

PROMOTION ACTIVITY ON EDUCATIONAL MARKET

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Abstract. The present paper approaches the issue of developing certain promotion programs on the educational market. In this way, the research is based on the results of a marketing research performed upon students attending Industrial Economical Engineering (IEE), a Program study coordinated by the Department of Engineering and Industrial Management, Transilvania University of Brasov. The paper presents a quantitative marketing research, which is aiming at measuring the impact of different promotion activities upon the students, in order to increase the visibility of this Program study among potential candidates.

Keywords: promotion activity, marketing research, students, variables

1. Introduction

There are many controversies regarding the moment of the appearance of marketing. However, most of the specialists agree that marketing is a 20th century product, which has been developed when companies have realized that they have to focus on customers' needs [1, 2]. First, marketing was connected to business environment, in case of those companies producing physical goods. Later, marketing became an important part of strategy for companies selling services, such as: airline companies, insurance companies, financial service companies. Nowadays, many non-profit companies show their interest in marketing: schools, universities, hospitals and clinics, churches and others [1, 3].

Educational market is an important part of the global market, because education is a complex process, which implies decisions not only for the continuity of activity but with implications on the future development of individuals, organizations and society [4]. Educational market plays following the same rules as business market does: the meeting between demand and offer. In the actual context, the competition among universities is very strong. As in case of business companies, universities are aiming at maximizing their profit, but in case of such educational institutions, the profit must not be seen in terms of money, but in terms of social-economic benefits [4]. In this way, universities are continuously involved in developing promotion activities for making their educational offer more visible among high school pupils.

2. Promotion programs for IEE

Even since its appearance in 1992 didactic staff of the Department of Engineering and Industrial Management are involved in a continuous process of creating such an educational offer that is in accordance with the customers' needs (pupils and

industrial companies). The purpose is not to attract a very high number of high school graduates but to identify those potential students that are interesting in a technical and managerial, economic education. In this way, the target market is good quoted high schools of mathematics-computer, technical or economic profile, from Brasov County and other counties. In order to achieving this purpose, several promotion forms were developed: a web site, forms of direct marketing and personal sale adjusted to educational market specific, public relations, mass media.

3. Marketing research for measuring the efficiency of the promotion activities

The final goal of a promotional activity is achieved after the company or institution has gained the benefits the promotion program was aiming at. In case of promotion activities performed in order to increase the visibility of IEE among potential candidates, an efficient instrument for measuring its impact is a market research among IEE students. In this way, inquiry method was applied.

3.1. Working instruments

In order to performing the marketing research, the study was based on two working instruments. A marketing questionnaire was used to collect marketing data and SPSS Software Package was used for data processing. The questionnaire was applied on a representative sample of 73 students, in accordance with the formula below [5]

$$n = \frac{z^2 \cdot p \cdot q}{E^2} = \frac{1.96^2 \cdot 0.95 \cdot 0.05}{0.05^2} \cong 73, \quad (1)$$

where n is the sample size, z is a coefficient depending on confidence level of the marketing research (95% [6, 7]), p is the percent of students who had IEE as first option when applying at

university, q is the percent of students who did not have IEE as the first option and E are the research errors. The questionnaire contains a number of 11 closed questions, based on the following scales: nominal scales, ordinal scales and proportional scales [5]. The method used for data gathering was the personal interview. The instrument used for data processing was SPSS Software and the stages necessary were: defining the research variables, creating SPSS data base by registering the answers at the questionnaire supplied by the sample and data processing and analysis, in accordance with the scales used.

3.2. Data processing and analysis

As specified before, the marketing data based on the representative sample were processed by the means of SPSS Software. The analysis has two levels: the first level is the preliminary analysis and the second level refers to determining certain variable connections. The most important results of the study are presented below.

▪ **Preliminary analysis**

This analysis level supposes to process the answers of every question; the most significant results are presented next.

