

# The role of student satisfaction and student loyalty on intention to return to the specific university: A comparative study of UK and Czech Republic university

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# The role of student satisfaction and student loyalty on intention to return to the specific university: A comparative study of UK and Czech Republic university

# **Bachelor thesis**

Study programme: B6208 – Economics and Management

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Tento list nahraďte originálem zadání.

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#### **ANOTACE**

Vzdělávací zařízení v současné době čelí mnohým výzvám. Hlavní výzvou vysokého školství je být konkurenceschopný na trhu vzdělávání. Jednou z cest k získání konkurenční výhody je spokojenost a loajalita zákazníků – studentů. Bakalářská práce si klade za cíl identifikovat atributy, které mají vliv na spokojenost studentů s nabízenými službami univerzity; určit vztah mezi spokojeností studentů a jejich loajalitou a v neposlední řadě určit vztah mezi loajalitou studentů a jejich ochotou pokračovat ve studiu na stávající instituci. Jako nástroj pro naplnění cíle byl použit marketingový výzkum, konkrétně on-line a osobní dotazování, kterého se zúčastnili studenti the University of Huddersfield – Business School a Ekonomické fakulty Technické univerzity v Liberci. Výsledky výzkumu poukazují na fakt, že identifikované a analyzované atributy mají signifikantní a pozitivní vliv na spokojenost studentů. Dále lze na základě výsledků výzkumu konstatovat, že spokojenost studentů má významný vliv na jejich loajalitu a následnou ochotu pokračovat ve studiu na současné vzdělávací instituci. Jelikož byl tento výzkum proveden pouze na dvou univerzitách, bylo by vhodné, ho rozšířit o další vyšší vzdělávací instituce.

**Klíčová slova:** Marketing, zákazník, vysoké školství, konkurenceschopnost, spokojenost studentů, loajalita studentů, retence, výzkum

#### ANNOTATION

The role of student satisfaction and student loyalty on intention to return to the specific university: A comparative study of UK and Czech Republic university

The educational sector faces many challenges. One of them is a need of higher education institutions to market themselves in order to survive in this highly competitive industry. The way how to gain a competitive advantage leads through high number of satisfied and loyal students. The aims of this dissertation are to identify attributes that have an impact on the student satisfaction with offered services by a university, to develop a relationship between student satisfaction and student loyalty and afterwards to indicate the role of student loyalty on the intension to return to the university. Information from a survey of students of the University of Huddersfield — Business School and the Technical university of Liberec — The Faculty of Economics were collected and analysed. The results of the research shown a positive and significant effect of the analysed attributes on student satisfaction and positive and significant effect of student satisfaction on student loyalty and subsequent intention to return to study at particular university. This research was conducted at only two higher education institutions, thus it would be appropriate to expand the research to other universities.

**Key terms:** Marketing, customer, higher education, competitiveness, student satisfaction, student loyalty, retention, research

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# **INTRODUCTION**

In the light of recent events in the education sector, it is becoming extremely difficult to ignore an importance of marketing and strategic management within these institutions (Elliot and Healy, 2001; Lomas, 2007). It is necessary here to clarify exactly what is meant by marketing. According to the definition provided by Kotler and Keller (2012, p. 7) "Marketing is a societal process by which individuals and groups obtain what they need and want through creating, offering, and freely exchanging products and services of value with others." However, for the tertiary sector is probably more eligible the societal marketing concept by Kotler and Armstrong (2012, p. 68) "The idea that a company's marketing decisions should consider consumer wants, the company requirements, consumer long-run interests, and long-run interests of society."

The past decade has brought several issues such as extension of competition within the education industry, change in the traditional classification of students or evolution of customer needs that the higher educational institutions need to face. (Elliot and Healy, 2001; Chevaillier, 2002; Marzo et al., 2005)

Recent developments in the education sector have highlighted the increase in using strategic management tools such as strategic planning, mission statements, objectives or performance indicators which rise the influence of business sector in education and cause growing managerialism within this industry (Lomas, 2007). Accordingly to this, universities market themselves as any businesses in order to remain competitive in the education market, where the survival is dependent on the high number of enrolments (Salter and Tapper, 2002; Marzo et al., 2005). Ritzer (1997) and Lomas (2007) contribute that there is no difference between education providers and other commercial service organisations such as hospitals or local councils where the managerial principles have already been applied.

According to Chevaillier (2002) and Marzo et al. (2005) there has been a change, over the last few decades, in the traditional student classification. The traditional classification of students "youths of around 20 years of age who, after finalising their studies that provide access to university, enrol in higher education studies and who are engaged full time in studying for a university degree" has changed recently (Marzo et al., 2005, p. 506). Large number of current students are engaged in a working process but they are being forced to take higher education in order to expand their knowledge or to update it

(Chevaillier, 2002; Marzo et al., 2005). This brings different needs and motivations which have to be determined and satisfied by higher educational institutions for the purpose of maintaining a high number of enrolments that play a vital role in the consideration of survival in this highly competitive environment. Many higher educational institutions acknowledge that their target is to enlarge the number of admitted students in order to increase their income (Marzo et al., 2005; Watjatrakul, 2014). Schwartzman (1995) contributes that if they do not satisfy the student needs they will face difficulties including low enrolment rates and financial plight. Hence, universities are offering extended courses, seminars, master programmes, etc. in addition to their traditional degrees in order to keep students satisfied.

Under this assertion students assume that their position has changed and that they have bigger influence over the learning process. Students has started passing the responsibility of learning instructors and have become passive on (Lammers et al., 2005). They prefer courses that are easy to pass and expect good grades without making any efforts (Sappey and Bamber, 2007). If their needs are not fulfilled they penalize instructors through the critical feedback on learning assessment and prevent them from promotion (Clayson and Haley, 2005; Eagle and Brennan, 2007). Instructors are expected to please students rather than challenge them to participate in classes and acquire knowledge and they pay more attention to student demands not to what students need to learn from the course (Watjatrakul, 2014). Eagle and Brennan (2007) are afraid that this trend may cause a vast damage to the student-instructor relationship. And it is proved that students require a good relationship with their teachers like with their family (Watjatrakul, 2014).

The aims of this dissertation are to identify attributes that have an impact on the student satisfaction with offered services by a university, to develop a relationship between student satisfaction and student loyalty and afterwards to indicate the role of student loyalty on the intension to return to the university.

## **Research Objectives**

RO1: Determine the role of teaching methods, course administration, teaching staff, enrolment and infrastructure on student satisfaction.

RO2: Determine the role of student satisfaction on student loyalty.

RO3: Determine the role of student loyalty on student intention to return to the university.

RO4: Determine the difference in importance of attributes influencing satisfaction with offered services by university between students of the University of Huddersfield – Business School and the Technical University of Liberec – the Faculty of Economics, where

 $H_0$ : There is no difference in importance between the particular university in the Czech Republic and in the United Kingdom.

 $H_a$ : There is a difference in importance between the particular university in the Czech Republic and in the United Kingdom;

RO5: Determine the difference in satisfaction with individual attributes between students of the University of Huddersfield – Business School and the Technical University of Liberec – the Faculty of Economics, where

 $H_0$ : There is no difference in satisfaction with individual attributes between the particular university in the Czech Republic and in the United Kingdom.

 $H_a$ : There is a difference in satisfaction with individual attributes between the particular university in the Czech Republic and in the United Kingdom.

The dissertation has been organised in the following way. The first part is dedicated to the literature review, where the concept of student-customer is discussed. Then, the terms student satisfaction and student loyalty are described and five factors influencing student satisfaction are presented. The second chapter deals with methodology. Particularly, the framework for selection and design of the methods are described along with the research process. And important concepts related to the research process are taken into account. The third section analyses the data collected through questionnaire in the University of Huddersfield and in the Technical University of Liberec and individual questions of the questionnaire are analysed in order to answer the research questions. The fourth part is

dedicated to the discussion of results. Outcomes of the research are compared with the previous finding in this area. And comparison of answers of students of the University of Huddersfield – Business School and the Technical University of Liberec – the Faculty of Economics is made. The last chapter summarises the finding, answers the research questions and concludes with recommendations.

#### 1. LITERATURE REVIEW

In this section the customers of a university are described. Especially, considering the concept of students as customers of higher education institutions is theorized. Then, the student satisfaction, types of satisfaction and the importance of student satisfaction to universities are described. After that, student loyalty and its relation to the higher education operations is presented. Finally, the individual factors (teaching methods, course administration, teaching staff, enrolment process and infrastructure) that influence student satisfaction are described.

#### 1.1. Student as customer concept

Over the past few decades, the universities has been witnesses of the customer needs evolution. The development has stressed the term customer, however, there is no clear consensus about who should be considered as a customer of the higher education institution. The lack of the customer definition within the educational environment leads to the difficulties with managing these organisations from the marketing point of view. Recent specialised articles have shown that there are various groups that might be considered as university customers. These groups are: students, employers, families and society. (Marzo et al., 2005).

More recently, literature has emerged that offers contradictory findings especially about one group, students. The main student as customer concept is bounded to the total quality management theory in which the term quality is defined in terms of customer satisfaction (Schwartzman, 1995). Deem (2004) concludes it has developed as the ways in which universities are funded and managed have changed within the time. Universities have embraced the business model of TQM, whose objective is to provide services at higher level of consumer satisfaction and thus increase competitiveness and profitability, in order to survive in the market in view of reduction of government funding and the proactive competitors (Sax, 2004; Schwartzman, 1995). With this intention universities are forced to compete between each other in the hope that they will attract and retain more students. Watjatrakul (2014) highlights that the acceptance of the concept might improve educational process, namely taking student needs into account or improving quality of the service.

As was previously stated, the higher education institutions become service providers under the student as customer assumption. This challenges them to manage operations, monitor efficiency and produce quality services in order to satisfy student expectations (Clayson and Haley, 2005). Failure in doing so leads to student complaints about the services and against university reputation (Watjatrakul, 2014). As a result, universities are under pressure to improve their services in the hope that they enhance student satisfaction which is based on the TQM philosophy (Watjatrakul, 2014). They allow students to obtain academic degrees quickly by offering various fast-track courses (Watjatrakul, 2014). Hence, education process tends to be perceived as a commodity and higher education institutions are seen as "McUniversities" providing fast degrees for customers (Ritzer, 1997; Rooney and Hearn, 2000). Eagle and Brennan (2007) note that the tendency to refer to students as customers is on the rise and explain it is caused by the fact that higher educational students especially within the United Kingdom are paying not inconsiderable portion of tuition fees for their studies.

Numerous studies have been conducted on this terminology and the results tend to vary. Chonko *et al.* (2002) presumes that students are mostly attending the universities in order to acquire degree no matter in which area. As a consequence of this assumption, considering students as customers would have corrosive impact on the educational process (Eagle and Brennan, 2007). Rolfe (2002) discusses the challenges and strategies for the introduction of fees and observes that their introduction could have impact on student attitude to education from that of a recipient of a free service to that of a consumer. While one claims that people who pay for services should be treated as customers, others insist on the assertion that education differs from other typical services, thus considering students as customers may not bring anything positive to the education (Eagle and Brennan, 2007).

A broader perspective has been adopted by Halbesleben et al. (2013) and Pitman (2000) who argue that students in many countries are generally not required to pay full costs for their studies. Recent cases reported by Bogler & Smech (2002), Pitman (2002) and Scott (1999) also support the hypothesis by the fact that there are other groups (future employees, the government, families or society) who might be assumed to be customers as well, forasmuch as they participate in paying educational fees or for another interest. Rolfe (2002) and Emery et al. (2001) demonstrated that government, which paying significantly higher proportion of costs than students, expect future graduates to apply gained knowledge and skills for the

purpose of betterment of the economic growth. In the same vein, Driscoll and Wicks (1998) in their article 'The customer-driven approach in business education: a possible danger?' note that future employers seek graduates with ability to work in a fast pace and constantly changing environment.

On the other hand, in many countries students are expected to partake in paying a higher proportion of the overall costs (Eagle and Brennan, 2007). Tambi, Malek and Kanji (1999) thus propose students should be considered as customers for the simple reason that they are paying for service. Biggs (2011) and Bejou (2005) maintain that as students pay high proportion of education costs they should be treated as any other buyers of services. They are thus allowed to express their demands and feedbacks about the provided service (Watjatrakul, 2014). Furthermore, they have right to choose the university or other services within them and provide feedback to the institution in the way they purchase products in other industries (Clayson and Haley, 2005).

