

The Faculty admission procedure. The first selection criteria: 'Admission average' or the 'Candidate option'?

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Abstract: *The paper presents a comparison (based on a specific situation simulation) between the two admission procedures used in the 'Transilvania' University of Brasov' for candidates wanting to enroll in its study programs. Both the simulation and the presented example (regarding the learning programs of the Faculty of Economic Sciences and Business Administration), aim at finding an answer to the following question: which selection criteria is best suited for the current learning market conditions: the admission average or the candidate option for a specific learning program?.*

Key-words: *admission average, candidate options, simulation*

1. Introduction

For an efficient selection of the candidates who take part in the admission process for the learning programs held by the Transilvania University of Brasov two distinct procedures are used, which are presented in the „Methodology regarding the organisation and the running of the admission process – Annex 8” (Methodology 2015, 20), which are: „a. Taking into consideration the candidate options in the admission form in descending order of the general averages” and „b. In descending order of the general averages and the options expressed in the admission form”. The first procedure was fully employed in the 2015 admission sessions, for all study programs from six faculties and partially (only for some study programs) for another three. The second procedure was used in eight faculties from the university, for all their study programs; another four faculties employed it only for certain study programs (Methodology 2015, 20). The main criteria used by the first procedure are the **candidate options** (expressed in the admission form). After this initial step candidates are arranged (inside every specific option for specialty) descending according to their admission average; in the event that not all the available places are filled in this stage, the procedure is repeated, this time taking

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into consideration the second and all subsequent options, in the order they were selected by the candidate. The second procedure arranges all candidates according to their **admission average**, after which they are allocated to study programs in order of their candidate options from the admission form; when all places are filled for one study program, the next candidate (in order of the admission average) is matched with the first option from his chart that matches an empty place in one of the study programs (the procedure is also known as '*admission by landslide*'). The admission process ends when all the open places are filled (both for government funded places and those which require personal tuition taxes).

There are several strong arguments for each of the procedures, to prove its superiority to the other in terms of adequateness and meeting the necessities of a fair candidate selection. The first procedure is supported by the fact the main criteria is the candidate's option to follow a specific study program (which can prove to be a great incentive for the future student to focus on achieving good results, both in the academic environment and further on when he becomes part of the workforce); its main counterargument: the selection is based on subjective criteria. The second procedure is backed by the fact that the ordering and repartition of the candidates is made based on objective criteria, which is real, quantifiable (the average), which takes into account the present level of education of the candidate and can be a guarantee, to some extent, of his or hers future performance; the main counterargument: as long as most of the admission average is based on the candidate's high-school grades, the admission average is not objective due to the differences in approach in different high-schools.

2. Objectives and methodology

The objective of this paper is to make a first step towards an in depth, multidisciplinary analysis of admission procedures, aimed at optimizing candidate selection for the numerous study programs offered by the university. Consequently, the paper makes a comparison between the two procedures following the development of the candidates in one of the two situations in a particular study program.

We start from a brief analysis of the real situation of the candidate repartition of the three study programs from the Faculty of Economic Sciences and Business Administration, for the July 2014 and July 2015 admission sessions (the repartition is done through *the admission average procedure* – which has been used non-stop since the faculty was founded). The situation is presented (in both cases) for the first stage of the admission process. The data used for the analysis comes from the official lists posted on the Faculty Website (Admitere SEAF 2014 and 2015), in the Admission section, and we have focused on the *Management* [MN], *International Business* [AI] and *Marketing* [MK] study programs. Using this data we have

generated new lists in which the candidates were reassigned to study programs according to the other procedure (“candidate options”) and the results were compared to the initial situation. To better understand the differences between the two procedures and their effects on the composition of the First Year for the different programs, in the Part II of this paper a model was developed in which the effects of the two-repartition methods were simulated. The characteristics of the model will be presented in the next chapter.

4. Results and discussion

For three study programs (MN – Management; AI – International Business; MK – Marketing) we present a comparison (in Table 1) regarding the situation of admissions for candidates between the First Stage in July 2014 (columns 3,4 and 5 – the admission average procedure, currently used by the Faculty of Economic Sciences and Business Administration) and July 2015 (columns 6, 7 and – the candidate options procedure simulation based on official previous admission lists).

