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Students Loyalty to Their University:
STUDENTS' SATISFACTION AND ITS DRIVERS

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Abstract

In the world, Portugal included, Universities and Higher Education Institutions increasingly need means to capture and retain the attention of current students and those who intend to enter Higher Education. The purpose of this study is to build and test a model that enables a better understanding of the predictors of student's loyalty towards Higher Education institutions. Through the Literature it was possible to identify some factors that potentially influence students' decision at the moment of entering: social life, intellectual growth, graduate employment, academic reputation and quality of education. Those factors were considered in our model as predictors of satisfaction, and consequent loyalty, towards Higher Education institutions. The primary data collection was conducted through an online survey, applied to Economics students of two different Portuguese universities – Universidade do Minho and Universidade do Porto. The analysis showed that most of the factors selected in the literature has impact on students' satisfaction with the Educational Institution where they are enrolled. Only intellectual growth and graduate employment did not show a significant relationship with students' satisfaction. Moreover, this study revealed that, in agreement with the literature, students' satisfaction has a positive impact on students' loyalty.

Keywords: students' loyalty, students' decision, students' satisfaction, University, Higher Education Institution.

Number of words: 8 796

Resumo

No mundo, e, também, em Portugal, as Universidades e Instituições de Ensino Superior necessitam cada vez mais de meios para captar e reter a atenção dos estudantes atuais e daqueles que pretendem ingressar no Ensino Superior. O objetivo deste estudo é construir e testar um modelo que permita uma melhor compreensão dos fatores que influenciam a lealdade dos estudantes para com as Instituições do Ensino Superior. Através da Literatura foi possível identificar alguns fatores que potencialmente terão impacto na decisão dos estudantes no momento da sua entrada: vida social, crescimento intelectual, emprego, reputação académica e qualidade da educação. Estes fatores foram considerados no nosso modelo como fatores que explicam a satisfação, e consequente lealdade, para com as Instituições de Ensino Superior. A recolha de dados primários foi realizada através de um inquérito online, aplicado a estudantes de Economia de duas universidades portuguesas diferentes - Universidade do Minho e Universidade do Porto. A análise mostrou que a maioria dos fatores selecionados na literatura tem impacto na satisfação dos estudantes com a Instituição de Ensino onde estão matriculados. Apenas o crescimento intelectual e o emprego dos licenciados não demonstraram uma relação significativa com a satisfação dos estudantes. Além disso, este estudo revelou que, de acordo com a literatura, a satisfação dos estudantes tem um impacto positivo na lealdade dos estudantes.

Palavras-chave: lealdade dos estudantes, decisão dos estudantes, satisfação dos estudantes, universidade, Instituição de Ensino Superior

Número de palavras: 8 796

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Introduction

In 2021, in Portugal, 411 995 students enrolled in higher education, where 220 829 female and 191 166 male. According to PORDATA, in 1978, there were 81 582 students in higher education in Portugal, both female and male. Last year, PORDATA has registered 385 247 students in higher education. Hence, in 40 years, the number of students increased by 303 665 and more than doubled. Also, through PORDATA it is possible to know the distribution of students enrolled by the country this year. Thus, we can see that Lisbon, Porto, Coimbra, Braga and Aveiro are the favorite cities for students. Hence, it is important to understand what has led to this increase in the number of students in higher education over the last 40 years and, particularly, to understand how students form their preferences in respect to higher education institutions (HEI).

In 2021, there were 64 000 higher education candidates in the first phase and 77% were placed, from the ones who got placed in the first phase, 82% got placed in their first 3 choices (Observador, 2021). Thus, it is important to understand what drives Portuguese students to apply for the same places, since 38 courses out of the total available in Portugal received no application (Jornal de Notícias, 2021). According to the Portuguese newspaper Público (2019), Portugal is one of the countries in the world that has a bigger difference between the number of students enrolled in secondary education and those who will engage in higher education. The percentage of the population enrolled in HEI in Portugal, between the ages of 20 and 24, is 37%, while the European average is 42%. Thus, it is also important to understand which factors influence students' decision-making process in respect to the conclusion of their studies, and to explore if students'

satisfaction with their decision will influence their choice in terms of the HEI where they will study in the future.