This interpretation is different from that of Sirvanci (1996) who examines in details the student as customer metaphor and thus argues that there are three essential differences between students and customer, which are: freedom of choice, responsibility for paying the price and requirements to prove merit and eligibility. Customers can buy any services or goods which are offered by firm. Contrary, education institutions are allowed to accept only certain number of students due to various admission standards and restrictions. So even if the potential students are willing to pay the cost they could not be admitted. The other difference is that consumers usually pay for the goods or services from their own funding. On the other hand, student are mostly not required to pay for education and if they are, the majority of costs are covered by the taxpayers. Finally, although students are once admitted to university they have to continuously meet the assessment criteria. In free market customers are not tested or evaluated whether they could buy the goods or services or not.

Obermiller and Atwood (2011) try to connect the student-customer metaphor with the marketing and product concepts. While the marketing orientation states if organisations want to be successful and remain competitive in the free market they have to market themselves in order to attract consumers and meet consumer demand. Conversely, product concept contradicts that the main attention should be focused on the product, particularly on its quality and believes that the quality is determined by the company not by consumers.

Other researchers, however, who have looked at the student as customer concept, have found that education might not be interchange with other service industries whose main purpose is to satisfy customers (Barnett, 2003). He adds that true market does not exist in the education sector owing to the fact that the government intervenes the market by different funds provided to different higher education institutions. This view is supported by Sharrock (2000) who writes that students, whether they pay fees or not, are involved in education process, not just passively consume it as they consume food at McDonald's. Eagle and Brennan (2007) claim even the best intention of applying 'student-as-customer' approach in higher education would almost certainly led to the exact opposite of the best interests of the students themselves.

Although there is no clear consensus on treating students as customers, they possess some attributes as service receivers of the higher educational institutions (Watjatrakul, 2014). It is, therefore, important for universities to assure that students receive positive experiences, otherwise they will spread negative ones to the future applicants for the education. It has been demonstrated that a high intake of student unfavourable attitudes toward education providers results in damage to enrolment, negative word-of-mouth and complaining (White and Yu, 2005; Zeelenberg *et al.*, 2003; Liljander and Strandvik, 1997). As a consequence this could cause vast harm to the higher education.

#### 1.2. Student satisfaction

Although, satisfaction is a commonly-used notion in the marketing area, it is a concept difficult to define precisely. The term 'satisfaction' defined by Kotler and Keller (2006, p. 144) to refer to "person's feeling of pleasure or disappointment which resulted from comparing a product's perceived performance or outcome against his/ her expectations". Oliver (1997) defines satisfaction simply as a pleasurable fulfilment. For Hansemark and Albinson (2004, p. 41), satisfaction means "an overall customer attitude towards a service provider, or an emotional reaction to the difference between what customers anticipate and what they receive, regarding the fulfilment of some needs, goals or desire". Giese and Cote (2000) and Marzo et al. (2005) state that even though the literature provides various definitions of satisfaction, they all share some common aspects. The most significant one is that customer satisfaction is a response to a particular focus at a particular time.

In this highly competitive environment satisfaction plays crucial role in keeping a sustainable competitive advantage (Angelova and Zekiri, 2011). It has been demonstrated that satisfied customers have an appreciable impact on repeat purchases, loyalty and subsequent retention (Guolla, 1999). Moreover, there has been found relationship between satisfaction and world-of-mouth. According to Angelova and Zekiri (2011) satisfied customers tend to share their experiences with in average six other people, whereas dissatisfied customers with 10 people. The process of satisfaction consists of three stages: (pre-choice) expectations, perceived performance and (post-choice) perceived disconfirmation of expectations (subjective evaluation) (Guolla, 1999). When the performance is worse than customer expectations, then we are talking about negative disconfirmation (Guolla, 1999). Contrary, when the performance meets or exceeds the expectations, then we refer to positive disconfirmation (Guolla, 1999).

Based on the researches, satisfaction might be classified into transaction-specific and cumulative satisfaction (Johnson, Herrmann and Gustafsson, 2002). The transaction-specific system of classification is a customer evaluation of their experience with a particular product transaction, episode or service encounter (Olsen and Johnson, 2003; Johnson, Herrmann and Gustafsson, 2002). Cumulative trend sees satisfaction as the customer overall consumption experience with a product or service over the time (Fornell, 1992; Johnson and Fornell, 1991; Johnson, Anderson and Fornell, 1995).

Elliot and Healy (2001, p. 2) present the concept of satisfaction adapted to the education environment as "a short-term attitude resulting from an evaluation of a student educational experience". They also observe that the clarity of student goals, student life and the university trust in students have a significant impact on student satisfaction (Elliot and Healy 2001; Hartman and Schmidt, 1995; Grossman, 1999). In order to build the trust with their students, universities should treat the students fairly, meet their expectations and respond to their complaints (Elliot and Healy, 2001). Wiers-Jenssen, Stensaker and Grøgaard (2002) and Athiyaman (1997) report that majority of the European universities have already implemented some forms of student evaluation of its services in order to improve their quality and thus enhance student satisfaction. They also affirm that satisfied students have a

bigger chance to finish their studies than their less satisfied peers. The question arises which factors lead to the satisfaction and give a benchmark to an identification of strengths and weaknesses of the higher education institution (Wiers-Jenssen, Stensaker and Grøgaard, 2002).

## 1.3. Student loyalty

At the beginning it is important to define the term loyalty. According to Oliver (1999, p. 34) loyalty is "a deeply held commitment to rebuy or patronize a preferred product/service consistently in the future, thereby causing repetitive same-brand or same brand-set purchasing, despite situational influences and marketing efforts having the potential to cause switching behaviour." We can distinguish two approaches of loyalty, attitudinal and behavioural (Jacoby and Kyner, 1973; Dick and Basu, 1994; Oliver, 1999). Athavale, Banahan, Benjamin, Bentley and West-Strum (2015) identify attitudinal loyalty as a groups of cognitive, affective and evaluative factors which originate the behavioural loyalty. Behavioural loyalty then could be explicate as an actual or intended purchasing behaviour (Jacoby and Kyner, 1973; Hallowell, 1996; Athavale et al., 2015).

Loyalty is being considered as one of the key factors in the long-term success of any company within the service industry (Hennig-Thurau, Langer and Hansen, 2001). According to Marzo et al. (2005) repeated purchases by loyal customers are necessary in order to survive in the current competitive environment. Aritonang (2014) affirms that loyal customers prone to paying more, spreading positive word-of-mouth or creating goodwill. Moreover, keeping customer loyalty on a high level is also important from the financial point of view (Rosenberg and Czepiel, 1984). Parthasarathy and Bhattacherjee (1998); Bejou (2005) point out that attracting new customers costs more money and time than maintaining the current ones due to expenses of searching for new customers, setting up new accounts or the time dedicated to initiating new customers to information services. Rosenberg and Czepiel (1984) concur that acquiring new customers might cost six times more than retaining the existing customers. In addition, knowing their customers, the regularity and predictability of their buying behaviour, provides an opportunity for service providers to utilize their resources more efficiently (Hennig-Thurau, Langer and Hansen, 2001).

Most of the universities aim to reach a high number of loyal students for many reasons (Hennig-Thurau, Langer and Hansen, 2001; Marzo et al., 2005). One of them is that loyal students are a source of strategic competitive advantage (Aritonang, 2014). Furthermore, since the tuition fees are for many higher education institutions the main source of income, retaining students mean predictable financial resources for the future (Hennig-Thurau, Langer and Hansen, 2001). According to Hennig-Thurau, Langer and Hansen (2001) loyal students may contribute to the quality of teaching through active participation and committed behaviour. They could also enhance research activities by writing research papers or collecting data for another research project (Hennig-Thurau, Langer and Hansen, 2001). Additionally, loyal alumni tend to support their university financially or through positive world-of-mouth promotion or through other forms of cooperation (Hennig-Thurau, Langer and Hansen, 2001; Tsarenko and Mavondo, 2001). It follows that impacts of student loyalty are noticeable not only during the time spend at the university but even more after the student graduation (Aritonang, 2014).

# 1.4. Teaching methods

First of the aspects influencing student satisfaction described in this dissertation are teaching methods. The aim of education is being considered as a difference between present and desired state of personality and it is being shaped and fulfilled by educational process, i.e teaching, self-education. We perceive the educational process as a strategy of the education, structured and divided into sequential goals which lead to the change in the personality. The goals must be clear, adequate and in compliance with the long-term educational aim of the course and the higher education institution. The goal ought to specify what knowledge a student gains at the specific level. (Slavík, et al., 2012)

Teaching methods are principles used for meeting the set goals, i.e. required outcomes of teaching. It is a collaboration of academic staff with students under particular conditions. These conditions might be that the teaching is carried out in a certain place at a certain time. In the theory of education methods are being perceived as subordinate to the content of teaching, and thus they are being determined by the content and the aim of education. But in practice there is none universal method that would meet the goals and would be convenient for all students. Moreover the certain place, certain time or number of students need to be taken into account. Another important element is efficiency. The more are

students involved in learning the more efficient are their abilities to adopt knowledge and skills. The best teaching methods from this point of view are learning through teaching. That is trying to teach it to someone else. The other most efficient are practical exercises and group discussions. (Slavík, et al., 2012; Červenková, 2013)

There are three main types of teaching methods: verbal, demonstrative and practical. In the verbal methods information is presented through oral presentation or printed and digital materials. If the transfer of information is strongly asymmetric, in other words, if the flow of information mostly takes direction from teacher to students then we are talking about monologue verbal methods where. On the contrary, dialogue verbal methods expect the participation of the students in the communication, thus we are talking about two-way flow of information. Demonstrative teaching methods extend the verbal transfer of information of new aspects, the most frequently of experience visual, auditory, tactile, olfactory or gustatory. Practical methods integrate all previously stated information channels, but the learning depends largely on the student self-education. (Slavík, *et al.*, 2012)

#### 1.5. Course administration

Second factor that might influence student satisfaction with their current university is a course administration. Efficient planning has emerged to be an important managerial tool in both private and public organisations. This is a certainly case of the higher education institutions, where the course planning tends to play a crucial role within the education systems of universities. Furthermore, there are tendencies to unify the education and training systems in Europe into European Higher Education Area (EHEA), to increase a compatibility between education systems and thus make the European universities and colleges more competitive and attractive to the rest of the world. The higher education institutions under the Bologna Process have to adapt their systems to the three cycle system (bachelor/master/doctorate) and create a lifelong student-centred, learning-oriented area aiming to strengthen quality assurance and make easier recognition of qualifications and periods of study. (Kristiansen, Sørensen and Stidsen, 2011; Kırış, 2014; European Commission, 2016)

Not only in the European perspective but development of higher education is among top priorities of almost every country. It is in the country best interest to have a highly rated education process and large number of graduate students. To meet these goals higher education institutions must create new or adjust their existing courses and modules to the recent trends and to the needs of employers. Without regard to bachelor, master or doctorate degree the preparation and planning processes of a course or module are similar. Firstly it is important to set a goal of a particular module, which is based on the curriculum. Most of the time the goal is specified by course administrators using their experience and knowledge or by comparison with similar modules at different universities. Course administrator also set direction of the course, make syllabus of the course and create framework of the module. This framework being expressed by a module annotation and content. Then, according to degree and its specifics the ECTS credits are given to the module and appropriate teaching methods are being selected. After setting the goal and module content it is necessary to define the qualifications which students gain after completing the module and course. These competences needs to be expressed in specific, clear and measurable terms so they after completing the module or course might be assessed and analysed. (Matoušek, 2004)

The possibility of students to choose from a variety of modules makes the planning much more complex. With a large number of reforms and elective courses that make the syllabus liable to various interruptions there is a need for continuing efficient planning. It is being performed by course administrator and specialized planning system which deals with which courses and modules, when, how and by who will be taught. Moreover, the planning should be done in a way, so when a students have chosen a particular course they should be allocated to a common class, which consists of students from the same course. Then the individual modules should be taught in as many common classes as possible. The reason for doing so is to promote the cooperation and social interaction among peers. (Kristiansen, Sørensen and Stidsen, 2011; Kırış, 2014)

