

12TH GRADE STUDENTS' BEHAVIOR IN THE DECISION MAKING PROCESS OF EDUCATIONAL CHOICES

Mihai-Florin BĂCILĂ

„Babeş-Bolyai” University of Cluj-Napoca

Abstract. *Irrespective of the level and the nature of decisions which he must make, the recruitment responsible for an institution of higher education needs, real, exact, actual, full and relevant information about potential students. To acquire this information, faculties must conduct marketing researches to determine pupil behaviour in decision making process of educational choice. This article presents information about 12th grade pupils' behavior obtained from a survey carried out in Cluj-Napoca high schools.*

Keywords: educational marketing, institution of higher education, marketing research.

1. Introduction

„Knowledge represents the monetary standard...in the information era. The organizations with thorough knowledge on their customers, their competitors and their opportunities shall be the winners of this era.” (Sisodia, 1992, p. 63)

For Romanian universities, strategic marketing is a novelty. Private universities use couple marketing instruments to attract high school graduates but these are simple and non adapted forms of classical marketing. (Brătianu and Pop, 2007)

We appreciate that the concept of marketing may help the institutions of higher education to understand the wide context of changes within which they are operating, thus supplying an important feedback system to identify the various and ever changing needs in order to establish the quality services satisfying those who are building the target-segments: potential students, actual students, companies, parents, society etc.

Recruitment of college students is an increasingly policy issue for many institutions of higher education. While an important part of university budgets as financial burden have shifted from government to institutions and students, it increased the importance of being able to recruit and enrol prospective students, especially high-ability students. (DeJardins, 2002)

That's why, faculties must carry out surveys among high school pupils in order to obtain information about student choice decision making to assist institution in optimizing their recruitment and enrolment efforts.

2. Decision making process of educational choices

The student's choice literature details that the faculty-choice process involves three broad stages. The first stage is the formation of faculty aspirations, which typically takes place from early childhood through high school. The second stage involves the identification, selection of, and application to a set of faculties known as „choice set". This stage typically takes place in a pupil's junior or senior year in high school. The final phase is admission to an institution of higher education (or a number of institutions) and eventual matriculation to one or many of them. (DeJardins, 2002)

Potential students are often viewed as 'autonomous choosers' who make decisions about whether to apply for university, and which university to attend. Some surveys are signalling that some students have no choice (Briggs and Wilson, 2007). Student choice decision-making is not rational or linear, but a complex process, influenced by numerous factors including tuition fee and other costs, information, access, academic achievement, admission method, job opportunities, life and school experience (Moogan and Baron, 2003).

The educational marketplace is highly reputational (Pop, Băcilă et al, 2006). The choice process involves an outcome of the filtering of information through layers of preconceptions influenced by personal priorities, family background, culture and subjective judgement (Hodkinson and Hodkinson, 1996). Evaluating options, even for students with access to quality information, is challenging because of the product intangibility, the complexity of the process and the implications on student's life (Foskett and Hemsley-Brown, 2001). Reducing the complexity of decision-making requires that managers of higher education institutions understand which information is truly important to the potential student. (Briggs and Wilson, 2007)

Consumer behaviour is influenced by three categories of factors: cultural (culture, subculture, social class), social (reference groups, family, social status) (White and Dahl, 2006), and personal (age, life cycle, occupation, life style, personality, self concept) (Smith, Terry at all, 2008).

People make choices every day, but most of them are low-involvement decisions. The decisions about educational choices are high-involvement decisions because (Kotler and Fox, 1995, p. 245):

- a) The pupil's decision will reflect upon his or her self-image and could have long-term consequences;
- b) The cost to carry out a decision involves major personal or economic sacrifices;
- c) The personal and social risk of making a "wrong" decision are perceived as high;
- d) There is a considerable reference-group pressure to make a particular choice or to act in a particular way, and the target consumer is strongly motivated to meet the expectations of these reference groups.

