# **Czech University of Life Sciences Prague**

# Faculty of Economics and Management Department of Statistics



Statistical Analysis of factors influencing selection of economic study program taught in English at university in Prague

# **Bachelor Thesis**

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# CZECH UNIVERSITY OF LIFE SCIENCES PRAGUE

Faculty of Economics and Management

# **BACHELOR THESIS ASSIGNMENT**

Nikol Boháčková

**Economics and Management** 

Thesis title

Statistical analysis of factors influencing selection of economic study program taught in English at university in Prague

#### Objectives of thesis

Aim of the thesis is to identify and verify factors influencing the choice of university in Prague by students, who are going to study economics program taught in English. The author is going to target the biggest public universities with economic fields — Czech University of Life Sciences, University of Economics and Charles University. This comparison should observe based on which factors students preferred to study at other faculties than FEM and also show potential to develop or improve the English study programs at this faculty so it is more attractive for foreign students considering their studies in Prague.

#### Methodology

The assessment of factors influencing the choice will be carried out by questionnaire survey. First will be determined hypotheses and will be created appropriate survey. The dataset will by analysed using categorical data analysis.

#### The proposed extent of the thesis

30 - 40 pages

#### Keywords

Education, economics, preference, factors, universities, statistical analysis

#### Recommended information sources

AGRESTI, A. Categorical data analysis. Hoboken: John Wiley & Sons, 2013. ISBN 978-0-470-46363-5.

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Prague on 27. 02. 2017

Declaration
I hereby declare that I have worked on this thesis "Statistical analysis of factors influencing
selection of economic study program taught in English at university in Prague" by myself
under the guidance of the supervisor of this bachelor thesis and I have used only the sources
mentioned at the end of the thesis. As the author of the bachelor thesis, I declare that the
thesis does not break copyrights of any third person
In Prague, on 16 <sup>th</sup> March 2017

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Statistická analýza faktorů ovlivňující výběr ekonomického oboru vyučovaného v angličtině na vysoké škole v Praze

Statistical analysis of factors influencing selection of economic study program taught in English at university in Prague

Souhrn

Cílem práce je ověřit faktory, na základě kterých si zahraniční studenti volí vysokou školu

v Praze, na které budou studovat ekonomický obor v angličtině. V práci se zaměřím na

největší veřejné vysoké školy s ekonomickým zaměřením, tedy ČZU, VŠE a UK. Toto

srovnání má sledovat, na základě kterých faktorů studenti preferovali výběr studia na jiné

fakultě, než na PEF a zároveň poodhalit prostor k potenciálnímu rozvoji či vylepšení

studijních oborů v angličtině, na této fakultě tak, aby byly více atraktivní pro zahraniční

studenty zvažující studium v Praze.

Klíčová slova: vzdělání, ekonomie, preference, faktory, vysoké školy, statistická analýza

**Summary** 

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Prague by students, who are going to study economics program taught in English. The author

is going to target the biggest public universities with economic fields – Czech University of

Life Sciences, University of Economics and Charles University. This comparison should

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## 1. Introduction

Today's society is typical for its globalized and multinational form. The growing impact of globalization has reached to a point where the foreign language is a necessity for anyone who wants to succeed in labor market or any other area. With number of the international companies operating in the territory of the Czech Republic there is increasing need for multilingualism translated even to education. Thus its influence penetrated to education as well. Few year ago, there was a boom of private universities and colleges offering the English study programs which led to Czech public universities this option as well in order to improvement of the character of their international relationships and position supported by a diversification.

Besides the quantum of exchange programs possibilities they also opened the English study programs aiming to prepare their students for their future occupations, whether they decide to work in the Czech Republic or abroad. The variety of study programs taught in English is still growing and developing together with process of internationalization.

This thesis is divided into two main parts. It is focused on factors influencing the selection of study program and the university by a student which are discussed in the first, theoretical part. In practical part then the thesis targets the bachelor economic study programs taught in English at public universities in Prague (ČZU/CULS, VŠE/UE and UK/CU). Students from these programs were questioned through a questionnaire to find their preferences. This way were collected data for statistical analysis. The primary goal is to verify which factors were important for their choice of university (study program) while the secondary goal is to detect possible improvements for universities to get better international character and attract more (quality) students to study in English from Czech Republic as well as from abroad. For example in long term goals of CULS we can find intention to focus on persistence and development of being international to reach better quality activities offered by a university. (Czech University of Life Sciences in Prague, 2015)

# 2. Aims and Methodology

The main aim of this thesis is to identify and verify factors, which may influence students when choosing the university with statistical testing of stated hypotheses. The partial aim is to identify strengths and potential to improvement of our English study programs at faculty FEM to be more attractive for students.

#### 2.1 Methodology

The theoretical part of thesis process knowledge gained in books, research papers, and internet sources. And the practical part was elaborated based on collecting data through questioner and following Categorical data analysis.

#### 2.1.1 Categorical Data Analysis

Type of data determines what can be done with them. We divide data into two basic categories – quantitative and qualitative. *Quantitative* data are more used in researches of public opinion. These might be continuous or discrete. *Discrete* data are whole numbers (i.e. number of children or employees) while *continuous* data are real numbers (i.e. age, height or weight) A *categorical variable* are *qualitative* data, subdivided to *nominal*, without natural ordering (i.e. names, gender: Male or Female) and *ordinal*, using scale that reflects the order of values (i.e. education: elementary school, high school, university). Qualitative characters expressed in words can be coded as numbers and thus it is possible to test the independency and power (level) of dependency among them. Dependency between characters is called association dependency; dependency between plural characters is called a contingency. Listing all possible contingencies (relationships) in the table, is called a contingency table.

To test the independency in contingency table we use Fisher test or Chi square test. Usage of proper test depends on meeting strict criteria.

The table below is an example of contingency table (2x2), where a, b, c, d are observed frequencies, a+b, c+d, a+c, b+d are marginal frequencies and n is a sample size.

**Table 1: Association Table example** 

Var A/Var B	B1	B2	Total
A1	a	b	a+b
A2	c	d	c+d
Total	a+c	b+d	n

Source: Agresti, 2013

#### 2.1.2 Fisher test

Fisher factorial test is an alternative to Chi square test, when the sample size is not big enough. Table is no bigger than 2x2 (Association table, where are only 2 alternative variables, with two options – i.e. Male/Female, Satisfied/Not), sample size (n) is lower than 20 and some expected frequency is < 5. We do not measure power of dependency as it is based on Chi square. The process of Fisher test is to find a cell with the lowest value, reduce the value by 1 (final value is 0) while all marginal frequencies are the same. The probability for each table is computed by using formula  $p_i = \frac{(a+b)!(c+d)!(b+d)!}{n!a!b!c!d!}$ . If  $\sum pi > 0.05 \rightarrow H_0$  is valid.

# 2.1.3 Hypothesis testing and Chi square test $\chi^2$

In case of table of size 2x2 we can use Chi square test if the sample size (n) is bigger than 40. In classic contingency table (at least 2x3 or 3x2, where there are multiple variables and options) there can be only up to 20% expected frequencies that are smaller than 5 and none of them can be lower than 1. If not, we have to merge similar categories. When these assumptions are satisfied, we use Chi square test ( $\chi^2$ ).

Hypothesis testing is a procedure, based on sample evidence and probability, used to test statement regarding a characteristics of one or more populations. In tests like t-test or chi square, we begin by setting the *null hypothesis* ( $H_0$ ). That is a statement, saying "There is no relationship between populations, from which the samples were taken or there is no correlation between variables in certain population". The *alternative hypothesis* ( $H_1$  or  $H_A$ ) says the opposite - the relationship exists. The Chi-square test of independence is used to test the association between two categorical variables. If they are independent on each other. This is followed by choosing the level of significance ( $\alpha$ ) – usually 0.05, selection of proper test, check of all criteria (sample size, expected frequencies), computation of the test with

test criteria  $\chi^2 = \sum \sum \frac{(n-o)^2}{o}$  and decision whether to accept or reject the null hypothesis. This decision is made by comparing computed value with table value (in this case we are looking for Chi square value with degrees of freedom  $\chi^2 = [(r-1)^*(c-1)]$ , where r represents number of rows and c columns) these or by comparing p-value (probability of the test statistic if  $H_0$  is true) with  $\alpha$ . If p-value  $\leq \alpha$ , we reject the null hypothesis and conversely.

There are two kinds of errors. *Type I error* is to reject  $H_0$  when  $H_0$  is true. The probability of Type I error is the level of significance  $\alpha$ . *Type II error* is made by not rejecting  $H_0$  when  $H_1$  is true. The probability of making Type II error is  $\beta$ . (Agresti, 2013)

If the sample size is over 20 but below 40, we have to express the *expected frequency* for each observed frequency by using formula  $o = \frac{marginal\ freq.of\ a\ row\ *marginal\ freq.of\ a\ column}{}$ 

## 2.1.4 Level of dependency

Power of dependency for tables 2x2 is calculated by formula  $V = \frac{a*d-b*c}{\sqrt{(a+b)(c+d)(a+c)(b+d)}}$ , where V is *Coefficient of Association* in interval <-1;+1>. The sign (+/-) is reflection of negative or positive relationship (and sloping of a curve as well). The closer is relationship to -1 or +1, the stronger it is. For measurement of association intensity for bigger tables *Pearson coefficient*  $C = \sqrt{\frac{\chi^2}{n+\chi^2}}$  or *Cramer coefficient*  $V = \sqrt{\frac{\chi^2}{n(h-1)}}$  (where h is min of columns or rows), can be used. Cramer coefficient is used more often as it is standardized coefficient and it can be used for comparison of tables with different size.

## 3. Theoretical Part

#### 3.1 Motivation

The word motivation has origin in Latin "moveó" and "móvi" which means to move and to initiate the movement. It might mean to initiate inner energy into the motion. This term has no unitary definition in literature, it is understood and describer differently by different authors.

It is a set of mobile moments in personality and activities. Set of everything running the individual to do something or oppositely. Motivation activate and regulate in the same time. (Čáp, Mareš, 2007). It is set of inner and outer factors, activating us and giving us an energy for our behavior and experience. These are directed and the process and way of reaching the goals and accomplishments is regulated. They influence how an individual reacts to his own behavior and experience and on relationship to others. (Průcha, 2003) Thus, motivation is a process that should lead to a specific goal. Motive is a stimulus to some activity. It is a factor, regulating a behavior of an individual according to a certain aim. To motivate somebody means, to stimulate mentioned stimulus. (Švancara, 1979) "Motivation represents mobile forces of psychical characteristic, leading to focused behavior with certain intensity. The main motivational factors of social character are needs, interests, value orientation and partially the attitude". (Výrost, Slaměník, 2008)

Motives are divided into the ten categories. Primary ones are independent, original motives like instincts, habits and they lead to direct satisfaction of hunger, thirst...Secondary motives are gained or learned and these are forming through whole life. Then, there are conscious and subconscious motives based on awareness or function of subconscious. Motives, rated along moral aspects tends to development and growth of personality or to its downgrade, these are called higher and lower motives. Material ones are physical and biological. On the other hand, spiritual ones are human, social and cultural motives. Inner motives are stimulate by impulse or incentive and outer motives are stimulate by encouragement or urge.

Motivational factors are classified as subjective and objective. To subjective or inner factors might belong an education, knowledge, ability of adaptation, interests, values and social status while to objective or outer factors might be an organization of work, managing style,

evaluation, beneficiation, technical equipment or safety policies. The inner motivation to study, personality grow and self-actualization of student should be developed by pedagogue in school environment. To observe his performance and appreciate those internally motivated. This can be supported by outer factors with positive and negative sanctions. Also the social climate in classroom, social relationships, successful study performance, good grades and positive attitude of student to work are elements supporting the internal motivation of student.

No less it is important the family influence on motivation. It involve the study success and performance. Stabile background of family is condition of positive influence. However, frustration, boredom, fear, social environment as a family, classroom society might be a negative factors reducing study performance and negatively influencing students personality as well. Outer factor of motivation could lead to student primary focusing on benefits from studying instead of studying itself.

Sang (1999) says that motives are individual and they can change with a time. Thus, these are drive forces of human activity inside of human. (Smékal, 2002) "The inner motivation might be characterized as a factors, created by people by themselves, which influence their way of behavior and their selection of future orientation. By inner motivation we understand what to do for people to motivate them." (Amstrong, 1999)

If the primary goal of student is a desire to be educated and activities done without expectation of compliment, reward or appraisal, student is internally motivated. The activity is performed for inner needs and the feeling of certain slack or surplus. This kind of student is more active, more creative, spontaneous, adaptable and more successful. Opposite is an outer motivation. Student activity is driven by an external stimuli, events and phenomena. The behavior is not that concentrated and targeted. These students are worse in adjusting as their confidence is lower, anxiety and fear of possible failure are present. Sources of external factors are acts of other people, artefacts, the space and environment where the student is to be found. Optimal is a situation, when inner and outer motivation is in permanent interaction. (Lokša, Lokšová, 1999)

Hartl and Hartlová (2009) describes value orientation as a "relatively stable, socially stimulated, optional relationship of human to a set of materialistic and spiritual social wealth

and ideals, which are seen as a subjects, goals or resources of life needs satisfaction." Value orientation is individual matter of each person. Life need can be satisfied through these values.