## 1.6. Teaching staff

Third aspect which may have an impact on satisfaction are teaching staff. The lecturer at the higher education institution is traditionally perceived as a peaceful profession, which is being distinguished by historical precedence and social privileges. It is profession subordinate only to lawfulness of the academic world independent of the rest of the world. In fact, the lecturer

is under the pressure of society requirements and educational policy which set the goals and outcomes of the educational process. The profession changes significantly in roles, vocational activities and qualifications. These changes are determined by transformation of the higher education, requirements from the labour market, new information and communication technologies, changes in socio-demographic profiles of students, etc. Effects of these contexts is being perceived as storm. Dealing with these changes require high level of vocational reflection, adaptability and flexibility. This is the new phenomenon that is considered as a limiting element of autonomy from the traditional point of view. As a consequence of these aspects, pressures and demands that now being placed on the higher education institutions the lecturers are forced to extend their activities and performed following range of roles: the teacher as information provider; the teacher as role model; the teacher as facilitator; the teacher as assessor; the teacher as planner and the teacher as resource developer. (Crosby and Harden, 2000; Vašutová, 2005)

Personnel of the higher education institutions generally and teaching staff, in particular, stand in the frontline and interact with students and providing all kind of services. By other words, the service quality and productivity depend on the performance of the academic staff. Furthermore, the academic staff take a significant part in the university budget and play an essential role in achieving the university goals (Rowley, 1996). There is the direct link to the extent concept of marketing mix, personnel or people (Hill, 1995; Goldsmith, 1999). According to Khan (2014) people or personnel are the employees who produce and deliver the intangible nature of services. He affirms that personnel are key to the delivery of services and that their interaction strongly influence the customer perception of service quality and performance and their consequent satisfaction with these factors. To put it another way, many students might be influenced by the number of PhD holders, by public profiles of the academic staff or by their appearance (Ivy, 2008). Academic staff who appear clean, neat and well organized tend to be perceived more competent. Moreover, punctuality, turning up for classes, keeping accurate records of student performance, good preparation for lecture or tutorial, etc. also have a significant impact on the quality and performance perception (Hill, 1995). However, the fundamentals of good perception by students remain in friendliness, sympathy, approachability, showing concern and providing assistance where possible (Hill, 1995; Douglas, Douglas and Barnes, 2006).

## 1.7. Application and enrolment processes

Application and enrolment processes are another factors that might influence student satisfaction with their current education institution. The process of enrolment and related registration and tuition fess relate to processes and the price, the items of marketing mix. While processes refer to all administrative and bureaucratic aspects of the university including the handling of enquiries to registration, the price represented of all money that is being charged for the degree and tuition fee that are necessary when enrolling at higher education institution. Unlike tangible goods, education requires payment prior to consumption, graduation. In other words, an ownership does not take place against payment. The tuition fees and other administrative fees have impact not only on university revenues, but also on student perception of the university. However, higher education institutions in many countries are being subsidize by local governments in order to ensure that higher education is affordable for everyone as some concerns has arisen about that tuition fees serving as a competitive and differentiation tool. Some universities has increased tuition fees to create a perception of a niche service. Others has set tuition fees at lower levels with intentions to clear the market. (Ivy, 2008; Coelli, 2009)

Placing the application might be done in two ways. Applicants might apply directly through the university system or by mail like for example in the Czech Republic or they could apply to their institutions via an admission portal or company. This option is taking place in the United Kingdom, where applicants apply through The Universities and Colleges Admissions Service (UCAS). The biggest difference is when applying directly through the higher education institutions applicants need to submit every application separately and pay another fee which may differ at every university. They can place up to five applications. While applying via UCAS applicants apply at one place thus saving a lot of time a pay only £12 for a single choice or £23 for multiple courses. Nonetheless, applicant applying through UCAS might submit also up to five applications. However, the application process is the same whether applying through university or UCAS. All applicants place their application prior to the completion of their high school studies without knowing their final grades. Once the applications are submitted, universities might access them. Nevertheless, they are not able to see which other university the applicants applied to before the applicants reply to their offer. After evaluation of the application, university respond with a rejection, an unconditional offer, or a conditional offer. Applicant then choose whether to decline the offer or accepts it as a 'Firm' or an 'Insurance' place. If applicants firmly accept an offer, it becomes their 'number one' choice out of all the received offers. The difference between an unconditional and conditional offer is when applicant accept the unconditional offer they agree to attend the chosen course and have to decline all other offers, whereas by accepting the conditional offer applicants agree to attend the course if the conditions of the offer are met. With this option applicants might accept another offer as an insurance choice. This option might be accepted as conditional or unconditional and serves as a backup to the firm choice. This means when applicants do not meet the firm choice requirements, but meet the conditions of the insurance choice they are committed to that course. (Tonin and Wahba, 2015; UCAS, 2016)

## 1.8. Infrastructure of the university

The last aspect that might have an impact on student satisfaction is the infrastructure of the university. In the global highly competitive education market higher education institutions seek ways to differentiate and thus gain a competitive advantage. One of the possibilities how to attract students and academic staff are the university facilities and high-quality services (Hakala and Nygren, 2010; Kärnä and Julin, 2015). Here is again link to the element of extended marketing mix, physical evidence, which refers to tangible aspects of the service offering particularly to the appearance of the buildings and other university facilities (Ivy, 2008). Recent results of a study by Elliott and Healy (2001) observe that university infrastructure has a strong impact on student satisfaction and their retention. Kärnä and Julin (2015) maintain that university facilities and management of these facilities play an important role in achieving the strategic goals of the university. Thus the responsibility of facility managements is to manage facilities and its services in order to support core functions and goals related to learning, teaching and researching on the campus. In their analysis, Price, Matzdorf, Smith and Agahi (2003) find that the infrastructure of higher education institution influence student decisions when selecting a university. Nguyen and LeBlanc (2001) add that university facilities are an important factors influencing student perception of the university reputation.

Among the most influential facilities of the higher education institutions are campus, library, computer equipment, dining halls, student accommodation, etc. (Marzo et al., 2005; Hanssen and Solvoll, 2015). Kärnä and Julin (2015, p. 48) define a university campus as "a heterogeneous and versatile learning environment with its various facilities and related services". According to Den Heijer (2011), campus is land and buildings in the university ownership which is used for university core and related functions, and which help to achieve the university goals. Kuh (2001) in his research points out that residential campuses have more bounding and engaging cultures that lead to higher graduation rates. Important aspect of campus is its design. It is required that campus should provide variable welcoming, flexible and informal meeting places and spaces (Kärnä and Julin, 2015).

Library is a place that provide students and academic staff with learning materials and access to world-class information resources which stimulate their academic and research activities. Hence, it is important that library is able to provide highly-skilled, helpful staff and satisfactory, wide range and appropriate number of book stock. Another aspects related to satisfaction with library services are noise level and quality and accessibility of IT facilities which might be used to analyse data, search for information, prepare reports and write assignments. (Harvey, 1995; Hakala and Nygren, 2010; Hanssen and Solvoll, 2015)

The continuing expansion of higher education institutions and rising number of enrolled students bring along the challenge of student housing. Different types of people have different requirements on accommodation. Thus, it is important to understand many factors that play a significant role in housing satisfaction. Aspects such as different phases of life, social and cultural background, financial situation, expectations, architectural characteristics of a building, but also comparison with actual housing situation, all these factors shape the student satisfaction with their accommodation. With this in mind, it is necessary to plan different types of housing for different groups of people. There are two major types of student housing. One is the private housing, where five main issues need to be taken into consideration when thinking about private housing: rent, housing standards, contract terms, housing availability, and distance from campus. The other option is the institutionally provided student housing, which may be further divided into on-campus and off-campus. Following trends has been observed in student housing. The growing number of university enrolments is driving the demand for on-campus housing. Higher proportion of full-time students than part-time students tend to live on campus due to added convenience of being

closer to computer equipment and libraries. Inability to satisfy the on-campus housing demand might result in decrease in student retention. The increase security demand on 24/7 basis. Last but not the least, on-campus living students tend to spend more money on food and other activities. This brings higher revenues for the university. (Thomsen and Eikemo, 2010; Ong, Petrova and Spieler, 2013)

#### 2. METHODOLOGY

One of the aspects how to attain a large volume of enrolments is a high number of satisfied customers (Schwartzman, 1995). Previous study of this issue by Marzo et al. (2005) has shown in their conceptual model that customer satisfaction is be affected by large number of factors which could be grouped in those categories: teaching methods, course administration, teaching staff, enrolment and infrastructures (Appendix A). They also demonstrated a significant relationship between student satisfaction and loyalty (Appendix B). However, their research on the subject has been limited to an examination of one particular university rather than comparisons of the results with another higher education institutions. Moreover, they have omitted the price of education as a factor influencing student satisfaction the scope of their research was concentrated only on the courses that had duration shorter than one academic year. This study on the other hand provide a comparison between two universities, one from the United Kingdom and one from the Czech Republic, and it takes into account 18 attributes that might have an impact on student satisfaction, not only 5. In addition, this study aims at standard length bachelor courses, which lasts more than only one year. Altogether, this research has been structured and conducted in order to analyse the following specific research objectives:

- determine the role of teaching methods, course administration, teaching staff, enrolment and infrastructure on student satisfaction;
- determine the role of student satisfaction on student loyalty;
- determine the role of student loyalty on student intention to return to the university;
- determine the difference in importance of attributes influencing satisfaction with offered services by university between students of the University of Huddersfield – Business School and the Technical University of Liberec – the Faculty of Economics, where

 $H_0$ : There is no difference in importance between the particular university in the Czech Republic and in the United Kingdom.

 $H_a$ : There is a difference in importance between the particular university in the Czech Republic and in the United Kingdom;.

determine the difference in satisfaction with individual attributes between students
of the University of Huddersfield – Business School and the Technical University of
Liberec – the Faculty of Economics, where

 $H_0$ : There is no difference in satisfaction with individual attributes between the particular university in the Czech Republic and in the United Kingdom.  $H_a$ : There is a difference in satisfaction with individual attributes between the particular university in the Czech Republic and in the United Kingdom.

The rest of the chapter is organised as follows. In the next section, the framework for the selection and design of the methods is presented. Then, the important concepts such as validity, reliability, ethics, etc. are discussed. In the next section, the research process is described. Finally, the limitation of the study are highlighted.

## 2.1. Framework for the selection and design of the methods

The fundamental concept that at the start of the research determines the right selection and design of the methods is called ontology. It refers to the nature of social reality and to the beliefs that reflect an interpretation of a person about what constitutes a fact (Dudovskiy, 2014). There are two basic approaches to ontology, realism and constructionism. Whereas realists reckon the social word as something that exists independently of researches, constructionists deem the social world as a creation of the human mind, a reality continually accomplished by researches through perceptions and interactions with other people (Denscombe, 2010; Saunders, Lewis and Thornhill, 2012). The realism approach was chosen in this research.

Another concept, closely related to ontology, is epistemology. It deals with the sources of knowledge, thus is concerned with possibilities, nature, sources and limitations of knowledge. It also determines the researches approach towards the research process (Dudovskiy, 2014). Two main trends might be considered, positivism and interpretivism. Positivism is based on the assumption that only knowledge gained through observation and measurement of the properties is trustworthy (Denscombe, 2010). This trend comes out from the philosophy that knowledge stems from human experience (Dudovskiy, 2014). Researchers according to positivism collect the data and interpret them through objective approach (Saunders et al., 2012). The findings are afterwards observable and quantifiable

(Dudovskiy, 2014). Interpretivism, on the other hand, integrates human interest into study and presume that access to reality is only through social constructions such as language, consciousness, shared meanings, and instruments (Dudovskiy, 2014). For the purpose of this research, the positivism approach was selected for the reasons that it allows collection of a large amount of quantitative data, relies on facts and provides opportunity for the researcher to retain control of the research process and data are easily comparable. A hundred of respondents from two higher education institutions were asked to provide their opinion on the topic and their answers were subsequently compared.

Third concept of the framework is a research approach, which might be divided into deductive and inductive depending on the existence and placement of hypothesis and theories. While deductive approach consists of hypotheses the research aims to tests or explore, inductive approach contributes to the emergence of new hypotheses and theories (Saunders et al., 2012; Dudovskiy, 2014). In this case the deductive approach was selected mainly because the hypotheses were set in the analytical part and need to be confirmed or rejected during the research. Moreover, the research is structured from theory to data and the quantitative type of data were chosen, which are another indicators of deductive approach.