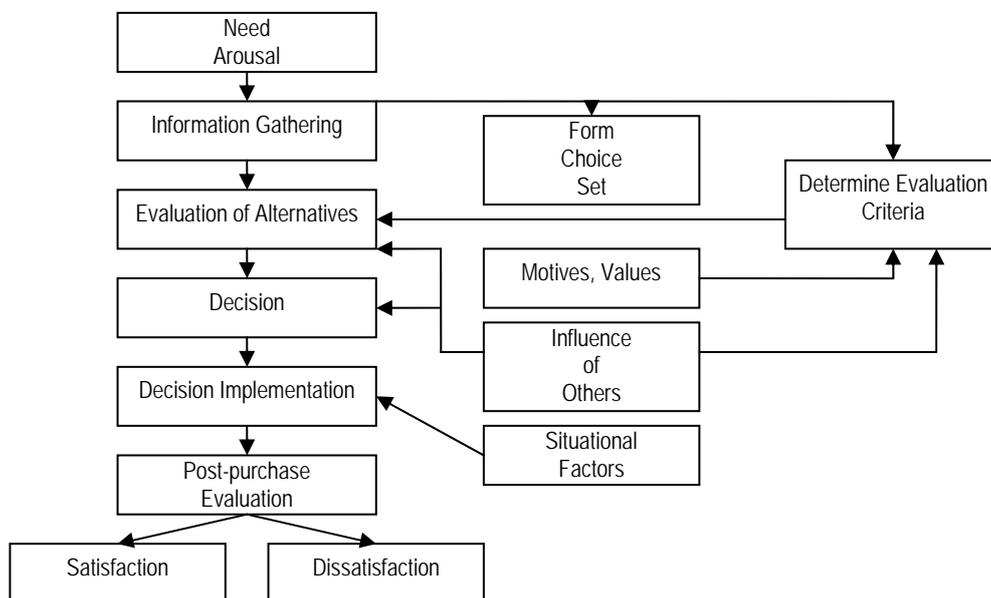
The decision about which faculty to attend is a process that starts long before the enrolment decision is made and may have consequences long time afterward because it may affect career, friendships, residence and life satisfaction. This is the reason why faculty managers must understand each aspect of educational consumer behaviour. They should understand how pupils gather information about educational options, the reasons for choosing an educational program, and even the reasons to abandon faculty. (Kotler and Fox, 1995)

There are conflicting findings as to which factors are most influential and variation on numbers of such factors (Hoyt and Brown, 1999). However, „quality” factors such as Academic reputation and Quality of faculty are consistently identified as fundamentally important (Soutar and Turner, 2002).

Other factors that applicants typically consider are:

- a) Location of the university and closeness to home area (Moogan and Baron, 2003);
- b) Job opportunities following completion of study: placements, employability, reputation and careers guidance (Soutar and Turner, 2002);
- c) Influence of others. Extensively researched factors include the influence of family, friends, socioeconomic status, etc. (Cole and Thompson, 1999; Briggs and Wilson, 2007).

Figure 1 shows the steps followed by a potential student in educational choice decision-making process.



Source: Kotler Philip, Karen Fox, *Strategic Marketing for Educational Institutions*, Second Edition, Prentice-Hall, Inc., New Jersey, 1995, p. 251.

Figure 1. The steps in highly-complex decision making

3. Survey carried out among 12th grade pupils

The aim of this survey is to determine: the information sources used by potential students, the most important criteria used by pupils when they choose a faculty, the reasons to choose a particular educational program, the influence of other persons, the potential students' choice regarding the admission methods.

3.1. Methodology

The research was carried out through survey method, using the interview technique (Malholtra, 2006). The questionnaire was the instrument of data gathering. The pupils were asked to deliver information about: their intention to attend a faculty, the institution of higher education chosen, the city in which they want to study, the reasons for choosing a particular educational program, the information sources used, the persons that may influence their decision and the preferred admission method.

To determine the importance of various influence factors in decision making process, it has been used a four point scale ranging from (1) „Not important at all” to (4) “Very important”. The scale has an even number of steps to “force” the pupils to adopt a positive or negative attitude towards the analysed factors.

The questionnaire assessed the perceived importance along the following factors: „tuition fee”, „institution’s reputation”, „closeness to the home area”, „campus facilities”, „student centeredness”, „information offered by faculty”, „family tradition”, „job opportunities”, „fields of study”, „courses attended in high school”, and „admission method”.

Table 1 summarize key demographic characteristics of 12th grade pupils used in the survey.