Every occupation satisfies another needs and values. It is useful for individual to know his personal and work values. According to Vendel (2008) is term work values misleading and he rather use term preference aspects of work as a more preferable and clear one. If the interests are compatible with values of person, there is higher probability of satisfaction in certain work position. However, if interests are in conflict with values of an individual, it means problems and dissatisfaction of the individual with his job. Therefore, it is good to be aware of personal values and choose profession in harmony with those. The career choice should be based on inner motivation. The inner, content, work values are creativity, altruisms, work chosen according to interests and self-actualization relating to work activity itself. Outer or context work values are related to benefits from working such as good salary, prestigious job position in work and comfort. The last category are side-effect of work which might be to work with similar people, preservation of independency, obtain stable occupation or to have a good supervisor.

There are four basic motivation forces which asserts by different intensity and in different combination in every selection of work activity and thus in occupation or tertiary education choice. *Motivation to gain outer physical benefit* helps to be able to subsist, be financially independent and later to secure some living standard to whole family. *Motivation of helping others* leads to satisfaction from being helpful to people and socially useful. *Motivation to execute an occupation for personal disposition* where it is possible to utilize personal abilities, talent, hobbies, temperament and other assumption is great in self-realization in job. *Motivation to find friendly environment* drives an individual to be in touch with positive and interesting people, to cooperate with others on team tasks. (Langmeier, Krejčířová, 2006)

# 3.2 Decision making

Hartl and Hartlová (2009) described a decision making as a conscious selection from options. It is a cognitive process serving to goal selection and the instruments to reaching that. It is affected by many factors. Person who is making a decision, his preconceptions,

emotions, experience, and knowledge and also by a situation itself by timing, intuitions, and regulations. These are situations where there are more alternatives and it is necessary to consider more criteria and factors.

Students can utilize many ways how to decide in the selection process of following studies. There are eight different kind of decisions and indecisions described by Dinklage (1968)

An intuitive kind of decision is based on emotions and feelings. It might work if it is completed by other information like decomposition of individual's interests, skills or character. During the *impulsive* one, person does not think over all the possibilities and select the first one without considering the other alternatives. *Torturous* way is typical for students, who have a problem with decision making. They gather information needed but they fail to make final decision. Planned decision making kind could be considered as an ideal one. Student plans his decision and he is aware of his feelings, knows his skills and characters, interests, values and other factors involving his decision. Others rely on the fate. The final decision student rather leave on other individual or destiny. This may be a willing of selection the easiest way. On the edge, there is option of postponing the decision. In such a case, student decide to decide later. It is not necessary to make a decision yet. Obedience is a case when someone make a decision instead of student, most commonly a parents do. Students are either passive with their opting or there are forced by an authority. *Paralysis* is a stage when student feels an anxiety or fear from making decision. It is showed by inability of select one option which is linked with torturous decision making. Student might feel an inadequate pressure to make a decision but he is afraid of its consequences.

Mezera (2009) introduces a simple method made by Irving L. Janis and Leon Mann. That should ensure a quality decision to an individual as with career choice, as with anything else. There are four steps which should be done sequentially during every decision-making. This method is named by first letter of each step – ACIP.

A stands for *alternatives*, as student should look up all the possibilities followed by C to consider all positive and negative *consequences* of every alternative. I represents gaining as much information on every option, as possible and P is for making a *plan* how to realize the decision and consider what is needed to be done for that. Think of beck up steps of solution in case the chosen decision was not realizable and how to apply them.

Indecision of career or study field is a common phenomenon of students. There is about 60% undecided students in the final year of high school, where they should make decision about their future. It is important to difference the indecision caused by situation, by personality, when indecision is part of personality and by aversion or disability of making decision. (Vendel, 2008) There is also difference between being undecided and indecision, which are not synonyms, as P. Salomone (1982) reminds. These terms are also often confused by a career counsels. Being undecided is normal situation caused by lack of information. Indecision is characterized by lack of identity and usually with anxiety. According to Vendel, being undecided can be also a benefit as student examine a possible alternatives and actively look for the best one. Indecision he categorize as a situational, developmental and chronic. Situational indecision is considered as a pressure result from their environment, school and family on student. Career immaturity is a cause of and the chronical one implies from psychical or personal problems, anxiety or some psychical dysfunction of student.

Some student has a potential to study more study programs in the same time but the special talent is not needed. Super (1957) claims that this is every person that have a potential to success in different occupations. This way students can choose from more alternatives when each of them is suitable for their skills and interests. Decision making process is rather elimination of options than selection of the best one for this kind of students. That might cause the feeling of anxiety and insecurity because student is aware of impoverishment of other alternatives by selecting the study program or occupation. Presumption to more study programs is one the biggest reasons to postpone the decision. (Vendel, 2008)

## 3.3 Tools supporting the Choice

For students it is extremely important to gain concrete information that helps them within their decision making process. These are not only advices or opinions but pure facts. Students – applicants, generally, use more than one source of information. Here are some of them.

#### 3.3.1 University rankings

University rankings present the comparison among the universities and put them in the order from the best to the less good, according to quality. Some charts shows only universities satisfying certain conditions, others try to compare all the universities in the world as a Webometrics chart. There are the university rankings existing on the national level, globally comparing universities, throughout the states and continents. The university rankings are defined as a "lists of specific grouping of institutions, usually within one nation, but not always, comparably lined up according to standard set of indicators in decreasing order. University charts are shown in a form of league tables, routinely. Identically as a sports teams are in the order from the best or from the worsts along a number of won and lost games they have reached in one league. For this kind of perspective are the rankings the most characteristic and the similarity with sport teams is cogent. On the other hand, some other rankings offers different appearance than a simple university comparison in 1 – N form. For example German chart CHE does not merge the indicators into sole value but individual indicators data are solo. Everybody can create the rankings individually along his individual importance and preferences due to this form. (Usher, 2007)

Pusser and Marginson (2013) said "the charts serves as a special useful objective for study of power in the tertiary education system because they are used to lend a prestige, redistribute a sources, a form to establish an agenda like a proceeding stratification of national systems of higher education, setting of hierarchical relationships among nations and a leverage to enforce a need and responsibility of normative adaptation".

University rankings are in big favor of public side. Students utilize the university charts for making their choice of future studies or at least picking the institution they will try to get an acceptance from, easier. The socioeconomic status (SES) of students has a huge influence on usage of university rankings. Students coming from families with higher income and education are using the charts more often and rather chose the university rankings as an important factor of their decision process in the selection of their future university. (Shin, 2011)

Probably, this is more common case of the students who have to pay a tuition fee in their country. In the Czech Republic is the tertiary education for free except studying in private schools or in different language than the Czech one, like in English. Generally, there is more likely not that significant impact of a socioeconomic status of a family in the Czech Republic, until they select a study program taught in English or in private institutions, as it is abroad where the studies are paid.

The charts comparing Czech universities only does not have a strong base really in the Czech Republic. There is none pedagogic institution that would be specialized on typical charts making in the Czech Republic so all the ranking usually comes from redactions of newspapers. Perhaps, the popular style of these charts has origin in low quality of methodology form. If the ranking is made by newspapers, their primary interest would be to increase the sales by this together with the interest about the press, wrote King (2009).

Magazine Newsweek is known for this. There is a ranking of top American universities published annually in the United States of America by them. In addition to the traditional chart, they also edit the chart of school for the best price where they compare the ratio of tuition fee to the quality, Colleges and the best Business schools. (US News Education, Best Colleges, 2013) The longest tradition in ranking composition has "Hospodářské noviny" newspapers in our republic. They create their own chart, where they compare individual faculties due to their field, several years in the row. The scientific contribution and benefit of the faculty is one of their criteria, together with internationality of the university, the quantity of applicants and research on graduates. (Zprávy ihned.cz, 2013) Education Policy Center of Charles University in Prague are also concentrated on graduates' research in the Czech Republic.

Project Reflex was realized in years 2006, 2010 and 2013. The employment of universities graduates had been monitored in this report. 40 universities cooperated with the project Reflex 2013 in total. 22 out of 4é were public universities, 1 state and 17 private universities. There are many information and factors about the graduates' life to be found in the results of this project. They had focused on individual programs from the income perspective, working hours, part of working graduates and so on. (Středisko vzdělávací politiky, 2013) Also they evaluate which universities are the best as to employ. According to this research the best are lawyers and medics to find a job. Good at getting an occupation are also graduates from pedagogic faculties. Worst are art and agricultural faculties.

Some data are presented in a way that can be a bit misleading. It was found out, that from the economic faculties the lowest percent of unemployed graduates has a Faculty of Management in Jindřichův Hradec, belonging to University of Economics in Prague. The problematics part of this is the management is a distance form of studies and for this reason is chosen more by a mature students who works already and often at leading or managing

positions. For this reason it cannot be said that if students will study this faculty, they will get the employment. (Zprávy ihned.cz, 2013)

"Lidové noviny" newspapers also creates charts of universities in the Czech Republic. They had focused on how to understand the rankings, tables and what are their weak points in their special February 2010 edition called "Akademie". (Středisko vzdělávací politiky, 2013)

#### 3.3.2 Career Counselling

Purpose of career counselling is to advice students on career selection. The goal is to help students to make a right choice in the planning of their career and to ensure profitable employment together with appropriate opportunities to self-actualization. (Devajit, 2003) The author specify career counseling in very narrow way as a help with decision making.

Career counselling might help its clients with identification, discovery or with learning skills, interests, conviction, values, working habits and others personal qualities that may contribute to a more happy and thus a better occupation on the continuously changing labor market. (Krumboltz, 1996) It can help to build a self-confidence to the young people and to create a path to other professional options. (Anderson, Vandehey, 2012)

Active seeking of advices, information and references at somebody's, who students trust to, from their own initiative, is the core of career counselling function. (Mezera, 2009) Services offered by career counselling are currently part of many other services. This way it becomes more available to all students. (Hlad'o, 2012) Some activities from this sector, helping with career decision-making are career information, career education, career individual counselling. Watts (2009) claims these create an activities structure of career counselling. However, the most common activity of career counselling rooms is handing career information. (Mezera, 2009)

Counselling might be a key role in student's decision-making process. It forms their opinions and shape a how they perceive and see specific job-position or education. We divide it into formal and informal consulting.

The formal counselling is perceived as an official service, provided by professionals. It includes school psychologists, school educative counsels and counselling of pedagogical-psychological counselling rooms.

Students, if they willing to, have a possibility to visit a school psychologist or educational counsel in the school. Generally, students are confused with this service as there is lack of information in the Czech schools. If they know about this possibility, they might be confused in "what to expect" or doubt about its efficiency. The information should be clear in what are the activities of this service and handed to the end users.

At pedagogical-psychological counselling rooms there are tests (PPP) offered according which the worker should give an advice to a student. These service can give a direction to a student who does not have an idea about his future. If student has a vision, the service is criticized for being too specific about the future profession or too general instead of spreading out options in certain preoccupation. Professional tests should help to realize what areas of studies are suitable for a student, what is possible to study in this field, what are the chances to being accepted and what are the occupations in this specialization.

To the unprofessional counselling belongs important groups of people, helping to shape students opinion on their future education or career path. These are family and peers.

Parents are often perceived as a counsels, expressing their opinions or experiences with the field, student is considering. They might let the final decision on the student or be stricter while directing them. Student might feel a pressure from parents' side. Not all the parents serves as a realistic source of information. They see a wider possibilities of future jobs of their children and wide options of future education selection and they try to persuade them. That might make the decision process more complicated.

Students can also consults their ideas with peers who has the same dilemma. They can influence each other and sometimes the decision made is a result of group choice who has an influence, instead of individual himself. Other valuable information students get from their older friends who already study at university and from adults who execute the job of interest and find out the positives and negatives of this occupation or university.

# 3.3.3 Marketing of Universities

Although the marketing used to be a despised discipline on the academic land just few years ago, nowadays, with growing supply of tertiary education and decreasing demographic curve, universities do what they can in the competitive market. With every student they might lose about 30 thousand CZK in their budget. (Strategie.cz, 2015)

Marketing communication is a tool to promote education provided and more importantly to promote the university name itself. (Světlík, 2009; Vysoké školství ve světě, 2014)

University marketing is a tool to compete with competitors – other universities in the market. Goal of every university is to find a quality pedagogues as well as a potential students. The advantage from university marketing is that as a tool, it secures a sufficient number of students. With those, university can communicate and effectively cooperate. Also they develop study programs for them. Increasing quality along with variety of study programs helps to be successful in the competitive environment. It builds loyalty and a good reputation to university name. Furthermore, it establishes a strategy and enables to reveal problems. As a next positive, it helps universities to reach their goals and mission. The more quality institution, the more attractive for financing and sponsorships. Marketing serves to deliver an information to pubic and decrease the risk of bad selection of university. (Světlík, 1996)

Marketing operation of universities is an answer to "why some schools have a problems with attracting the quality students or students in general, and others no" question. Reality shows that successful schools are those, using a marketing approach and strategy. University with such an achievements are focused on their customers and clients (parents, students, companies), continuously check if their program results from market needs, communicate with its partners and has a really good image at public. Even though the vision of university as a subject of market, focused on marketing is undesirable especially for people from education environment, it become the only option how to be long-termly successful university at these days. (Světlík, 2009)

The main purpose of marketing is to satisfy consumers' needs. The primary service is and education with help of pedagogical process. The need is satisfied through some product (in this case with study program, service or thought). Development of product or service is not

enough. It is important to know, how should be the product introduced to customer. Thus, it is necessary to communicate with both current and potential clients. The university communication is directed as to target group of users, as to wide pubic society. (Eger a Egerová, 2007) As a customers of university Světlík (2009) considers primarily students, then parents, future employers of students, pedagogical personnel and other university staff.