Nowadays, HEIs face more competitive market structures, including not only existing Portuguese HEIs but also foreign institutions. This brings a strong threat to some of these institutions, which have limited resources compared to others. Even so, all HEIs are forced to take advantage of their resources to attract potential students (Alves, Duarte and Raposo, 2010). Following the implementation of the Bologna Process in 2010, we have seen an increase in competition between HEIs. And we can even say that the era in which universities selected students is over. Nowadays, in fact, with the high number of institutions in Portugal, it is the students who select the universities. Therefore, it is key for HEIs to build a strong brand image to ensure student loyalty and guarantee that the HEI becomes attractive for new students as well (ShengHua and Yong, 2008).

According to Briggs (2007), marketing focused on the higher education sector in general is needed, as students have multiple universities to choose from. Moreover, they can easily obtain information about each institution, which also allows them to quickly form perceptions about the institutions in their own country and abroad.

Individuals who identify with an organization or brand see its success and failure as their own. Looking at the case of universities, university brand prestige and university brand knowledge are key determinants of students' identification with a university (Balaji, Roy and Sadeque, 2016). Furthermore, "universities must develop strong student-university identification to motivate students' university supportive behaviors" and, hence, create students' loyalty (Balaji, Roy and Sadeque, 2016, page 31).

The purpose of this research is to study the students' decision-making process when choosing between different HEIs, and, in particular, to understand whether student's satisfaction with their decision influences their loyalty to the

HEI chosen. Therefore, through this research, we aim to answer the following research questions:

RQ1: What are the main factors that influence students' satisfaction with their HEI choice?

RQ2: Does students' satisfaction with their decision affects their loyalty towards their HEI?

Chapter 1

Theoretical Framework

The main goal of this research is to study students' loyalty to the higher education brand. In order to fulfill this goal, the literature review will start by focusing on the concepts of university branding, university brand equity and preference, and on the main factors that influence students' preferences and choices in terms of HEI. However, given the purpose of this study, the focus of the literature review will be in the analysis of the main findings of prior studies in respect to students' decision-making process, students' satisfaction and students' loyalty.

1. University branding

Over the last decades, marketing has become quite significant in terms of university branding, mainly due to the fact HEIs have also became more *marketized* in an increasingly competitive landscape, essentially characterized by the proliferation of institutions, students' fragmentation and the decline of enrolments and retention rates (Sharma, Raob & Poplic, 2013; Williams & Omar, 2014). The concept of brand equity has gained recognition among higher education administrators as it consists in a strategic measure to deal with the current complex global changes and the market's competitiveness (Sharma et al.,

2013). In fact, educational institutions are currently investing in brand communication programs due to the realization that strong brands are more attractive to students, resulting in an increase in the retention rates. The study conducted by Sharma et al. (2013) actually corroborates this assumption, since it proves that brands have a significant role in the students' preferences in terms of educational institutions.

Similarly, Durkin, McKenna and Cummins (2012) have concluded that the sector's increasing competition requires for distinct brand identities, which is why universities have been investing in marketing practices, aiming to attract and retain their students. According to Kotler and Fox (1995, p. 6), education marketing is related to the "analysis, planning, implementation and control of carefully formulated programs designed to bring about voluntary exchanges of values with a target market to achieve organizational objectives".

More recently, Bennett and Ali-Choudhury (2009) defined the concept of university brand as the manifestation of the institution's features that distinguish it from others, reflect its capacity to satisfy students' needs, engender trust in its ability to deliver a certain type and level of higher education, and help potential recruits to make wise enrolment decisions.

In the higher education market, brands should be managed as corporate brands, since the brands' classic functions are equally applied to a wide range of service sectors. In fact, universities can and should implement brand and image theories that were previously applied in other contexts, such as commerce, in order to truly influence the students' choices (Du preez, 2015). As it is pointed out by Mourad (2013), choosing a specific university is a very risky process for students, since this decision plays a major role in their future. Hence, the brand name truly provides a shorthand measure for universities to communicate their main attributes to students, differentiating themselves from other educational institutions.

Moreover, branding is an important effort not only for the marketing department, but also for the university itself, considering that "colleges and universities must recognize that their most valuable tangible asset is their passionate employees" (Whisman, 2009, p. 368). Nonetheless, the consideration of the university's employees must be complemented by a compelling brand vision, aiming to ensure both the focus and the purpose – attract students to the university. Thus, university branding is effective if its management includes all the university's departments. Furthermore, the university also needs to have a compelling vision, making room for innovation and flexibility, guiding everyone's commitment and dedication to the service of the institution's several stakeholders. Lastly, Whisman (2009) also points out that while several marketing strategies are being applied by universities in order to improve their rankings and reputations, a very controversial issue in terms of the universities' branding and marketing is related to the treatment of students as customers of universities, which will be addressed in the next point.

