Teaching Staff Recruitment in Pre-University Education: Case of Albania

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Abstract

Recruiting quality teachers is significantly important because high-quality teachers are considered to be paramount for students' success. However, particularly in developing countries recruiting and selection processes are often deemed to be biased and not sufficiently transparent. As such, this article seeks to address transparency and fairness issues. For this purpose, a sample of 5 prospective teachers and 4 criteria were analyzed by using the fuzzy TOPSIS technique for order preference by similarity to ideal solutions which is a method widely applied to deal with problems in multi-criteria decision-making. In addition, results, as well as recruitment criteria and their importance weights, are discussed.

Keywords

Education, efficiency, teaching staff, TOPSIS, recruitment

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Introduction

Especially in developing countries, transparency during the recruitment process and unbiased decision-making remain a sensitive and long-discussed issue. This article aims to address the transparency issue in decision-making by using the fuzzy TOPSIS method for teaching staff selection. The recruitment process in the pre-university education system in Albania was chosen for the purpose of this study.

The structure of pre-university education in Albania is given in Table 1:

Level	Stage	Character	Age (Years)	Length (Years)
Secondary Education	Upper Secondary Education / Vocational and Oriented Schools	Non-compulsory	15-18 / 15-19	3 / 2-4
	Lower Secondary Education	Compulsory	12-15	3
Primary Education	Primary Education	Compulsory	6-12	6
Pre-School Education	Kindergarten	Non-compulsory	3-5	3
	Creche	Non-compulsory	0-2	2

Table 1: Structure of Pre-University Education System in Albania (source: Authors' own research based on data from MESY, 2013)

The pre-university education system is divided into pre-school education (creche and kindergarten), primary education, and secondary education (lower and upper). In Albania, preschool education and upper secondary education are non-compulsory, while primary and lower secondary education is of compulsory character. Compulsory schooling lasts for 9 years, until around age 15.

The earliest school starting age is 6 and the latest is 7 years old. Generally, in preschool and primary education all subjects are taught by one teacher. However, exceptions may be applied (e.g., minority ethnic groups, children with special needs, etc.). Later in secondary education, the subject teacher system is used. Vocational and oriented schools vary in length from 2 to 4 years and are non-compulsory.

Materials and methods

TOPSIS methodology

TOPSIS multi-criteria decision method is used for the purpose of this study. TOPSIS is a mathematical method applied in the literature for the selection of the best options from all feasible alternatives through distance measures. Most of the decision-making problems arise when qualitative and quantitative attributes are assessed using human judgment and inaccurate data (Li and Yang, 2004). TOPSIS to the fuzzy environment method proposed by Chen (2000) is applied in this paper. Linguistic scale and triangular fuzzy numbers are used to evaluate alternatives with respect to qualitative attributes. Triangular fuzzy numbers are used to express the vagueness and the uncertainty of information. In other words, linguistic scales employing triangular fuzzy numbers are used in order to capture the linguistic terms expressed by decision-makers. Linguistic variables for evaluation are shown in the Table 2:

Linguistic Terms	Very High (VH)	High (H)	Medium (M)	Low (L)	Very Low (VL)
Fuzzy Number	(8, 10, 10)	(6, 8, 10)	(3, 5, 7)	(0, 2, 4)	(0, 0, 2)

Table 2: Linguistic Scale for Evaluation (source: Chen, 2000)

Teaching staff recruitment process

The teaching staff recruitment process is divided into two phases (MESY, 2019). Phase one includes the online application, document authenticity verification, and candidate evaluation. Phase two consists only of computerized testing. Firstly, all candidates must submit online the application together with supporting documentation via "Teacher for Albania" portal. After online application, the authenticity of submitted documents is verified by the regional directorate selected in the application form by the candidate. Only after successful document authenticity verification, the candidate is considered for evaluation. The evaluation is conducted through in-person interviews carried out by the File Evaluation Commission composed of 5 commissioners responsible for screening and assessing candidates. A minimum threshold of 50% of points from the evaluation is required in order to pass to the next phase, computerized testing.

Computerized testing is a standardized and centrally administered test. The final score is the arithmetic mean of points from evaluation and computerized testing. In the end, candidates are ranked in descending order based on their total score and then selected for the job position. For this purpose, a sample of 5 candidates is selected for this study. All of the candidates are applicants for teaching positions in the lower secondary education stage, for the academic year 2019-2020, in the regional directorate of Lezhe at the local education office of Shkoder district.

Results

A set of 4 criteria are used in the paper. Criteria are shown in Table 3:

Abbreviation for Criteria	C_1	C_2	C_3	C_4
Criteria	Grade Point Average of Higher Studies	Professional Qualifications and Licensing	Foreign Language Proficiency	Training Certificates

Table 3: Criteria (source: Decision No. 13 Date 22.05.2019 / 5426, MESY (2019))

The General Directorate of Pre-University Education in Albania consists of four regional directorates namely Lezhe, Korce, Fier and Durres (MESY, 2019). Each regional directorate has File Evaluation Commission. The commission is composed of 5 commissioners who are responsible for the evaluation process. Decisions are taken based on the one-member-one-vote (OMOV) method. Therefore, a set of 5 decision-makers is applied with all equal in importance weight to 0.20. Thus, 5 decision-makers model is applied. Table 4 shows criteria importance weight matrix considering linguistic terms and triangular fuzzy numbers:

Criteria	D_1	D_2	D_3	D_4	D_5	Weight	Rank
C_1	VH	VH	H	VH	VH	(7.6, 9.6, 10)	1
C_2	VH	VH	H	VH	H	(7.2, 9.2, 10)	2
C_3	H	H	H	VH	M	(5.8, 7.8, 9.4)	3
C_4	M	H	M	VH	M	(4.6, 6.6, 8.2)	4

Table 4: Criteria Importance Weight Matrix (source: Decision-makers' evaluation and authors' calculations)

Closeness coefficient results are presented in Table 5:

	CC_i	Percent Grade	Rank
A_1	0.2625	26.25%	5
A_2	0.3440	34.40%	4
A_3	0.6103	61.03%	2
A_4	0.6803	68.03%	1
A_5	0.4817	48.17%	3

Table 5: Closeness Coefficient (source: Authors' calculations)

The results from Table 5 show the final ranking order of alternatives, each of them representing candidates. According to the closeness coefficient results, the five candidates are ranked in the following order $A_4 > A_3 > A_5 > A_2 > A_1$ (68.03% > 61.03% > 48.17% > 34.40% > 26.25%). The results indicate that the narrowest difference is between the fourth and third candidates by 7%. Moreover, there is a significant difference between candidate A_4 ranked as the first and A_1 ranked as the least preference by 42 %. In addition, the findings suggest that only two out of five candidates, respectively A_4 (68.03%) and A_3 (61.03%), have passed the minimum threshold of 50% in order to qualify for the next phase computerized testing. Nonetheless, it is relevant to highlight that none of both candidates received more than satisfactory levels according to the European Credit Transfer System (European Commission, 2020). Referring to ECTS definition for the satisfactory level, both candidates are fairly educated and trained but with significant shortcomings.

Conclusion

This article aimed at addressing the transparency and fairness issues in the recruitment process of prospective teachers. Results showed that from the sample of 5 candidates only 2 of them were eligible for the next phase, computerized testing. Moreover, both candidates were with significant shortcomings. In overcoming such deficiencies the authors discussed the need for professional development and training. However, the effectiveness and their impact on quality are mainly questioned. Also, the results suggested that the grade point average of higher studies was the most heavily weighted criteria when recruiting teaching staff. Generally, such a result is congruent with observations and studies from other authors.

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