STRATEGY OF THE FIELD OF STUDY CHOICE - RESEARCH AMONG MALE STUDENTS/FUTURE GRADUATES IN THE VYSOCINA REGION – FOCUS ON NURSING

Martina Chalupova

College of Polytechnics Jihlava, Czech Republic chalupova@vspj.cz

Abstract:

This paper summarizes results of research that centered on senior male students in the Vysocina Region and their decision-making processes for a field of study in a higher education institution. This survey was administered to male students in their last year at the grammar schools who were enrolling for the first time. The focus of the research was on their choice factors. The particular aim was to find out whether the male students were considering nursing, a field of study that has traditionally been dominated by women. The findings are then used to present the marketing recommendations.

Keywords: senior male students, field of study choice factors, nursing, Vysocina region.

1. INTRODUCTION

Higher education institutions in the Czech Republic are facing increasingly complex challenges, which demand a deeper understanding of the sources prospective students use when applying to college or university. Currently the Czech system of higher education comprises of twenty six public universities that offer a wide range of study fields within bachelor, master and doctoral study programmes and two non-university public institutions of higher education which provide bachelor study programmes only. The sector also includes fourty six private higher education institutions. Number of colleges and universities rised dramatically. In 2000 the system of higher education in the Czech Republic consisted of twenty four public and eight private institutions. In the meantime, the demographic curves clearly indicate the stagnation of the size of higher education age groups. Political development seeking rationalisation of the higher education system is leading to managerial and funding challenges for higher education institutions. Overall, these factors intensify the competition and understanding the decision-making proces of the prospective students is of extreme importance (Moogan, 2011; Hoyt & Brown, 2003; Kotler & Fox, 1995).

The article begins with a brief description of the College of Polytechnics in Jihlava, followed by the research material on senior male students in the Vysocina Region and their decision-making processes for higher education institutions. Finally, the findings from the empirical study, conclusions, recommendations for the marketing of the institution and avenues for future research are presented.

2. CHOICE OF A HIGHER EDUCATION INSTITUTION

Deciding what university or college to attend has been characterised as a highly complex process that is subject to multiple influences. Studies in higher education are founded in several disciplines, including economics (e.g. Perna, 2008; Des Jardins et al., 2006; Avery & Hoxby, 2004), public policy (e.g. Dill 1997) and sociology (e.g. Dolinski, 2010; Menclova & Bastova, 2005). This research follows a marketing perspective, trying to obtain data for customer insight (Kotler & Armstrong, 2010). Understanding how students make decisions regarding college selection has led to the development of several student behaviour models. One the most widely used model is Hossler and Gallagher's three-stage model (1987). The first stage is predisposition, in which students develop aspirations for college attendance, in the second stage they search for information about colleges and develop a choice set and as the third stage they choose particular college. The model, modified later, draws simultaneously on the rational approach and the sociological perspective, providing a comprehensive explanation about the final choice (Hossler, Schmit, & Vesper, 1999).

Vrontis, Thrassou, and Melanthiou (2007) presented a contemporary higher education student-choice model for developed countries. This model consideres both the sequence of the decision steps and the various influences. These determinants include: (1) environment (general public policy and influences/media), (2) high school characteristics (e.g. social composition, quality), (3) higher education institutions (characteristics and actions), and (4) individual (customer and personal attributes). Using these models as a background, this study focuses on environmental and individual choice factors, following a marketing perspective.

Economic crisis, a relatively new phenomenon of the environment, and its influence on the college or university choice should be taken into account. The most important surveys carried out in the field of higher education the Czech Republic, as summarized by Minksova (2010),

showed that economic crisis as a factor influencing decision-making process of the high school students considering their choice of the future field of study, has not been deeply researched yet.