2. Student-Based Brand Equity

Across the world, HEIs/universities have become increasingly marketing oriented, acknowledging that students are the institutions' consumers, despite being a key element of the university experience. Considering the existing competition in this industry, universities have fully recognized the need to market themselves in order to attract and maintain students. Nevertheless, the consideration of students as consumers of universities has been widely discussed, namely in terms of the concept's transferability from other sectors (Hemsley-Brown & Oplatka, 2006).

According to Sharma et al. (2013), HEIs consider their own students as customers of the education experience itself, given the fact that this service is becoming less differentiated across the world. While universities remain under great pressure to build and maintain a good reputation within the market, especially regarding the student services that create an impression of customer friendliness, it is also true that students are a very important target audience in the process of sending brand-building messages. The same authors have established that students increasingly consider themselves as customers of universities, mainly due to the changes that occurred in the funding systems, which heavily rely on tuition fees. As students purchase the educational service, it is normal that they perceive universities as providers of this specific service and that they expect to obtain value for the funds they have invested (Sharma et al., 2013).

Regarding the need of balancing the interests of all the stakeholders in the process of building the university brand, two different studies present complementary ideas. Newman, Couturier and Scurry (2004) indicate that students consider themselves as consumers of universities. And Tolbert (2014) suggest that universities are always compelled to respond to the increase of the students' demands while simultaneously building revenue and prestige.

It is important to mention the study conducted by Eagle and Brennan (2007), as these authors emphasize that, even though the tuition fees paid by students facilitate their education, these investments do not cause education. As a matter of fact, the students' contribution to the costs of their own education does not provide what they actually purchase. Therefore, and based on this assumption, there should be the possibility of students to mark down the academic personnel who truly strives to maintain higher academic status and standards, awarding them with good grades by their own merit. Since students are considered consumers of universities, they are expecting to obtain good grades given their

purchasing position, regardless of their own performance (Yunker & Yunker, 2003).

In order to try to avoid this eventual risk, maybe students should actually be considered as customers of the universities' experiences, rather than customers of the institutions, since the obtained results depend on the students' efforts and performance. Therefore, students should not be regarded as buyers of degrees, given the fact that they are actually acquiring/purchasing the benefits that such degrees confer, especially in terms of future status, lifestyle and employment (Ivy, 2008).

Nonetheless, it is possible to consider that the university branding grants students a sense of identification with the institution itself, given the fact that they can define themselves as life-long organizational members of the university, resulting in a psychological appropriation of the higher education institution. In the present work, students are considered to be a key stakeholder of universities, as well as the center of the university branding process, having a direct and reciprocal relationship with universities: on the one hand, students are customers of universities, since they invest in one service that is provided by these HEIs; on the other hand, universities also depend on students, especially in terms of their differentiation within the market, considering that the students' feedback influences the university branding and image. Hence, the concept of student-based brand equity is, definitely, important to the present study, given its impact in the universities' image, reputation and brand.

3. University brand equity and preference

Before analyzing the relationship between university brand equity and brand preference it is important to clarify the latter concept. Overall, brand preference is directly related to the consumer's tendency to select a specific brand over others, denoting the consumer's liking of a particular brand in a specific

product/service category, and, consequently, his/her intention to recommend this brand to others (Howard & Kerin, 2013). The concept of brand preference has been widely defined by several authors, such as Aaker (1996), Kapferer (2008), Matthew, Ipkin, Chu and Ting-Hsiang (2014), Lieven et al. (2015), and Wang (2015), who have proved that brand preference and brand equity are positively related to each other.

Wang (2015) claims that brand equity provides several benefits to organizations, which include brand preference. Hence, in this case brand preference is considered to be a consequence of brand equity, and not as a pre-requisite. Similarly, Griskevicius and Kenrick (2013) argue that strong brands have a very positive impact on consumers' behaviors and preferences. In addition, and considering the university context, the authors consider that brand preference is related to students' liking of a specific university, which is anchored in its own brand equity. Thus, they also defend that brand preference emerges as a consequence of brand equity.