Table 1

Demographic profile of the sample

Indicators	Absolute frequencies	Relative frequencies
Sex	Feminine	322 57.5%
	Masculine	238 42.5%
Medium	Urban	464 82.9%
	Rural	96 17.1%
Number of family members	2	10 1.8%
	3	136 24.3%
	4	314 56.1%
	More than 4	100 17.8%
Type of High School	Humanities	162 28.9%
	Scienties	398 71.1%

The survey was carried out among 12th grade pupils from following high schools: „Tiberiu Popovici” Informatics High School of Cluj-Napoca, High School of Economics of Cluj-Napoca, „Gheorghe Lazăr” Pedagogical High School of Cluj-Napoca, „Brassai Samuel” Theoretical High School of Cluj-Napoca, „Emil Racoviță” Theoretical High School of Cluj-Napoca, “Nicolae Bălcescu” Theoretical High School of Cluj-Napoca and „Avram Iancu” Theoretical High School of Cluj-Napoca. These High Schools were chosen from a number of 21 high schools, 9 national colleges and 11 vocational high schools. The questionnaires was administrated by 14 students which attended a „Marketing Research” course. To obtain full cooperation of the high school professors, the survey operators applied questionnaires in their graduated high school.

A sample of 560 pupils was collected from these high schools. An effort was made to select classes that would result in a representative sampling of the student body of the campus. We used the following identification variables: „sex”, „medium”, „father's occupation”, „mother's occupation”, „high school attended” and „type of high school”.

3.2. Data analyses techniques

The relative frequencies were computed to determine the percent of pupils which use certain information sources, the distribution of pupils' preferences on faculties and cities and so on. Also, cross tables were used to determine the association between qualitative variables.

The intensity of association was determined using C contingency coefficient of Pearson ($C = \sqrt{\frac{\chi^2}{n + \chi^2}}$) and V coefficient of Cramer ($V = \sqrt{\frac{\chi^2}{n(s^* - 1)}}$ where s^* is the smallest between number of rows and columns) (Rotariu, Bădescu et al., 1999, p. 135).

3.3. Results

In the process of information gathering about educational programs, 12th grade pupils prefer to use the following information sources: friends, faculties' web sites and brochures. The less utilised information sources are: papers, telephone, parents and radio. Just 23.6% of potential students went to campus to gain information and just 10.7% of them visited an academic fair although the faculties' facilities are located in their city.

In the case of preferred information sources, the differences between values obtained in case of whole sample and in case sample formed by pupils who intend to attend courses of Faculty of Economics and Business Administration are rather small.

As we can see in table 2, the pupils don't ask their parents about their educational experience to obtain information.

While 55.9% of female pupils seek information in brochures, just 44.5% of male pupils read brochures when they search information about educational programs. The faculties' internet sites are browsed by 62.7% of female respondents and by 70.8% of male respondents. As 78.2% of male pupils gather information from friends who study in a faculty, just 70.8% of female pupils used this source of information.

Table 2

Information sources used by the potential students

Information sources	Percent of pupils which used information source – whole sample	Percent of pupils which used information source – F.E.B.A.
Brochure	51.1%	53.8%
Telephone	2.5%	3.8%
Internet Site	66.4%	63.8%
High School Teachers	26.4%	28.8%
Friends	73.9%	75.0%
Papers	5.4%	2.5%
Television	11.1%	13.8%
Radio	0.4%	1.3%
Academic Fair	10.7%	11.3%
Visit the faculty facilities	23.6%	18.8%
Presentation held by faculties' professors	20.7%	23.8%
Parents	2.5%	0%

As we can see in table 2, the “word of mouth” communication is very important. That's why, the faculty's students must be satisfied in order to present the institutions of higher education in a favourable manner. Also, they must be encouraged to share their educational experience to other persons. The second most important information source is internet. Therefore, the faculty's web site must offer all the information needed by a potential student. The web site must be easy to find, accessible and friendly.

The papers were read by 3.7% of female pupils and by 7.6% of male pupils in search of information about educational offering. No female potential student listened to the radio to gather this kind of information. While 28.6% of male persons went to faculty's facilities to gather information, just 19.9% of female persons did the same thing. 17.4% of female pupils and 25.2% of male pupils assisted to one or more presentations held by faculties' professors.

The presentations given by university professors have been used as a source of information by 17.4% female pupils and 25.2% male pupils. Only 3.1% of the female

respondents and 1.7% of the male respondents have collected information about the educational offer from their parents. As what concerns the other information sources, the gender differences were smaller than 1%.

In the case of the persons for rural environment, the percentage of those who use brochures as a source of information is higher (62.5%). In the same time, only 52.1% (66.4% for the sample) use the internet as a source of information.