Personal communication, in communication mix also known as personal selling or personal marketing, is the most used channel by universities, followed by public relations and advertising. The less used is sales promotion, direct marketing and sponsorships. The personal communication is a direct contact between the university member and its clients. The purpose of personal contact is to attract an attention to the core of message, persuade and get the client. To make personal communication efficient, it is necessary that the university staff were empathic, dominate and excel at verbal and non-verbal communication. The ability to convince increase an usage of concreate information and data (it is sufficient to specify the right amount of graduate employment, extension of language courses, names of successful graduates and so on) more than general information of goals, mission or quality. Visualization supporting the content of message also works. Generally, the positive effects of personal communication are understanding of message, two-tailed information flow and quick feedback. Negative sides are time consumption and costs.

University promotion is directly realized through web pages of the school, flyers and syllabuses printing, advertising items, high schools visits, newspaper advertising, participations at exhibitions and expos, managerial press news and projections of student movies. An unrivalled marketing tool of universities is a satisfied student, who informs his environment about his satisfaction through word-of-mouth and this way co-make the reputation of university.

Indirect tools are defined with purpose of growing quality level of intern actions of supervisors to reach the most satisfaction of students. In publicity plan they are defined as a reaction to students' suggestions, their wishes and needs, internal evaluation done by students and independent organizations, narrow cooperation with university graduate employers, new information from experience, guarantee of experts in lectures, providing exchange programs to abroad, improvement of foreign language courses and courses taught in foreign language, continuous growth of university staff, individual approach to students

and lectures, modernization of lecture rooms and technological equipment, provide necessary study equipment to students, utilization of skills to attract candidates of different age groups and hosting foreign and visiting lecturers. (Filmová akademie Miroslava Ondříčka v Písku, o.p.s., 2010)

Promotion Personal communication Efficiency, Importance PR Support Awareness Knowledge Persuasion Application Time

Picture 1: Marketing Communication and its efficiency

Source: Světlík, 2009

From the picture above it is noticeable that only advertisement is not enough to convince student to apply to the university. It is effective tool with support of PR activities and personal communication. The integration of marketing communications is a key to success.

#### Expo Gaudeamus

Expo or fair is an essential part of education. For selection of right university might be helpful the Central European Study Abroad Fair GAUDEAMUS since 1994 in the Czech Republic. Personal communication to potential students is annually realized by universities here, at Gaudeamus fair in Brno, Prague and Nitra. In both countries it is the biggest education fair of its kind. The longest tradition is held in Brno city - for 23 years. 67% of visitors are students of final year at high schools and its popularity within universities still grows. (Gaudeamus, 2017)

It takes place within August and November. In 2009, there was 32 981 visitors, 208 universities and from abroad there was mostly China and Finland in Brno Exhibition Centre. Gaudeamus is also in Prague, in the end of summer, when students consider where to apply. In 2013 it took place in Slovakian Nitra for a first time. This form of communication promises experience, 3D presentation option and possibilities to get important contacts. It helps to build up an image and might stimulate even strong emotions. (Svoboda, 2009)

#### **Open Door Days**

For those students who does not know anyone studying the chosen field, there are Open door days. This event is popular. Applicants meet the students and professors of the university. This way they get personal experience from students and not only general information available on-line. They see the environment and they can feel the atmosphere inside the university.

## **Web Pages**

Internet sources and web pages of individual universities are considered to be a basic source of information. There are all information needed available as an entrance exam, tuition fee if there is any, important dates through an academic year and description of study programs. To orient in the system of web pages of some universities might be a little challenge for applicants.

## 3.4 Factors influencing the Choice

## 3.4.1 Prestige

Prestige comes from Latin world *praestigiae* meaning delusion. It is an opinion on the social entity based on certain social criteria. Prestige is a good reputation of an individual or a group, linked with deference and influence. According to Dingledine it is a tool to predict a behavior or future action based on past experience. Then we can decide, whether is an individual or collective entities, like companies, are trustworthy or not. Other impact of prestige is the support of competitiveness both of individual entities and collective entities.

There is an effort of university education prestige assurance. Degree gained in respected university has higher both economic and social value rather than degree from second-class institution. Universities ranking should distinguish which schools are prestigious and which not.

The problem with reputation is, that schools which already are owners of a good fame and prestige are more easily able to maintain the same status unlike those who does not have it. For these schools it is very hard to challenge it and obtain it. (Shin, 2011)

During a data analysis of changes in time, there was found that usually over the "95% of differences in rank position of any university (compared to the previous year) might be explained with their position in the previous year. That is the reason why there is high level of persistence in the system, year by year". Despite this, there are some exceptions. For example Georgia Institute of Technology registered huge success and its position was extraordinarily improved in last years. (Rouse, 2012)

Effect of Anchoring is the cause of stability of positions and it was defined by Tversky a Kahneman (1974). Dan Ariely (1982) studied this cause in his experiments. Anchoring is the reason why people tend to get closer to numbers they see as the first ones in their considerations as they so-called anchor them. In case if some university is anchored as the one which belongs to the bottom of the ranking, it is hard to over change this effect in following year. This might occur in opinion polls of experts who use the ranking plenteously. (Tversky a Kahneman, 1974), (Ariely, 1982)

There was a research done on the topic of Anchoring in universities charts by Bowmana a Basteda who confirmed this effect. (Bowman a Bastedo, 2011)

However, if some institution manage to improve its position regardless these difficulties, there is high probability that it is going to keep it. Reputation is one of the most fundamental criteria for many international charts.

Prestige is for every institution extremely important. Different studies examined the influence of good reputation on financial acquisition for organization. For example banks with good reputation have a competitive advantage against the others. The same it is with universities – universities with good reputation can increase their income with setting higher tuition fee and raise number of study applicants. Financial advantage is mainly in comparison with competitors. (Shin, 2011)

It was proved that better evaluation in particular year results in higher number of applications in following year, greater selectivity of students and thus higher median of test results of accepted students. It is an explicit cycle. Better university evaluation is followed by better quality of applicants as an impact and that leads into next improvement of position at university ranking. (Shin, 2011)

In the same time, universities with greater income has more resources that can be invested into their students. Students are not the only ones reacting on the higher ranking. Also such

an institutions like governments, foundations and companies invests more into better ranked universities.

Basted's and Bowman's research in year 2011 showed that the ranking of universities in year 1998 successfully forecasted the financial situation in year 2006. Thus, it can be said that better ranking in university's charts is linked with higher future financial profits. (Bastedo, 2011)

#### 3.4.2 Finance – Investment into Future

To significant key roles of deciding whether continue studies or to start working belongs the socio-economic status of parents, their education, qualification and the prestige of their employment. Mostly important is then their capital. If they are willing to support their child at studies for few more years or they prefer immediate financial help of the third family member, even when it is lower than it could be. (Hlad'o, 2012)

Under the word "Investment" it is understood as a deposit of money into a long term utility goods which does not make profit immediately. It is part of revenue (or another resource), which is allocated somewhere with a purpose of gaining a profit or benefit in future. The future utility can be in terms of money but it can be also collected in other form. (Tepper, 1994) Oppositely, in macroeconomic terms the education is classified as a service belonging into a consumption of households while investment itself is defined as an increase in reserve of tangible assets and is made only if the physical capital is produced. (Samuelson and Nordhaus, 1995) According to professor Maitah (2015) investment "represents business spending for capital goods plus inventories. Business is the only sector of economy that invests in the economy sense."

It is important to consider and choose the right university where would be wise to make the investment in. This is a case of environment, where the education is paid. There is a clear economic reason as a decision of studying at the university is one of the biggest investment young people or their families can make. These people want to be sure that the money worth their education gained from chosen school. That is why a good research, comparison of possibilities and their consideration is highly important. (Shin, 2007) For example the final price for studying, school supplies, books, dormitory accommodation, tuition fee, and other

costs might reach 200 000 dollars, that is approximately 4 million Czech crowns, in United States of America, especially if it is a private institution. (Shin, 2007)

It has to be taken into the consideration that studying university is huge investment of time. Student experience so called loss of profit for whole time of studies. They would have this profit if they get a job right after their high school graduation. This is the same case for students, who does not have to pay for their schooling. It is expected, that this investment is going to return with higher wage of people with university degree but this expectation might not be always fulfilled. That is why the education is not only the direct investment.

# 3.4.3 Quality of Education

Term "Quality" also known as a "class" or a "sort", generally stands for positive characteristics of a product or a service. Quality product or service is in accordance with customers' requirements, standards and norms. Class and Quality are de facto synonyms from management of organizations point of view. But there is a variety of definitions of these words. Juran defines quality as a "competence to usage", Crosby as a "harmony with requirements" and Norm ISO 9001 quotes quality as a "level of satisfaction of requirements with set of included characters". Where requirements are expected (by customers for example) due to norm or obligatory (due to the standardization). (ManagementMania.com, 2013)

Quality of a service is one of the core questions of marketing management of services. It meaning is constantly growing along with increasing customers claims. Depending the level of customer's satisfaction, rising their loyalty and by that influencing the profitability of an organization, providing the service. Quality is a factor presenting significant competitive advantage of certain service and differs it from the product offered by a rival. (Vaštíková, 2008)

However, the quality of education or the lectures itself is one of the worse set of evaluation of universities to be identify. It is an item judged by qualitative method and therefore it is difficult to measure. Many rankings does not take the quality of lectures into the consideration and rather focus on the research and quotation, which are items easier to quantify. (King, 2009)

There is an interest in institutions providing complete and quality education from both parents and their children. The information offered by university might be misleading and as a prevention there are other sources of possible check at the market (as a references, press, charts and others) from which are expected to give an objective view at which school provides quality education.

"When future students claim they want to select top – evaluated university, perhaps they mean an institution, where the professors are successful scientists, real authorities and the quality of lectures comes in the first place", generally. During the process of evaluation of the quality of the whole university, the quality of education is the most fundamental value. (Taylor, 207)

## 3.4.4 Migration

Migration as a process of mechanic movement of population is an important phenomena of present age. If we omit various motivation of inhabitance, as political and ethnical reasons, the desire for a change or searching of an asylum, the main motivation are economic reasons, which are closely bonded with those social ones. It is mainly about looking for a higher standards of living. (Vavrejnová, 2011) Major migration streams leads from less economically developed countries to more developed ones.

Defining of term Migration is not quite explicit. Economics approach to international migration as to a mobility of productive factors between individual countries. "Migration of labor to the country, where this resource might be better utilized and on the other hand, leaving the country, where the utilization of the resource could be lower is the cause of why the total product and consumption grow is happening in terms of worldwide economy. Equally, as the free trade of goods and services as a free movement of labor factors leads to the growth of wealth and prosperity of global economy." (Cihelková, 2009) In case of the labor factors it is possible to state that the people are moving to the different countries with the vision of the higher income from an economic point of view.

The Ministry of the Interior of the Czech Republic describes migration in its terminological vocabulary as a "shift of both, an individual and a group within the space which is together with natality and mortality key element of the process of population development and

strongly influences social and cultural changes of habitants on every level. Along with an economic development, the intensity of migration is constantly increasing."(MVCR, 2010)

Reversely, International Organization for Migration defines migration as a movement of an individual or a group of people beyond the borders of the country or inside of particular state. It is a mobility of habitants for any kind of purpose and any length of duration. Embracing migration of refugees, displaced persons and migration with economic and other reasons, includes merging of families. (Drbohlav, 2004)

Oppositely of other factors of production, the labor factors movements are characterized by a certain immobility. That is caused beside the economic barriers such as geographical distance and the costs for a transport linked with that, also by the natural barrier as an unfamiliarity of the environment and the language, social responsibilities in the country of origin or restrictions of institutional origin (conferment of visas, permission of residence and other immigration authorizations).

Basic division of migration as an aspect of territorial unit is considered a distinction among internal and external kind of migration. The travelling of persons inside of one territorial governing unit which is usually determined by a state boarder, is labeled as an internal migration. Meanwhile the external migration, also called as an international migration, represents travelling of an individual or a group of people across the single countries of the world.