Amongst the existing literature, several factors that influence student-based brand equity, or even HEI preference among students, have been identified:

1)   Graduate career prospects, university learning environment, university destination, reputation and cultural integration, which position the university's brand (Gray, Fan & Llanes, 2003);

2)   Campus life, quality of teachers and of resources and university access services, which consist in the most important factors in the marketing of university brands (Gatfield, Braker & Graham, 1999);

3)   Institutional reputation, programmes offered, fees, communication through publicity and e-media, interactions with faculty staff and other students, and premiums that are offered (Ivy, 2008);

4)   Facilities, processes in the marketing of services and people (Nicholls et al., 1995; Price, Matzdorf & Agathi, 2003).

Therefore, and based on all of these authors, it is possible to conclude that there has not yet been any consensus or unanimity in terms of the specific antecedents of student-based brand equity or HEI preference. However, some studies have identified the main factors that influence students' preferences, especially in terms of the university/HEI. In fact, Garnett (2014) has demonstrated that the university's identity is fundamental in shaping students' attitudes, considering that their willingness to apply to a certain university is affected by the level of congruence between their own self-identity and the university's identity. Furthermore, the university's image is pivotal in influencing the students' perceptions regarding the institution's quality, hence affecting their brand preference. In other words, it has been demonstrated that the university image has a significant influence on the university brand perceived quality, thereby impacting the university's selection processes by students (Paden & Stell, 2006).

With regard to the impact of brand equity on the students' choice of universities, it has been established that students' considerations regarding course range, cost, degree offering, and academic reputation are critical (Brewer & Zhao, 2010). Also, these authors concluded that universities with good reputation positively impact their affiliate institutions and that the students' impressions of the university reputation are very important in both attracting and maintaining them. Hence, the university reputation has a positive impact on students' preferences (Mourad, Ennew & Kortam, 2011). In turn, Kotler and Fox (1995) established that, and even though universities with high perceptions of quality have a good reputation among students, the actual quality of the university is less important than its prestige or reputation, since students select/prefer universities based on their perception of the university's excellence.

Lastly, and even though there is a study that demonstrates that the employment outcomes are hugely affected by positive perceptions of the

university's reputation, employers are very unlikely to possess an objective account of the quality of the university in which their employees have studied (Li & Miller, 2013). Thus, graduate employability adds to students' perceptions regarding universities, affecting their own preference and selection.

Overall, and after defining and conceptualizing the concepts of university branding, student-based brand equity, university brand equity and preference, it is possible to conclude that students choose higher education institutions based on the following factors: the university's identity, which must be congruent with the students own identity; the university's image, especially in terms of their perceived quality; the university's reputation, which is more important than their perceived quality; and the universities' benefits in terms of future employability.

4. Students' decision, students' satisfaction, and students' loyalty

4.1.   Students' decision

In previous research with pre-university students in England, authors concluded that students find the decision-making process complex and risky (Moogan, Baron and Harris, 1999), and, therefore, school teachers and students' parents have an important role in this decision. Students see universities as a way of improving knowledge but also as a way of enjoying life and socializing. They want to go to university to obtain a qualification/degree and also because of the experience and educational and social benefits. In this study, the authors identified course content and location as the main factors influencing decision-making, followed by social reasons, reputation of the institution and grade requirements.

In a distinct study, Jevons (2006) analysed the relationship between brand equity and the students' choice of universities, claiming that it refers to a virtuous

cycle in which the university's brand acts as an aid for student recruitment, since applicants self-select the universities that are congruent with their own values and principles. Therefore, the university brand plays a major role, clarifying the institution's positioning so that students can associate themselves with the most adequate university. In summary, the university brand should convey the individual attributes of the university, which in turn influence the students' choice and preference. Later, in 2003, Moogan and Baron did a similar study and obtained very similar results.

Furthermore, a study developed in Scotland (Briggs (2007), found there are ten important factors that influence students' decision when choosing a university/HEI. These factors, in order of relevance, are the following: academic reputation; distance from home; location; own perception; graduate employment; social life nearby; entry requirements; teaching reputation; quality of faculty and information supplied by university. In an analogous study in Poland, the authors found that the factors determining higher education choices are professional advancement, university tradition, marketing efforts, family opinion and expectations, university reputation, courses offered and cost of studies and accessibility of financial aid (Sojkin, Bartkowiak and Skuza, 2011).

