

Increasing the Attractiveness of Technical Study Programs Case Study in the Field of Security and Safety

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ABSTRACT

The trend resulting from the unfavourable demographic curve from the university applicants point of view in Central Europe can be seen especially in the unfavourable numbers of the technical university applicants in Slovak republic. From the demographic point of view this adverse development should last during the next five years. The necessity to make the university study programmes aimed at the security services more attractive results from the current needs of the society and adverse trends of the security and safety situation development in Europe.

The society needs to face the current threats inevitably and more effectively. Nowadays situation requires university-educated security and safety experts who have mastered the methods of solving the crisis phenomena and who are able to identify, analyse and assess the risks in various environments, to manage preventive activities and the adequate response to the crisis phenomena and to eliminate/reduce their negative consequences on people, material values and the environment. However, in the teaching plans of the secondary schools there are no subjects that would emphasise the need of the security and safety and protection of the society. The secondary school students are insufficiently motivated or informed about the possibilities of the university study in the sector of security and safety. [8]

This article describes the increasing the attractiveness of technical study programs through the case study in the field of security and safety. It describes the results of a pilot project realised at the Faculty of Security Engineering at The University of Zilina aimed at making the university study programmes in the area of security and safety more attractive by using innovative marketing tools. Essentially, results to be presented in article are coming out of two last years when new marketing strategy has been created and adopted on faculties' departments.

Keywords: Marketing Strategy, Safety and Security, Quality Indicators.

1. INTRODUCTION

The current security situation shows the society inevitably needs to overcome the contemporary threats more effectively. It needs the university-educated security and safety experts who have mastered the methods of solving the crisis events and are able to utilise them in practice, who are able to identify, analyse and assess the risks in various environments, manage the preventive activities as well as inadequate responds to the crisis phenomena and reduce or eliminate their negative effects on people, material values and the environment.

The current lack of qualified security and safety experts is also connected with the negative demographic development and decreasing interest of the secondary-school students in the university study programmes with technical orientation. However, the high-quality university education of the security and safety experts is determined by mastering the technical subjects. The Faculty of Security Engineering of the University of Zilina (FSE UNIZA) offers in the European framework unique study programmes in the area of the horizontal and vertical security and safety and its graduates are required experts in practice.

FSE UNIZA has been working in the area of the university education for sixty-five years and is developing educational, scientific and research activities in the area of ensuring comprehensive security of the society and the individual inhabitants as well. [7] In the framework of this profile it links the theory and practice; it takes into account the special aspects of the security and safety environment and the security system of Slovakia on the one hand and the requirements of the current era and the strategic partners on the other hand. It aims at training the crisis managers, the employees of the fire and emergency units, experts dealing with managing the processes of protecting persons and property in all areas of the social life and the managers in the area of coping with the crisis situation in transport. [9] The faculty has built a stable position in the professional security and safety community in Slovakia and abroad.

2. CONCEPTION OF MARKETING STRATEGY

The negative development of the demographic curve (see the figure 1) can be transparently recognised also in the numbers of the applicants for the study at the FSE UNIZA. Due to these facts and the long-term negative trends concerning the numbers of the applicants especially for the BA study, the faculty top management decided to introduce a new marketing conception in the interest of fulfilling the requirements of practice on improving the attractiveness of the university study programmes at the faculty through innovation marketing tools and newly-formed information and study materials oriented on the target group of the secondary-school students with a potential to study the university study programmes in the area of security.

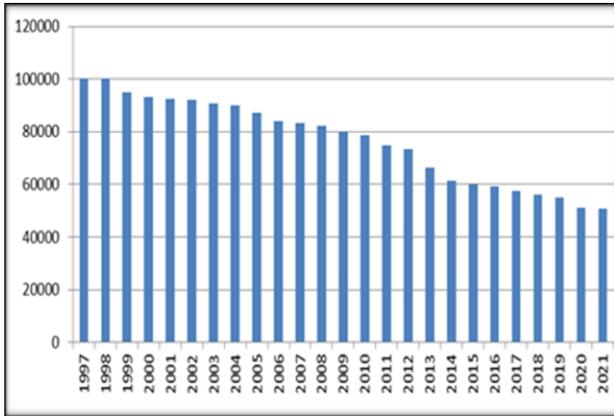


Figure 1 The maximal assumed number of applicants for the study at universities [10]

The conception of the marketing strategy is based on the long-term aim of the faculty, the quality policies and selected indicators of the quality assessment according to the ESG standards which are regularly monitored and assessed at the faculty (see the table 1).