Migration might be also structured according to another characteristics. Due to length of staying we distinguish short-term, long-term and permanent migration. OECD consider such an individual as a long-term migrant, who left country of his actual place of residence for more than 12 months period and consequently the host country becomes a place of his new permanent home. From the logic of things implies that the person is seen as a short-term migrant if leaving his current place of living for at least three months but the duration must not be longer than the limit of one year. The most frequent reasons for a short-term migration are recreation, vacation, visit of relatives or friends or business, medical and religious intentions. (OECD, 2014)

There are two other sides of migration, divided according to the direction of migration – emigration and immigration. Every immigrant is the emigrant and the immigrant in the same

time. It depends on the country of departure and the country of arrival. Person is becoming an emigrant in the time if leaving the mother country with the aim of settling down abroad. On the contrary, under the term immigrant is considered person, who is entering the host country with a plan of long-term residence. (Vavrejnová, 2011)

The last segment of the migration which it is important to mention is the difference between migration which is voluntary and enforced. It is necessary to say, that migration with study purpose is migration self-imposed, resulting of migrant's (student's) own initiative. In the past there were especially violent deportations of slaves or prisoners as an examples of compulsory migration cases. Today the enforced migration is linked particularly with deportation or expatriation coming from the decision of state institutions or migration caused by a fear (due to ethnic intolerance, dictatorial regimes and so on) or by other pressure in home country. Might be occurrence of natural disaster, famine or war for instance. Expatriation or deportations are terms denoting the legal acts of compulsion of the country, however, during the deportation is happening directly the physical compulsion to exit the country of staying. (Jelínek a kol., 1984)

## **Immigration in the Czech Republic**

Each European country has its own, differential experience with immigration. Predominant majority of eastern countries had an emigrant character at first. Eastern states provides its labor force especially to the most developed western countries until now. However, there are also some exceptions where the situation had changed and the migrant streams and structures become to change in particular after the fall of totalitarian regimes. The Czech Republic is an example of such a country which quickly become an immigrant country but partially remain the country of transit into the western European states. (Vavrejnová, 2011)

Attractiveness of the Czech Republic as a host country for migration has risen particularly after the transformation of Czech economy, performed democratic changes and integration to European Union. The topic of immigration is thereby relatively a new phenomenon in here. From the second half of 19<sup>th</sup> century to 20<sup>th</sup> century Bohemia, Moravia and Silesia traditionally belonged to emigrant regions. The problem of emigration was pre-eminently targeted by a political arrangements. (Baršová, Barš, 2005)

The Czech Republic was understood to be a part of democratic west again, after the year 1989. It was followed by gradual increase in number of foreigners settling in this territory, either legally or illegally. The number of foreigners has doubled in rang of years 1994 and 1999, concretely from approximately 100 thousands to 200 thousands of residing foreigners. In 2000 the number of immigrants has fallen by 30 000 persons. This drop was more likely caused by legislative change. Act no. 326/1999 Coll., on residence of foreigners in the territory of the Czech Republic came into validity on 1<sup>st</sup> January 2000. This act strongly tightened up an entrance and resident conditions for majority of immigrants. Some enactments of this act were mitigated by a novelization valid from 1<sup>st</sup> July 2001. From this year the immigration trend was continuing to grow. The Czech Republic has a positive migration balance (migration grow) even in present. In 2000 the share of foreigners was about 2% in total sum of habitants, whereas the share was already roughly 4, 5% in year 2012 (totally 435 946 foreigners from 10 516 125 residents). Regardless, the Czech Republic is not classified among the countries with high immigration rate and the portion of foreigners on total sum of habitants is comparatively low in comparison with others developed European countries. (The Czech Statistical Office, 2012)

Migration balance (sometimes also called as pure migration) is the difference between an amount of incomers and emigrants in the investigational territorial unit. Together with natural accrual it is a basic figure for balance of habitants. (The Czech Statistical Office, 2001)

Table 2: Number of Foreigners and its Portion on Total amount of Habitants in CR 1989-2015

Year	1989	1993	1997	2001	2005	2007	2013	2014	2015
Number of Habitants (thousands )	10 362	10 330	10 303	10 224	10 234	10 322	10 510	10 524	10 542
Number of Foreigners	35 561	77 668	210 311	210 794	278 312	392 315	439 189	449 367	464 670
Portion of Foreigners on the Total	0,34%	0,75%	2,04%	2,06%	2,72%	3,80%	4,18%	4,27%	4,41%

Source: The Czech Statistical Office, Own calculations

According Halász (2012) it is possible to expect that an increasing trend in the area of immigration of foreigners, especially from Eastern Europe states, is going to continue also in the future. Along the national structure, the biggest migration flows (the group of people migrating from the same origin into the same destination) stream into the Czech Republic on permanent basis from Ukraine, Slovak Republic, Vietnam, Russian federation, Poland and Germany. While the quantity of immigrants coming to the Czech Republic from Ukraine, Vietnam and Poland has more decreasing character or they are stabilizing from the year 2010, the quantity of immigrants from Russian federation and Slovakia are rising. Other, less numerous groups of immigrants are formed from Chinese, Byelorussians, Bulgarians, Americans and migrants from ex-Yugoslavia.

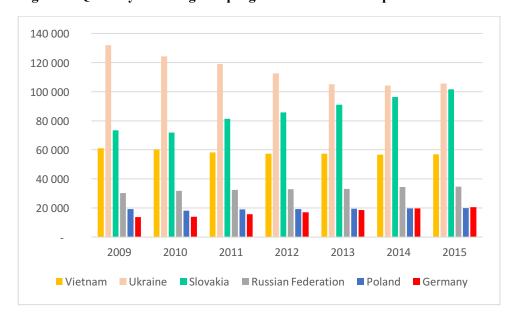


Figure 1: Quantity of Foreigners progress in the Czech Republic 2009 - 2015

Source: The Czech Statistical Office

The Vietnamese form a specific immigration community in the Czech Republic. With its density they are situated in the third place, right behind the Slovaks and Ukrainians. However, the total sum of Vietnamese people living in the Czech Republic is in fact significantly higher, about 100 000 persons, according to study case of Vavrenová (2011). Many of them used so called Uniting of Families to settle down in this territory. From 90ties there was a visible transformation of work structure done by Vietnamese immigrants. The ordinal industrial workers became a businessmen, arbitrageur with land and massively started to deal with a trading activity of importing and selling Asian goods.

Migration from Slovakia has a different character compared to the Ukrainian one. It is given by a historical reason of common state and also by a closeness to a home country, where the majority of them returns. On the other hand, the Slovaks form one of the biggest group of applicants for the Czech citizenship as it is visible in a figure 2 below.

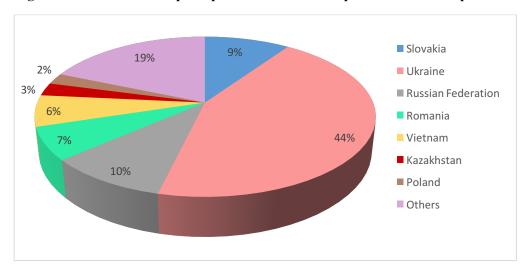


Figure 2: Czech citizenships acquired in 2014 due to previous citizenship

Source: The Czech Statistical Office

Working immigration outbalance all the other types of migration in the Czech Republic. The most frequent reasons of migration are economic activities like employment or business, migration based on the uniting of families with the exception of transit migration. (Drbohlav, 2003) Economical causes are mostly typical for Slovaks and Ukrainians conversely to permanent family migration dominating for the Vietnamese and Poles. (Drbohlav, 2004) There were 310 921 employees and 93 059 sole traders, together 403 980 working foreigners in the Czech Republic to December 31<sup>st</sup>, 2011. Out of the total number of employed foreigners working in the Czech market, 105 338 or 33.9% were women. (The Czech Statistical Office, 2011) This quite big share of women is caused not only by uniting of families but also with better assertion of foreign women in the labor market.

# Studies of foreigners in the Czech Republic

Except the foreigners who stays in the Czech Republic because of economic reasons, there is a growing trend of immigrants whose purpose of residency is not only permanent domiciliation but also their studies and internships during last years. "The increasing number

of studying foreigners is generally a reflection of migration and integrative politics of the Government." (Horáková, 2008, str. 30)

The foreigner has the same rights and duties as the citizens of the Czech Republic within the framework of basic, secondary, tertiary technical and tertiary education in the Czech Republic. "The education of foreigners is governed by the following legal regulations of the Ministry of Education, Youth and Sports:

- Act No. 561/2004 Coll., on Pre- school, Basic, Secondary, Tertiary Technical and Other Education (Education Act) as amended, Section 20 - Education of Foreign Nationals
- Instruction No. 21 153/2000-35 of the Minister of Education, Youth and Sports, on the Provision of Czech Language Courses for Refugees (of 4 June 2000, with effect from 1 July 2000, published in the Journal of the Ministry of Education, Youth and Sports No. 7/2000);
- Act No. 111/1998 Coll., (Amended And Consolidated) on Higher Education Institutions and on Amendments and Supplements to some Other Acts (The Higher Education Act)." (Foreigners in the Czech Republic, 2016)

Those foreign natives who are studying do not need work permit ion during their studies from January 2009 so they have free access to the Czech labor market. Government tries to support the migration of qualified part from already integrated labor force.

Work Permit is not required from a foreigner who is a student under the age of 26 or who gained secondary, tertiary professional education, tertiary professional education at conservatory due to Education Act or tertiary education according to Higher Education Act on Higher Institutions in the Czech Republic.

In accordance to data of Ministry of Education, Youth and Sports the number of foreign students at all types of Czech schools is annually raising (can be visible in the table below). This thesis is focused on analysis of migration cause of those students only, who are going to study at the university on the Czech Republic or they are already part of Czech tertiary education system. Thus, other areas of education for foreigners will not be covered in the further text anymore.

Table 3: Number of Foreigners studying Czech schools in 2008/09 – 2015/16

School / Year								
Nursery schools	3 535	3 963	4 223	4 714	5 434	6 307	7 214	8 302
Basic schools	13 583	13 839	14 109	14 315	14 551	15 109	16 477	18 281
Secondary schools	7 134	7 900	8 458	8 852	9 024	9 147	8 837	8 763
Conservatories	131	118	136	151	169	185	217	212
Higher professional schools	307	349	426	464	510	547	552	587
Universities	30 133	34 443	37 510	38 726	39 453	40 381	41 007	42 220

Source: The Czech Statistical Office

In tertiary education sphere there are the most foreigners studying. The number of foreign natives studying at the public and private institutions has even grown almost four times since 2003. The utter count of foreigners studying at Czech universities in academic year 2015/2016 had been 42 220 students – from abroad. Out of the total sum of students of Full-time, Distance and Combined form of studies at the university (326 909 students) the share of foreigners was about 12.9%.

Table 4: The quantity of foreign natives studying at Czech Institutions 2008/09 - 2015/16

Foreign students, total	30 133	34 443	37 510	38 726	39 453	40 381	41 007	42 220
Full-time study	22 623	25 586	28 167	30 152	32 433	34 441	35 973	37 586
Bachelor	11 667	13 267	14 904	15 958	17 511	18 598	19 488	20 123
Master	6 203	6 332	6 381	6 512	6 594	6 767	6 892	7 202
Follow-up master	3 601	4 696	5 436	6 155	6 670	7 207	7 576	8 105
Doctoral programmes	1 380	1 512	1 662	1 742	1 875	2 078	2 183	2 309
Distance and combined studies	7 693	9 079	9 578	8 771	7 190	6 101	5 176	4 775
Share of foreign students in total students at universities (%)	8,2	8,9	9,5	9,9	10,4	11,0	11,8	12,9
Students at universities, total	368 051	388 992	395 979	392 100	381 021	367 898	347 096	326 909

Source: The Czech Statistical Office

The biggest portion of foreigners arriving to the Czech Republic with study purposes are from European Union countries (61% in 2015). Mostly, this students comes from Slovakia, as resulting from the figure 3 below with total share of 53% out of all students from abroad.

After the year 2000 there was a growing number of students from Post-Soviet Union states (Russian Federation, Ukraine, Kazakhstan, Belorussia and others) observed. Quite big portion of students are originally from Vietnam, Germany, United Kingdom, Portugal and India. (The Czech Statistical Office, 2016)

25 000
20 000
15 000
5 000

Sonakia Russian... Ikaine Relatus Relatus Relatus Rotugal India Polandonas Greece Italia States
United Kingdom Portugal India Polandonas Greece Italia States

Figure 3: Foreign students of Czech universities by citizenship 2015

Source: The Czech Statistical Office

Foreigners study mainly public and private universities in Prague (51.5%) and in Brno (28.6%). Relatively smaller percentage of foreign native students is also possible to find in Ostrava (3.8%), Olomouc (3.4%) and others rather bigger cities. Furthermore, resulting from the statistics of the Czech Statistical Office (2016) foreigners studied Health services, medicine and pharmacy (24.5%), Natural sciences (17%), Culture and Art (15.2%), Economic sciences (15.6%), Technology (11.6%), Agriculture, forestry and veterinary medicine (9.9%) followed by Humanities and social science (9.5%) in last academic year 2015/2016 most frequently.

Requirements for foreigner studying Czech public universities results from concrete international contracts, and with those is the Czech Republic committed. Students who has high school diploma from abroad need to submit a transcript of records proving the high school education is equal to the education in the Czech Republic. The process of recognition is called "nostrification". For those students who are able to study at the Czech University in the Czech language, the studies are for free and there are the same conditions applied as for Czech students. Applicants for studies from abroad must proof their knowledge of Czech language. Majority of foreigners who wants to study Czech university firstly undertake a yearlong Preparatory Professional and Language Course, except the ones coming from the

Slovak Republic. The course is provided for example by an Institute for Language and Preparatory Studies of Charles University in Prague under the shield of Ministry of Education, Youth and Sports. Purpose of this course is to prepare students from abroad to pass the language test, by which students exemplifies their competence of studying at Czech university in Czech language. Also it serves to prepare them to successful compilation of their entrance exams. Another possibility of proving the knowledge of Czech language is obtaining of internationally acknowledged certificate. There was founded the Czech language Certificate Exam for foreigners (CCE), for these reasons. There is a scale of five levels of difficultness due to European standards (A1, A2, B2 and C1), which students can undertake. It is possible to comply the exam even outside of the Czech Republic. Foreign examine centers are located in Berlin, Jena, Munich, Weiden, Brussels, Minsk, Kiev, London, Budapest, Moscow, Paris, Sofia, Warsaw, Katowice, Bratislava, Madrid, Hanoi, Vienna, and Napoli. Level of B2 according to Common European Framework of Reference for Languages (CEF) of Czech language is mostly required at Czech public universities. (ÚJOP UK, 2016)

#### **3.4.5** Career

The term "career" is still understood and defined by different approaches, which are under the continuous development. (Patton, McMahon, 2014) Common definitions are being criticized for being focused on professional life itself and this way limit the career. Unlike the job or employment, which is linked to certain activity of human being – it is performed or not, good payed or not, the career is understood as a complex of all employments in individuals life. In western society is career perceived as a vertical career growth – as a promoting of an individual in the hierarchy of employees. (Patton, McMahon, 2014)

Widely is career defined by Hlad'o (2012) as "not only objective process of particular professional activity during a lifetime of human, respectively, the series of employments, the way from position to other job position but also the pre-occupational and post-occupational activities, thus the whole life path of a human." That is confirmed by a statement that the career is an important factor in the life story of a man. (Zunker, 2014)

Late adolescence or emerging adulthood (Arnett, 2000) is a stage when student enters to the adult world of labor. Their choice has a great impact on their future of career orientation.