In the USA, several studies have been done to identify the factors that influence students' decision when choosing between different HEIs. And, according to several researches, it is suggested that the most important factors in this decision would be the location (Shank and Beasley, 1998), academic reputation (Morrow, Doyle, Ogletree and Parsons, 1995; Landrum, Turrisi and Harless, 1998), program of study (Mortimer, 1997; Connor, Burton, Pearson, Pollard and Regan, 1999) and employment opportunities (Murray, Murray and Lann, 1997).

In conclusion, the analysis of extant literature points out to a set of factors that are systematically identified as key for HEI/university choice, namely: social life, intellectual growth, graduate employment, academic reputation, quality of

education and quality of information supplied, which are the main factors that determine student's decision when choosing a HEI/university. Since students consider this decision as a difficult decision which is accompanied by several risks, it is particularly relevant to understand students' satisfaction with their decision.

4.2.   Students' satisfaction

According to Cote and Giese (2002, p.15), satisfaction, is a "summary affective response which varies in intensity". Parker and Mathews (2001) suggest that satisfaction is a feeling and an evaluation process between what was received and what was expected from the service. Moreover, when measuring satisfaction, consumers often take the cost into account, as it tends to affect expectations on what the return on that cost will be, and whether this return will compensate the expense.

Regarding HEI/universities, Eliott and Healy (2001) say that student's satisfaction is the result of the university/HEI ability to meet or exceed students' expectations. Thus, the authors conclude that students are overall satisfied when their expectations regarding the HEI/university are met. For a university to be successful, it needs to understand students' needs and what they expect to from the HEI/university and academic career in order to appropriately satisfy these expectations (Elliott 2002). Therefore, we can assume that the factors that influence students' choice of a HEI/university will be drivers of their satisfaction with this choice, as they will tend to evaluate the ability of the HEI/university to fulfill their expectations regarding these key requirements. At this respect, Zafar highlights (2011) that students' decision is determined by their expectations regarding the institution. Hence, universities need to identify students' expectations in respect to social life, cost of studies, quality of education and other decision criteria, to measure satisfaction. Indeed, previous studies indicate

a significant parallelism between students' decision factors and students' satisfaction. Although quality of information supplied was mentioned as a decision variable that proved to be one of the most relevant for students' decision-making process, we could not find any evidence in previous studies that allowed us to establish a direct relationship between this variable and student satisfaction. Thus, due to the lack of support for this relationship, we decided not to consider this variable in the present research.

In a study in Poland, with students from several universities, social conditions were identified as one of the main determinants of satisfaction (Sojkin et. al, 2011). According to Nasser, Khoury, and Abouchedid (2008), social life in campus is a strong indicator of quality and, hence, generates greater satisfaction with the university. Douglas, McClelland and Davies (2008) made a study of students' satisfaction with their HEI based on the identification of the determinants of students' perceived quality. One of the variables studied was the social life, which was designated as "socializing" in this study, and the authors concluded that the social environment significantly influences students' satisfaction. Therefore, considering the findings of prior studies, we formulate the following hypothesis:

H1: Students' satisfaction is positively affected by social life.

In a study focusing on the factors that affect Croatian students' satisfaction, the authors concluded that students' satisfaction with their college experience is mostly determined by the faculty's curriculum and the learning effectiveness for future employment. The authors also conclude that teaching performance and criteria of knowledge evaluation contribute to students' satisfaction, but in a minor way (Čavar, Bulian and Dubreta, 2019). Thomas and Galambos (2004) studied undergraduate students' general opinion about their satisfaction with the university. Their conclusions suggest that is important for HEI to develop

programs that contribute to intellectual experience, since intellectual growth is a variable that influences satisfaction. Hence, considering the findings of previous studies, we may assume that intellectual growth will affect student satisfaction. Thus, we propose the following hypothesis:

H2: Students' satisfaction is positively affected by intellectual growth.

As previously explained, Čavar, Bulian and Dubreta (2019) concluded that future employment is an important determinant of students' satisfaction. Elliott and Shin (2002) also highlight that students value their educational experience and progress perspectives, and that their satisfaction with the university service is determined, among other variables, by graduate employment. Therefore, prior studies indicate that graduate employment may be an important determinant of students' satisfaction, as suggested in the next hypothesis:

H3: Students' satisfaction is positively affected by graduate employment.