Table 1 Selected quality indicators at the FSE UNIZA [1]

Indicator	Unemployment coefficient of the FSE graduates
Measurement Method	$(P_{za(R+1)} / P_{va(R)}) * 100$
Inputs	$P_{za(R+1)}$ – number of unemployed graduates in the year R +1 $P_{va(R)}$ – number of all graduates in the year R
Indicator	Satisfaction of employers with FSE graduates
Measurement Method	$\sum(PRI_i) / n$
Inputs	PRI_i – preparedness average for all graduates at the <i>i</i> -th employer n- number of employers
Indicator	Students' interest rate in the study programme
Measurement Method	$(P_p / P_v) * 100$

Inputs	P_p - number of submitted applications for the given study programme at the faculty P_v - number of submitted applications for the study at the faculty for all study programmes ensured by the faculty
Indicator	The share of students from the second educational level involved in solving research projects
Measurement Method	$(P\check{S}_{va} / P\check{S}_{c2}) * 100$
Inputs	$P\check{S}_{c2}$ – the total number of students from the second educational level for the monitored time period $P\check{S}_{va}$ – number of students from the second educational level involved in solving research projects amounting minimally 50 hours a year
Indicator	Successfulness rate of the study
Measurement Method	$PER_N_{1_r} - PER_N_{p_r}$
Inputs	$PER_N_{1_r}$ – percentage of unsuccessful students leaving the study during the monitored period in the 1st year of study in the given study programme –from the total number of unsuccessful students leaving the study $PER_N_{p_r}$ - percentage of unsuccessful students leaving the study during the monitored period in the last year of study in the given study programme –from the total number of unsuccessful students leaving the study

Phases of Creating the Marketing Strategy [2]

1st phase: analysing the current state of the area being solved:

- identifying the target group and specifics of the selected stakeholders in compliance with the goals of the marketing conception,
- analysing the current trends in the framework of the marketing activities aimed at making the study programmes in the area of security more attractive,
- analysing the tools and forms of communication towards the stakeholders.

2nd phase: the selection and specification:

- summarising the acquired outputs and their implementation to the designed conception,
- identifying and selecting the relevant tools aimed at increasing the interest in the techniques aimed at the university study in the area of security.

3rd phase: the realisation:

- verifying the created conception in the framework of the pilot project at FSE UNIZA,
- the statistical assessment of the pilot project and taking changes for making the marketing conception more effective.

3. VERIFICATION OF MARKETING STRATEGY - RESULTS

The activities and tools implemented in 2016 based on the new marketing strategy were new and innovated in comparison with the previous years. The main activities were as follows:

- the fairs of education (Slovak and Czech Republic),
- Christmas at the university (tradition),
- bilateral meetings with the secondary school headmasters (related to faculty field of study),
- the Faculty Company Days,
- the promotion campaigns on the social networks (Facebook, Instagram...)
- promoting the activities in the media (printed media, TV, radio, billboards),
- the Faculty Open Day and others.

The pilot project which verified the main tools of the marketing conception was the Faculty Open day which was realised in February 2016. The conception was also verified by the second year of the Faculty Open day in 2017. The aim of the Faculty Open day was not only to inform about the possibilities of the study by first of all to attract the participants and to show them which opportunities are open during the study and after the graduation. The aim was to attract the highest possible number of potential applicants for the study at the faculty.

The effectiveness of the demanding organisation of the Faculty Open Day in its attractive version with visual presentations of the faculty study programmes was unambiguously confirmed also by the statistical assessment of the 2016 and 2017 entrance exams (see the figure 2).

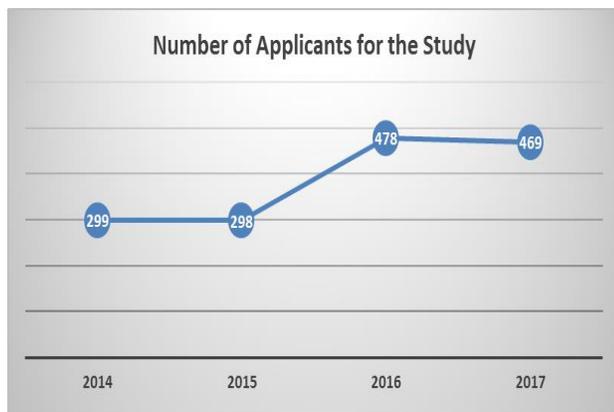


Figure 2 Number of applicants for the study before and after implementing the new marketing strategy [11]

The entrance exams to the first level of the study confirmed the expected growth of the number of applications due to the successful Faculty Open day and other marketing activities. 478 candidates sent their applications for the study of the BA programmes in the daily form in 2016 and it means, compared with the previous year, a growth by 180 applicants – a percentage growth by 37.7 %.