Those are students in age range of 18-25. They are on the edge of education and working environment. Other options are taken into the consideration and along with that they try to take certain part of the responsibility from the adult-land. (Anderson, Vandehey, 2012)

The career development "closely cohere with skill adaption, study effort, personal identity development, values, mental health" and others due to authors Patton a McMahon (2014) Most frequently it is understood as a process. Sears (1982) describes career development as a "general model of psychological, sociological, educational, physical, economic factors and opportunities which are united into the form of professional whole-life path of an individual."

According to Betz (1988) the career maturity is a level of individual's capability to fulfill the professional tasks including knowledge and personal components, belonging to individual's level of career development. Career maturity discovers client's level of preparation for a tasks inked with further career development and decision making. It is examined by evolution and compare the individual with others during the career development. (Whiston, 2009)

Career decision-making is a process, which is composed of selection, consideration resulting in choice of one preferred alternative. (Vendel, 2008) For this process it is necessary to have more than one alternative of selection otherwise the decision-making is not needed at all. (Walsh, Osipow, 2013) This term is also important for a choice of student's future orientation.

Education path is a term that "denotes the way of an individual or a group of subjects through different institutions of formal and informal education". (Průcha, Veteška, 2012) Průcha (2014) claims "the choice of further education is extraordinary important matter to adolescents and teenagers. It decides whether and how much the individual is going to be successful at the labor market and what will be the impact and how much will be influenced his social status and life evolution in total, based on particular choice. This choice has not character of a single-act action but to the contrary, it rather continue in long-term time progress." In the 21<sup>st</sup> century, the whole life education is becoming a common issue for us. Still, we do not assume that everybody sees the connection in between the whole life education and the career development. (Zunker, 2014)

Career choice is defined as a "process including the decision-making on selection of studies or preparation for a future employment, concrete job position and the whole professional progress of a man" by Průcha, Walterová and Mareš (2003) On the pursuit of differentiate the career choice we can meet the term "primary career choice" in the literature. (Hlad'o, 2012)

Feldman (2002) pointed on the three major forces, influencing the young adult during the career choice. First of them is political and social trend exaggerating specific occupations. Second force is economy for "more money brings more options" reason, which is applicable in education as well. Economy growth ensure the stable wage only to certain professions therefore some students prefer the safety employment before the risk. The third one is a trend of postponing the final career choice by young adults. Young people wants a well payed work, lot of holidays or day offs and the ideal place for a work. Making a compromise they find very difficult. This way, the young people, can lose the opportunity to good- enough-job, which could be utilized as a springboard to a dream occupation.

While students select the university, their own criteria may help them with this procedure. For someone it is important the scientific contribution of the university, might emphasize on international character of the university and so on. This might be important or even necessary for their future career. Some university charts has a filters that make the selection easier. "The advantage of such interactive service is that different information needs of people are stressed more than standardized solution for everybody is offered while they help to admit a diversity". (King, 2009, s. 140)

#### 3.4.6 Graduate employment

Prestige of the university is important not only for students themselves, but also for their future employers. Some companies fundamentally prioritizes graduates of prestigious or even concrete universities. In United States of America this is often case of Ivy League, which is informal term for the most prestigious American universities - Brown, Columbia, Cornell, Dartmouth, Harvard, Pennsylvania, Princeton and Yale. (Hughes, 2003)

Magazine USA Today brought out fact that graduates of Ivy League has higher salary by over 32% and they are more often promoted compared to graduates from other universities, thus the effort of graduating such university is logical. (USATODAY.com, 2013)

The university ranking can perfectly serve to the employers from other country, who does not orientate in foreign universities of job applicants origin, so they have an idea and comparison to the universities they know.

Education Policy Center focus on graduate employment in the Czech Republic in their project – Reflex. (Described in previous chapter of University Rankings)

#### 3.4.7 Globalization

Globalization from word *Global* or worldwide is term used for economic, cultural, technical and political long-term process, which broaden and speedup the connectivity and move of goods, people, thoughts across the borders of states and continents. The four main aspects to be an international trade, exchange of investments and capital, migration of people and spread of knowledge. (International Monetary Fund, 2000) Jeníček (2002) describes that as a complex transformation of market relations and also others social relations in worldwide scale materialized in volume of changes and that is as in economic as in outside of economic sphere. Globalization cannot be understood as a one general process bringing both positive and negative changes in present world but rather as a sequent series of connected processes with different intensity leading to whole range of differently important global shifts and changes according to Dicken (2011).

Even though the globalization is a term hard to specify more accurate by time, we can claim that from 80s of 20<sup>th</sup> century we begin to talk about globalization when there was an important impulse of USA investor's arrival into after-war destroyed Western Europe, disintegration of regulation system of international trade anchored in Brettonwoods pacts and accelerating of globalization tendencies in coherence with oil and subsequent economic crisis.

Higher impact of globalization is reflected also in education sphere and it is linked with an international comparison. Even Czech students are going to study abroad. One of the options is the Erasmus program, giving them an opportunity to spend one or two semester studying

at foreign university. Another one is through similar inter-faculties and international exchange programs in those there are much more possibilities. The advantage of such programs is that in most cases universities are contributing on large portion of tuition fees to their students and in some cases as Erasmus program there is tuition fee fully covered along with monthly pocket money for student's accommodation and food. Under this programs students has a limited options of foreign university selection and they have to pass a selection process. One other option of studying the university abroad is the own initiative and securing the studies by their own costs for Czech students. In this case the selection of university is purely up to them. Students need to consider which university abroad would represent the highest utility and whether it is affordable for them. The university ranking and other supporting tools of university selection may make their decision more comfortable and easy. This is also applicable for students from whole world considering their studies in the Czech Republic.

As an examples there was almost 800 Czech students studying the prestigious US universities in academic year 2012/13 due to Fulbright foundation, dealing with students sponsorships in the USA. Among those, there are universities leading the universities charts as Harvard, MIT and so on. (Fulbright, 2013).

#### 4. Practical Part

## 4.1 Characteristics of Study Programs

In this section is a short, basic description of economics study programs taught in English, offered by a public universities to be found. These universities are targeted in a practical part of the thesis.

# Czech University of Life Sciences (CULS/ ČZU)

CULS offers three economic bachelor degree study programs taught in English through Faculty of Economics and Management (FEM). *Business Administration, Economics and Management* and *Informatics*. All of them takes three years of studies. The subjects are conducted by Czech lecturers and international visiting professors from partner Universities from all over the world.

The schedule of courses is given. Students cannot make their own. Courses are obligatory but there are some optional ones. The biggest variety has Informatics. Students can select from 2 courses in every year of studies. In Economics and Management, students can choose in third year of their studies between 2 voluntary courses. At Business Administration, there are no optional courses. One exception are foreign languages that can be chosen from 4 options: German, French, Spanish or Czech language for non Czech students. This is the same for all three study programs.

Tuition fee for BA is 32 000 CZK (approximately 1 200 EUR) per year, students of EM and Informatics pays 15 000 CZK (approx. 560 EUR) per year. (Study in English, 2011)

#### Charles University (CU/ UK)

Charles University has one bachelor degree economic study program taught in English – *Economics and Finance*. It takes three years. Courses are taught both by members of the Institute of Economic Studies (IES) and external professionals from the central bank, commercial banks and business analysts. The available courses consist of mandatory courses, elective and optional courses. The mandatory and elective courses are taught at the Institute of Economic Studies (IES), the optional (off-field elective) courses can be taken at any department of Charles University (including Czech language classes). Student can

choose from wide range of courses offered. As a foreign language can be chosen French, German, Italian, Russian or Spanish. The fee per year is 6 000 EUR (approx. 162 000 CZK). (Faculty of Social Science, 2015)

# **University of Economics (UE/ VŠE)**

University of Economic is divided into six economic faculties. Only 3 of them has a possibility to study a bachelor program in English. It takes three years as well. Student can choose from wide range of optional courses, similarly to Charles University. Also the same variety of languages is offered as at previous university.

At faculty of International Relations you can study *International Business* (IBB). Faculty of Economics offers study program *Economics* (ECON) and hosts experts on the interface of theory and practice. Third, faculty of Business Administration provides Bachelor of *Business Administration*. Tuition fee for all these study programs per year is 3 600 EUR (approx. 97 000 CZK). (VŠE, 2016)

#### 4.2 Forming of a research problem and hypotheses

The aim of the practical part is to identify and verify factors influencing the selection of economic study program taught in English by a student who is going to study at the university in Prague. Before the survey, there was a research problem define, based on theoretical knowledge gained.

The factors are influencing the student while choosing an economic study program taught in English at university in Prague

There are hypotheses defined, that were established after the research problem. The validity of each hypothesis will be tested by Categorical data analysis method.

#### 4.3 Research survey

There was a questionnaire survey elaborated for a purpose of gaining a primary data on factors influencing a student while selecting an economic study program taught in English for a further evaluation. Questionnaire was designed as a structured form, prepared in advance. It was published through an on-line server vyplnto.cz and implemented from 1.3.2017 until 10.3.2017.

Questionnaire was spread to students through social media, Facebook and Instagram, and university mail as well. Form was created in accordance with rules to be clear and understandable, so respondents could answered separately, without assistance of interviewer. Respondents were anonymous. The scheme of questionnaire is to be found in appendix.

The survey consist of 37 questions and it is divided into three sections. Firstly, there are *filtrate questions* which should filter out the respondents not suitable for a research and get individuals, whose answers would be appropriate for observed goals. Secondly, there are *meritorious* questions regarding the core of defined problem that should identify and verify the factor having an impact on student's decision while choosing from monitored study programs at universities in Prague. And tertiary, there are *segmentation questions* which should identify respondent by age, gender, reached education, monthly net income and so on. These questions about respondents were situated in the end of questionnaire to not distract respondents which might led to leaving questionnaire unfinished and thus bias the results of research. In questionnaire there were mostly used *closed-end* questions. These questions were mostly *dichotomous*, with two possible answers – Yes or No. Other questions were *multiple choice* sometimes with optional answer 'Other' included and the *open-end* questions which should be completed by a word or sentence. (Řezanková, 2011)

Before the publishing, there was a pilot study conducted which was recommended by Disman (2002). Ten variable respondents from different segmentation groups participated. Based on their feedback were some question simplified, completed and changed to the final form.

#### **4.4 Survey Evaluation**

The questionnaire was filled out by 254 respondents. From that number, 233 were relevant ones who study economic study program taught in English at public university in Prague.

## **Structure of Respondents**

Figure 4 represents which university do respondents study. 111 of them study at CULS, 108 at UE, 34 at CU and 1 person study at different institution. Sample is random within examined study programs. Considering age of respondents, 40% of the total respondents were under the age of 21, 49% in range of 22 – 25 and 11% were above 25. 9% of interviewed students has a full-time job, 49% part-time job and 42% do not work while studying at university.

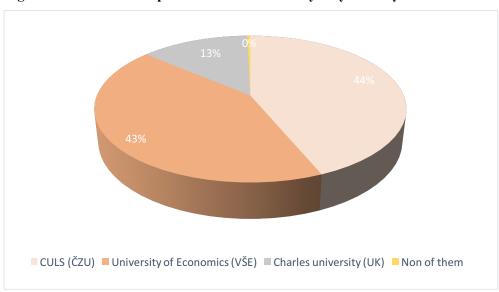


Figure 4: Evaluation of question: What university do you study?

Source: Own data and elaboration

In the figure 5 we can observe proportion of respondent who study an economics study program taught in English. 233 respondents study in English out of 254.

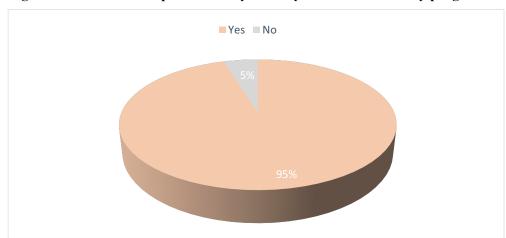


Figure 5: Evaluation of question: Do you study an economics study program in English?

The most frequent reason for deciding to not study in English was that students think, they do not speak English well enough and they think it is too hard to study university in different language. Also students seem to prefer to study for free and as the English study programs are payed, they selected another choice. Only few of them admitted, that if they knew about this option, they would try it.

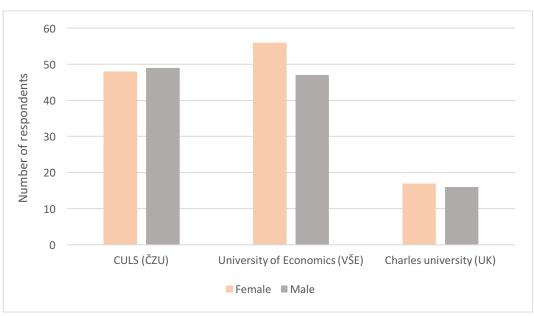


Figure 6: Evaluation of question - Do you study an economics study program in English? According to selected university and gender

Source: Own data and elaboration

From figure 6 we can see that the proportion of respondent's gender is approximately equal at each university. At Czech University of Life Sciences in Prague the questionnaire was

filled out by 48 females and 49 males, at University of Economics by 56 females and 47 males and at Charles University by 17 females and 16 males. This is followed by figure 7 illustrating the percentage of males and females who answered the questionnaire.