3. COLLEGE OF POLYTECHNICS JIHLAVA – REGIONAL COLLEGE

The College of Polytechnics Jihlava was the first public college of a non-university type in the Czech Republic, set up in 2004. Very strong support from the Town Office of Jihlava and the Regional Office of Vysocina Region helped the institution to establish itself as a strong regional college, focused on local needs. The general goal of studying accredited bachelor programs is to provide applicants with professionally oriented education with strongly practical output. The primary focus is on cooperation with reputable firms and institutions in order to adapt education to their needs. The hope is that this will result in engagement of the practitioners and their close cooperation with academics on solutions to various topics

In the current academic year of 2011/2012 there are approximately 2200 students enrolled at the College of Polytechnics Jihlava. They chose to study Economic Management, Financial Management, Travel/Tourism, Electrotechnics and Informatics, Computer Systems or Applied Informatics. The latest fields of study to be added are Health Service Studies, Public Administration and Regional Development. The College of Polytechnics Jihlava also runs programs of life-long education, including the Third Age University. The Health Service Studies program was accredited in 2008. Since then, only 18 male students have chosen Nursing as their field of study. This represents only 6 % of the 298 who have thus far been enrolled in the Nursing Program. At the time of this report, no male has yet chosen to study Midwifery in the College of Polytechnics Jihlava.

Students who choose to enroll in bachelors program in nursing in the Czech Republic, according to data from Ministry of Education, Youth and Sports of the Czech Republic, can select from sixteen higher education institutions: fourteen faculties at universities and two colleges (public College of Polytechnics Jihlava and private College of Nursing in Prague). Tuition is required only at the College of Nursing in Prague.

4. RESEARCH DESIGN

The aim of this research was to determine the choice factors of the college or university field of study among male students and future graduates of grammar schools in the Vysocina Region. The other aim was to find out if they are considering nursing as their potential field of study and if an economic crisis has an impact on these students' choices. Given this purpose, this study attempts to answer the following research questions:

- 1. What are the factors that influence the choice of field of study of male students and future graduates in the Vysocina Region?
- 2. Do male students or future graduates consider nursing as their field of study?
- 3. Does media information or personal experience with the economic crisis (through the unemployment of friends and family members) affect the selection of college major?

4.1. Sample design

This research followed a quantitative design and was carried out at selected secondary schools in the Vysocina Region in cooperation with the secondary schools' management following preliminary discussions and their agreement. The questionnaire was developed to identify students' choice factors and influences when applying to higher education institutions and their choice of a specific field of study. The final research instrument was refined through a pre-test among high school students in Ceske Budejovice. The questionnaire was applied as an on-line survey to male students in their last year at high school in the Vysocina Region enrolling in a university for the first time. Directors of the high schools agreed that students would fill in the questionnaire during their classes. They were sent instructions and a web link.

Due to the research objectives, the so-called non-comprehensive selection was performed, which requires investigation only at a specific sample of units. The research sample included 17 grammar schools from the Vysocina Region (one of them private), that agreed to participate in the research. That represents 94 % of all the grammar schools in the Vysocina Region. In 2010/11 the number of prospective respondents, i.e. male students that studied in their last year at the grammar schools in the Vysocina Region was 444, and the actual number of respondets was 216, which represents 56 % of male students and future graduates.

5. RESEARCH FINDINGS

The reasearch was made in March 2011, when most of the students had already made their decision regarding their field of study.

Table 1: Choice of the field of study made by male students in their last year at the high chosen schools in the Vysocina Region

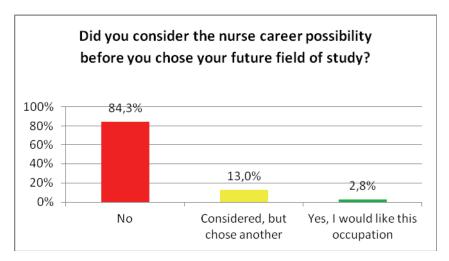
Programmes	Actual number (n)	Percentage
Humanities and arts	49	23 %
Engineering and information technology	28	13 %
Medicine, pharmacy, veterinary medicine	23	11 %
Law	23	11 %
Business, finance and management	21	10 %
Education	21	10 %
No answer	20	9 %
Natural sciences	14	6 %
Agriculture	9	4 %
Other medicine (nursing, physiotherapy etc.)	8	3 %

Source: Chalupova, Boruvkova "Strategy of selection of future field of study among the boys graduating from secondary schools in the Vysocina Region," 03/2011.

