STUDENT BEHAVIOUR AND STUDENT SATISFACTION – A MARKETING APPROACH

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Abstract: *More and more studies are concerned about the younger generation and their role in the society. The increasing interest about their future and perspectives started to shape the economical and social environment. The educational sector is in the middle of these changes. Having to deal with more demands from students, their parents, the lawmakers and other interested parts the universities are facing strong market forces. Educational marketing, as a branch of social marketing, is able to provide tools and strategies capable to address universities' needs. This article aims to use the customer behaviour and customer satisfaction literature to further develop the understanding of student behaviour and student satisfaction. In order to achieve this goal a theoretical background and a survey among two universities from Czech Republic and Romania is provided.*

Keywords: *Marketing, Social Marketing, Educational Marketing, Student Satisfaction, Student Behaviour.*

JEL Classification: *M31,M39.*

Introduction

A recent study conducted by PriecewaterhouseCoopers [12] and presented by Pouchová [11] showed that the youth belonging to generation Y have different characteristics and expectations than previous generations. This new behaviour started to shape the educational market several years ago. As the number of students increased and the fight between the universities for the best of them became fiercer the demands from the educational sector accumulated. The financial crisis added fuel to the fire. Nowadays the governments are trying to cut unnecessary costs while the students are expecting to be treated as customers and to receive latest information and best education. More students mean more watchful parents, more public interest and more media interest. The public interest is changing the political agenda. In the end the university has to deal with opinions and regulations that are coming from many stakeholders. It is often the case that these stakeholders have divergent opinions about a particular topic [15].

One way to resolve this issue is to apply marketing techniques to the educational market. Using customer satisfaction and customer behaviour theories a university can gather relevant information about its stakeholders and, based on this information, can achieve better understanding of the market, therefore, improving its reactions.

The aim of this paper is to use advanced marketing tools in order to describe and understand the behaviour of students enrolled in two EU universities. A summary of the data will provide the framework for the customer behaviour. Comparisons between

relevant groups will underline the impact of social and demographic factors on student behaviour. The most important factors will be correlated with student satisfaction and additional information regarding customer behaviour will be extracted.

1 Theoretical background

The student satisfaction and student behaviour literature is covering a broad range of issues. One of the first and most important problems addressed by the literature is the relation between the university and the student [4] [7]. The traditional way to assume that the student is no more than the information receiver is being questioned. More and more the student it's considered a customer.

Fuelled by massification, expansion and diversification, heterogeneity and increasing competition [8] the student-as-customer approach is an on-going debate that helped to further understand the role of the student in higher education institutions [13]. It led to the development of traditional marketing concepts (like segmentation, marketing-mix, and customer behaviour) for educational sector. It also changed the understanding of other tools used by higher education institutions. This new optic has to take into account the customer definition from Total Quality Management [5].

Relative to student behaviour and student satisfaction several studies revealed different approaches for this topic:

- From the customer compatibility management point of view the student satisfaction can be enhanced by improving student-to-student interactions [9].
- From the behavioural drivers point of view the soon-to-be students seem to have rational, not emotional drivers [3].
- From the students' performance point of view the student satisfaction is not influenced by student performance [10].
- From the perceived quality and perceived price point of view the student satisfaction is influenced by both quality and price, with perceived quality playing a more important role [14].
- From the service satisfaction point of view it has been discovered that student status, race and year of study are influencing the student satisfaction [1].

In most of the cases the literature is focused on all the students enrolled in the higher education but special cases, like the international students, are also considered [2].

2 Research objectives and methodology

In order to further understand and analyse the student behaviour a survey was conducted so that relevant information can be gathered and analysed. The objectives of the study were:

- To determine what are the priorities of the students in relation with the 7 P's of the educational marketing.
- To understand what are the main factors that are influencing the students' satisfaction.

- To check for differences in student satisfaction and student behaviour between different categories of students.
- To check if there are any connections between the students' characteristics and their choice to start a master program.
- To discover the main channels used by students when they need additional information about educational programs.

A questionnaire was developed in order to achieve these objectives. The questions covered the following topics:

- Students' satisfaction with regard to university and faculty.
- Students' plans for their academic future.
- Students' information seeking behaviour.
- Students' characteristics.

The target population is represented by students enrolled in two economic faculties, one in Pardubice, Czech Republic, and the other one in Brasov, Romania.