Female Male

49%

51%

Figure 7: Evaluation of question - What is your gender?

Source: Own data and elaboration

Dispersion of respondents is displayed in Figure 8. It is approximately balanced. There was 35 respondents studying Business Administration (BA) at CULS (ČZU), 36 were from study program Economics and Management (EM) at CULS (ČZU) and the last from this university were students of Informatics (Info). From UE (VŠE) there were respondents from all three study programs as well. Questionnaire filled out 38 people studying Business Administration (BBA), 32 studying Economics (ECON) and 34 studying International Business (IBB). 32 respondents were from Economics and Finance study program, as Charles University offers only one study program for bachelor students for now.

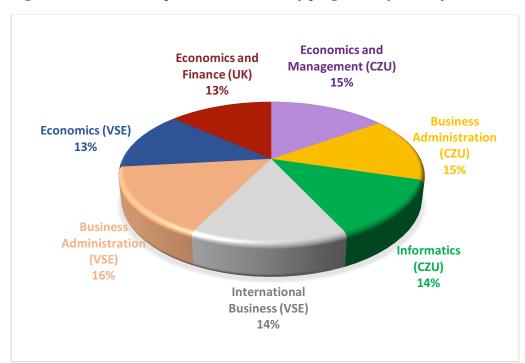


Figure 8: Evaluation of question - Which study program do you study?

Following figure 9 represents respondent's nationality. As it results, there is a big diversity of students studying in Prague. Students from different countries can study by side of other students. That brings along fresh spirit and new ideas. We can observe biggest portion are created by Czech, Russian and Ukrainian students. Then there are students from other European countries but also form another continent.

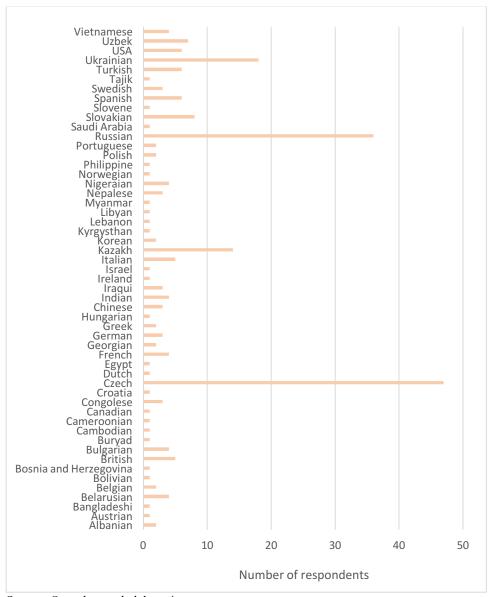


Figure 9: Evaluation of question - What is your nationality?

Results of next question – How did you find information about your university – imply that it verify the importance combining of marketing communication tools. Students mostly found information on web of university and they listen and consider their friends advice. Also the growing impact is noticeable with usage Social media, especially for catching attention of new generation, who wildly use it. Noticeable is an impact of university ranking as well. From results we can observe that people still follow the comparison of universities. It can be seen what tools were used by students while selecting university.

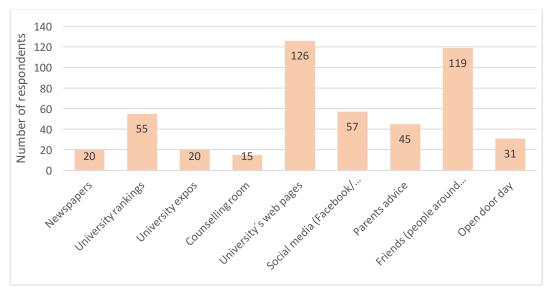


Figure 10: Evaluation of question - How did you find information about your university?

Here is visible that greater portion (71%) of respondents admitted that reputation (prestige) of the considered university was important while making a decision of their future studies (Figure 11). Only 29% of students claimed, the prestige of their future university had no influence on their choice.

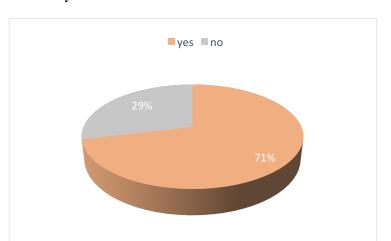


Figure 11: Evaluation of question - Was prestige (reputation) important while selecting university?

Source: Own data and elaboration

For 62% of respondents was level of tuition fee important whether it had no influence on remaining 38% (Figure 12). It was interesting, that respondents who pays the biggest tuition fee out of interviewed students also claimed, that it played role in their decision. It may be because of perception of it. Significantly bigger portion of respondents agreed that the higher

is the tuition fee, the higher quality of their education they expect and hence, they are willing to pay more. Still, for lot of them the level of tuition fee decides, if they can afford to study such a university or they have to select other one. On the other hand, in comparison with universities in their home country, the highest tuition fee (at Charles University) can still be considered as a lower one for those students.

No 38% Yes 62%

Figure 12: Evaluation of question - Did level of tuition fee play role in your selection?

Source: Own data and elaboration

Another examined factor will be location of university and its impact on student's decision making. Respondents were asked whether it was important for them while their choice.

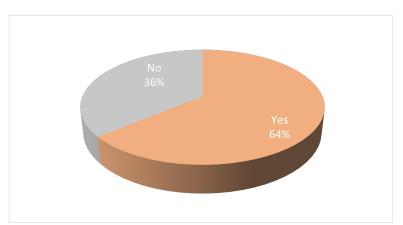


Figure 13: Evaluation of question - Was the location of university important to you?

Source: Own data and elaboration

For 64% of respondent it was important (Figure 13). This may be caused by time of daily commuting or want of living in Prague for non-Prague student as for Czech ones, as for foreign ones for what ever reason (low living cost, beauty of city, multicultural city...). Question of daily commuting time was also contained in questionnaire. Only to 30% of interviewed students commuting to university takes more than hour a day (Figure 14).

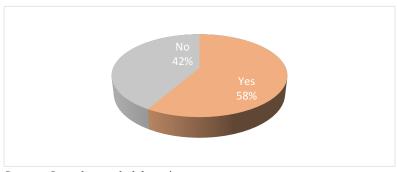
More than hour 30%

Less than hour 70%

Figure 14: Evaluation of question - How long does it take you to commute to school daily?

The results of questionnaire had shown that students would welcome more study programs opened at their university (Figure 15). Also the variety of optional courses offered by a considered university was important for them. Student from University of Economics and Charles University has big variety of optional courses from which they can choose and thus they are satisfied and do not need any others whether bigger percentage of students from Czech University of Life Sciences wants new optional courses to be opened as there are only few available.

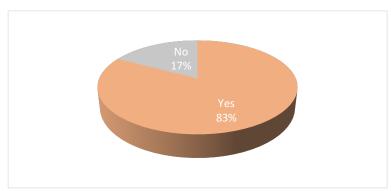
Figure 15: Evaluation of question - Would you like more economic study programs offered at your uni?



Source: Own data and elaboration

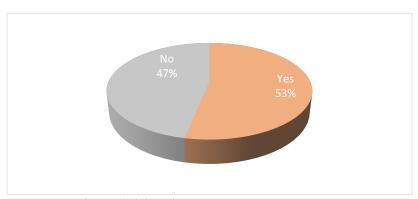
Another factor which might influence the students is expectation to gain advantage with degree from selected university (study program) at labor market compared to people from other universities in country/city of interest. This is shown in figure 16 below.

Figure 16: Evaluation of question - Do you think you will get an advantage at labor market with degree from your study program compared to people from other universities in country/city of your interest?



What is worth to mention, for 53% of respondent were important international relations (possibility of exchange study programs) of their future university (Figure 17). How they evaluated it during their studies is visible in figure 18.

Figure 17: Evaluation of question - Were international relations (possibilities of exchange study programs) one of the factors why you have chosen your university?



Source: Own data and elaboration

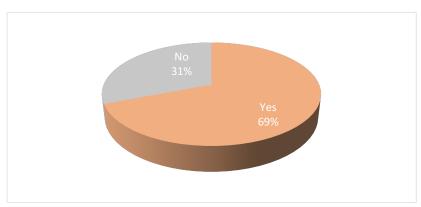
Possibilities of evaluation were - *Excellent, we have lot of possibilities and it's easy to use them* – which was selected by majority students of CULS, followed by students of UE; *Very good, we have lot of possibilities but it's hard to use them* – this answer selected students of UE the most and also a lot of student from CULS; option *Good, we have some options, but it should be improved* was together with option *Bad* selected by minority of students. Only less then 10 people from CULS and UE evaluate International relations as bad. It can be claimed, that generally, students of CU who filled out the questionnaire are satisfied on scale Excellent to Good.

Figure 18: Evaluation of question - How would you evaluate the international relationships (possibilities of exchange study programs) of your university?



Question number 22 asked respondent, if the atmosphere (friendly/ helpful people...or unfriendly/ unhelpful people...) of university was important to them. 69% answered, that it had influence on their selection (Figure 19).

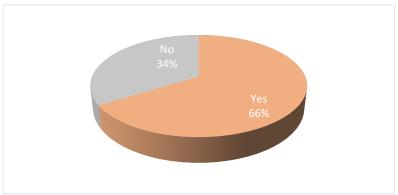
Figure 19: Evaluation of question - Was the atmosphere (friendly/helpful people...or unfriendly/unhelpful people...) of university important to you?



Source: Own data and elaboration

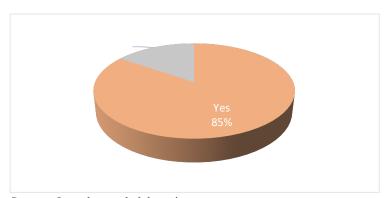
Another question where most of students (66%; Figure 20) agreed, that the presentation and propagation of these economic study program taught in English should be improved. As we could observe at figure 10, lot of students found out the information about their university from their friends thanks to spreading word of mouth, others straight from university's web page. This points to possible future improvement for universities because as we learned in theoretical part, the combination of all marketing communication tools (Picture 1).

Figure 20: Evaluation of question - Do you think the school should improve its presentation / propagation (of faculty and study programs)?



For finding more about the background of respondents, there were used following questions. The purpose of first of them is to find if there are family members with university degree or not. Whole 85% of respondent's family member has a degree from university but there are still some families, where there is no degree yet.

Figure 21: Evaluation of question - Do your parents (or any other family members) have a university degree?



Source: Own data and elaboration

After this finding, there was researched whether students are supported by their families morally and financially in two separated questions. Only 5% of questioned students are not supported in their studies morally while 95% of families are supporting their children in getting degree (Figure 22). In figure 23 there is presented that compared to previous figure there is a small decrease in financial kind of support. Even though families support their children in their studies morally, not all of them do or can support their children financially. Still, significant majority of students are supported both morally and financially by their families.

Figure 22: Evaluation of question - Do your parents (or any other family member) support you in your studies morally?

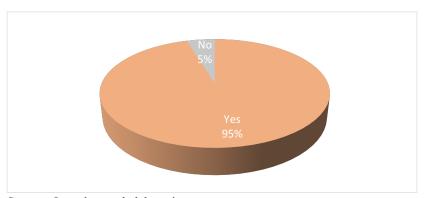
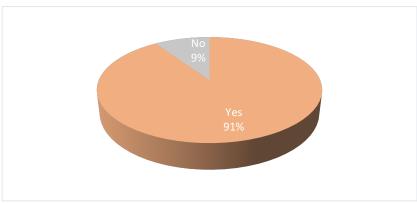


Figure 23: Evaluation of the question - Do your parents (or any other family member) support your studies financially?



Source: Own data and elaboration

#### 4.5 Statistical Hypotheses

The primary data gathered from published questionnaire had served as a basis for verification or rejection of stated hypotheses. For testing the method of categorical data analysis had been chosen. Data were elaborated into form of association or contingency tables. The significance level was stated as  $\alpha$ =0.05. In one case only had the data categories be merged (time of daily commutating) because of expected frequencies lower than 1. There were established new categories – less than hour and more than hour. Results were implemented in statistical software SAS Enterprise Guide 7.1. Here is he list of hypotheses that were tested.

- 1)  $H_0$ : There is no relationship between level of tuition fee and selection of university.  $H_1$ : There is relationship between level of tuition fee and selection of university.
- 2)  $H_0$ : There is no relationship between prestige (reputation) of university and selection of it.  $H_1$ : There is relationship between prestige (reputation) of university and selection of it.
- 3) H<sub>0</sub>: There is no relationship between variety of study programs at the university and selection of uni.
  - $H_1$ : There is relationship between variety of study programs at the university and selection of uni.
- 4) H<sub>0</sub>: There is no relationship between variety of optional courses offered and selection of study program.
  - $H_1$ : There is relationship between variety of optional courses offered and selection of study program.
- 5) H<sub>0</sub>: There is no relationship between locality of university (time of daily commuting) and its selection.
  - $H_1$ : There is relationship between locality of university (time of daily commuting) and its selection.
- 6) H<sub>0</sub>: There is no relationship between possibilities of exchange programs and university selection.
  - $H_1$ : There is relationship between possibilities of exchange programs and university selection.
- 7) H<sub>0</sub>: There is no relationship between marketing of university (or of study program) and selection of study program.
  - $H_1$ : There is relationship between marketing of university (or of study program) and selection of study program.
- 8) H<sub>0</sub>: There is no relationship between education of student's environment and its support of going to university.
  - $H_1$ : There is relationship between education of student's environment and its support of going to university.
- 9)  $H_0$ : There is no relationship between equipment (environment) of university and its selection.  $H_1$ : There is relationship between equipment (environment) of university and its selection.
- 10) H<sub>0</sub>: There is no relationship between perception of getting an advantage at labor market compared to people from other universities in country/city of interest and university (study program) selection.