Another part of the research process is a research design. It is rather complex and requires a lot of thinking at the start of the project because once the particular approach is selected it is hard to change it during the project (Denscombe, 2007). According to Denscombe (2007) changing the approaches takes a lot of time and money, moreover, in the reality if the right strategy is not selected for the first time then the research most likely fails. Although there is no simple rule which says which strategy should be followed, there are some indicators which shows us approaches that are more suitable for particular specific issues. These indicators are time frame, number of instances, environment, data and theory.

Table 2.1 Indicators for selecting the research design

Alternative possibilities				
Time frame	Cross-sectional (snap-shot)	Longitudinal (movie)		
Number	Depth (small number, specific)	Breadth (large number, general)		
Environment Controlled (in captivity)		Natural (in the wild)		
Data Quantitative (numbers)		Qualitative (words and images)		
Theory Explanatory (theory testing)		Exploratory (theory building)		

Source: Adapted from Denscombe (2010)

This research might be considered as a cross-sectional mainly for the reason that it captures information about this work topic at a particular point in time. The research captures a wide range of instances. It is based on a large number of people, thus allows representativeness and generalization of the data and cross-sectioning of the population, all of these were used in the study. The quantitative data were used for the purpose of this research because of they allow easier storing, coding and analysing of a large number of data. These data are then easy to calculate, measure and detect patterns of activities. And finally, the explanatory theory was selected as it gains from a large volume of information from previous studies. Moreover, questions try to investigate the causes of things and very often take the form hypotheses which are afterwards being tested. That is another rationale for selecting the explanatory theory.

After much deliberation, it was decided that the survey, especially the internet and face-to-face type, will be the best strategy to adopt for this research. Nowadays the surveys are being considered as one of the most useful popular approaches (Denscombe, 2007). They refer to questioning people on a specific topic and subsequent analysis of their responses (Dudovskiy, 2014). The main objectives of survey are describing certain characteristics of population and/or testing the hypotheses. Denscombe (2007) states the following advantages and disadvantages of surveys. They provide wide and inclusive coverage. In other words, they allow to reach a high number of ideas from respondents which might be afterwards used for generalization. This apparently match with the theme of dissertation, where the ideas and opinions of students are required. Another reason for choosing survey is that it tends to be

the most attractive approach lending itself to quantitative data which are used for analysis. Moreover, survey is relatively costs and time saving in comparison with other strategies. On the other hand, surveys have some shortcomings as well. They lack the detail and depth on the topic. They make it harder for researchers to check if the responses were chosen accurately and honestly. And the responses rates of surveys are quite low. In particular, internet surveys tend to be the biggest challenge in response rates as it makes it easy to ignore or delete requests. For this reason the face-to-face surveys were chosen as well for their by contrast high response rates.

After consideration of all previous steps of the framework the questionnaire method for the collection of empirical data was used. In general, questionnaires consist of identical set of written questions that gather high volume of information by asking people and those collected data are being afterwards analysed (Saunders et al., 2012). There is a number of theories which shows the link between strategies and methods. According to those theories survey strategy tends to be usually linked with questionnaires (Denscombe, 2007). The use of questionnaire has been supported not only by theories but by practice, too. This method is the most appropriate to selected topic of the research. Similar to survey, online and face-to-face questionnaires were selected to gather straightforward ideas and opinions from 100 university students on the topic of student satisfaction and loyalty. Questionnaires are generally economical and easy to arrange (Denscombe, 2007). They normally provide pre-coded answers which are gladly accepted by respondents who do not need to think about how to express their ideas and opinions (Denscombe, 2007; Saunders et al., 2012). Moreover, the pre-coded answers allow researcher quick collocation and analysis of gathered data (Denscombe, 2007). However, not all respondents react the same about the pre-coded answers. Some might find those answers frustrating as they restricting to freely express their ideas (Denscombe, 2007). Another disadvantages of questionnaires are similarly to surveys poor response rate or inability to check the truthfulness of answers (Kozel, 2016).

## 2.2. Important concepts related to the research process

One of the concepts related to the research process is validity. It is the extent to which an investigation researches what it claims to research (Dudovskiy, 2014). In order to obtain high percentage of validity the tool, questionnaire, familiar to all participants was used. Moreover, this tool can be easily used and allows answering the research questions.

Another concept is reliability and it deals with the consistency of results and the degree to which they can be trusted as accurate measurements (Denscombe, 2010; Dudovskiy, 2014). To improve reliability the questionnaire was piloted in order to debug the mistakes and faults. The selected research tool provides clear instructions on how to answer the questions. Furthermore, the questionnaire was translated into Czech language so Czech respondents could easily understand the questions. Thus, the possible misunderstandings were avoided.

Ethical consideration is another concept that should be related to every research. The respondents were not put in a situation where they might be at risk of harm both physical and psychological. The collected data are anonymous and cannot be traced to any respondent. In the same manner, participants were assured at the beginning of the research that they answers will be used in an anonymized form and that it will not be possible to identify them. Further, no identifying information (e.g. name, address, etc.) were collected.

Voluntary participation was assured by the informed consent which fully informed about the nature of the research and informed that taking part in the research is voluntary. In case of the internet questionnaire the informed consent was emailed to participants and on social networks it was posted ahead of the time when the research began.

## 2.3. Description of the research process

The target population of interest in this dissertation were students of the University of Huddersfield and students of the Technical University of Liberec. This population served as a source of primary data. However, the population were accounted too large to work with, thus the sampling framework to choose members of the target population who would contribute to the research is needed. For this dissertation, sampling frame were students of the University of Huddersfield Business School and The Faculty of Economics of the Technical University of Liberec. After considering all related factors (e.g. subject availability, cost factors, research strategy and method, etc.) the sample size was determined

to include 100 respondents. The criteria for selecting 100 university students from the University of Huddersfield Business School and The Faculty of Economics of the Technical University of Liberec was the probability sampling method in which every member of population has known chance of participating in the study. Specifically, the stratified random sampling method was used. This sampling technique chooses from the target population specific representative subgroup or strata. In this research the undergraduate full-time students of the University of Huddersfield Business School and The Faculty of Economics of the Technical University of Liberec were sampled.

The questionnaire design was adjusted with the intension to suits the most to the purpose of the study. Besides the introduction the questionnaire was consisted of three parts. Firstly, the question 1–6 were enquiring the identifiers. After that, the questions 7–9 were dedicated to satisfaction aspects and finally, the questions 10–13 were asking on loyalty. The types of questions used in this questionnaire were dichotomous, multiple choice, scaling questions. Dichotomous questions were used in the questions regarding gender, level of study, mode of study and in the questions related to loyalty (1, 3, 4, 10, 11, 12). Multiple choice questions were asked in order to find out the current education institution (2) the year of study (5), the course of study (6) and were used in the last, contingency, question in order to discover the reason for not continuing with studies at the current education institution (13). Finally, the scaling questions were used in the questions 7, 8 and 9 regarding the extent of importance and satisfaction with individual factors and education process in general. For the scaling questions the 6-point scale format was used mainly for the reason that it provides easier grouping of the results into three categories (Kozel, 2016). Another reason is that respondents could not run to the neutral answer and thus need to commit to either the positive or negative end of the scale (Kozel, 2016). Moreover, the respondents were familiar with the subject, hence a neutral rating was not necessary. All questions were created for the purpose of answering the research questions.

Before the distribution of the questionnaires a pilot study was conducted in order to ensure the questions are clear and easy to understand and that the data will be valid and reliable. The questionnaire was consulted with the tutor, other academic staff of both the University of Huddersfield Business School and The Faculty of Economics of the Technical University of Liberec and with several students. After a valuable feedback some corrections and improvements were made to the questionnaire. Sentence structure was changed in a couple

of questions. In the scale questions (7, 8, 9) related to the measurements of the importance and satisfaction further context was provided. The former question *Please indicate the extent* to which the below mentioned factors are important for your satisfaction on the following scale by ticking the appropriate number: was extended by adding an object with your current university to Please indicate the extent to which the below mentioned factors are important for your satisfaction with your current university on the following scale by ticking the appropriate number. The two remaining scale questions were corrected in the same way. Then the previous question regarding student loyalty was transformed from the scale question Are you loyal to your alma mater into two separate dichotomous questions (10 and 11) Would you recommend your current educational institution to your family members or friends? and Would you support your current university as an alumni through donation, being a guest speaker, co-operation (internships for students, co-operating in research projects) etc.?. The reason for that correction was that the previous question was too vague, thus did not provide suitable option for required measurement of loyalty. In addition, the word alma mater was replaced in the questions 12 and 13 by current education institution. The reason for that was that the word alma mater caused problems with understanding among students. And finally, the question asking the year of study was added as it might have an impact on student satisfaction and loyalty. First year students might not experience or have a different perception of all the relevant aspects influencing their satisfaction than with their third year's colleagues. Moreover, they may not have a clear vision of their further study intentions.

After the final corrections and improvements to the questionnaire the primary data were started being collected. In order to make the questionnaire easy to understand the questionnaire was translated for Czech respondents into Czech. Afterwards, both versions of the questionnaire were distributed to students via e-mail and were posted on the social network. However, due to relatively low response rate, the questionnaires were handed out in person, too. While at the Czech university some lecturers were asked to distribute the questionnaires in their lectures because of the high attendance, at the British university students were asked to take part in the research personally by the researcher. The collection process took place between 8<sup>th</sup> and 15<sup>th</sup> April 2016.

The primary data collected through the questionnaires were afterwards critically analysed through mathematical statistics using the analytical software SPSS. Discrete variables, such as nominal, cardinal and ordinal were used to analyse the quantitative data and provide figures that were afterwards commented and compared with the previous findings on the topic aforementioned in the literature review. For nominal variables, the Pearson chi-square was used to discover if there is a statistical significant difference between two variables on the level of statistical significance  $\alpha$ .

Null hypothesis  $H_0: p1 = p2$ 

Alternative hypothesis  $H_a: p1 \neq p2$ 

 $p > \alpha \rightarrow$  We fail to reject the null hypothesis and cannot accept the alternative hypothesis.

 $p < \alpha \rightarrow$  We reject the null hypothesis and accept the alternative hypothesis.

In this work the level of statistical significance  $\alpha$  was set  $\alpha = 0.05$ .

Before considering the results of this study, there are a number of limitations which need to be taken into account. Firstly, from 3,635 students in the sample only 134 students participated in the survey. This might be due to the strategy selected for collection of the data. Students were asked to take part in the survey via e-mail. And afterwards, owing to the very low response rate, some students were asked personally to participate. Another reason for the low response rate might be the time constraints. The data were being collected in the period of one week. Another shortcoming could be the quality of the responses. In most of the cases there was not a face to face contact with the respondents. Thus, an additional information about the questions could not been provided and poor quality answers could occur. Some respondents might complete the questionnaire in a hurry or leave it incomplete. All those aspects could harm the reliability. Therefore, it is with these limitations in mind that the results of this survey should be interpreted with caution.

#### 3. RESEARCH RESULTS AND ANALYSIS

In this chapter the data collected via questionnaire are analysed. In total, 134 respondents from both the University of Huddersfield and the Technical University of Liberec took part in the survey. However, 17 questionnaires were excluded from the analysis. 11 questionnaires were excluded due to not answering all the questions, 3 questionnaires were excluded because of selecting different school than the research was aimed to (1x School of Applied Science, 2x School of Art, Design and Architecture). And 3 respondents were graduate students. Thus, 117 questionnaires were analysed in order to in order to analyse the following specific research objectives:

- determine the role of teaching methods, course administration, teaching staff, enrolment and infrastructure on student satisfaction:
- determine the role of student satisfaction on student loyalty;
- determine the role of student loyalty on student intention to return to the university;
- determine the difference in importance of attributes influencing satisfaction with offered services by university between students of the University of Huddersfield – Business School and the Technical University of Liberec – the Faculty of Economics, where

 $H_0$ : There is no difference in importance between the particular university in the *Czech Republic and in the United Kingdom.* 

 $H_a$ : There is a difference in importance between the particular university in the Czech Republic and in the United Kingdom;

determine the difference in satisfaction with individual attributes between students
of the University of Huddersfield – Business School and the Technical University of
Liberec – the Faculty of Economics, where

 $H_0$ : There is no difference in satisfaction with individual attributes between the particular university in the Czech Republic and in the United Kingdom.

