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**ANALYSIS OF THE AGRARIAN UNIVERSITY ADMISSION PROCESS IN
UKRAINE**

**ANALIZA KAMPANII REKRUTACYJNEJ NA UCZELNIACH
ROLNICZYCH UKRAINY**

**АНАЛИЗ ВСТУПИТЕЛЬНОЙ КАМПАНИИ В АГРАРНЫХ
УНИВЕРСИТЕТАХ УКРАИНЫ**

Abstracts

In the article the author proposed the block of the relative indicators in 2012-2015 for Educational and professional program for Bachelor's training of full-time and part-time studies in the field of 6.030601 "Management" at agricultural universities of Ukraine and their evaluation was made. According to the author, the admission procedures are characterized by a number of criteria, among which there are: licensed quota, the number of state demand, admission request number submitted by enrolees, and the number of enrolled students. Also, their quantitative characteristics are defined. Besides, the author calculated the matrix of correlation coefficient to investigate the influence of the determined factors on the results of the admission procedures. It was concluded that there have been negative trends in the number of licensed quota in the field of "Management" with simultaneous disproportion of public funding quota. Recommendations for improvement of admission process effectiveness were made.

Keywords: *higher agrarian educational institution, admission process, educational and qualification level, specialty, management, full-time studies, part-time studies, licensed quota, state demand number, admission number request submitted by enrolees, quota of enrolled students.*

Streszczenie

W artykule autor zaproponował zestaw wskaźników względnych do ewaluacji kampanii rekrutacyjnej w latach 2012-2015 na poziomie „licencjat” na kierunku 6.030601 „Zarządzanie” w stacjonarnej i niestacjonarnej formie studiów na uczelniach rolniczych Ukrainy oraz przeprowadził ewaluację tych kampanii. Według autora, przeanalizowane kampanie rekrutacyjne wyróżniały się szeregiem wskaźników, wśród których podkreślono wielkość licencjonowanych rekrutacji, wielkość zamówienia publicznego, liczbę zapisów na studia oraz liczbę zakwalifikowanych studentów. Ponadto, autor obliczył macierz

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współczynników korelacji w celu zbadania wpływu pewnych czynników na wynik kampanii rekrutacyjnej. Zostały opracowane zalecenia w celu poprawy skuteczności kampanii rekrutacyjnej.

Słowa kluczowe: instytucja szkolnictwa wyższego, kampania rekrutacyjna, poziom edukacji i kwalifikacji, kierunek, zarządzanie, stacjonarna forma studiów, niestacjonarna forma studiów, wielkość licencjonowanej rekrutacji, wielkość zamówienia publicznego, liczba zapisów na studia, liczba zakwalifikowanych studentów.

Аннотация

В статье автором предложено совокупность относительных показателей для оценки вступительных кампаний с 2012-2015 гг. ОКУ «бакалавр» направления подготовки 6.030601 «Менеджмент» дневной и заочной форм обучения в аграрных ВУЗов Украины и осуществлено их оценку. По мнению автора, исследуемые вступительные кампании характеризовалась рядом показателей, среди которых выделено объем лицензированного набора, объем государственного заказа, количество поданных абитуриентами заявлений и количество зачисленных студентов. Кроме того, автором рассчитана матрица парных коэффициентов корреляции с целью изучения влияния определенных факторов на результаты вступительных кампаний. Разработаны рекомендации по повышению эффективности вступительных кампаний.

Ключевые слова: высшее аграрное учебное заведение, вступительная кампания, образовательно-квалификационный уровень, специальность, менеджмент, дневная форма обучения, заочная форма обучения, объем лицензированного набора, объем государственного заказа, количество поданных абитуриентами заявлений, количество зачисленных студентов.

Introduction

The current stage of reforming higher education is characterized by significant changes that have occurred both in national education systems and on a global scale. No doubt, to some extent such transformations affected the need to revise rules of quality assurance in higher education taking into account day-to-day realities [1].

The Law of Ukraine "On higher education" defines higher education as a set of systematized knowledge, abilities and practical skills, ways of thinking, professional, philosophical and civic qualities, moral and ethical values and other competencies acquired in a higher educational establishment (research institution) in the relevant

field of knowledge by a certain qualification at a level of higher education that are more complicated than the level of completed secondary education [2].

According to official statistics, Ukraine has 803 institutions of I-IV accreditation levels, including 325 higher educational institutions of III-IV accreditation levels [3, p.9].

One of the conditions for the successful functioning of any higher education institution is to form a contingent of students, since a stable presence of students demonstrates the high quality of education offered by the university to entrants [4].