As we can see in table 3, the factor that has the greatest influence on the faculty enrolment decision is the employment prospects following completion of study. 92.9% of the pupils regard this factor as being important or very important. The next important factors are: the institution's reputation, the attention paid by the faculty's personnel, information offered by the faculty through personnel and website, and admission method. The least important factors are: family tradition, location of the university and distance from home, and campus conditions.

Meaningful differences between genders are present for "institution dimension" factor, 47.9% of the male gender persons consider that this factor has no relevance or a very small relevance, while 68.3% of the female gender persons consider this factor unimportant.

Table 3

The importance of factors which influence decision to attend a faculty

Factors which influence decision to attend a faculty	Not important at all	Unimportant	Important	Very important
Tuition fee	12.5%	29.3%	41.1%	17.1%
Institution's reputation	1.8%	7.8%	51.1%	39.3%
Institution size	18.9%	40.7%	32.9%	7.5%
Location of the university and distance from home	30.0%	38.9%	23.9%	7.2%
Campus facilities	27.9%	22.5%	37.5%	12.1%
Person centeredness	2.5%	13.6%	49.3%	36.6%
Information offered by faculty	3.2%	12.5%	46.4%	37.9%
Family tradition	44.6%	34.6%	15.7%	5.1%
Job opportunities	1.4%	5.7%	28.9%	64.0%
Fields of study	12.5%	20.7%	44.3%	22.5%
Admission method	4.6%	14.6%	50.8%	30.0%

61.3% of the pupils say that „campus conditions” are unimportant or not important at all. Only 42.2% of the female pupils conceive this factor unimportant or not important at all. The factor „person centeredness” is considered to be unimportant or not important at all by 22.7% male persons and by 11.2% female persons. 9.2% of female prospective students and 5.6% of male prospective students view „Job opportunities” as unimportant or not important at all.

„Closeness to the home area” is regarded to be unimportant or not important at all by 50% of the persons from rural medium and by 72.8% of the persons from urban medium. The difference could appear because the persons from rural medium know the pressures imposed by studying in other city. Likewise, just 39.2% of the persons from rural medium see „campus facilities” to be unimportant or not important at all, while 52.6% of the persons from urban medium think the same thing.

Table 4 contains association coefficients between factors which influence the decision to attend a faculty and pupils’ sex. As we can see there is almost no association between „sex” and „tuition fee”, „institution’s reputation” and „closeness to the home area”. There is a weak association between „sex” and „institution size”, „campus facilities” and „information offered by faculty”.

Table 4

Association coefficients between factors which influence decision to attend a faculty and sex

Factors which influence decision to attend a faculty courses/sex	Contingency coefficient of Pearson (C)	Cramer coefficient (V)
Tuition fee/sex	0.092	0.093
Institution reputation/sex	0.054	0.054
Institution size/sex	0.203	0.207
Location of the university and distance from home /sex	0.068	0.068
Campus facilities/sex	0.218	0.223
Student centeredness/sex	0.156	0.158
Information offered by faculty/sex	0.225	0.231
Family tradition/sex	0.155	0.157
Job opportunities/sex	0.141	0.142
Fields of study/sex	0.105	0.106
Admission method/sex	0.148	0.149

From all pupils, 34.7 5% want to attend courses of a faculty of economics and business administration. The percent may be so high because the questionnaires were applied into high schools which give a lot of students to Faculty of Economics and Business Administration.

The questionnaires were applied in high schools from Cluj-Napoca. That’s why 98.9% of pupils indicated this city as the place where they want to study although the distance from home was considered as an unimportant factor. Other cities named by potential students were Budapest (0.7%) and Bucharest (0.4%).

The most frequent reason pointed by pupils to explain the choice of a particular faculty is that they like that institution’s curricula (18.2%). The other reasons indicated by potential student were: the opportunities offered by the degree awarded for completing courses, the interest for that field of study, the wish to

continue studies in same field as in high school, faculty's reputation and the wish to work in a specific field. As we can see 21.5% of respondents didn't wanted to disclose their reasons.

The reason designated most frequently by the pupils that intend to study into a faculty of economics or a faculty of business administration was to continue studies in same field as in high school (21.3%). The other reasons marked were: the fields studied in faculty (13.8%), the wish to work as economist (11.3%), the reputation of faculty (10.0%), the employment prospects following completion of study (7.5%) and the interest in economics (7.5%).