Alves and Raposo (2007) found that, for Portuguese nursing students, the image of the university is the factor that has the greatest influence in students' satisfaction, together with perceived quality. In a study made with undergraduate students of HEI in Pakistan, Saleem, Moosa, Imam and Ahmed Khan (2017), found out that academic reputation has only a moderate influence on student satisfaction, differing from the results obtained in Portugal. However, Azoury, Daou and Khoury (2014) tried to understand the influence of university image on students' satisfaction in private business schools in Lebanon, Jordan, Qatar, Egypt, UAE, Oman, Turkey and Cyprus, and also found that university image/reputation is a relevant determinant of students' satisfaction. Thus, considering the findings of previous research, we formulate the following hypothesis:

H4: Students' satisfaction is positively affected by academic reputation.

SojKin et. al, (2011) found that, besides social conditions, pragmatism of knowledge, educational facilities, courses offered and faculty's achievements are also important determinants of Polish students' satisfaction. The study by Alves and Raposo (2007) found that university image is the variable that has the higher influence on satisfaction, but also concluded that perceived quality has an important role in determining satisfaction. According to Čavar, Bulian and Dubreta (2019), the quality of the faculty is also an important factor contributing to the satisfaction of Croatian students. Therefore, we present the next hypothesis:

H5: Students' satisfaction is positively affected by quality of education.

4.3. Students' loyalty

According to Khan (2013), a loyal customer believes in the value that the company is offering so that, he/she will increase purchases over time. The author mentions that loyalty is an attitude that makes consumer relate to the brand, and which can be expressed by the behavior revealed by consumers. Khan (2013) further says that 'customer loyalty' is expressed by a faithful adherence to an institution, and, therefore, loyalty can be defined as an attitude or behavior in which customers "explicitly vocalize or exhibit" their support to the institution. The author also highlights that loyalty expresses a commitment to re-purchase a product or service in the future, causing a purchase in the same brand or organization, despite the marketing efforts of other brands or institutions with similar products and services.

Several research indicate that student satisfaction will lead to student loyalty. For Norwegian and Portuguese students, student satisfaction has a positive impact on student loyalty, and, hence, according to studies done in these two countries, satisfaction will lead to loyalty (Helgesen and Nesset, 2007a; Alves and Raposo, 2007). Another study done by Helgesen and Nesset (2007b) suggests that the reputation of the university is positively related to student loyalty. Subrahmanyam and Shekhar (2017), based on a study done with Indian students, add that student satisfaction has a positive effect on student motivation and that student motivation has a positive effect on student loyalty. According to Liu and Jia (2008), the holistic qualities of the educational experience influence the loyalty of Chinese students, and university's ritual and traditions have a significant effect on students' loyalty. For German students, loyalty is explained through 'the level of service quality perceived by the students, which is the factor with the strongest direct impact on student loyalty, followed by the student's emotional commitment to the institution (Henning-Thurau, Langer and Hansen,2001). Considering the findings of previous research, we assume that students' satisfaction is positively related with students' loyalty. Hence, we formulate the following hypothesis:

H6: There is a positive relationship between student loyalty and student satisfaction.

5. Research Model

Through this study, we aim to understand what determines students' loyalty to their HEI. Prior studies highlight that students' satisfaction will favorably influence their loyalty. Therefore, it is critical to understand what are the factors that influence students' satisfaction and, thereby, their loyalty towards their HEI/university.