For the University of Pardubice the target faculty was Faculty of Economics and Administration. There are 1857 students enrolled in the university from which 120 students were selected to participate. Form those 120 only 101 answered therefore the response rate was 84%. The Faculty of Economics and Administration has 3 study programmes: Economic Policy and Administration, System Engineering and Informatics', Economics and management. Using a stratification method the following programmes were included in the sample: Economic Policy and Administration and Economics and management. The data were gathered in the second and third week of the month of April 2011.

For the "Transilvania" University of Brasov, the target was the Faculty of Economic Sciences and Business Administration. There are 10 934 students enrolled in the university from which 120 students were selected to participate. Form those 120 only 110 answered therefore the response rate was 92%. Faculty of Economic Sciences and Business Administration has 8 study programmes: Marketing, The Economics of Commerce, Tourism and Services, Business Administration, Management, International Business, Finance and Banking, Accounting and Management Informatics, Economic Informatics. Using a stratification method the following programmes were included in the sample: Marketing, The Economics of Commerce, Tourism and Services and International Business. The data were gathered in the third and forth week of the month of June 2011.

The SPSS package was used in order to extract information from the data. The main findings were extracted by using independent samples and paired samples t-tests, one way ANOVA, chi square, Fisher's exact test and ordinal regression.

3 Results

Considering the 7P's from the services marketing (product, price, placement, promotion, people, process, physical evidence) the students were asked to split 100 monetary units between these seven categories. It is obvious that the service marketing

approach is the best suitable here as the educational product has all the characteristics of a service. For this question the results were:

Tab. 1: Summary of students' opinion regarding 7P's importance

	N	Minimum	Maximum	Mean	Std. Deviation
Improuving the study program	206	.00	50.00	19.5340	12.38671
Reducing the tuituion	206	.00	70.00	11.7476	14.35761
Improuving the connection with economic enviroment	206	.00	100.00	14.9029	17.12907
Improuving the image	206	.00	50.00	9.1893	7.47406
Improuving the personnel	206	.00	50.00	16.3447	11.25026
Improuving the procedures	206	.00	100.00	14.4709	11.60431
Improuving the facilities	206	.00	90.00	14.8981	12.38505
Valid N (listwise)	206				

Source of data: author

According to students, the most important marketing mix component when it comes to budget is the study program. This policy should receive 19.54% from the budget. The second priority appears to be improving the personnel (16.34%). The other numbers shows that around 14% should help to improve the connection between the university and the economic environment, the procedures and the facilities. 11.74% of the budget should be spent to reduce the tuition. The survey shows that the image, with 9.18%, is the least important marketing mix policy. It's important to point out that even if the educational sector is a standard example for service sector, still the product policy is considered the most important one to be improved. On the other hand, the add-ons to the 4 P's (personnel, procedures and facilities policies) have an important role in marketing mix strategy.

Next step was designed to quantify each student opinion about their satisfaction in relation with the university and the faculty. On a scale from 1 (lowest grade) to 5 (highest grade) the University rating is slightly better than the faculty rating. Also the standard deviation of the university rating is smaller than the one of faculty rating. The skewness for university rating is more than two times bigger than the statistics therefore we can assume that the university ratings are having a long left tail. The skewness and kurtosis for faculty rating are close to zero thus the distributions of the ratings are close to a normal distribution.

Tab. 2: Summary of students' grades for university and faculty

	N	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
University rating	210	3.6238	.74269	-.398	.168	.326	.334
Faculty rating	210	3.5238	.83115	-.177	.168	-.024	.334
Valid N (listwise)	210						

Source of data: author

Using a one sample t-test the difference between the two means is tested:

Tab. 3: T-test for difference of means between faculty and university ratings

	Test Value = 3.6238					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Faculty rating	-1.743	209	.083	-.09999	-.2131	.0131

Source of data: uthor

Because the sig. (2-tailed) is higher than 0.05 it can be assumed with a confidence coefficient of 95% that the difference between the means is not statistically significant.

In order to understand what are the main factors that impact the faculty rating, the students were asked to rate, on a scale from 1 (lowest grade) to 5 (highest grade), the following characteristics of their study programmes: learning conditions, educational programs, professor capabilities, tuition fee and other fees. The model fitting information confirms that at least one of these characteristics has a significant impact on faculty rating.

Tab. 4: Model fitting information for program characteristics impact on student satisfaction

Model	-2 Log Likelihood	Chi-Square	df	Sig.
Intercept Only	491.483			
Final	465.819	25.664	6	.000

Source of data: author

The only important factor which is statistically significant is the professor capabilities. The other factors, even if they are not statistically significant, can be ordered as follows: other fees, leisure opportunities, tuition fee, educational programs and learning conditions (see table 5).