 $H_1$ : There is relationship between perception of getting an advantage at labor market compared to people from other universities in country/city of interest and university (study program) selection.

## 1. Dependency between level of tuition fee and selection of university

H<sub>0</sub>: There is no relationship between level of tuition fee and study program preferences (selection)

 $H_1$ : There is relationship between level of tuition fee and study program preferences (selection)

Picture 2: Contingency Table - Tuition Fee Importance x University Selection

		Table Analy	/sis				
		Results					
		The FREQ Prod	edu	re			
	Table o	f Tuition Fee Importance				ty	
				ected un			
		University of Economic	s (V	SE) CUL	S (CZU)	Charles university (UK)	Tota
Tuition Fee Importance							
Yes	Frequency			51	76	20	
	Expected		65.	197	61.506	20.297	
No	Frequency			55	24	13	
	Expected		40.	803	38.494	12.703	
Total	Frequency			106	100	33	239
		Frequency Missi	na =	14			
Sta	atistics for T	Table of Tuition Fee Impo	ortar	value		niversity	
		Square		16.9147			
		lihood Ratio Chi-Square		17.2896			
		tel-Haenszel Chi-Square	1	6.9629			
		Coefficient	<u>'</u>	0.2660	0.0000		
		ingency Coefficient		0.2571			
		ner's V		0.2660			
		Effective Sample S	.:	- 000			

Source: SAS Output

All conditions for Chi-squared test are met and thus we can use it for testing the first hypothesis. The level of significance  $\alpha$ =0.05. As we can see in the picture 2 above, for 147 respondents was level of tuition fee important. 76 of them selected CULS for their studies, 51 then University of Economics and 20 Charles University. We can also notice that frequency missing is 14. This is caused by respondents who does not study economic study program in English at university in Prague.

For decision whether to accept or reject the null hypothesis  $H_0$  there can be two approaches used. We can compare calculated value of test criterion with critical value  $\chi^2 > \chi^2_{\alpha(2)}$  or compare  $\alpha >$  p-value in both cases, we would reject the null hypothesis. P-value is lower than alpha, therefore the hypothesis is rejected. **There is dependency between level of tuition fee and selection of university.** 

The power of dependency is further tested by Cramer's V and as we can see, the strength of dependency is low.

## 2. Relationship between prestige (reputation) of university and its selection

 $H_0$ : There is no relationship between prestige (reputation) of university and selection of it  $H_1$ : There is relationship between prestige (reputation) of university and selection of it

Picture 3: Contingency Table - Prestige of University x Selection of University

		Table Analy	sis				
		Results					
		The FREQ Proce	edur	е			
	Table of	Importance of Prestige	by S	Selected	l universi	tv	
		portunios_or_n rootigo	_		niversity	•	
		University of Economic	s (V	ŠE) CU	LS (ČZÚ)	Charles university (UK)	Tota
Importance_of_Prestige		_	•		. ,	• • •	
Yes	Frequency			82	62	26	170
	Expected		75.3	397	71.13	23.473	
No	Frequency			24	38	7	69
	Expected		30.	303	28.87	9.5272	
Total	Frequency			106	100	33	239
		Frequency Missir	ng =	14			
Sta	tistics for T	able of Importance_of_Pr	esti	ge by S		niversity	
	Chi-	Square	2	7.0041	0.0301		
	Like	lihood Ratio Chi-Square	2	6.9523	0.0309		
	Man	tel-Haenszel Chi-Square	1	0.6901	0.4061		
	Phi	Coefficient		0.1712			
		ntingency Coefficient 0.1687					
	Crar	ner's V		0.1712			
		Effective Sample Si Frequency Missir					

Source: SAS Output

For 170 respondents out of 239 was reputation of university important while its selection. As the P-value is lower than  $\alpha$ , the null hypothesis is rejected. There is a relationship between prestige importance and university selection.

## 3. Dependency between variety of Study Programs and University selection

H<sub>0</sub>: There is no relationship between variety of study programs at the university and selection of uni

 $H_1$ : There is relationship between variety of study programs at the university and selection of uni

Picture 4: Contingency Table - Variety of Study Programs and University selection

		Table Analy	/sis				
		Results					
		The FREQ Prod	edu	re			
	Table of W	winter of Cturks December	- h	. Calaata	d	4.	
	Table of Va	ariaty of Study Program			a universi university	ty	
		University of Econom				Charles university (UK)	Total
Variaty of Study Programs		Oniversity of Econom	105 (	, OL, O	3L0 (0L0)	Charles university (Ort)	Total
	Frequency			39	83	17	139
	Expected		6	1.649	58.159	19.192	
No	Frequency			67	17	16	100
	Expected		4	4.351	41.841	13.808	
	_				400		
Total	Frequency	Frequency Missi		106	100	33	239
Statis		le of Variaty of Study P	rogr	ams by		iniversity	
	Statist	• •	DF	Value			
	Chi-Sc	•		45.8432			
		nood Ratio Chi-Square	_	48.5747			
		I-Haenszel Chi-Square	1	14.6731			
		efficient		0.4380			
Contingency Coefficient 0.4012 Cramer's V 0.4380							
	Crame	ersv		0.4380			
		Effective Sample S Frequency Missi					

Source: SAS Output

In this case we can indicate the middle strength of dependency between variety of study programs offered by university importance and selection of it. The null hypothesis is rejected. There is a dependency between variety of study programs offered by university and selection of it.

It is a middle strong dependency.

# 4. Relationship between variety of Optional Courses and University selection

H<sub>0</sub>: There is no relationship between variety of optional courses offered and selection of study program.

 $H_1$ : There is relationship between variety of optional courses offered and selection of study program.

Picture 5: Contingency Table - Variety of Optional Courses Importance x University Selection

		Table Analy	sis					
		Results						
		The FREQ Proce	edui	е				
Tal	nle of Ontion	nal Courses Importar	nco l	hy Salar	eted univ	orei	fv	
Idi	ole of Option	iai_courses_iiiiportai	ICE I		d univer		ıy	
		University of Econor	nics			_	Charles university (UK)	Total
Optional Courses Importance		Omitoroity of Econor		(102)	0020 (0	,	Charles university (City	. otal
	Frequency			74		71	23	168
	Expected			74.51	70	293	23.197	
No	Frequency			32		29	10	71
	Expected			31.49	29	707	9.8033	
Total	Frequency			106		100	33	239
Total	Trequency	Frequency Missir	na =			100		200
Statistics	for Table of	Optional_Courses_In	npoi	tance b		ed u	niversity	
	Chi-Squ	*		0.0413				
		od Ratio Chi-Square	_	0.0414				
		Haenszel Chi-Square	1	0.0040	0.9494			
	Phi Coe	fficient		0.0131				
	Conting	ency Coefficient		0.0131				
	Cramer	s V		0.0131				
		Effective Sample Si Frequency Missir						

Our fourth null hypothesis can be accepted as the P-value in picture 5 above is 0.9795 which is greater than  $\alpha$  level 0.05. We accept the null hypothesis. There is no relationship between variety of optional courses offered by a university and selection of university.

#### 5. Analysis of dependency between Commuting Time and University selection

H<sub>0</sub>: There is no relationship between locality of university (time of daily commuting) and its selection

 $H_1$ : There is relationship between locality of university (time of daily commuting) and its selection

In this case had the data categories be merged (time of daily commutating) because of expected frequencies lower than 1. There were established new categories – less than hour and more than hour and the testing was finished. In the picture 6 below, we can observe that there is no dependency. The P-value is greater than alpha. The null hypothesis is accepted.

There is no dependency between daily commuting time to university and selection of it.

Picture 6: Contingency Table - Commuting time x Selection of University

		Table Analys	sis				
		Results					
		The FREQ Proce	dur	e			
	Ta	able of Commuting Time by				у	
				ed unive			
		University of Economics (V	ŠE)	CULS	(ČZU)	Charles university (UK)	Tota
Commuting Time							
Less than hour			77		63	25	
	Expected	73	3.18	_	9.038	22.782	
Hour - Two hours	Frequency		29		37	8	74
Morethan hou	Expected	32	2.82	3	30.962	10.218	
	_		400		400		000
Total	Frequency		106		100	33	239
		Frequency Missin	g =	14			
	Statistics	s for Table of Commuting Ti	me	by Sele	cted ur	niversity	
	S	tatistic	DF	Value	Prob		
	C	hi-Square	2	3.0466	0.2180	)	
	L	ikelihood Ratio Chi-Square	2	3.0403	0.2187	7	
	N	Mantel-Haenszel Chi-Square	1	0.1025	0.7488	3	
Phi Coefficient 0.1129							
Contingency Coefficient 0.1122							
	C	cramer's V		0.1129			
		Effective Sample Si Frequency Missin					

## 6. Analysis of relationship between International Relations and University Selection

 $H_0$ : There is no relationship between possibilities of exchange programs and university selection.

 $H_1$ : There is relationship between possibilities of exchange programs and university selection.

From the output of contingency table below (Picture 7) it is seen that P-value is lower than alpha. Hence, we reject the null hypothesis. The streight of relationship in accordance with Cramer's V coefficient is categorized as low. There is a relationship between Importance of International Relationships (possibility of exchange study programs) and selection of university.

Picture 7: Contingency Table - Importance of International Relations x University Selection

	Table of International Relations Import. by Selected University  Selected University							
		University of Facus	Charles university (LIK)	Tota				
	University of Econo	mic	s (VSE)	CULS (CZU)	Charles university (UK)	TOLA		
International Relations Import.	_	F				_		
Yes	Frequency	•		60	59	/	120	
	Expected			55.883	52.72			
No	Frequency			46	41	26	113	
	Expected			50.117	47.28	15.603		
_ , .	_			400	400		-00	
Total	Frequency			106	100	33	239	
Statistics	for Table of I	Frequency Missi nternational Relatio			y Selected U	University		
Statistics			ns I	mport. b		University		
Statistics	Statistic	nternational Relatio	ns I	mport. b	Prob	Iniversity		
Statistics	Statistic Chi-Squa	nternational Relatio	ons I	Walue	<b>Prob</b> 0.0005	Iniversity		
Statistics	Statistic Chi-Squa Likelihoo	nternational Relatio re d Ratio Chi-Square	ons I	Value 15.3668 16.0467	<b>Prob</b> 0.0005	Iniversity		
Statistics	Statistic Chi-Squa Likelihoo	nternational Relatio re d Ratio Chi-Square aenszel Chi-Square	ons I	Value 15.3668 16.0467	Prob 0.0005 0.0003 0.0072	Iniversity		
Statistics	Statistic Chi-Squa Likelihoo Mantel-Ha Phi Coeff	nternational Relatio re d Ratio Chi-Square aenszel Chi-Square	ons I	Value 15.3668 16.0467 7.2120	Prob 0.0005 0.0003 0.0072	Iniversity		
Statistics	Statistic Chi-Squa Likelihoo Mantel-Ha Phi Coeff	nternational Relatio re d Ratio Chi-Square aenszel Chi-Square icient ncy Coefficient	ons I	Value 15.3668 16.0467 7.2120 0.2536	Prob 0.0005 0.0003 0.0072	Iniversity		

## 7. Dependency Analysis of Marketing of University and Selection of University

H<sub>0</sub>: There is no relationship between marketing communication tools of university and selection of university.

 $H_1$ : There is relationship between marketing communication tools of university and selection of university.

In the table below is to be seen the overview of single marketing communication tools and it dependency on selection of university. All analysis were done by Chi-squared test with respecting of criteria. There was dependency proven between university ranking, university expos, university's web page and parents advice as a Marketing communication tools and selection of university.

**Table 5: Statistics - Selected University by Categorized Table** 

Selected University by:	DF	Value	Prob	$\mathbf{H_0}$	Cramer's V
ODD	2	1.1170	0.5721	Accepted	-
Newspapers	2	5.1227	0.0772	Accepted	-
University Ranking	2	34.0775	<.0001	Rejected	0.3670
University Expos	2	11.0305	0.0040	Rejected	0.2088
Counselling Room	2	2.1957	0.3336	Accepted	-
University's Web Page	2	6.3981	0.0408	Rejected	0.1590
Social Media	2	5.1104	0.0777	Accepted	-
Parents Advice	2	11.6812	0.0029	Rejected	0.2149
Friends Advice	2	1.6216	0.4445	Accepted	-

Source: SAS Outputs, Own elaboration

# 8. Relationship Analysis of Education in Family and Support of Studies

H<sub>0</sub>: There is no relationship between education of student's family members and its moral support of going to university.

 $H_1$ : There is relationship between education of student's family members and its moral support of going to university.

In analysis of 8<sup>th</sup> null hypothesis in picture 9 below, there is an association table. All conditions for Chi-squared test are satisfied. The p-value is 0.0004 which is lower than alpha. Thus, we reject the null hypothesis. In accordance to Cramer's V coefficient, there is a low relationship. There is a relationship between education in family and moral support of studying university.