Results and discussion

Today, the admission to higher educational institutions is on a competitive basis

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according to Terms of Admission to Higher Educational Institutions approved by the central executive authority in the field of education and science [5].

Formation of the contingent of students of higher educational institutions on the basis of transparency and openness, creating conditions for training according to the needs of an individual and the labor market, the impact of educational activities and process of training specialists are determined by the qualitative selection of entrants that is essential for the high quality of professionals [6, p. 7].

The purpose of the article is to analyze the dynamics of the university admission process in 2012-2015 of "Bachelor" educational and qualifying level of the training direction 6.030601 "Management" of full-time and external modes of studies at agricultural universities in Ukraine.

The university admission procedure in Ukraine is characterized by annual changes in the rules and has its own characteristics. However, using a single state electronic database on education for all higher educational institutions of Ukraine and electronic information system "Contest" is a standard today.

The studied university admission process in 2012-2015 was characterized by a number of indicators. In our opinion, it is necessary to allocate the following ones:

1) The ratio of enrolled students to the licensed scope. This can indicate a compliance of the state provided number of officially recognized openings with real needs of universities. Making the assumption, the higher value of the specified indicator, the more efficiently license conditions of educational services in higher education are carried out. Low values of this indicator reflect both the low insurance and the possible misallocation of officially recognized

openings in the context of higher educational institutions. In turn, this reflects subjectively the low attractiveness of studying in comparison with a specified specialty or "low prestige" of a university;

2) The ratio of enrolled students to the total number of submitted applications. This can show a conscious choice of the university that is one of the elements of the occupational orientation;

3) The ratio of state-financed openings to the number of enrolled students. We consider that this indicator points that most applicants choose the free mode of studies regardless of the quality of educational services and the significant difference in the total cost of studying at national and local universities, including tuition fees, accommodation, moving home etc.;

4) The ratio of state-financed openings to officially recognized ones. In our opinion, this ratio is one of the elements of the administrative control of the number of future specialists of a particular specialty determined taking into account the socio-economic situation of a particular region and the relevant local university that provides training for specialists of these specialties.

Quantitative indicators of the information system "Contest" were used as source data for analysis [7] in the context of Ukrainian agricultural universities of full-time and external modes of studies including: the licensed scope, the state order scope, the number of submitted applications and the number of enrolled students in 2012-2015. On the basis of available data, total values of specified indicators were determined in the context of higher educational institutions. Based on the final values, calculated values of relative indexes of the university admission procedures were identified separately for full-time (Table 1) and external (Table 2) modes of studies.

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Table 1. Relative indexes of the university admission procedures in 2012-2015 of “Bachelor” educational and qualifying level of the training direction 6.030601 “Management” of full-time mode of studies at agricultural universities in Ukraine

Higher agrarian educational institution	Quantitative ratio			
	enrolled students to the licensed scope, %	enrolled students to the total number of submitted applications, %	state-financed openings to the number of enrolled students, %	state-financed openings to licensed scope, %
National University of Life and Environmental Sciences of Ukraine (NUBiP)	63,4	10,9	116,2	73,6
Sumy National Agrarian University	10,7	20,3	58,6	6,3
Vinnitsia National Agrarian University	46,7	16,4	28,5	13,3
Zhytomyr National Agroecological University	28,3	16,3	25,2	7,1
Dnipropetrovsk State Agrarian-economic University	64,7	9,9	42,3	27,3
Podil State Agricultural and Technical University	36,4	19,0	92,5	33,6
Odessa State Agrarian University	35,2	12,2	59,0	20,8
BilaTserkva National Agrarian University	36,5	25,8	33,0	12,0
Lugansk National Agrarian University	14,6	13,8	85,2	12,4
Kherson State Agrarian University	35,7	14,5	42,1	15,0
Uman National University of Horticulture	24,4	29,2	41,5	10,1
Mykolayiv National Agrarian University	34,7	19,8	46,4	16,1
Kharkiv National Agrarian University	21,3	11,5	64,7	13,8
Lviv National Agrarian University	34,9	33,7	69,6	24,3
Taurian State Agrotechnical University	-	-	-	-
Kharkiv State Veterinary Academy	7,0	75,0	85,7	6,0
Poltava State Agrarian Academy	48,3	15,7	23,1	11,1
Kirovohrad National Technical University	24,7	20,5	49,4	12,2
Lviv National University of Veterinary Medicine and Biotechnologies	11,6	9,5	43,8	5,1
Kharkiv Petro Vasylenko National Technical University of Agriculture	61,1	18,0	49,7	30,4
National University of Water Management and Nature Resources use	38,0	8,9	73,2	27,8
National Forestry and Wood-Technology University of Ukraine	28,1	10,2	38,0	10,7
Total	31,1	14,9	54,9	17,1