Tab. 5: Parameter estimates for program characteristics impact on student satisfaction

	Std. Error	Sig.	95% Confidence Interval	
			Lower Bound	Upper Bound
[Faculty_rating = 1.00]	1.005	.012	-4.487	-.545
[Faculty_rating = 2.00]	.766	.796	-1.699	1.303
[Faculty_rating = 3.00]	.771	.004	.725	3.747
[Faculty_rating = 4.00]	.823	.000	2.990	6.216
Score_learning_conditions	.149	.760	-.339	.247
Score_educational_programs	.177	.770	-.296	.399
Score_professor_capabilities	.156	.000	.281	.893
Score_leisure_opportunities	.135	.176	-.447	.082
Score_tuition_fee	.130	.425	-.151	.358
Score_other_fee	.121	.099	-.038	.436

Source of data: author

On the other hand, the rankings declared by the students were: other fees, leisure opportunities, tuition fee, learning conditions, professor capabilities and educational programs. There are differences between the ordered logistic regression and the declared rankings.

Tab. 6: Summary of students' rankings regarding program characteristics

	N	Mean	Std. Deviation
Rank for learning conditions	171	3.2281	1.27903
Rank for educational programs	171	2.2515	1.38943
Rank for professor capabilities	170	2.5412	1.52341
Rank for leisure opportunities	170	4.2235	1.39209
Rank for tuition fee	170	3.9941	1.61903
Rank for other fee	170	4.7353	1.47381
Valid N (listwise)	170		

Source of data: author

Furthermore, by using the characterizations variables it is possible to conclude, with a 95% coefficient of confidence that:

- The faculty rating and the university rating are not influenced by the location.
- The ratings for university and faculty are the same among males and females.
- The parents' level of studies does not influence the university and faculty ratings.
- The students' salary expectations after one year and ten years are not influencing the ratings. The expectations for five years are statistically significant when it comes to university and faculty rating. For this test the mean for each characteristic was used to check if there are differences between the students with answers below the mean and the ones with answers above the mean. All the numbers are in Euro.

Tab. 7: Summary of students' expectations for 1y/5y/10y salary

	Minimum	Maximum	Mean	Std. Deviation
Salary_expectations_1y	.00	1224.99	360.1969	209.74653
Salary_expectations_5y	212.11	3266.64	756.3006	395.45754
Salary_expectations_10y	353.52	7306.15	1235.0675	819.78734

Source of data: author

- The university and faculty ratings are the same for working students and non-working ones.

Regarding their future, the majority (76.8%) of the questioned students are considering a master degree program. More than that, 8.5% are also considering a PhD program. The rest of the students, 14.2%, are not interested in a master program. Statistic tests were used in order to link the master interest to student characteristics. The tests showed that the connection between interest in a master degree and location, gender, work or parents studies is not statistically significant.

The next step was aimed to rank the most important factors that a student considers when he/she is choosing a master degree. Five factors were selected: faculty reputation, faculty location, research and study facilities, tuition and other taxes and graduation requirements. The students were asked to rank these factors. The results were:

Tab. 8: Summary of students' opinion regarding factors of influence in choosing a master program

	N	Mean	Std. Deviation
Faculty reputation importance	149	2.6040	1.32959
Faculty location importance	149	3.0067	1.49095
Facilities importance	149	3.3423	1.28280
Taxes importance	149	3.0470	1.47197
Requirements importance	149	3.0000	1.41898
Valid N (listwise)	149		

Source of data: author

The most important factor is research and study facilities. For the questioned students the second important factor is represented by the taxes and other fees. These two are followed by faculty location, graduation requirements and faculty reputation.

Regarding the way the students are researching for their master degree program, 40.4% of the students (70.9% of responses) prefer the web site of the university. Next way to gather additional information is to ask friends and relatives – 31.2% students mentioned that (54.7% of responses). Other ways to gather information about an university is to visit it directly or to check web 2.0 content.

Tab. 8: Summary of students' ways to search for a master degree program

		Responses		Percent of Cases
		N	Percent	
Master_degree_research	Web site visits	127	40.4%	70.9%
	Forums and blogs visits	20	6.4%	11.2%
	University visits	69	22.0%	38.5%
	Friends and relatives	98	31.2%	54.7%
Total		314	100.0%	175.4%

Source of data: author

Conclusion

Originally developed for business market, the customer behaviour and customer satisfaction concepts can find suitable applications in educational marketing. A vast literature is available and, even if some debates are in progress, it is obvious that the educational marketing field has greatly evolved [15].