Figure 1 presents the percentage of IEE students who found out about this study program from different sources. As the figure shows, 27% of IEE students found out about this program study

from the web site and 24.66% heard about it during a visit of a person of the didactic staff of the department in different high schools. Other important sources are IEE graduates and the so called event Open Doors Day, which is organized every year. Mass media is the least significant information source.

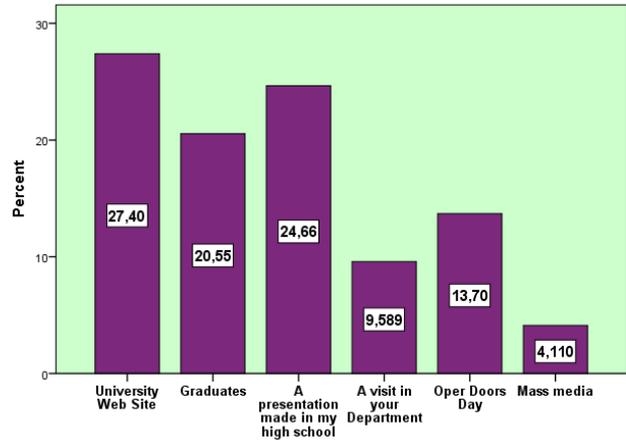


Figure 1. Information sources about IEE program study

Another important aspect of the study is regarding the reasons for that students have chosen IEE program study. Table 1 presents this aspect. Most of the students (67.1%) have chosen IEE program study for multiple hiring possibilities, 50.7% for an interdisciplinary education offered by this program study and 23.3% for the possibility of getting on with a master in economy or engineering.

Table 1. Reasons for choosing IEE program study

	Responses		Percent of Cases
	N	Percent	
Interesting and important subjects	21	16.4%	28.8%
An interdisciplinary education	37	28.9%	50.7%
Multiple hiring possibilities	49	38.3%	67.1%
Possibility of getting on with a Master in Economy or Engineering	17	13.3%	23.3%
Other reason	4	3.1%	5.5%
Total	128	100.0%	

Being asked about the importance of certain categories of subjects, the students included in the representative sample have ranked these categories as Table 2 indicates. The economic and managerial subjects got the highest score (4.73), strongly followed by technical subjects (a score of 4.01). Computer aided design subjects got the lowest score (3.97). These scores were calculated taking into consideration an ordinal scale of five levels: level 1 meaning not important and level 5 meaning very important.

Another aspect of the preliminary analysis had in mind reasons related to different facilities for that students have chosen IEE.

Table 2 presents the importance of different facilities given by IEE students. Students were asked to divide 10 point among five facilities. based on a proportional scale.

As the table above shows, the most attractive facility of IEE program study is practice in important industrial companies.

Table 2. Importance of facilities

	N	Minimum	Maximum	Mean
Modern library	73	1	4	1.30
Modern campus	73	1	4	2.19
Possibility of applying an Erasmus scholarship	73	1	4	2.10
Practice in important industrial companies	73	1	4	2.30
Well-equipped laboratories	73	1	5	2.11

An important aspect related to promotion activity was Brasov city. Figure 2 indicates how important this aspect in students' choice was.

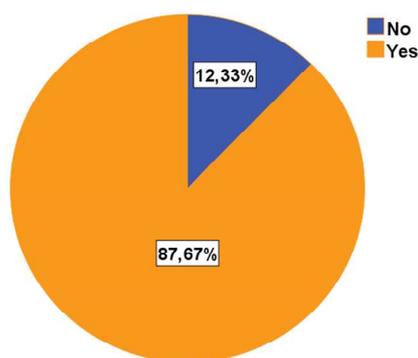


Figure 2. Importance of Brasov city in faculty choice

The reasons related to the importance of Brasov city are presented in Figure 3. As it can be observed, the aspect considered by students the most important refers to the existence of important companies in and around Brasov (42.5% of IEE students). Another important reason related to Brasov was different entertainment possibilities (39.7% of IEE students have considered this aspect in their choice). The least important reason is related to the location of Brasov city.