Picture 8: Association Table - Education in Family x Moral Support of Studies

Table of Parents with univer	rsity degree	by Moral Supp	ort of Paren	ts
		Moral Suppor	t of Parents	
		Yes	No	Total
Parents with university degree				
Yes	Frequency	195	5	200
	Expected	190.79	9.205	
No	Frequency	33	6	39
	Expected	37.205	1.795	
Total	Frequency	228	11	239
Frequ	ency Missin	ig = 14		

Statistics for Table of Parents with university degree by Moral Support of Parents

Statistic	DF	Value	Prob			
Chi-Square	1	12.3398	0.0004			
Likelihood Ratio Chi-Square	1	8.9643	0.0028			
Continuity Adj. Chi-Square	1	9.5797	0.0020			
Mantel-Haenszel Chi-Square	1	12.2882	0.0005			
Phi Coefficient		0.2272				
Contingency Coefficient		0.2216				
Cramer's V		0.2272				
WARNING: 25% of the cells have expected counts less than 5. Chi-Square may not be a valid test.						

Fisher's Exact Test				
Cell (1,1) Frequency (F)	195			
Left-sided Pr <= F	0.9996			
Right-sided Pr >= F	0.0032			
Table Probability (P)	0.0029			
Two-sided Pr <= P	0.0032			

Source: SAS Output

We can observe similar values and the same result of rejecting hypothesis with financial support.

H<sub>0</sub>: There is no relationship between education of student's family members and its financial support of going to university.

 $H_1$ : There is relationship between education of student's family members and its financial support of going to university.

There is a relationship between education in family and financial support of studying university.

Picture 9: Association Table - Education in Family x Financial Support

Table of Parents with univer	rsity degree	by Financial Su	ipport of Paren	ts			
Financial Support of Parents							
		Yes	No	Total			
Parents with university degree							
Yes	Frequency	187	13	200			
	Expected	180.75	19.247				
No	Frequency	29	10	39			
	Expected	35.247	3.7531				
Total	Eroguenav	216	23	239			
	Frequency quency Miss		23	239			

Statistics for Table of Parents with university degree by Financial Support of Parents

Statistic	DF	Value	Prob
Chi-Square	1	13.7481	0.0002
Likelihood Ratio Chi-Square	1	10.7900	0.0010
Continuity Adj. Chi-Square	1	11.6353	0.0006
Mantel-Haenszel Chi-Square	1	13.6905	0.0002
Phi Coefficient		0.2398	
Contingency Coefficient		0.2332	
Cramer's V		0.2398	
WARNING: 25% of the cells ha than 5. Chi-Square ma			

Fisher's Exact Test					
Cell (1,1) Frequency (F)	187				
Left-sided Pr <= F	0.9998				
Right-sided Pr >= F	0.0010				
Table Probability (P)	0.0009				
Two-sided Pr <= P	0.0010				

## 9. Dependence between Equipment of University and its selection

H<sub>0</sub>: There is no relationship between equipment (environment) of university and its selection.

 $H_1$ : There is relationship between equipment (environment) of university and its selection.

From the results of hypothesis test implies, that there is a weak dependency and thus the null hypothesis is rejected (P-value is lower than alpha). There is dependency between equipment of university and its selection.

Picture 10: Contingency Table - Importance of Environment x Selection of University

	Ta	able Analy	sis					
		Results						
	The	FREQ Proce	edur	e				
Table of Im	portance of	environmer	nt by	/ Select	ed univer	sity		
		Selected university						
		University	of E	conom	ics (VŠE)	CULS (ČZU)	Charles university (UK)	Total
Importance of environment(equipment, buildings)								
	Frequency	62					14	
	Expected	63.866					19.883	
	Frequency	44					19	
	Expected	42.134				39.749	13.117	
Total	Frequency				106	100	33	239
	Frequ	ency Missir	1g =	14				
Statistics for Tabl	e of Importa	nce of envi	ronr	nent by	Selected	university		
Statis	tic		DF	Value	Prob			
Chi-S	Chi-Square			7.0234	0.0298			
Likeli	Likelihood Ratio Chi-Square			6.9699	0.0307			
Mante	el-Haenszel (	Chi-Square	1	0.5748	0.4483			
Phi C	oefficient			0.1714				
Conti	Contingency Coefficient			0.1690				
Cram	er's V			0.1714				
		e Sample S ency Missir						

# 10. Relationship between Perception of Advantage in Labor Market and Study Program Selection

 $H_0$ : There is no relationship between perception of getting an advantage at labor market compared to people from other universities in country/city of interest and university (study program) selection.  $H_1$ : There is relationship between perception of getting an advantage at labor market compared to people from other universities in country/city of interest and university (study program) selection.

In CDA by SAS it was found that the P-value is lower than alpha and therefore the null hypothesis has to be rejected. There is the relationship between perception of getting an advantage at labor market in country/city of interest compared to people from other universities and university (study program) selection.

The power of dependency (Cramer's V = 0.3185) has been stated as a middle strength.

Picture 11: Contingency Table - Perception of Advantage at Labor Market x Study Program Selection

			-	Advantag	e at Labor Market			
					Yes		No	Total
Study Program								
<b>Economics and Management (CZU)</b>	Frequenc	y		24		12	36	
		Expecte	d	29.	523		6.477	
Business Administration (CZU)	Frequenc	y		22		12	34	
		Expecte	d	27.	883		6.1172	
International Business (VSE)		Frequenc	y		26		8	34
		Expecte	d	27.	883		6.1172	
Economics and Finance (UK)	Frequenc	y	31		1		32	
		Expecte	d	26.243		5.7573		
Informatics (CZU)		Frequenc	y		27		5	32
		Expecte	d	26.	243		5.7573	
Economics (VSE)		Frequenc	y		29		3	32
		Expected		26.	243		5.7573	
Business Administration (VSE)		Frequency			37		2	39
		Expected		31.	983		7.0167	
Total		Frequenc	y	196			43	239
F	reque	ncy Missi	ng =	: 14				
Statistics for Table of S	Study I	Program b	у А	dvantage	at I	_abor	Market	
Statistic			DF			rob		
Chi-Square	•			24.2470	0.00	005		
	Likelihood Ratio Chi-Square			25.8601				
Mantel-Haenszel Chi-Square Phi Coefficient Contingency Coefficient			1	17.8396	<.00	001		
				0.3185				
				0.3035				
Contingency	Coemic	SICIIL		0.0000				

#### 5. Conclusion

The aim of this bachelor thesis was to statistically mapped out and evaluate the *factors* influencing the student while selecting their economic study program taught in English at university in Prague with usage of statistical analysis of categorical data. Validation of states hypotheses was elaborated based on data obtained throughout the spread questionnaire and evaluation of the results.

Individual factors which might have an influence on student's decision making were described in theoretical part and then tested and verified or rejected in practical part of this thesis. From the tests results there were found and proved that most of the factors has statistically an influence on student while selecting the university. These factors are for example tuition fee level, reputation of university, variety of study programs offered by university, international relationships (possibility of exchange study programs) and equipment and environment of university. Generally, students believes, they will gain the advantage at labor market with studying internationally compared to their competition who studied in native language. Also there was proven dependency between education in family and both, moral and financial support in students studies. From marketing communication tools there was found relationship between university rankings, university expos, university's web pages and parent's advice and selection of university (study program) by a student.

These results might be utilized for possible improvements in attraction of new students by a university whether from the Czech Republic or from abroad. Especially nowadays, when marketing of universities become one of the most important strategies of being successful at the market and attract quality students, there could be improvement of communication channels, for example through social media which are widely used by a current generation. Also it could be useful, if universities would like to improve and continue in developing and providing better quality service, study programs in English, to students. Areas for possible improvement might be offering variety of study programs in English as well as optional courses which can students choose for enrichment of their education. Recommendation for the universities is to sustain in support of these study programs which prepare students for multicultural working environment as it seems that the impact of globalization and foreign

languages is still growing. However, the future of these programs is up to each university and we will see how exactly the situation will evolve.

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#### 8. Appendix

Dear Madam, dear Sir,

The aim of this survey is to identify and verify factors influencing the choice of public university in Prague by students, who are going to study economics program taught in English. Data gained from this survey will be used for elaborating my bachelor thesis - Statistical analysis of factors influencing selection of economic study program taught in English at university in Prague and the results might be useful for future development of economic study programs at these universities. This questionnaire is anonymous. I would like to thank you for your answers that has the greatest value for me.

Nikol Boháčková, 3<sup>rd</sup> year of EM, FEM CULS in Prague (PEF ČZU v Praze)

#### **I. Filter Ouestions**

- 1) Do you study economic study program at the university in Prague?
  - a. Yes
  - b. No
- 2) What university do you study?
  - a. CULS (ČZU)
  - b. University of Economics (VŠE)
  - c. Charles university (UK)
  - d. Non of them
- 3) Do you know they offer a study program taught in English?
  - a. Yes, I know about all options
  - b. I know about some options
  - c. No, I didn't know about this possibility at all
- 4) Do you study the economic study program in English?
  - a. Yes
  - b. No
- 5) Would you study such a program? (For respondents who answered NO in Q3 and Q4)
  - a. I don't speak English well
  - b. I think it is too hard to study university in English
  - c. It is paid and I prefer to study for free
  - d. I prefer to study at another institution
  - e. If I knew about this option I would try it
  - f. Other:

#### **II. Questions**

- 6) How did you find out information about your university? (Check all that apply)
  - a. Newspapers
  - b. University rankings

	c.	University expos				
		Counselling room				
	e.	University's web pages				
	f.	Social media (Facebook/ Instagram)				
	g.	Parents advice				
	h.	Friends (people around me) advice				
	i.	Open door day				
	3	Other				
7)	While choosing your university – was its reputation (prestige) important to					
	you?					
		Yes				
		No				
8)		vel of tuition fee play role in your selection?				
		Yes				
•		No				
9)		lo you perceive level of tuition fee?				
		The higher tuition fee, the higher quality (the more prestigious university)				
		The higher tuition fee, the less you need to study (payment for degree)				
		The higher tuition fee, the less affordable for me (my family)				
10)		I didn't care about the tuition fee level				
10)		courses taught in English a key element for you while selecting?				
		Yes				
11\		No				
11)		he location of university important to you? Yes				
		No				
12)		(Check all that apply)				
12)	•	I live nearby and I didn't want to commute				
		I live in Prague and I didn't want to move/ commute to other city				
		I wanted to live/study in Prague (and I'm not from Prague)				
		It was easy to move in the Czech Republic (get VISA, permit to study here)				
		I just wanted to study chosen university				
		I didn't care where I move/ commute and how long it takes me				
		Other:				
13)	_	ong does it take you to commute to school daily?				
- ,		Less than hour				
		Hour – Two hours				
		More than two hours				
14)		l you like more economic study programs offered at your uni?				
		Yes				

b. No

b. No

you?

15) Was variety of optional courses offered in the study program important to

a.	Yes
b.	No
17) Do yo	u think you will get an advantage at labor market with degree from your
study	program compared to people from other universities in country/city of
your i	interest?
a.	Yes
b.	No
18) How v	would you evaluate the international relationships (possibilities of
	nge study programs) of your university?
a.	Excellent, we have lot of possibilities and it's easy to use them
b.	Very good, we have lot of possibilities but it's hard to use them
c.	Good, we have some options, but it should be improved
d.	Bad
19) Were	international relations (possibilities of exchange study programs) one of
the fa	ctors why you have chosen your university?
a.	Yes
	No
	the environment (buildings, neighborhood, classrooms, equipment) of
	rsity important to you?
a.	Yes
b.	No
•	would you evaluate it?
a.	Modern
	Normal
	Old
	he atmosphere (friendly/helpful peopleor unfriendly/unhelpful
people	e) of university important to you?
a.	Yes
b.	No
,	u think the school should improve its presentation / propagation (of
facult	y and study programs)?
a.	Yes
b.	No
24) Do yo	our parents (or any other family members) have a university degree?
a.	Yes
b.	No
25) Did m	nany of your friends apply to university?
	Yes
b.	No
,	our parents (or any other family member) support you in your studies
moral	•
	Yes
b.	No

16) Would you like to have more optional courses?

# 27) Do your parents (or any other family member) support your studies financially?

- a. Yes
- b. No

#### 28) Do you have a job while you study at university?

- a. Yes, full-time
- b. Yes, part-time
- c. No

#### **III. Segmentation Questions**

#### 29) What is your study program?

- a. Business Administration (CZU)
- b. Economics (VSE)
- c. Economics and Finance (UK)
- d. Economics and Management (CZU)
- e. Informatics (CZU)
- f. International Business (VSE)
- g. Business Administration (VSE)

#### 30) What is your gender?

- a. Female
- b. Male

#### 31) What is your age?

- a. (X-21)
- b. (22-25)
- c. (25-X)

## 32) What is your nationality?

.....

#### 33) What is your highest reached education?

- a. Basic (Elementary)
- b. High school without leaving (Maturita) exam
- c. High school with leaving (Maturita) exam
- d. Higher Professional School
- e. University

#### 34) What is your approximate net income/ budget available (monthly)?

- a. Less than 1000 CZK
- b. 1000 5000 CZK
- c. 5001 10 000 CZK
- d. 10 001 30 000 CZK
- e. 30 001 50 000 CZK
- f. More than 50 001 CZK

#### 35) What is your current employment status?

- a. Employed
- b. Self-employed
- c. Unemployed
- d. Student

- e. Retired
- f. Unable to work

## 36) How do you spend your free time?

- a. More passively (e.g. reading)
- b. More actively (e.g. doing sports)
- c. Both

## 37) What is your approximate spending (monthly)?

- a. Less than 1000 CZK
- b. 1001 5000 CZK
- c. 5001 10 000 CZK
- d. More than 10 001 CZK