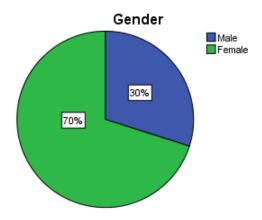
 $H_a$ : There is a difference in satisfaction with individual attributes between the particular university in the Czech Republic and in the United Kingdom.

The questions are analysed in order as they were asked in the questionnaire. Firstly, the identifying questions are analysed. Then, the questions asking respondents about satisfaction and loyalty are analysed.

## 3.1. Identifying questions

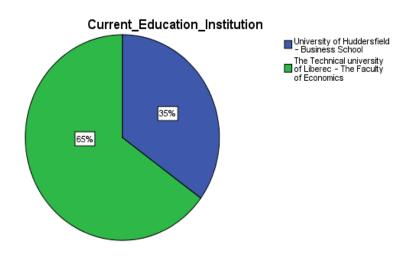
From 117 respondents who took part in the survey, 35 were male and 82 female.

Figure 3.1 Gender



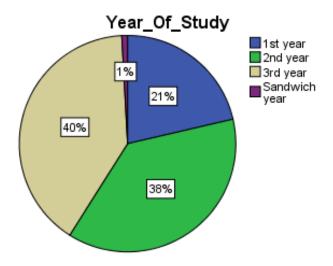
However there are more students studying at University of Huddersfield Business School (2,956) compare to 679 students studying at the Technical University of Liberec – the Faculty of Economics, more Czech students took participated in the survey. While 76 respondents studied at the Czech university, only 41 participants were from the British university.

Figure 3.2 Current education institution



25 respondents were the 1<sup>st</sup> year students, 44 students were in their 2<sup>nd</sup> year of study, 47 students were the final year students and one respondent did the sandwich year.

Figure 3.3 Year of study



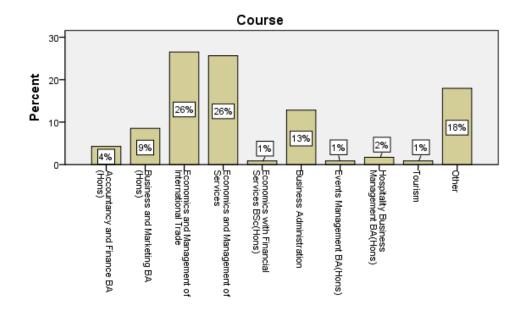
The Table 3.1 and Figure 3.4 below show the courses which the respondents were enrolled on. The most frequented course was Economics and Management of International Trade which attended 31 students. The second most frequented course was Economics and Management of Service with 30 students. And the third most frequented course was Business Administration which attended 15 students. From 21 students who chose the answer Other, 5 students studied European Business BA(Hons), 3 students Business Management BA(Hons), 3 students Law and Business BA(Hons), 3 students Logistics and Supply Chain Management BSc(Hons), 3 students studied International Business BA(Hons), 1 student studied Supply Chain Management BSc(Hons) and 1 student studied Transport and Logistics Management BSc(Hons).

Table 3.1 Enrolled course

Course

		Cours			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Accountancy and Finance BA(Hons)	5	4,3	4,3	4,3
	Business and Marketing BA(Hons)	10	8,5	8,5	12,8
	Economics and  Management of International  Trade	31	26,5	26,5	39,3
	Economics and Management of Services	30	25,6	25,6	65,0
	Economics with Financial Services BSc(Hons)	1	,9	,9	65,8
	Business Administration	15	12,8	12,8	78,6
	Events Management BA(Hons)	1	,9	,9	79,5
	Hospitality Business Management BA(Hons)	2	1,7	1,7	81,2
	Tourism	1	,9	,9	82,1
	Other	21	17,9	17,9	100,0
	Total	117	100,0	100,0	

Figure 3.4 Enrolled course



## 3.2. Questions asking satisfaction and loyalty

One of the objectives of the research was to identify the role of teaching methods, course administration, teaching staff, enrolment and infrastructure on student satisfaction. In question 7 respondents were provided with 18 attributes which were evaluated based on their importance for respondents using the 6-point scale, where 1 = extremely important and 6 = not at all important. All calculations were done in SPSS, however in order to enhance clarity the calculations were transferred into the Word table.

The overall evaluation of the analysis represents the Table 3.3. The attribute is marked as important if median lies in the interval <1;2>, neutral importance of the attribute is in the interval <3;4> a not important attribute has median in the interval <5;6>. For the purpose of analysis the attributes were coded in the following way.

Table 3.2 Attribute coding

Attribute	Label
The proportion between theory and practise	A1
Provided study materials (documentation, bibliography, etc.)	A2
Selected teaching methods (presentation, monologue, dialogue, dependence on	A3
self-education, etc.)	
The possibility to discuss the subject with the teacher (interaction between the	A4
students and the teachers)	
The extent, distribution and comprehensibility of the subject	A5
The co-operation with professor (on projects, etc.)	A6
The attitude of the teaching staff towards the students	A7
The quality of the teaching staff	A8
The enrolment process	A9
The possibility to choose the form of payment for the enrolment	A10
The enrolment period	A11
The possibility to customizable the schedule	A12
The course organisation	A13
The attitude of the course administration staff towards the students	A14
The library services	A15
The computer equipment	A16
The dining halls	A17
The accommodation	A18

Source: Table created by author

Table 3.3 Importance of attributes

	University of	Huddersfield - BS	TU	L - EF
Attribute	Median	Importance	Median	Importance
A1	2	Important	2	Important
A2	2	Important	2	Important
A3	2	Important	2	Important
A4	1	Important	2	Important
A5	2	Important	1	Important
A6	2	Important	3	Neutral
A7	1	Important	1	Important
A8	1	Important	1	Important
A9	3	Neutral	3	Neutral
A10	3	Neutral	4	Neutral
A11	3	Neutral	4	Neutral
A12	2	Important	1	Important
A13	2	Important	2	Important
A14	2	Important	2	important
A15	1	Important	3	Neutral
A16	2	Important	3	Neutral
A17	3	Neutral	3	Neutral
A18	3	Neutral	2	Important

Source: Table created by author

In this table we might see that attributes A1, A2, A3, A4, A5, A6, A7, A8, A12, A13, A14, A15 and A16 play significant role in influencing student satisfaction of the students studying at the University of Huddersfield – BS. Attributes A9, A10, A11, A17 and A18 have less significant impact on their satisfaction. The attributes significantly influencing satisfaction of the students studying at TUL – EF are A1, A2, A3, A4, A5, A7, A8, A12, A13, A14 and A16. Factors that have less significant impact on satisfaction are A6, A9, A10, A11, A15, A16 and A17. None of the attributes in both groups was identified as not important for student satisfaction.

Table 3.3 also shows the difference in importance of attributes A6, A15, A16, A18. While students of the British university perceive 'The co-operation with professor (on projects, etc.)', 'The library services' and 'The computer equipment' as an important for satisfaction with their university, for students of the Czech university those attributes have no impact on satisfaction. On the other hand, students of TUL – EF perceive 'The accommodation' as an important attribute influencing satisfaction with their university. Students of University of Huddersfield – BS perceive this factor as neutral, thus does not affect satisfaction. Owing to the differences in results further analysis takes place.

In the table 3.4 the Pearson chi-square was used to discover if there is a statistical significant difference between two variables on the level of statistical significance  $\alpha$ .

H<sub>0</sub>: There is no difference in importance between the particular university in the Czech Republic and in the United Kingdom.

H<sub>a</sub>: There is a difference in importance between the particular university in the Czech Republic and in the United Kingdom.

Table 3.4 Chi-square test for Importance of attributes

Attribute	University	p-value
A1	University of Huddersfield – BS	0,642
	Technical university of Liberec – EF	0,042
A2	University of Huddersfield – BS	0,636
AL	Technical university of Liberec – EF	0,030
A3	University of Huddersfield – BS	0,567
AJ	Technical university of Liberec – EF	0,007
A4	University of Huddersfield – BS	0,006
	Technical university of Liberec – EF	5,500

A5	University of Huddersfield – BS	0,001	
AS	Technical university of Liberec – EF	0,001	
A6	University of Huddersfield – BS	0,008	
Au	Technical university of Liberec – EF	0,000	
A7	University of Huddersfield – BS	0,404	
117	Technical university of Liberec – EF	0,707	
A8	University of Huddersfield – BS	0,476	
710	Technical university of Liberec – EF	0,170	
A9	University of Huddersfield – BS	0,561	
	Technical university of Liberec – EF	0,301	
A10	University of Huddersfield – BS	0,201	
1110	Technical university of Liberec – EF	0,201	
A11 _	University of Huddersfield – BS	0,378	
	Technical university of Liberec – EF	, 0,570	
A12	University of Huddersfield – BS	0,182	
	Technical university of Liberec – EF	0,102	
A13	University of Huddersfield – BS	0,335	
	Technical university of Liberec – EF	0,555	
A14	University of Huddersfield – BS	0,830	
	Technical university of Liberec – EF	0,020	
A15	University of Huddersfield – BS	0,018	
	Technical university of Liberec – EF	0,010	
A16	University of Huddersfield – BS	0,000	
1110	Technical university of Liberec – EF	0,000	
A17	University of Huddersfield – BS	0,025	
111,	Technical university of Liberec – EF	3,020	
A18	University of Huddersfield – BS	0,000	
1110	Technical university of Liberec – EF		

Source: Table created by author

Chi-square test confirmed the statistical significant difference in the measurement of importance (by university) of these attributes A6, A15, A16, A18 (identical with median analysis), and attributes A4, A5, and A17. Thus, we may consider the differences in the measurement of attributes: 'The co-operation with professor (on projects, etc.)', 'The library services', 'The computer equipment' and 'The accommodation' by students as proven (both tests median and chi-square proved that).

On the other hand, differences in the measurement of 'The possibility to discuss the subject with the teacher (interaction between the students and the teachers)', 'The extent, distribution and comprehensibility of the subject' and 'The dining halls' were discovered only by the chi-square test. We might draw a conservative conclusion that the differences appear, but their statistical importance/ insignificance cannot be sufficiently proven or disproven. Thus further analyses would be needed to test this assertion. However, this is not the aim and scope of the research.

The question 8 had the same structure as question 7 only was asking respondents about their satisfaction with the 18 attributes. Respondents expressed their satisfaction with the attributes on the 6-point scale, where 1 = extremely satisfied and 6 = not at all satisfied. The overall evaluation of the analysis represents the Table 3.5. Evaluation of an attribute whose median lies in the interval <1;2> shows that students are satisfied with this attribute. Attribute whose median lies in the interval <3;4> shows that students are either satisfied or dissatisfied with the attribute. And attribute whose median lies in the interval <5;6> shows that students are not satisfied with this attribute.

Table 3.5 Satisfaction with attributes

A 44 97 4	University of 1	Huddersfield - BS	TU	L - EF
Attribute	Median	Satisfaction	Median	Satisfaction
A1	2	Satisfied	3	Neutral
A2	3	Neutral	3	Neutral
A3	3	Neutral	3	Neutral
A4	2	Satisfied	3	Neutral
A5	3	Neutral	3	Neutral
A6	3	Neutral	3	Neutral
A7	2	Satisfied	3	Neutral
A8	2	Satisfied	3	Neutral
A9	3	Neutral	3	Neutral
A10	2	Satisfied	2	Satisfied
A11	2	Satisfied	2	Satisfied
A12	4	Dissatisfied	2	Satisfied
A13	3	Neutral	2	Satisfied
A14	2	Satisfied	4	Dissatisfied
A15	2	Satisfied	2	Satisfied
A16	2	Satisfied	3	Neutral
A17	3	Neutral	3	Neutral
A18	3	Neutral	2	Satisfied

Source: Table created by author

In the table we may see the difference in satisfaction with attributes A1, A4, A7, A8, A12, A13, A14, A16 and A18. While students of the British university are satisfied with attributes A1, A4, A7, A8 and A14, students of the Czech university are with those attributes either satisfied or dissatisfied. On the other hand students of the Czech university are satisfied with factors A13 and A18. Students of the British university are with those attributes either satisfied or dissatisfied. The table shows that students were dissatisfied with two attributes, A12 and A14. Whilst students of University of Huddersfield – BS are not satisfied with attribute A12, students of TUL – EF are with this attribute satisfied. Contrary, students of TUL – EF are not satisfied with attribute A14 but students of University of Huddersfield – BS are with this attribute satisfied. Due to the differences in results further analysis takes place.