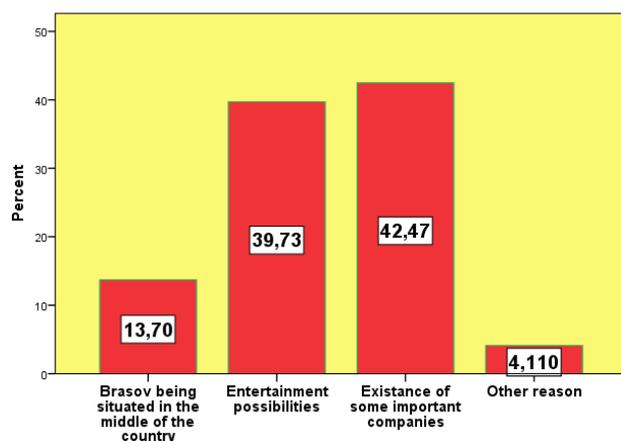


Figure 3. Reasons related to Brasov City

▪ **Variable connections**

This is a deeper level of marketing data analysis that identifies the influence of different

variables upon other variables. The data connections, considered the most important by the author are presented below.

The first connection refers to the influence of the residence area of the IEE students upon the reasons of choosing this study program. The method used is Cross Tabulation [5, 6]. Table 3 presents this connection. The results show that there are differences regarding the reasons considered important by students when have chosen IEE. Students from Transilvania have chosen IEE for multiple hiring possibilities, students from Moldova have considered an interdisciplinary education and also multiple hiring possibilities, students from Muntenia paid attention to multiple hiring possibilities and students from Oltenia have considered interesting and important subjects and an interdisciplinary education.

From statistical point of view the connection between two variables measured by nominal scale is determined by contingency coefficient. In case of the connection presented by table 3, the contingency coefficient is calculated by the means of SPSS software and presented in Table 4.

In accordance with specialized literature [6, 7], the intensity of the connection between two nominal variables is estimated by the following formula:

$$C \in (0, C_{\max}), \tag{2}$$

where C is the contingency coefficient and C_{\max} is the maximum value of this coefficient that can be calculated in accordance with formula (3) [5]:

$$C_{\max} = \sqrt{\frac{K-1}{K}} = \sqrt{\frac{4-1}{4}} = 0.87, \tag{3}$$

where K is the number of levels of the independent variable, which in our case is the residence area of the students. As it can be seen from Table 4 the contingency coefficient is 0.497, which is situated in the middle of the interval expressed by formula (2). As 0 indicates a poor connection and C_{\max} indicates a strong connection, the value of the calculated contingency coefficient shows that there is a medium connection between the area residence of IEE students and the reasons.

Another important connection, considered by the author of the paper, is how students that live in Brasov and how students who live outside Brasov

appreciate the importance of technical, economical and computer subjects.

Table 3. Connection between residence area and reasons for choosing IEE

	Where are you from?				Total
	Transilvania	Moldova	Muntenia	Oltenia	
-Interesting and important subjects	3	0	0	3	6
-An interdisciplinary education	12	6	2	3	23
-Multiple hiring possibilities	16	6	6	2	30
-Possibility of getting on with a Master in Economy or Engineering	10	0	0	0	10
-Other Reason	4	0	0	0	4
Total	45	12	8	8	73

Table 4. Contingency coefficient

		Value	Approx. Sig.
Nominal by Nominal	Contingency Coefficient	0.497	0.020
N of Valid Cases		73	

Tables 5 and 6 show how these two categories of students appreciate the three categories of subjects, on an ordinal scale. Students who live outside Brasov consider technical subjects as being the most important, this category having a score of 4.70. Students from Brasov find economical subjects as being the most important. Table 7 shows how these two categories of IEE students (from Brasov and outside Brasov) rank the three categories of subjects: technical, economical and computer aided design subjects

As it can be seen from table 5, students from Brasov consider economic subjects as being the most important, this category of subjects having a score of 4.88 on a scale from 1 to 5, 1 being less important, 5 being very important. From statistical point of view, the difference between the appreciations of importance of the subjects must be measured. In case of determining how important this difference is, for two variables measured by ordinal scale, Spearman Coefficient must be calculated [5, 6, 7].