The majority of respondents (more then 23 %) picked humanities and arts (see Table 1). Medical study fields (medicine, pharmacy and veterinary medicine) were selected by 10 % of the students. Natural sciences are also quite highly sought after (6 % of respondents). Nursing and other medical fields of study (for example physioterapy or dental hygene) were the least popular, only 3 % of respondendents selected them. These data show that there is a high potential for prospectie students of nursing. Students that will not succeed to enter the studies of medicine may consider nursing as their second choice. Also, as shown in the Figure 1, a

relatively high number of students considered nursing as their career possibility (13 %), but chose another.

Figure 1: Consideration of the nurse career among male students/future graduates at grammmar schools in the Vysocina Region



Source: Chalupova, Boruvkova "Strategy of selection of future field of study among the boys graduating from secondary schools in the Vysocina Region," 03/2011.

5.1. Factors that influenced the decision-making process

The question aimed at the weight of factors that have played some role in the decision-making by senior male students who were to take the graduation exam was a matrix type, with a scale between 1 and 4 (1 = major influence, 4 = no influence).

Table 2: Factors that influenced decisions regarding future study by male students preparing for the graduation exam in the Vysocina Region

Sub-question	Average	Dispersion
The field of study currently offers career security	2.083	0.894
Job prestige	2.245	0.943
The field of study is currently "profitable"	2.463	0.952
Distance of the place of study from home	2.977	0.997
Financial demands of study	3,060	0.918
Easy admission conditions	3.231	0.888
My parents recommended this field of study	3.287	0.888
My friends decided to study this field	3.667	0.707

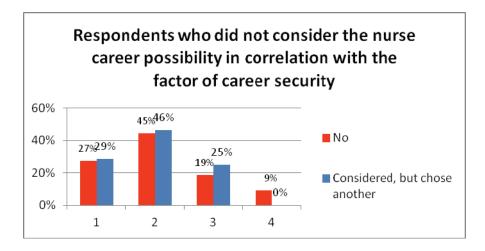
Source: Chalupova, Boruvkova "Strategy of selection of future field of study among the boys graduating from secondary schools in the Vysocina Region," 03/2011.

The male students and future graduates consider the factor of career security to be the most important for their decision on their future field of study (see Table 2). A major role is also played by the prestige of the job they will have after they complete their studies. The profitability (what reward the respondents expect after they finish their studies) has a strong influence, too. The male students mostly deny their friends' or parents' influence. The distance of the university from home also plays a significant role. The admission conditions are a weaker influence, apparently due to the fact that Czech universities have reacted to the



strong demographic downturn in the number of applicants, and consequently the entrance examinations and admission process at many of them (economic colleges, in particular) have become less difficult.

Figure 2: Male students/future graduates at grammmar schools in the Vysocina Region who did not consider the nurse career possibility and their evaluation of the factor of career security



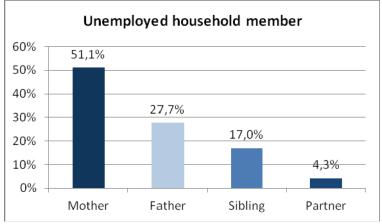
Source: Chalupova, Boruvkova "Strategy of selection of future field of study among the boys graduating from secondary schools in the Vysocina Region," 03/2011.

Respondents who did not consider the nurse career possibility and those who considered it, but chose another, evaluated the job security as a factor that have played important role in their decision-making process.

Influence of unemployment in the respondents' close circle on their field of study choice

The research further proved that one-fifth (22.4 %) of the respondents included in the survey lived in the households that were affected by unemployment in the last two years. As Figure 3 shows, in half of these households the mother was unemployed, in 17 % of the households it was a sibling and even a partner in some cases (4.3 %).