Pearson chi-square was used in Table 3.6 to discover if there is a statistical significant difference between two variables on the level of statistical significance  $\alpha$ .

H<sub>0</sub>: There is no difference in satisfaction with individual attributes between the particular university in the Czech Republic and in the United Kingdom.

H<sub>a</sub>: There is a difference in satisfaction with individual attributes between the particular university in the Czech Republic and in the United Kingdom.

Table 3.6 Chi-square test for satisfaction with attributes

Attribute	University	p-value	
A1	University of Huddersfield – BS	0,036	
	Technical university of Liberec – EF	0,030	
A2	University of Huddersfield – BS	0,559	
AZ	Technical university of Liberec – EF	0,337	
A3	University of Huddersfield – BS	0,505	
	Technical university of Liberec – EF	0,000	
A4	University of Huddersfield – BS	0,292	
	Technical university of Liberec – EF	0,272	
A5	University of Huddersfield – BS	0,087	
	Technical university of Liberec – EF	0,001	
A6	University of Huddersfield – BS	0,539	

	Technical university of Liberec – EF	
A7	University of Huddersfield – BS	0,544
A/	Technical university of Liberec – EF	0,544
A8	University of Huddersfield – BS	0,062
710	Technical university of Liberec – EF	0,002
A9	University of Huddersfield – BS	0,053
	Technical university of Liberec – EF	0,033
A10	University of Huddersfield – BS	0,320
7110	Technical university of Liberec – EF	0,320
A11	University of Huddersfield – BS	0,230
7111	Technical university of Liberec – EF	0,230
A12	University of Huddersfield – BS	0,000
1112	Technical university of Liberec – EF	0,000
A13	University of Huddersfield – BS	0,014
	Technical university of Liberec – EF	0,02.
A14	University of Huddersfield – BS	0,003
	Technical university of Liberec – EF	0,000
A15	University of Huddersfield – BS	0,541
	Technical university of Liberec – EF	3,5 1.2
A16	University of Huddersfield – BS	0,152
	Technical university of Liberec – EF	0,102
A17	University of Huddersfield – BS	0,103
	Technical university of Liberec – EF	3,-3-
A18	University of Huddersfield – BS	0,001
	Technical university of Liberec – EF	3,50

Source: Table created by author

Chi-square test confirmed the statistical significant difference in the measurement of satisfaction with (by university) with these attributes A1, A8, A12, A13, A14, A18 (identical with median analysis), and attributes A5, and A9. Thus, we may consider the differences in the measurement of these attributes: A1, A8, A12, A13, A14 and A18 by students as proven (both tests median and chi-square proved that).

On the other hand, differences in the measurement of A4, A5, A7, A9 and A16 were discovered by only one of two tests. We might draw a conservative conclusion that the differences appear, but statistical importance/ insignificance of these attributes cannot be sufficiently proven or disproven. Thus further analyses would be needed to test this assertion. However, this is not the aim and scope of the research.

In order to determine the role of student satisfaction on student loyalty and the role of student loyalty on student retention to the university, the scale of overall satisfaction was grouped into three categories. Points 1 and 2 were grouped together and named as 'satisfied'. Points 3 and 4 were grouped together and marked as 'neutral' and points 5 and 6 were grouped together and named as 'not satisfied'.

Table 3.7 Cross-tabulation of overall satisfaction and recommendation

Recommendation \* Overall\_Satisfaction\_Categorie Crosstabulation

			Overall_	Overall_Satisfaction_Categorie		
			satisfied	neutral	not satisfied	Total
Recommendation	Yes	Count	55	36	6	97
		% within Recommendation	56,7%	37,1%	6,2%	100,0%
	No	Count	2	14	4	20
		% within Recommendation	10,0%	70,0%	20,0%	100,0%
Total		Count	57	50	10	117
		% within Recommendation	48,7%	42,7%	8,5%	100,0%

Table 3.7 shows that 55 satisfied students would recommend their current university to family members or friends. In addition, 36 neutral students would recommend their university, too.

Table 3.8 Cross-tabulation of overall satisfaction and alumni participation

Alumni\_Participation \* Overall\_Satisfaction\_Categorie Crosstabulation

			Overall_Satisfaction_Categorie			
			satisfied	neutral	not satisfied	Total
Alumni_Participation	Yes	Count	45	30	4	79
		% within  Alumni_Participation	57,0%	38,0%	5,1%	100,0%
	No	Count	12	20	6	38
		% within  Alumni_Participation	31,6%	52,6%	15,8%	100,0%
Total		Count	57	50	10	117
		% within  Alumni_Participation	48,7%	42,7%	8,5%	100,0%

45 satisfied students would support their university in the future. Another 30 either satisfied or not satisfied students would support their university in the future. (Table 3.8)

Table 3.9 Cross-tabulation of overall satisfaction and retention

Retention \* Overall\_Satisfaction\_Categorie Crosstabulation

			Overal	Overall_Satisfaction_Categorie				
			satisfied	neutral	not satisfied	Total		
Retention	Yes	Count	41	29	4	74		
		% within Retention	55,4%	39,2%	5,4%	100,0%		
	No	Count	16	21	6	43		
		% within Retention	37,2%	48,8%	14,0%	100,0%		
Total		Count	57	50	10	117		
		% within Retention	48,7%	42,7%	8,5%	100,0%		

In the Table 3.9 we can see that 41 satisfied students want to continue studying at their current university. Moreover, 29 either satisfied or not satisfied students want to do their Master studies at current university.

Table 3.10 Cross-tabulation of university and recommendation

Current\_Education\_Institution \* Recommendation Crosstabulation

			Recomm	endation	
			Yes	No	Total
Current_Education_Institution	University of	Count	31	10	41
	Huddersfield – BS	% within  Current_Education_Institution	75,6%	24,4%	100,0%
	TUL - EF	Count	66	10	76
		% within  Current_Education_Institution	86,8%	13,2%	100,0%
Total		Count	97	20	117
		% within  Current_Education_Institution	82,9%	17,1%	100,0%

Based on the Table 3.10 we may observe that the intention to recommend the current education institution to family members or to friends is relatively same. 76 % of all students studying at the British university would recommend their university to family members or to friends. And 87 % of students studying at the Czech university would recommend the university to their family members or to their peers.

Table 3.11 Cross-tabulation of university and alumni participation

Current\_Education\_Institution \* Alumni\_Participation Crosstabulation

		anon Alanini_i articipation ore			
			Alumni_Participation		
			Yes	No	Total
Current_Education_Institution	University of	Count	26	15	41
	Huddersfield	% within	00.40/	36,6%	100,
	– BS	Current_Education_Institution	63,4%		0%
	TUL - EF	Count	53	23	76
		% within	CO 70/	30,3%	100,
		Current_Education_Institution	69,7%		0%
Total		Count	79	38	117
		% within	67.50/	22.50/	100,
		Current_Education_Institution	67,5%	32,5%	0%

Based on the Table 3.11 we can state that the willingness to support the current education institution is similar across the universities. 63 % of Huddersfield students would in the future support their university through donation, being a guest speaker or further co-operation. In a like manner, 70 % of TUL students would support their current university in the future.

Table 3.12 Cross-tabulation of university and retention

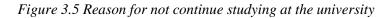
Current\_Education\_Institution \* Retention Crosstabulation

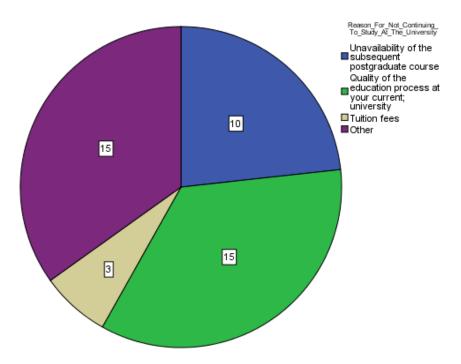
			Retention		
			Yes	No	Total
Current_Education_Institution	University of	Count	26	15	41
	Huddersfield – BS	% within  Current_Education_Institution	63,4%	36,6%	100,0%
	TUL - EF	Count	48	28	76
		% within  Current_Education_Institution	63,2%	36,8%	100,0%
Total		Count	74	43	117
		% within  Current_Education_Institution	63,2%	36,8%	100,0%

In the table 3.12 the intention to continue studying at the university across students was analysed. We may report that the percentage of retention is identical at both universities. 63 % of students from both the University of Huddersfield – Business School and the Technical University of Liberec – the Faculty of Economics want to continue studying at their current education institution.

From the previous table we can observe that in total 37 % (43) of students do not want to continue in their postgraduate studies at their current university. 10 students do not plan continue studying at their current university due to unavailability of the subsequent postgraduate course. 15 students do not intend to do their Master studies at their current university due to poor quality of the education process at the university. 3 students state the reason for not doing their Master studies at their current university for the reason of high tuition fees. From 15 students who chose the answer Other, 6 students simply do not want to study anymore, 2 students have not decided yet if they will continue studying at their current university. Two students want to study abroad, one wants to study in a different

university and experience a different study life. One student cannot attend the admission exam, one wants to pursue his/her career. One student cannot continue studying at the current university for the reason of pregnancy and one student stated that he/she does not want to do his/her postgraduate studies at the worst school ever.





#### 4. DISCUSSION

In this chapter the analysed data are linked to the literature review and compared with the previous findings in this area. And comparison of answers of students of the University of Huddersfield – Business School and the Technical University of Liberec – the Faculty of Economics is made in order to discuss the following research objectives:

- Determine the role of teaching methods, course administration, teaching staff, enrolment and infrastructure on student satisfaction.
- Determine the role of student satisfaction on student loyalty.
- Determine the role of student loyalty on student intention to return to the university.
- Determine the difference in importance of attributes influencing satisfaction with offered services by university between students of the University of Huddersfield – Business School and the Technical University of Liberec – the Faculty of Economics, where

 $H_0$ : There is no difference in importance between the particular university in the Czech Republic and in the United Kingdom.

 $H_a$ : There is a difference in importance between the particular university in the Czech Republic and in the United Kingdom.

Determine the difference in satisfaction with individual attributes between students
of the University of Huddersfield – Business School and the Technical University of
Liberec – the Faculty of Economics, where

 $H_0$ : There is no difference in satisfaction with individual attributes between the particular university in the Czech Republic and in the United Kingdom.

 $H_a$ : There is a difference in satisfaction with individual attributes between the particular university in the Czech Republic and in the United Kingdom.

According to Tsarenko and Mavondo (2001) and Elliott and Healy (2001) student satisfaction consists of interconnected experiences of student life, physical resources, cultural infrastructure and capabilities which all overlap and influence student satisfaction from different perspectives. A large number of studies (Tsarenko and Mavondo, 2001; Elliott and Healy, 2001; Marzo et al. (2005); Douglas et al., 2006; Gruber, Fuß, Voss and Gläser-Zikuda, 2010; Shah and Widin, 2010; Shah, Roth and Nair, 2010; Nair and Shah, 2012; Grebennikov and Shah, 2013) were conducted to find out the key factors influencing student satisfaction. They came to the conclusion that aspects the most important to satisfaction are based on what happens within and beyond the classroom. The dimensions with the highest levels of importance across most of the studies thus are teaching methods, course administration, teaching staff, enrolment and infrastructures.

This research has broken those 5 above mentioned factors down into 18 attributes to find out that the aspects determining student satisfaction to the greatest extent are: 'The proportion between theory and practise', 'Provided study materials', 'Selected teaching methods', 'The possibility to discuss the subject with the teacher', 'The extent, distribution and comprehensibility of the subject', 'The attitude of the teaching staff towards the students', 'The quality of the teaching staff'', 'The possibility to customizable the schedule', 'The course organisation' and 'The attitude of the course administration staff towards the students'. Moreover, none of the 18 attributes was identified as not important for student satisfaction. Therefore, it might be announced that there is a positive and significant effect of those 18 factors on student satisfaction.