Admission – July 22, 2014 [Stage I]										
Study Programs			“Admission average” Procedure			“Candidate options” Procedure			Common candidates	
SPN	TP	NL	NMax	Nmin	C1	NMax	Nmin	Et	C1	[%]
0	1	2	3	4	5	6	7	8	9	10
MN	B	28	9,43	8,35	16	9,43	7,67	-	16	57,1%
	T	47	8,26	6,90	2	8,26	5,56	XI	2	4,3%
AI	B	33	9,85	8,42	20	9,84	7,73	-	20	60,6%
	T	41	8,35	7,08	1	7,68	5,40	XIII	1	2,4%
MK	B	32	9,50	8,35	20	9,50	7,91	-	20	62,5%
	T	66	10	6,76	2	10	5,42	XIV	2	3,0%
Admission – July 24, 2015 [Stage I]										
MN	B	28	9,46	8,70	12	9,46	7,96	-	12	42,9%
	T	47	8,55	7,28	-	7,85	5,74	XII	-	0%
AI	B	32	9,58	8,60	16	9,58	8,06	-	16	50%
	T	41	8,51	7,55	1	8,08	5,71	XI	1	2,4%
MK	B	31	9,78	8,55	13	9,78	7,88	-	15	48,4%
	T	67	8,46	7,10	-	7,91	5,45	XIII	-	0%

SPN – study program name; TP – seat type: B – budgeted; T – paid tuition; NL – number of seats effectively filled in Stage I [without special candidates]; Nmax – maximum admission average; Nmin – minimum admission average; C1 – the number of candidates which have their first option in accordance with the study program; Et – how many successive steps were necessary to cover all the paid tuition seats.

Table 1. *Situation of admission for candidates (2014 and 2015)*

The main aspects, which stand out, are:

- in the case of budgeted seats (for all study programs) there are acceptable resemblances to the admissions of 2014 (a maximum of 62,5% for MK and a minimum of 57.1% for MN); in 2015 the proportions decrease: maximum of 50% for AI and a minimum of 42.9% for MN;
- as far as the paid tuition seats are concerned (in the same stage) the situation is completely different: the highest percentage is 4,3% (MN, 2014), and in two situations we reach 0%; this situation can be partially explained by the fact that (excluding the remote cases of students who are not allowed to apply for budgeted seats) the candidates first choose all the budgeted options and only after those with paid tuition; consequently, to be able to fill the paid tuition seats through the candidate options process we should go, during the first stage, through 14 consecutive sub-stages.

Therefore, we have built *a model* on which to study this issue in depth, by simulating different scenarios. The model developed for the simulation is based on the existence of 28 candidates – from A to Z, which compete for 3 study programs: PS1, PS2 and PS3 (Table 2). Each candidate has received an admission average; these grades cover a normal interval for such a situation, ranging from 9.54 to 6.81 (decreasing from A to Z). To avoid unnecessary table clutter the budgeted seats were named P1, P2 and P3 [LB] and the tuition seats were names \$P1, \$P2 and \$P3 [LT]. We have made the assumption, based on real data, that the first study program is more attractive to the candidates and the third is the least attractive. Consequently, the repartition on the number of places for study program was as follows: P1-4; \$P1-4; P2-3;\$P2-3; P3-2; \$P3-2; in total 18 places in the study programs were open for candidates, 9 with budget funding and 9 paid tuition. The candidates could choose at least one option and as many as six. The situation for the „admission average” procedure is presented in Table. 2. Also in this table we present the simulation of the admission situation when using the „candidate options” method (for the same group of candidates). Regarding the admission list (in stage I) we can see similarities but also important differences.

Only for the P1 program are the admitted candidates the same for both procedures (A, B, C and D); in the case of \$P1 there is only one common candidate (J) out of total of 4 possible (25%); as far as P2 is concerned there are no common candidates (E, H and I admitted according to the admission average procedure and M, P and S for candidate options); for \$P2 there is just one common candidate (O) out of a total of 3 possible (33.3%); in the cases of P3 and \$P3 there are no common candidates. The averages for the “admission averages” for the study programs (budgeted and paid tuition seats) are as follows: 9,13 and 8,93 for the first program (the favorite); 9,01 and 8,33 for the second program; 8,35 and 8,70 for the third [in all the programs the first average is for the “admission average” procedure and the second for the “candidate options”]; the admitted candidates on the budgeted seats from the admission average are those with the highest averages overall (9,54 maximum; 9,15 minimum and an average of 9,34); by using the candidate options procedure we get an average of 8,86 (9,54 max. and 7,09 minimum – candidate X).