Figure 3: Consideration of the nurse career among male students/future graduates at grammmar schools in the Vysocina Region

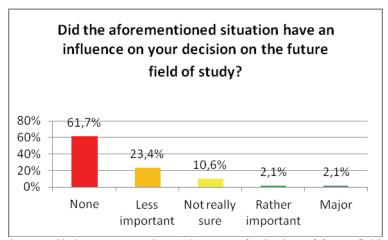


Source: Chalupova, Boruvkova "Strategy of selection of future field of study among the boys graduating from secondary schools in the Vysocina Region," 03/2011.



As seen in Figure 4, students do not think that the experience with unemployment in their close circle had a major influence on their choice of the field of study.

Figure 4: The unemployed in the households of the male students preparing for the graduation exam in 2010/11 over the past two years in the Vysocina Region

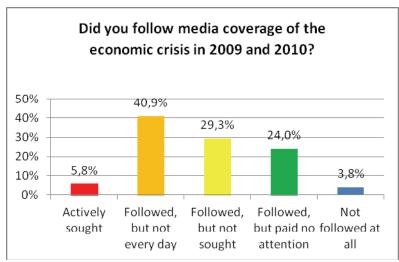


Source: Chalupova, Boruvkova "Strategy of selection of future field of study among the boys graduating from secondary schools in the Vysocina Region," 03/2011.

Influence of media coverage regarding the economic crisis

The future graduates at grammar schools have been exposed to rather intensive news coverage concerning the recession; see Figure 5. However, only 5.8 % of the respondents admitted actively searching for this sort of information. Yet, media influence is substantial -76 % of the male students took notice of events related to economic problems. A mere 3.8 % of the respondents have not followed the information at all.

Figure 5: Following the news coverage of the economic crisis by the future graduates in the Vysocina Region in 2009–2010

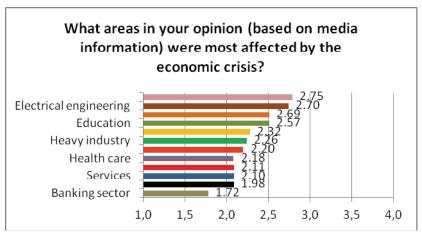


Source: Chalupova, Boruvkova "Strategy of selection of future field of study among the boys graduating from secondary schools in the Vysocina Region," 03/2011.

Respondents were asked to highlight areas that were most affected by the economic crisis, based on the information retrieved from the media. The scale was between 1 and 4 (1 = no effect of the crisis on the area, 4 = strong effects of the crisis on the area).



Figure 6: Economic area affected by the crisis in the view of the male students preparing for the graduation exam in the Vysočina Region, influenced by media coverage in 2010/11



Source: Chalupova, Boruvkova "Strategy of selection of future field of study among the boys graduating from secondary schools in the Vysocina Region," 03/2011.

As seen in Figure 6, male students who will take the graduation exam consider the banking sector as the worst hit by the economic crisis, while supposedly the least affected is the computer technology domain. Health care has been seen as not seriously impacted by the crisis. Quite surprisingly, the educational system has been perceived as bearing above-average consequences of the crisis. It is also of interest that the respondents have not considered any of the offered areas as strongly affected by the crisis.

6. CONCLUSION AND DISCUSSION

The main objective of the research was to identify factors that influence the choice of the field of study of male students/future graduates at grammar schools in the Vysocina Region with the special attention to economic crisis, a relatively new possible factor. Results of the research can be used for marketing of the institution, which would like to attract male students to select their nursing program. The results suggested that male students/future graduates from grammar schools in the Vysocina Region consider the factor of career security to be the most important for their decision on the future field of study. A major role is also played by the prestige of the job they will have after they complete the studies. The profitability (what reward the respondents expect after they finish their studies) has a strong influence, too. Therefore, the institution (college or university with the nursing programme) may want to prepare communication strategy stressing job placement security after graduation. This calls for close cooperation with directors of the hospitals. The College of Polytechnics Jihlava can hope for the positive effect of the finding that the distance of the place of study from home is quite important for the respondents. Job prestige plays a very important role as well. Future research should be aimed at identifying the level of the prestige of nursing as the occupation for male students and possible building blocks for it.