Abu Bakar, Abdul Talib and Hashim, (2014) observe that there is in the service industry a close positive relationship between satisfaction and loyalty. In other words, that satisfaction increases loyalty and thus the positive relationship might take place 'the higher satisfaction the higher loyalty' (Aritonang, 2014). Indeed, it is being assumed that satisfaction tends to be an antecedent to loyalty which can be in a form of retention, positive word-of-mouth or further consumption of the service by the customers or their relatives (Abu Bakar, Abdul Talib and Hashim, 2014; Dick and Basu, 1994; Alves and Raposo, 2007). Oliver (1999) confirms satisfaction is the key aspect of loyalty and that loyalty is fully dependant on it. Marzo et al. (2005); Alves and Raposo (2007) maintain that higher education institutions are not an exception in this assumption. Students satisfied with their own learning experience

might create conditions that are characteristic for loyalty (e.g. attitudes, behaviours, etc.) and which lead either to consequent recommendations of the university to potential students or to intentions to return to the institution in the future (Tsarenko and Mavondo, 2001; Olsen and Johnson, 2003; Abu Bakar, Abdul Talib and Hashim, 2014).

The relationship between student satisfaction and student loyalty has been measured through three items: intention to recommend the university to family members or friends, intention to support the university in the future and intention to participate in the continuing education at the university. The results show that all three factors are significant in determining the student loyalty. 57 % of satisfied students would recommend their current university to family members or friends. The same percentage (57 %) of satisfied students would support their university, as an alumni, through donation, co-operation or through other form of support. And 55 % of satisfied students want to continue studying at their current university. Thus, it might be declared that there is a positive and significant effect of student satisfaction on student loyalty. By the same token, intention to return to participate in the continuing education offered by the university is positively related to student loyalty. This findings correlate with various studies on the concept of student loyalty. Tsarenko and Mavondo (2001), Gerpott, Rams and Schindler (2001) and Hansemark and Albinsson (2004) declare that loyalty is a central determinant of customer retention. Moreover, they concur that satisfied students tend to far more engage returning to do higher degrees. These assertions have already been made in prior studies (Patterson, Johnson and Spreng, 1997; Bolton, Kannan and Bramlett, 2000; Elliott and Healy, 2001) which found a strong link between customer loyalty and repurchase intentions.

Moreover, during the analysis of data some interesting contrasting findings in answers were found and should be pointed out. While attributes 'The co-operation with professor', 'The library services' and 'The computer equipment' play a significant role in influencing student satisfaction of students studying at the University of Huddersfield – BS, students of the Czech university perceive those attributes as less important. Contrary, students of TUL – EF see the attribute The accommodation' as an important factor influencing satisfaction with their university. Students of University of Huddersfield – BS perceive this factor as less important.

Differences in answers could be found in the question asking respondents about their satisfaction with the 18 attributes, too. While students of the British university are satisfied with attributes 'The proportion between theory and practise', 'The quality of the teaching staff' and 'The attitude of the course administration staff towards the students', students of the Czech university are with the first two mentioned attributes either satisfied or dissatisfied, however, they are dissatisfied with the third attribute. By way of contrast, students of the Czech university are satisfied with attributes 'The possibility to customizable the schedule', 'The course organisation' and 'The accommodation'. Students of the British university are with the first attribute dissatisfied and with the remaining two they are either satisfied or dissatisfied.

#### 5. CONCLUSIONS AND RECOMMENDATIONS

The aims of this dissertation were to identify attributes that have an impact on the student satisfaction with offered services by a university, to develop a relationship between student satisfaction and student loyalty and afterwards to indicate the role of student loyalty on the intension to return to the university.

In the first section of the dissertation, the key element of marketing, customer, in this case the customer of higher education institution was identified and discussed. Then, the terms student satisfaction and student loyalty were described and five factors influencing student satisfaction were presented. The second part was dedicated to the research. The questionnaires were distributed to students of the University of Huddersfield - Business School and the Technical University of Liberec - The Faculty of Economics in order to analyse the following specific research objectives:

- determine the role of teaching methods, course administration, teaching staff, enrolment and infrastructure on student satisfaction;
- determine the role of student satisfaction on student loyalty;
- determine the role of student loyalty on student intention to return to the university;
- determine the difference in importance of attributes influencing satisfaction with offered services by university between students of the University of Huddersfield – Business School and the Technical University of Liberec – the Faculty of Economics, where

 $H_0$ : There is no difference in importance between the particular university in the Czech Republic and in the United Kingdom.

 $H_a$ : There is a difference in importance between the particular university in the Czech Republic and in the United Kingdom;

determine the difference in satisfaction with individual attributes between students
of the University of Huddersfield – Business School and the Technical University of
Liberec – the Faculty of Economics, where

 $H_0$ : There is no difference in satisfaction with individual attributes between the particular university in the Czech Republic and in the United Kingdom.  $H_a$ : There is a difference in satisfaction with individual attributes between the particular university in the Czech Republic and in the United Kingdom.

In general, this study confirmed the previous findings of other researchers in this area. An analysis of student satisfaction with offered services is vital for universities in order to remain competitive in the highly competitive environment. Therefore, the higher education institutions need to determine factors which affect student satisfaction as satisfaction is the predecessor of student loyalty. This study found out that all 18 analysed attributes have a positive and significant effect on student satisfaction. This research also theorized the relationship between student satisfaction and student loyalty. Majority of satisfied students would recommend, support and return to study at their current university. This means that there is a positive and significant effect of student satisfaction on student loyalty and that intention to return to participate in the continuing education offered by the university is positively related to student loyalty.

In spite of the importance of the obtained results, some of the limitations should be highlighted. The findings of this study cannot be generalized due to small number of respondents. Students of only two universities took part in the survey. Thus, the future studies should enlarge the number of respondents in order to increase validity.

Although the findings shown that all 18 attributes are in general important for student satisfaction, customer tastes change over time. Therefore, universities should conduct surveys on measurements of satisfaction on regular basis and thus identified on time the attributes which students are not fully satisfied with and work on their improvements in order to keep students satisfied. The reason for that is that satisfied students have higher chance to finish their studies than their not satisfied peers. Satisfied students moreover tend to recommend their university to their family members and friends. In addition, it has also

financial benefits to keep students satisfied. Satisfied and loyal students tend to return studying at the university in the future and thus save university some money as maintain current customers costs less money than acquiring new ones. Moreover, satisfied and loyal students tend to financially support their university in the future.

In order to increase student satisfaction, the University of Huddersfield – Business School should direct its attention to the attribute 'The possibility to customizable the schedule' and maybe allow its students to more customize their schedule as they shown their dissatisfaction with this attribute. On the other hand, the Technical University of Liberec – the Faculty of Economics should mind the attitude of the course administration staff towards the students as its students shown dissatisfaction with this attribute. In addition, further analysis should be undertaken to corroborate the differences in the evaluation of attributes by students of particular university.

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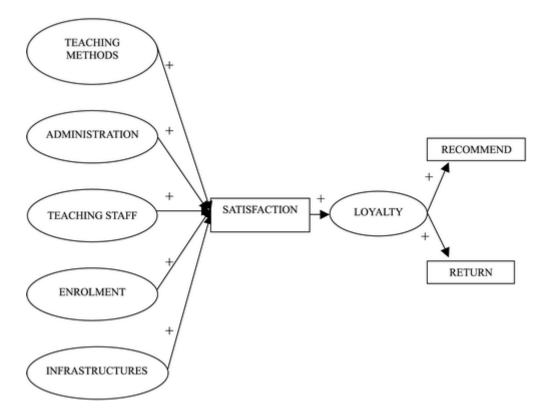
## APPENDIX A: ETHICAL FORM

# APPENDIX B: THE FACTORS INFLUENCING STUDENT SATISFACTION

Variable	Item	A new management	
Teaching methods	The proportion between theory and practice was adequate (V1) The bibliography, documentation, etc., provided were adequate (V2) The teaching methods were appropriate (V3) The level at which these subjects were discussed was appropriate (V4) The extent and distribution of the subjects were correct (V5)	element 513	
Course administration	The initial planning and the scheduled activities were respected (V6) The course administrator performed his functions effectively (V7) The course organisation was adequate (V8)		
Teaching staff	The co-ordination between professors was good (V9)  The attitude of the teaching staff towards the students was positive (V10)   The quality of the teaching staff was high (V11)		
Enrolment	In general, the enrolment process was adequate (V12) The form of payment was convenient (V13) The enrolment period was opportune (V14)		
Infrastructures	The infrastructure was adequate (V15)		
Satisfaction	I am satisfied with the course (V16)		
Loyalty	I will recommend this course (V17) I will return to participate in the courses (V18)	Table II. Items used	

Source: Marzo et al. (2005)

APPENDIX C: THE CONCEPTUAL MODEL



Source: Marzo et al. (2005)

# APPENDIX D: THE ENGLISH VERSION OF THE QUESTIONNAIRE

### APPENDIX E: THE CZECH VERSION OF THE QUESTIONNAIRE

### University of Huddersfield The Business School

#### STUDENT PROJECT / DISSERTATION ETHICAL REVIEW

### APPLICABLE TO ALL UNDERGRADUATE AND POSTGRADUATE TAUGHT PROGRAMMES

Please complete and return via email to your Project / Dissertation Supervisor along with the required documents (shown below)

Before completing this section please consult the '<u>Ethics Policy and Procedures</u>' section on Blackboard. Students should consult the appropriate ethical guidelines. The student's supervisor is responsible for advising the student on appropriate professional judgement in this review.

#### SECTION A: TO BE COMPLETED BY THE STUDENT

Project Title:	Marketing of tertiary institutions
Student name:	Lukáš Myslivec
Student number:	U1571738
Course:	BE140 - BA(Hons) European Business (Top-up) FT
Supervisor:	Eftychia Palamida
Proposed start date of data collection	Christmas holidays

### SECTION B: PROJECT OUTLINE (TO BE COMPLETED IN FULL BY THE STUDENT)

Issue	Please provide sufficient detail for your supervisor to assess strategies used to address ethical issues in the research proposal.
Aim / objectives of the study These need to be clearly stated and in accord with the title of the study. (Sensitive subject areas which might involve distress to the participants will be referred to the Ethics Committee Representative).	To identify attributes that have an impact on the student satisfaction with offered services by a university, to develop a relationship between student satisfaction and student loyalty and afterwards to indicate the role of student loyalty on the intension to return to the university.
Research methodology The methodology needs to be explained in sufficient detail to show the approach used (e.g. survey) and explain the research methods to be used during the study.	The methodological approach taken in this study is quantitative research method. Questionnaire is used for collecting data from stratified random sample.
Does your study require any permissions for study? If so, please give details.	No.
Participants Please outline who will participate in your research. You should	Full-time students at the Technical University of Liberec, Faculty of Economics and University of Huddersfield. All participants agree to

### FORM A - Student Approval Form (taught courses)

comment explicitly about whether your participants are able to offer informed consent. If your research involves vulnerable groups (e.g. children, adults with learning disabilities), it must be referred to a Ethics Committee member.  Access to participants	take part in the survey by submitting the online survey or by filling it in personally.  Personally and via Internet.
Please give details about how participants will be identified and contacted.	
How will your data be recorded and stored?	Via special software and all information which is collected will be strictly confidential and anonymised before the data is presented in the assignment, in compliance with the Data Protection Act and ethical research guidelines and principles.
Confidentiality Please outline the level of confidentiality you will offer respondents and how this will be respected. You should also outline who will have access to the data and how it will be stored. (This information should be included on 'Information Sheet'.)	The collected data will be used only for my research purpose. Access to the data will have author and supervisor. And the data will be stored electronically or in a hard copy.
Anonymity If you offer your participants anonymity, please indicate how this will be achieved.	By not asking their name, asking only for personal information necessary for the research.
Could the research induce psychological stress or anxiety, cause harm or negative consequences for the participants (beyond the risks encountered in normal life)? If yes, you should outline what support there will be for participants.	No.
Retrospective applications. If your application for Ethics approval is retrospective, please explain why this has arisen.	

### SECTION C - SUMMARY OF ETHICAL ISSUES (TO BE COMPLETED BY THE STUDENT)

Please give a summary of the ethical issue and any action that	will be taken to address the issue(s).
No ethical issues.	