Table 5

Reasons to choose a particular faculty

Reason to choose a particular faculty	% - whole sample	% - the pupils that intend to attend a faculty of economics or a faculty of business administration
High school profile	9.3%	21.3%
I have friends which study at that faculty	0.4%	0%
It is difficult to study in that institution	0.4%	0%
There is admission exam	0.7%	0%
I like it	18.2%	13.8%
To contribute to society welfare	0.7%	0%
Family tradition	0.4%	0%
I am gifted in this field	0.4%	0%
I want to make a career	0.4%	0%
To fulfil my dream	0.4%	1.3%
Opportunities offered by diploma	12.5%	7.5%
I am interested in this field of study	12.5%	7.5%
Faculty's reputation	8.6%	10.0%
I want to work in this field	7.9%	11.3%
It is easy to study in that institution	1.1%	2.5%
I liked faculty's presentation	0.7%	1.3%
It represents me	3.9%	1.3%
To develop my own business	0.4%	0%
I do not want to disclose my reason	21.4%	22.5%

As we can see in table 6, most of the pupils (79.3%) said that they had the highest influence in the process of choosing the faculty which will be attended. On the second place there are parents followed by friends, classmates and brothers or sisters.

Table 6

Ranking of the persons which influence faculty choice

Persons which influence faculty choice	1 st place	2 nd place	3 rd place	4 th place	5 th place
Parents	7.1%	48.9%	17.5%	17.9%	8.6%
Own person	79.3%	11.4%	2.1%	2.9%	4.3%
Brothers/sisters	5.7%	8.9%	20.7%	15.0%	46.1%
Friends	2.9%	23.6%	37.9%	25.7%	10%
Classmates	4.3%	7.9%	21.4%	38.9%	27.5%

There are little differences between male and female respondents regarding the persons which influence the pupil choice because the values of Cramer coefficients between „sex” and possible influential persons are smaller than 0.22. The coefficients are even smaller if they are computed between „medium” and persons which influence faculty choice (less than 0.15). 20 respondents (3.6%) don’t have any sister or brother.

36.8% of pupils want exam based admittance, 39.6% would rather have file based admittance and 23.6% prefer admittance based on exam and high school graduation grade.

Table 7

The potential students’ choice regards admission methods

Admittance method	% - whole sample	% - F.E.B.A.
Exam based admittance	36.8%	18.8%
File based admittance	39.6%	52.5%
Mix (exam + high school graduation grade)	23.6%	28.7%

While 52.5% of the pupils which intend to study in Faculty of Economics and Business Administration would like file based admittance, just 18.8% of them would rather have exam based admittance.

4. Conclusions

In conclusion, the most used information sources regarding educational offering are internet websites, friends, brochures, high schools teachers, visits to faculty’s facilities and presentations held by faculties’ professors. While female respondents first use brochures, male persons prefer to browse web sites, to speak with friends and to visit faculty’s facilities. Persons from rural medium search information in brochures and just a small percent of them surf internet websites.

When pupils decide which faculty to attend, the most important factor is „job opportunities”, showing rather rational than emotional motivation. Because the next most important factors are „faculty’s reputation”, „person centeredness”, „information

offered by faculty” and „admission method”, institutions of higher education must focus on recruitment process in order to attract enough students. The ignorance of those aspects may result in losing potential students to other faculties from same or different cities. Family tradition has almost no influence in choosing a particular faculty. There is little association between mentioned factors and „sex”.

The most important reason, for pupils who want to study economics or business administration, is to continue studies from high school. The other reasons are the fields studied in faculty, the wish to work as an economist, the reputation of faculty the opportunities offered by the Bachelor of Science degree and the interest in economics.

In most of the cases, faculty profile is chosen by the potential student. Although parents are not considered an important information source, they might have a high influence to pupils' decision. While friends are considered an important information source their influence is rather small. High school classmates have almost no influence on this decision.

In the entire sample there aren't significant differences between preferences regarding admittances methods. The pupils, who want to study in the field of economics, prefer file based admittance. 81% of the potential students considered „admittance method” as being important or very important. In spite of this result, the managers should take into consideration the faculty's mission and must keep the way towards academic performance.

5. Research limits and further recommendations

Because all the questionnaires were applied in Cluj-Napoca, most of the pupils have chosen to continue studying in faculties from this city. In the future, this survey must be carried out at national level to discover the attraction forces produced by different universities to surrounding areas. Also, the survey might uncover differences in the process of decision making between pupils from different area of the country.

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