Taking into account the fact the technical universities recorded a decrease of the interest in the study by almost 30 %, we can speak about high effectiveness and appropriately adjusted goals and procedures in the framework of the newly created marketing strategy. The conception utilised in 2017 confirmed

this trend. The study attractiveness coefficient (the ratio of the enrolled and admitted students) has a positive value of 0.94 at the FSE UNIZA.

Compared with the last year also the structure of the admitted applicants has significantly changed. While in 2015 the admitted applicants came mostly from the secondary technical schools (61 %), in 2016 their number was reduced to 23 %. Up to 48 % of the admitted students are coming from the secondary grammar schools, 8 % from academies and 20 % from the secondary technical schools (see the figure 3). The secondary grammar school graduates 'representation is 86 % in the study programme Emergency Services.

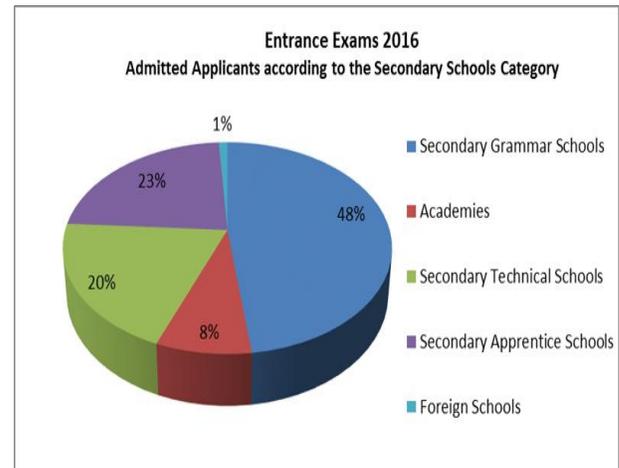


Figure 3 Entrance Exams 2016 at FSE UNIZA [11]

FSE UNIZA in the framework of the new marketing strategy innovated the information sources about the possibilities of the study, it informed about the study programmes and activities of the faculty through its representatives at the educational fairs, in the selected secondary schools, it purposefully addressed the relevant secondary schools and invited them to the visitor's day, it innovated and made its web site more attractive, it created its profile on the social networks, it strengthened the on-line communication with the potential applicants for the study at the faculty and it involved the current students into this process in a greater extent. [4]

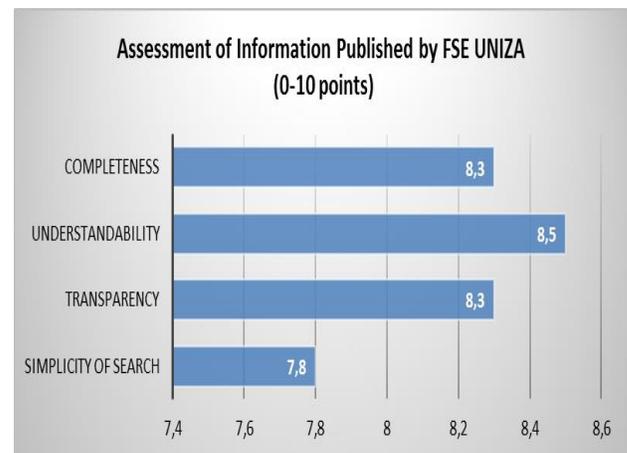


Figure 4 Assessment of Information Published by FSE UNIZA [1]

In the interest of detecting the effectiveness (the effect and relevance) of these activities, the organisers utilised the space during the Faculty Open day and realised research aimed at assessing the faculty and its study programmes from the point of view of the applicants. 187 responders took part in the research (see the figure 4).

4. CONCLUSION

Due to the decrease of the demographic curve in Slovakia and other EU countries it is necessary to make stronger effort by the universities for acquiring students for the technical specialisations. In the area of the marketing strategy the faculty integrated and utilised the long-year experience with ensuring the quality with support and using various initiatives and models in the quality assurance of education and research at the FSE UNIZA.

The faculty top management respecting the interest of the stakeholders determined procedures for individual defined areas which fulfil the determined minimal level for achieving the defined goals. The verification of the designed conception confirmed an increase of attractiveness of the technically oriented university study programmes in the area of security.

The results can serve as an inspiration also for other educational institutions. In spite of the positive results the faculty determined the following objectives for the nearest time period except for developing the verified activities and tools:

- increasing the number of the students from abroad studying in the Slovak language (Czech Republic, Ukraine and others),
- the further utilisation of the only successful marketing tools verified by the pilot projects,
- improving the promotion of the Faculty Open day towards the general public, not only the secondary school student.

Based on the acquired results we can say the outputs of the pilot projects are implementable also in the V4 countries and the Baltic States due to the similar demographic trend and historical development.

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