### SECTION D - ADDITIONAL DOCUMENTS CHECKLIST (TO BE COMPLETED BY THE STUDENT)

Please supply to your supervisor copies of all relevant supporting documentation electronically. If

this is not available electronically, please provide an explanation and supply hard copy I have included the following documents Information sheet  $\boxtimes$ Not applicable  $\boxtimes$ Not applicable \( \square\) Consent form Yes Letters Yes Not applicable X  $\boxtimes$ Not applicable Final version of questionnaire Yes Interview schedule / questions Yes Not applicable **SECTION E: STUDENT STATMENT** I confirm that the information I have given in this form on ethical issues is correct. Please tick the box to confirm. Student Name Date SECTION F: STATEMENT BY SUPERVISOR AND RECOMMENDATION ON THE PROJECT'S **ETHICAL STATUS** I have read the information above and I can confirm that, to the best of my understanding, the information presented by the student is correct and appropriate to allow an informed judgement on whether further ethical approval is required. Please tick the box to confirm Date Supervisor Name Having satisfied myself of the accuracy of the project's ethical statement, I believe that the appropriate action is: The project proceeds in its present form The project proposal needs further assessment with the Ethics Committee representatives

This form should be submitted to the nominated course team.

The project needs to be returned to the student for reworking

**PLEASE NOTE:** This is a survey preview, submitted answers are NOT saved. If you wish to fill the survey out, <u>click here (https://www.survio.com/survey/d/Z8N0G007P1B4H9G9D)</u>.

### Dissertation questionnaire

Thank you for agreeing to take part in this important survey measuring student satisfaction and loyalty with their education institution. I am a final year student at the University of Huddersfield currently in the process of completing my dissertation. I have structured a questionnaire and I am looking for the views of undergraduate full-time economic students of the University of Huddersfield and the Technical university of Liberec on this topic. This questionnaire should only take 4-5minutes to complete. Be assured that all answers you provide will be kept in the strictest anonymity and used only for the purpose of the dissertation.

Wha	
	Male
	Female
Wha	t is your current education institution?
Wha	t is your current education institution?
Wha	t is your current education institution?  University of Huddersfield – Business School
Wha	
Wha	University of Huddersfield – Business School
Wha	University of Huddersfield – Business School  The Technical university of Liberec – The Faculty of Economics

	. •	
Dissertation	anestion	naire

Yes No  Are you a full-time student? Yes No  What is your current year of study?  1st year 2nd year 3rd year Sandwich year Other (please specify): Type your answer	Are you an undergraduate student?	
Are you a full-time student?  Yes No  What is your current year of study?  1st year 2nd year 3rd year Sandwich year Other (please specify): Type your answer	Yes	
Yes No  What is your current year of study?  1st year 2nd year 3rd year Sandwich year Other (please specify): Type your answer	No	
What is your current year of study?  1st year 2nd year 3rd year Sandwich year Other (please specify): Type your answer	Are you a full-time student?	
What is your current year of study?  1st year 2nd year 3rd year Sandwich year Other (please specify): Type your answer	Yes	
1st year 2nd year 3rd year Sandwich year Other (please specify): Type your answer	No	
1st year 2nd year 3rd year Sandwich year Other (please specify): Type your answer	What is your current year of study?	
2nd year  3rd year  Sandwich year  Other (please specify):  Type your answer		
Sandwich year Other (please specify): Type your answer		
Other (please specify):  Type your answer	3rd year	
Type your answer	Sandwich year	
	Other (please specify):	
<b>100</b> characters remaining	Type your answer	
		<b>100</b> characters remaining

Accountancy and Finance BA(Hons)	
Business and Marketing BA(Hons)	
Economics BSc(Hons)	
Economics and Management of International Trade	
Economics and Management of Services	
Economics with Financial Services BSc(Hons)	
Business Administration	
Entrepreneurship and Business BA(Hons)	
Events Management BA(Hons)	
Hospitality Business Management BA(Hons)	
Human Resource Management	
Information and Communication Management	
Marketing with Public Relations BA(Hons)	
Managerial Informatics	
Tourism	
Other (please specify):	
Type your answer	
	<b>100</b> characters remaining

# Please indicate the extent to which the below mentioned factors are important for your satisfaction with your current university on the following scale by ticking the appropriate number (1=extremely important,..., 6=not at all important):

	1	2	3	4	5	6
The proportion between theory and practise						
Provided study materials (documentation, bibliography, etc.)						
Selected teaching methods (presentation, monologue, dialogue, dependence on self-education, etc.)						
The possibility to discuss the subject with the teacher (interaction between the students and the teachers)						
The extent, distribution and comprehensibility of the subject						
The co-operation with professor (on projects, etc.)						
The attitude of the teaching staff towards the students						
The quality of the teaching staff						
The enrolment process						
The possibility to choose the form of payment for the enrolment						
The enrolment period						
The possibility to customizable the schedule						
The course organisation						

# Please indicate the extent to which you are satisfied with the below mentioned factors at your current university on the following scale by ticking the appropriate number (1=extremely satisfied,..., 6=not at all satisfied):

	1	2	3	4	5	6
The proportion between theory and practise						
Provided study materials (documentation, bibliography, etc.)						
Selected teaching methods (presentation, monologue, dialogue, dependence on self-education, etc.)						
The possibility to discuss the subject with the teacher (interaction between the students and the teachers)						
The extent, distribution and comprehensibility of the subject						
The co-operation with professor (on projects, etc.)						
The attitude of the teaching staff towards the students						
The quality of the teaching staff						
The enrolment process						
The possibility to choose the form of payment for the enrolment						
The enrolment period						
The possibility to customizable the schedule						
The course organisation						

Please indicate the extent to which you are generally satisfied with the education process at your current university on the following scale by circling the appropriate number (1=extremely satisfied,..., 6=not at all satisfied):

Overall, how satisfied are you with the education process at your current university?

Would you recommend your current educational institution to your family members or friends?

Yes No

Would you support your current university as an alumni through donation, being a guest speaker, co-operation (internships for students, co-operating in research projects) etc.?

Yes No

•	end to continuens	e with studyii	ng at your currer	nt
Yes				
No				

# If your previous answer was No (You do not intend to continue with stuying at your current education institution) please state the reason.

Unavailability of the subsequent postgraduate course
Quality of the education process at your current; university
Tuition fees
I do intend to continue with studying at my current education institution
Other (please specify):
Type your answer

100 characters remaining

### **SUBMIT SURVEY**

Vytvořte si vlastní <u>dotazník (http://www.survio.com/cs/?source=survey\_footer&medium=link&term=survey\_link)</u> zdarma  $\checkmark$  <u>Survio (http://www.survio.com/cs/vlastnosti?source=survey\_footer&medium=link&term=brand)</u> Vám pomůže

**PLEASE NOTE:** This is a survey preview, submitted answers are NOT saved. If you wish to fill the survey out, <u>click here</u> (https://www.survio.com/survey/d/S3V1Z9Q7Y5I9K6N1H).

### Dissertation questionnaire CR version

Dobrý den,

rád bych Vás touto cestou požádal o vyplnění krátkého dotazníku, který souvisí s vypracováním mé bakalářské práce. Předmětem dotazování je studentská spokojenost se studiem bakalářských programů na univerzitě v Huddersfieldu a na Ekonomické fakultě TUL.

Všechny Vámi poskytnuté informace budou sloužit výhradně pro účely mé bakalářské práce a jsou zcela anonymní.

Předem velmi děkuji za Váš čas a za vyplnění dotazníku.

Lukáš Myslivec

student třetího ročníku University of Huddersfield

Pohlaví		
Muž		
Žena		

20.4.2016 21:24

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Dissertation	questionnaire	CR	version

Ur	niversity of Huddersfield – Business School	
Te	echnická univerzita v Liberci – Ekonomická fakulta	
) Jir	né	
Ту	ype your answer	
	<b>100</b> characters	remair
	studentem bakalářského programu:	
	no	
Ar Ne	no e	
Ar Ne	no	
Ar Ne	no e	

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L)issertation	questionnaire	CR	version

Označte ročník studia	
První ročník	
Druhý ročník	
Třetí ročník	
Sandwich rok	
Jiné	
Type your answer	
	<b>100</b> characters remaining

Accountancy and Finance BA(Hons)	
Business and Marketing BA(Hons)	
Economics BSc(Hons)	
Ekonomika a management mezinárodního obchodu	
Ekonomika a management služeb	
Economics with Financial Services BSc(Hons)	
Podniková ekonomika	
Entrepreneurship and Business BA(Hons)	
Events Management BA(Hons)	
Hospitality Business Management BA(Hons)	
Human Resource Management	
Information and Communication Management	
Marketing with Public Relations BA(Hons)	
Manažerská informatika	
Cestovní ruch	
Jiné	
Type your answer	
	<b>100</b> characters remaining

## Vyjádřete, jak důležité jsou pro Vaši spokojenost se studiem na současné vzdělávací instituci níže uvedené faktory, na stupnici 1 – 6, kde 1 = zcela důležitý......, 6 = naprosto nedůležitý.

	1	2	3	4	5	6
Poměr mezi teoretickými znalostmi a praktickými zkušenostmi						
Poskytované studijní materiály (dokumenty, knihy)						
Zvolené vyučovací metody (prezentace, monolog, dialog, samostudium)						
Možnost diskutovat o vyučovaných tématech (interakce mezi studentem a pedagogem)						
Srozumitelnost a rozsah vykládané látky						
Možnost spolupráce s vyučujícím (na projektech)						
Přístup vyučujících ke studentům						
Kvalita vyučujících						
Proces zápisu (do ročníku)						
Možnost zvolit způsob úhrady poplatku za přihlášku						
Termín zápisu						
Možnost vytvořit si rozvrh						
Přístup garanta oboru						
Přístup studijního oddělení						
Služby knihovny						
Počítačové vybavení						

# Vyjádřete svou spokojenost s níže uvedenými faktory na Vaší současné vzdělávací instituci, na škále 1 – 6, kde 1 = zcela spokojen.....6 = naprosto nespokojen

	1	2	3	4	5	6
Poměr mezi teoretickými znalostmi a praktickými zkušenostmi						
Poskytované studijní materiály (dokumenty, knihy)						
Zvolené vyučovací metody (prezentace, monolog, dialog, samostudium)						
Možnost diskutovat o vyučovaných tématech (interakce mezi studentem a pedagogem)						
Srozumitelnost a rozsah vykládané látky						
Možnost spolupráce s vyučujícím (na projektech)						
Přístup vyučujících ke studentům						
Kvalita vyučujících						
Proces zápisu (do ročníku)						
Možnost zvolit způsob úhrady poplatku za přihlášku						
Termín zápisu						
Možnost vytvořit si rozvrh						
Přístup vedoucího oboru						
Přístup studijního oddělení						
Služby knihovny						
Počítačové vybavení						

# Určete míru spokojenosti se vzdělávacím procesem na Vaší současné vzdělávací instituci, na stupnici 1 -6, kde 1 = zcela spokojen a 6 = naprosto nespokojen

Míra spokojenosti se
vzdělávacím procesem na Vaší
současné vzdělávací instituci

## Doporučili byste Vaši současnou vzdělávací instituci blízkým nebo přátelům?

Ano Ne

Podpořili byste v budoucnu nějakou formou (finanční, přednáška, externí pracovník...) Vaši současnou vzdělávací instituci?

Ano Ne

instituci?	riatuvat v	uatsiiii stuu	iu iia vasi 30	učasné vzdělá	vati
Ano					
Ne					

důvo	ud jste na předešlou otázku odpověděli Ne, prosím uveďte od, proč se nechystáte pokračovat ve studiu na Vaší současné Elávací instituci.
	Nedostupnost navazujícího programu
	Kvalita vzdělávacího procesu na Vaší současné vzdělávací instituci
	Výše školného
	Budu pokračovat ve studiu na moji současné vzdělávací instituci
	Jiné

100 characters remaining

### **SUBMIT SURVEY**

Type your answer

Vytvořte si vlastní <u>dotazník (http://www.survio.com/cs/?source=survey\_footer&medium=link&term=survey\_link)</u> zdarma ✓ <u>Survio (http://www.survio.com/cs/vlastnosti?source=survey\_footer&medium=link&term=brand)</u> Vám pomůže

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