Taking advantage of these new findings the survey presented in the article is setting the basis for further student related studies in the two universities. It can be concluded

that the two universities have a student satisfaction above average. This is mainly the result of the professor capabilities. For the questioned students the study programs are the first products that need improvement. This is consistent with other available data [6]. This study also showed that demographic and social differences do not imply differences in student satisfaction. Even if the educational product is a perfect example of a service, the students, when it comes to choosing a master program, are taking into consideration physical and monetary aspects like facilities and fees.

This is the first student satisfaction study developed in the two universities. Therefore there are severe limitations regarding the sample representativeness and number of questions. Further research can be focused on improving these aspects while keeping these results as a starting point.

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Appendix 1

Tab. 4: The scenarios with the minimal sum of the total costs for a group of items according to the non-zero demand probability and non-zero demand variance

Stdev $Demand_t > 0$ [Pieces]	Probability $Demand_t > 0$ [%]															
	5-15		>15-25		>25-35		>35-45		>45-55		>55-65		>65-75		>75-85	
	∑TC[€]	Scenario	∑TC[€]	Scenario	∑TC[€]	Scenario	∑TC[€]	Scenario	∑TC[€]	Scenario	∑TC[€]	Scenario	∑TC[€]	Scenario	∑TC[€]	Scenario
0-1	447 348	6	306 346	6	189 774	12	71 138	12	17 632	6	3 702	12				
>1-2	133 852	6	173 631	6	182 150	6	159 140	12	96 196	12	17 472	12	23 269	12	989	6
>2-3	48 542	6	67 962	6	83 791	6	69 312	6	48 957	12	24 871	6	4 170	6	854	6
>3-4	72 146	6	17 336	6	41 827	6	31 097	6	22 531	6	38 205	12	7 418	12	5 077	12
>4-5	11 223	6	13 274	6	47 395	6	45 757	6	40 789	6	15 658	6	17 800	12	2 101	6
>5-6	6 323	6	18 981	6	37 071	6	35 390	6	23 246	6	16 143	12	9 143	6	7 715	12
>6-7	14 745	6	5 140	6	36 878	12	5 056	6	16 285	6	7 985	6	28 394	6	1 917	12
>7-8	11 206	6	87 531	6	40 527	6	31 295	12	42 060	6	26 540	6	18 385	6	9 665	6
>8-9	4 947	6	4 358	6	11 958	6	49 931	6	14 543	6	20 064	12	7 002	12	41	6
>9-10	737	6	1 896	6	404	12	15 861	6	53 933	12	7 731	6	12 371	6	2 169	12

Source of data: authors

Tab. 5: The scenarios 1-5 and 7-11 with the minimal Δ for a group of items according to the non-zero demand probability and non-zero demand variance

Stdev $Demand_t > 0$ [Pieces]	Probability $Demand_t > 0$ [%]															
	15-25		>15-25		>25-35		>35-45		>45-55		>55-65		>65-75		>75-85	
	Δ[%]	Scenario	Δ[%]	Scenario	Δ[%]	Scenario	Δ[%]	Scenario	Δ[%]	Scenario	Δ[%]	Scenario	Δ[%]	Scenario	Δ[%]	Scenario
0-1	15%	3	15%	1	14%	11	5%	9	5%	1	4%	7				
>1-2	19%	1	24%	1	16%	1	12%	11	16%	9	11%	7	2%	11	34%	3
>2-3	26%	1	21%	1	25%	5	11%	1	9%	8	13%	4	10%	8	0%	3
>3-4	60%	7	32%	1	24%	1	18%	2	12%	1	14%	10	10%	4	14%	8
>4-5	34%	7	26%	3	44%	1	46%	1	19%	1	11%	8	5%	2	13%	1
>5-6	13%	1	32%	1	14%	1	43%	3	14%	1	27%	7	20%	7	5%	7
>6-7	71%	1	26%	1	50%	2	14%	5	14%	4	11%	5	8%	11	4%	1
>7-8	42%	3	37%	3	35%	4	24%	3	97%	9	12%	3	15%	3	0%	1
>8-9	63%	1	18%	1	21%	3	40%	5	15%	3	17%	3	17%	5	29%	1
>9-10	38%	1	53%	2	20%	1	2%	3	9%	10	9%	1	20%	5	20%	7

Source of data: authors