Source: Інформаційна система «Конкурс» <http://www.vstup.info> Author's calculation

Table 1 shows that in terms of “The ratio of the number of enrolled students to the licensed scope” Dnipropetrovsk State Agrarian University (64.7%), NUBiP (63.4%) and Kharkiv State Technical University of Agriculture (61.1%) are dominant. The value of this indicator ranged

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from 7% to 48.3% for other higher educational institutions. The average value was 31.1% in terms of agricultural universities. Thus, based on the results, we can conclude that all agricultural universities of Ukraine had a significant reserve to increase the number of full-time students in the field of “Management” studies.

In terms of “The ratio of enrolled students to the number of submitted applications” Kharkiv State Veterinary Academy has the value of 75%. For the rest of institutions the figure ranged from 8.9% to 33.7%. In terms of agricultural universities the average value of this indicator was 14.9%. That is, only every seventh submitted application ended with the student enrollment for the full-time mode of studies in the specified field of studies. This situation demonstrates the insufficient conscious choice of applicants concerning a certain field of studies or a university.

During the analyzed period extremely high values of “The ratio of state-financed openings to the number of enrolled students” (over 100%) were recorded in NUBiP – 116.2%. This is because of a smaller

number of enrolled students on the amount of state order openings. The university admission process in State Agrarian and Engineering University in Podilya, Kharkiv State Veterinary Academy and Lugansk National Agrarian University is characterized by high values of this indicator – 92.5%, 85.7% and 85.2%, respectively. For other higher educational institutions its value ranged from 23.1% to 73.2%. The average value of the indicator was 54.9% in terms of agricultural universities that is rather a high figure. In our opinion, it can be one of the key arguments in the choice of a future profession.

In terms of “The ratio of state-financed openings to officially recognized ones” NUBiP was characterized by the highest value of this indicator – 73.6%. For other higher educational institutions it was in the range of 5.1% to 33.6%. In terms of agricultural universities the average value of this indicator was 17.1%. Thus, there is an imbalance in the governmental funding of studying future managers of the agrarian sector depending on the chosen university.

Table 2. Relative indexes of the university admission process in 2012-2015 of “Bachelor” educational and qualifying level of the training direction 6.030601 “Management” of external mode of studies at agricultural universities in Ukraine

Higher agrarian educational institution	Quantitative ratio			
	enrolled students to the licensed scope, %	enrolled students to the total number of submitted applications, %	state-financed openings to the number of enrolled students, %	state-financed openings to licensed scope, %
National University of Life and Environmental Sciences of Ukraine (NUBiP)	16,8	82,2	91,7	15,4
Sumy National Agrarian University	2,1	69,0	34,5	0,7
Vinnytsia National Agrarian University	9,9	68,5	43,2	4,3
Zhytomyr National Agroecological University	9,6	61,6	14,8	1,4
Dnipropetrovsk State Agrarian-economical University	19,7	58,4	5,1	1,0
Podolski State Agricultural and Technical University	8,3	65,2	13,3	1,1

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Odessa State Agrarian University	3,7	84,6	36,4	1,3
BilaTserkvaNational Agrarian University	8,8	83,0	20,5	1,8
Lugansk National Agrarian University	0,4	50,0	1000,0	4,2
Kherson State Agrarian University	6,7	33,3	35,0	2,3
Uman National University of Horticulture	2,7	80,0	37,5	1,0
Mykolayiv National Agrarian University	4,8	41,1	52,2	2,5
Kharkiv National Agrarian University	x	x	x	x
Lviv National Agrarian University	6,8	68,7	17,4	1,2
Taurian State Agrotechnical University	x	x	x	x
Kharkiv State Veterinary Academy	0,0	x	x	0,0
Poltava State Agrarian Academy	6,7	100,0	0,0	0,0
Kirovohrad National Technical University	11,0	95,7	36,4	4,0
Lviv National University of Veterinary Medicine and Biotechnologies	2,4	36,7	81,8	2,0
Kharkiv Petro Vasylenko National Technical University of Agriculture	8,5	84,8	10,7	0,9
National University of Water Management and Nature Resources use	10,7	38,1	25,0	2,7
National Forestry and Wood-Technology University of Ukraine	7,8	38,4	14,3	1,1
Total	6,8	60,9	33,6	2,3

Source: Інформаційна система «Конкурс» <http://www.vstup.info> Author's calculation

The agrarian university admission process in 2012-2015 of “Management” major of the external mode of studies was characterized by the following values of relative indicators (Table 2):

- In terms of “The ratio of the number of enrolled students to the licensed scope” Dnipropetrovsk State Agrarian University (19.7%) and NUBiP (16.8%) are dominating. For the rest of higher educational institutions the values of this indicator range from 0% to 11.0%. In terms of agricultural universities the average value is just 6.8%. It is obvious that all agricultural universities of Ukraine had a significant reserve to increase the number of external students in “Management” the field of studies .
- In terms of “The ratio of enrolled students to the number of submitted applications” Poltava State Agrarian Academy is a leader with a value of 100%.