Table 5. The importance of subjects considered by IEE students who live in Brasov

	N	Minimum	Maximum	Mean	Std. Deviation
Technical subjects	43	3	5	3.53	0.767
Economical and managerial subjects	43	4	5	4.88	0.324
Computer aided design subjects	43	2	5	3.72	0.734
Valid N (listwise)	43				

Table 6. The importance of subjects considered by IEE students who live outside Brasov

	N	Minimum	Maximum	Mean	Std. Deviation
Technical subjects	30	4	5	4.70	0.466
Economical and managerial subjects	30	4	5	4.50	0.509
Computer aided design subjects	30	3	5	4.33	0.606
Valid N (listwise)	30				

Table 7. Subject ranks

Subject	From Brasov	Outside Brasov
Technical subjects	3	1
Economical subjects	1	2
Computer aided design subjects	2	3

Table 8, supplied by SPSS Software, calculates this coefficient. As this table indicates, Spearman Correlation Coefficient is -0.5. The value of this coefficient is in accordance with formula (4) [6. 7]

$$C_s \in (-1, +1). \quad (4)$$

As the value of the coefficient is closer to the extremities of the interval the connection between

two ordinal variables is stronger and as the value approaches 0, the connection is slow.

In accordance with the value of Spearman Coefficient from Table 8, it results that the difference in appreciating the importance of the three categories of subjects is significant from statistical point of view.

Table 8. Spearman Correlation Coefficient

		Importance of subjects given by students outside Brasov	Importance of subjects given by students from Brasov
Spearman's rho	Importance of subjects given by students outside Brasov	Correlation Coefficient	1.000
		Sig. (2-tailed)	0.667
		N	3
	Importance of subjects given by students from Brasov	Correlation Coefficient	-0.500
		Sig. (2-tailed)	0.667
		N	3

4. Conclusions

The marketing research presented within this paper indicates what the most important elements are regarding the promotion activity that is aiming at increasing the visibility of IEE study program. The most significant conclusions resulted from this research are presented below.

- The most efficient information sources for students were the University web site and visits organized in high schools by persons from the didactic staff.
- The reasons considered as being the most important by students in their choice in applying at university studies were: multiple hiring possibilities and an interdisciplinary education offered by IEE program study.
- The most important facilities considered by students when they have chosen IEE were practice in important industrial companies and existence of a modern campus.
- As Transilvania University being in Brasov was a strong point for student' choice, the most important aspects related to this was: existence of important companies in and around Brasov and entertainment possibilities.
- Students living in different geographic areas from Romania have chosen IEE program study for different reasons: students from Transilvania and Muntenia have considered multiple hiring possibilities, students from Moldova paid

attention at multiple hiring possibilities too and to an interdisciplinary education, and students from Oltenia found interesting and important subjects as being an important reason.

- Students living in Brasov considered economical subjects as being the most important, while students living outside Brasov considered technical subjects as being the most important.

As regards future promotion activities, some recommendations based on the results obtained by the means of the research developed within the present paper are presented next.

- The web site of the department that coordinates IEE program study should be further developed.
- Creating a Facebook page for IEE program study, Facebook being the most popular form of communication among high school pupils.
- The program of presentation visits in different high schools from Romania should be extended.
- The cooperation with different high schools should be enhanced, in order the Department that coordinates IEE program study should organize visits of groups of pupils in the rooms and laboratories of the department.
- The presentation of IEE program study to high school pupils should be accompanied by different interactive activities. In this way some workshops for pupils should be organized.
- IEE students should be involved in promotion activities, the impact of their involvement upon

potential candidates is higher than the involvement of didactic staff.

- Promotion programs developed in order to increase the visibility of IEE program study among high school pupils should be tailored in such a fashion that meets the particularities of pupils from a certain geographic area, in accordance with their interests.

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