The research identified quite significant potential for prospective students of nursing among the students of medicine and natural sciences. Also, the findings revealed that quite a high number of the respondents considered nursing as their field of study but chose another. Research that would identify the reasons for this decision should be provided, as well as the research that would identify what The male students/future graduates from grammar schools have been heavily exposed to information related to the recession. Health care has been seen,

on the basis of the information collected from the media, as one not seriously afflicted by the crisis. This is also a potential for the targeted marketing communication of the College of Polytechnics Jihlava. However, only a small percent of the respondents admitted an active search for this sort of information. Future studies may want to consider information sufficiency, including the amount and accuracy of information that students use when selecting their field of study.

REFERENCE LIST

- 1. Avery, C., & Hoxby, C. M. (2004). *Do and should financial aid packages affect students' college choice?* In C. M. Hoxby (Ed.), College choices: The economics of where to go, and how to pay for it. Chicago: University of Chicago Press.
- 2. Chalupova, M., & Boruvkova, J. (2012). Strategy of the choice of the college/uniersity field of study among senior male students in Vysocina Region research report, not published yet.
- 3. DesJardins, S. L., Ahlburg, D. A., & McCall, B. P. (2006). An integrated model of application, admission, enrollment, and financial aid. Journal of Higher Education, 77(3), 381–429.
- 4. Dill, D. (1997). *Higher education markets and public policy*. Higher Education Policy 10, 167–85.
- 5. Dolinski, A. (2010). The adequacy of the information that students utilize when choosing a college: an attribute imortance and information sufficiency approach, College Student Journal 44(3), 762–776.
- 7. Hossler, D. R., & Gallagher, K. S. (1987). Studying student college choice. A three-phase model and the implications for policymakers. College and University, 62(3), 207–222.
- 8. Hossler, D., Schmit, J., & Vesper, N. (1999) *Going to college: How social, economic, and educational factors influence the decisions students make*. Baltimore: Johns Hopkins University Press.
- 9. Hoyt, J. E., & Brown, A. (2003). *Identifying college choice factors to successfully market your institution*. College and University, Spring: 3–10.
- 10. Kotler, P., & Armstrong (2010). Principles of Marketing (13th Edition). Prentice Hall.
- 11. Kotler, P., & Fox, K. (1995). *Strategic marketing for educational institutions*, 2nd Edition, Prentice Hall.
- 12. Menclova, L., & Bastova, J. (2005). *Vysokoškolský student v České republice roku 2005* (*University student in the Czech Republic in 2005*). Praha: Ministerstvo školství, mládeže a tělovýchovy, Centrum pro studium vysokého školství.
- 13. Minksova, L. (2010). Vysokoškoláci přehled hlavních sociologických výzkumů realizovaných v ČR (University students review of the main sociological researches in the Czech Republic). Data a výzkum SDA Info 2010, *4*(1), 39–60. Sociologický ústav AV ČR, v.v.i., Praha 2010.
- 14. Moogan, Y. (2011). Can a higher education institution's marketing strategy improve the student-institution match? The International Journal of Educational Management 25. 6, 570–589.
- 15. Perna, L. W. (2008). *Understanding High School Students' Willingness to Borrow to Pay College Prices*, Research in Higher Education, 49(7), 361–365.
- 16. Soukalova, R. (2009). Forms of Communication of Universities with Target Groups Focused on Popularization of Science and Research Results, V. International Conference on Applied Bussiness Research ICABR 2009, s. 1352, Publisher Mendel University in Brno.



- 17. The Strategic Plan for the Scholarly, Scientific, Research, Development, Innovation, Artistic and Other Creative Activities of Higher Education Institutions for 2011-2015, Ministry of Education, Youth and Sports, Retrieved from www.msmt.cz
- 18. Vrontis, D., Thrassou, A., & Melanthiou, Y. (2007). A contemporary higher education student choice model for developed countries. Journal of Business Research 60, 879–989.