For the rest of institutions the figure ranged from 33.3% to 95.7%. In terms of agricultural universities the average value of this indicator was 60.9%. In other words, values of this indicator of the external mode of studies are significantly higher in comparison with the full time mode of studies. It demonstrates the sufficient conscious choice of applicants concerning a future profession.

- Extremely high values of “The ratio of state-financed openings to the number of enrolled students” (about 1000%) were recorded in Lugansk National Agrarian University. This is due to the socio-political situation in the region of this higher educational institution and the low student recruitment, even if there is enough state order concerning the investigated field of studies. High values of the indicator were recorded in

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NUBiP – 91.7%. For the rest of higher educational institutions values ranged from 0% to 81.8%. In terms of agricultural universities the average value of the indicator was 33.6% that is rather a high figure and indicates that every third student of the external mode of studies of the training direction “Management” was able to study at the expense of the governmental funding.

- In terms of “The ratio of state-financed openings to officially recognized ones”, similar to the full-time mode of studies, NUBiP was characterized by the highest value of this indicator – 15.4%. For other higher educational institutions it was in the range of 0 % до

4.3%. In terms of agricultural universities the average value of this indicator was 2.3%. In other words, we have a similar situation with a certain imbalance in the governmental funding for studies of future managers of the agrarian sector depending on the chosen university.

Obtained quantitative indicators of the university admission process in 2012-2015 enable the correlation analysis to determine the connection between some indicators of campaigns in terms of agrarian higher educational institutions in Ukraine (Table 3). At the same time we determine “licensed scope” and “scope of state order” indicators as motivating ones and “number of submitted applications” and “number of enrolled students” indicators as effective ones.

Table 3. Coefficients matrix of pair correlations of the university admission process in 2012-2015 of “Bachelor” educational and qualifying level of the training direction 6.030601 “Management” of full-time and external modes of studies at agricultural universities in Ukraine

Full-time mode				
	number of submitted applications	number of enrolled students	licensed scope	state order scope
number of submitted applications	1			
number of enrolled students	0,856413	1		
licensed scope	0,2888855	0,517933834	1	
state order scope	0,823896	0,745295725	0,294328756	1
External mode				
	number of submitted applications	number of enrolled students	licensed scope	state order scope
number of submitted applications	1			
number of enrolled students	0,911515	1		
licensed scope	0,4259547	0,478414687	1	
state order scope	0,457676	0,603602366	0,276752346	1

Source: Author's calculation

Thus, Table 3 shows that the state order scope factor ($r = 0.823896$) greatly influenced the number of submitted applications for the full-time mode of studies whereas the licensed scope did not influence the motivation of applicants to apply at a certain agrarian higher educational institution $r =$

0.2888855 . Also, the indicator “number of enrolled students” of the full-time mode of studies depended greatly on the scope of state order $r = 0.745295725$, while the scope of licensed recruitment had an average connection with the number of enrolled students $r = 0.517933834$.

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The obtained correlation coefficient $r = 0.294328756$ describing the relationship between the scope of public order and licensed scope demonstrates certain imbalances between quantitative values of these indicators in terms of some higher educational institutions.

The high value of correlation coefficient $r = 0.856413$ describing the relationship between the number of submitted applications and the number of enrolled students indicates that those universities having more applications objectively had higher student recruitment by the chosen field of studies. This again emphasizes the important role of the vocational guidance conducted by specified institutions.

According to Table 3, the university admission process of the external mode of studies differs from the admission process of the full-time studies. Thus, the impact of the licensed scope and the state order scope

was average for the number of submitted applications, whereas the state order scope significantly affected the number of enrolled students and the licensed scope affected indirectly. So, the university admission process of the full-time studies was characterized in a similar way.

Conclusions

Thus, during the analyzed period we note significant reserves to increase the number of future managers of the agrarian sector both full-time and external modes of studies. In addition, some universities with a large licensed scope simultaneously have an insufficient number of state-financed openings. Obtained estimates indicate the priority of this factor in the choice of a future profession. Therefore, in order to eliminate these imbalances we can recommend correcting the state order scope for certain agrarian universities.

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