Cand.	AA	Options order in the admission form						AOp-AAP		AOp-COP			
		1	2	3	4	5	6	Op	N	Op	N	S	
0	1	2	3	4	5	6	7	8	9	10	11	12	13
1	A	9,54	P1	P2	P3	\$P1	\$P2	\$P3	P1	1	P1	1	I
2	B	9,47	P1	\$P1	-	-	-	-	P1	1	P1	1	I
3	C	9,38	P1	P2	P3	\$P1	\$P2	\$P3	P1	1	P1	1	I
4	D	9,32	P1	P2	P3	\$P1	\$P2	\$P3	P1	1	P1	1	I
5	E	9,31	P1	P2	P3	\$P1	\$P2	\$P3	P2	2	-	-	-
6	F	9,30	P1	P3	P2	\$P1	\$P3	\$P2	P3	2	\$P3	5	V
7	G	9,27	P1	P3	P2	\$P1	\$P3	\$P2	P3	2	\$P3	5	V
8	H	9,25	P1	P3	P2	\$P1	\$P3	\$P2	P2	3	-	-	-
9	I	9,15	P3	P1	P2	\$P3	\$P1	\$P2	P2	3	P3	1	I
10	J	9,11	\$P1	\$P2	\$P3	-	-	-	\$P1	1	\$P1	1	I
11	K	9,07	P1	P2	P3	-	-	-	-	-	-	-	-
12	L	9,01	P1	\$P1	P2	\$P2	P3	\$P3	\$P1	2	\$P1	2	II
13	M	8,99	P2	\$P2	P1	\$P1	P3	\$P3	\$P2	2	P2	1	I
14	N	8,87	P1	\$P1	P2	\$P2	P3	\$P3	\$P1	2	\$P1	2	II
15	O	8,75	\$P2	\$P1	\$P3	-	-	-	\$P2	1	\$P2	1	I
16	P	8,66	P2	P1	P3	\$P2	\$P1	\$P3	\$P2	4	P2	1	I
17	Q	8,48	P1	P2	P3	-	-	-	-	-	-	-	-
18	R	8,34	P1	P2	P3	\$P1	\$P2	\$P3	\$P1	4	-	-	-
19	S	8,16	P2	P3	P1	-	-	-	-	-	P2	1	I
20	T	7,83	\$P2	-	-	-	-	-	-	-	\$P2	1	I
21	U	7,62	P2	P3	P1	\$P2	\$P3	\$P1	\$P3	5	\$P2	4	IV
22	V	7,22	P1	P2	P3	\$P1	\$P2	\$P3	\$P3	6	-	-	-
23	W	7,20	P1	P3	P2	\$P1	\$P3	\$P2	-	-	-	-	-
24	X	7,09	P3	P2	P1	\$P3	\$P2	\$P1	-	-	P3	1	I
25	Y	6,97	P1	P2	P3	-	-	-	-	-	-	-	-
26	Z	6,81	\$P1	\$P2	\$P3	-	-	-	-	-	\$P1	1	I

Cand. – Candidate; AA – admission average; AOp-AAP – Accepted for option - Admission Average Procedure; AOp-COP – Accepted for option - Candidate Options Procedure; Op – Options; N – The order number of the option in the Admission Form; S – how many successive stages were necessary to cover all the seats.

Table 2. Simulation for admission procedures

Four candidates with very high averages (E – 9,31, F – 9,30, G – 9,27 and H 9,25) who would get budgeted seats through the admission average procedure (for the 2nd or 3rd option) have a completely different situation if we apply the candidate option: E and H are not admitted, and F and G get paid tuition seats; only I (9,15) who in the first situation receives a budgeted seat, but for his third option, now gets into his first option (also on a budgeted seat); the same goes for X (7,09) who because of his low average would not get any seat in the case of the admission average procedure,

in the case of the candidate options procedure gets into his desired program (P1) on a budget seat.

5. Conclusions

As we have mentioned before and in accordance with the results of the simulations, the situation for potential candidates is significantly different when applying the two admission processes. Nevertheless, a simulation has its limitations; you can never cover all of the possible combinations and outcomes. Moreover, we can argue that if the candidates knew that we would apply the candidate options procedure they would have filled out their admission form in a different manner, with a different order of options. This is just an assumption; from the experience of past admission sessions (the author has been working, uninterrupted for 32 years in the admission committees) it is obvious that the vast majority of candidates, regardless of their average, will first and foremost choose their favorite programs with budgeted seats and only then (still in the desired order) the paid tuition seats [with the exception of the few candidates who are unable to compete for budgeted seats]. The research stops after the First Stage of the process, for objective reasons. We can not take into account the successive modifications of the admission lists caused by candidates withdrawing their applications in the July-September interval (we would have to select ourselves those who would withdraw – which would be a purely subjective action and would go against scientific principles).

The objective of this paper was to take a first step towards the analysis of admission procedures. We believe that we have achieved this point: we have proven that every procedure has clear advantages and disadvantages. Moreover, the research into the matter can not stop here and can not be completely solved by analyzing only one faculty; we need to broaden the specter of the research, on all the Universities study programs, and not stop at just analyzing successive admission lists but also follow the effects of this process in time.

6. References

- Admitere SEAF 2014. Available at: <http://www.unitbv.ro/econ/Admitere.aspx>, Accessed on 23 July, 2014.
- Admitere SEAF 2015, on <http://www.unitbv.ro/econ/Admitere.aspx>. Accessed on 25 July, 2015.
- Methodology 2015. Available at: <http://www.unitbv.ro/admitere2015/Primapagina.aspx> Admitere 2015, Metodologie, Annex 8, 20. Accessed on 21 June, 2015.