision on the submission of the applicant's consent to enroll, if the incoming will indicate the priorities for each of the selected universities and each chosen field of training (specialty). In this case, the system will automatically agree to enroll in descending order of priorities of the incoming. In other words, if the applicant in accordance with the information provided by the University, is a competition for the first specified direction of training, the consent is automatically sent there. If the applicant has not passed the competition for the first direction, but passed to the second, the system decides to send

the applicant to the second priority, etc. This approach will allow in the future to abandon the restrictions on the number of universities (not more than 5), areas of training in each University (not more than 3) and stages of enrollment (all applicants will be distributed automatically for 1 stage, and optimally, if the algorithm is used [8].After completing the electronic application for admission inform ation about the applicant sent to each selected University, and in the user's personal account appears rating table, which, depending on the priorities displays the selected universities and areas of training/specialty. The applicant must be aware that the rating of universities formed by him will allow him to enter the University, which is the first in the list, only if there is a sufficient number of competitive points. In the rating built by the entrant the conditional original of the document on education (the consent on transfer) can move from one higher education institution to another depending on the rating table created by the entrant in the personal account at present time.

The introduction of the described technology of acceptance of documents from applicants will facilitate the work of selection committees, will enable applicants to quickly track their positions in the ranking lists of all selected universities and change priorities without having to visit the selection Committee of a particular University.

A necessary element of the described system should be the "day of silence" - a period of time during which applicants can not change the rating-lists in private offices, but are required to submit their original documents. At the same time, after the" day of silence", the applicant who submitted the documents can change his priority table. In the period after the "day of silence" and until enrollment entrant must agree to enroll in those universities that are in its final rating list. It should be noted that such systems can be created and implemented in other countries, where there are analogues of the unified state examination and relevant information systems, for example, in the people's Republic of China [9], Kyrgyzstan [10].

Thus, the proposed approach will provide applicants with the opportunity to remotely and quickly change their decisions without a personal visit to the selection Committee, while its implementation does not require significant costs from universities or the Ministry science and high education of Russia. The creation of a unified system of admission to universities increases the openness and accessibility of the admission campaign, allows more objectively distribute applicants between universities, as much as possible to satisfy their wishes in accordance with the scores on the results of entrance examinations. In the creation of a unified information system of admission to universities are interested not only applicants and their parents who receive timely information about the recruitment process and their chances of admission to the University, but also the management of the University, which needs operational information to analyze the progress of the admission company and strategic planning, as well as the staff of the technical staff of the admission commission, receiving effective tools to perform their duties and make operational decisions.

REFERENCES

1. Epanchinceva O.L., Pogromskaya T.A., "Formirovanie edinogo
2. konkursnogo prostranstva Omskogo regiona", / O.L. Epanchinceva, Matematicheskie struktury i modelirovanie. vol 16, pp. 5-10, 2006.
3. Kostjushina E.A. "Organizacija edinogo konkursnogo prostranstva regiona," Otkrytoe i distancionnoe obrazovanie, vol. 3, pp. 35-41, 2003.
4. Pyhtin A.I., Emel'yanov I.P., "Koncepciya organizacii priema v
5. vuzy na osnove provedeniya edinogo vserossijskogo konkursa po
6. napravleniyam podgotovki i special'nostyam," Izvestiya
7. YUgo-Zapadnogo gosudarstvennogo universiteta, vol. 2 (47), pp.
8. 086-088, 2013.
9. Mezenceva A.G., Ovchinkin O.V., Pyhtin A.I., "Osnovnye moduli avtomatizirovannoj informacionnoj sistemy dlya upravleniya priyomnoj kampaniej v usloviyah edinogo konkursnogo prostranstva Rossii," Sovremennye instrumental'nye sistemy, informacionnye tekhnologii i innovacii, pp 138–140, 2018.
10. Pyhtin A.I., "Etapy sozdaniya edinoj informacionnoj sistemy upravleniya priyomom v vuzy Rossii," Sbornik statej VII mezhdunarodnoj nauchno-prakticheskoj konferencii, pp 105-106, January 2017.
11. Pyhtin A.I., Mezenceva A.G., "Funkcional'naya model' centralizovannoj priemnoj kampanii v vuzy Rossii," Sovremennye naukoemkie tekhnologii, vol. 2, pp. 63-68, 2017.
12. Mnogofunkcional'nye centry predostavleniya gosudarstvennyh i municipal'nyh uslug, URL: https://ru.wikipedia.org/wiki/Mnogofunkcional'nye centry predostavleniya gosudarstvennyh i municipal'nyh uslug#cite_note-1, 2018.
13. Pyhtin A.I., Spirin E.A., Zaharov I.S., "Metod i algoritm resheniya zadachi konkursnogo otbora i zachisleniya v vuz", Telekommunikacii, vol. 5, pp. 12-19, 2008.
14. Tan C., "Tensions and challenges in China's education policy borrowing," Educational Research, vol. 58, pp. 195-206, 2016.
15. Kan M.V., "Mezhvuzovskoe edinoe informacionnoe prostranstvo konkursnogo otbora abiturientov na primere Kirgizii," Sovremennye informacionnye tekhnologii i IT-obrazovanie, vol. 7, pp. 357-368, 2011.