Based on our literature review and on the hypotheses previously presented, we propose the research model depicted in Figure 1. This model presents the antecedents of students' satisfaction, which, as previously explained, are the key drivers of students' decision. The antecedents of students' satisfaction are social life, intellectual growth, graduate employment, academic reputation and quality of education. Furthermore, as discussed in the previous chapter, students' satisfaction is positively related with students' loyalty.
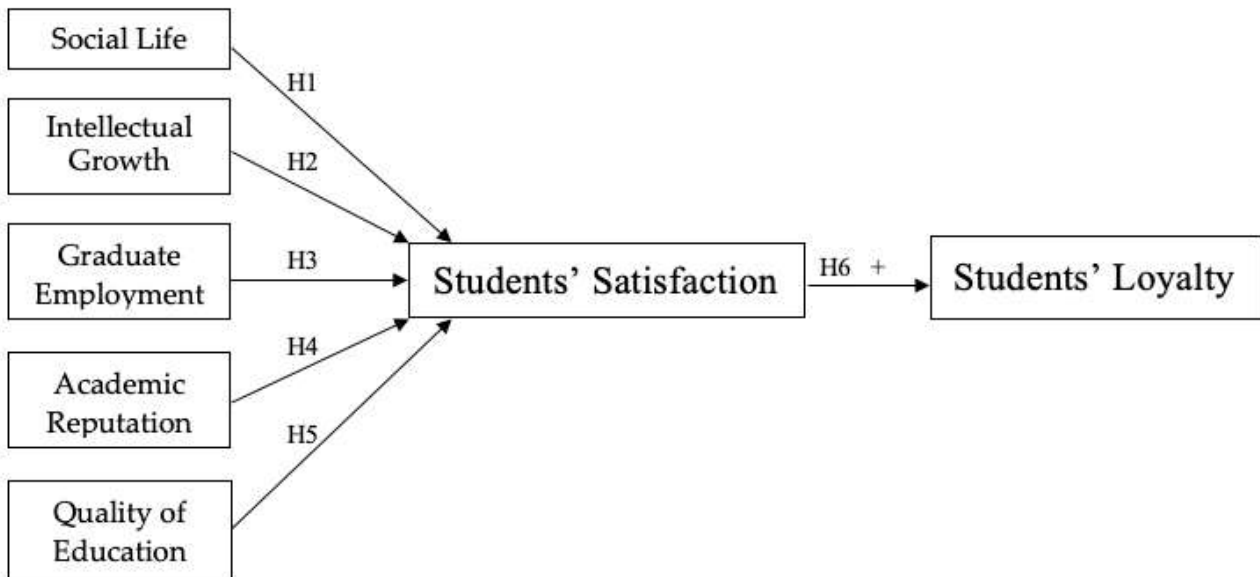
Figure 1: Research Model

Chapter 2

Methodology

Since we want to identify the determinants of students' satisfaction, and, consequently, of students' loyalty to their HEI, a quantitative methodology is the most appropriate. Through a quantitative research methodology, it is possible to obtain objective results and conclusions, which will help the development of practical recommendations.

For this study, data collection was done through an online questionnaire, which was designed based on the literature review, and with the aim of confirming our research hypotheses.

2.1.   Questionnaire Structure

The online questionnaire starts by collecting students' demographic information. In the first part of the questionnaire, students indicate also in which university they are enrolled.

To measure the different variables included in the research model, we used scales adapted from the literature, as we will explain next. According to the hypotheses presented in our research model, we intend to study the antecedents of students' satisfaction with their HEI and if satisfaction affects loyalty. Hence, we have evaluated the five dimensions that are potential predictors of satisfaction: (1) Social life, (2) Intellectual Growth, (3) Graduate Employment, (4) Academic Reputation, (5) Quality of Education. Moreover, we also evaluated

students' s overall satisfaction with their HEI and (7) students' loyalty to their HEI. In order to measure all these variables, we used scales which were previously validated and chosen due to their relevance for our research. A five-item Likert scale was used to measure all constructs, being 1- Completely Disagree and 5 – Completely Agree.

The first section of this part of the questionnaire was about social life, and we used questions that allowed us to understand students' perceptions about their HEI´s students' organizations, clubs, and societies nearby and the personal relationships with others, based on the scales proposed by Sojkin, Bartkowiak and Skuza (2012) and by Palmer, Koenig-Lewis and Asaad (2016).

The second section was about the intellectual growth, and here we tried to understand students' perceptions about the intellectual development enabled by the attendance oftheir HEI, which is related to the development of professional/practical skills, their personal and intellectual growth, their experience through exchange programs, and the development of language skills, all being based on the scale proposed by Sojkin, Bartkowiak and Skuza (2012).

The third section intended to understand the perceptions of students were about their HEI's graduate employment, and, hence, it included questions related with their career's prospects, including if they think that their HEI gave them the opportunity to find a better job in Portugal or abroad and if they were satisfied with the acquired knowledge and skills, as it is established in the scale proposed by Sojkin, Bartkowiak and Skuza (2012).

The fourth section of the questionnaire was about academic reputation. In this part we tried to understand how do students perceive the opinion that others have about the university, being based on the scale proposed by Sojkin, Bartkowiak and Skuza (2012).

In the fifth section, related with quality of education, we evaluated perceptions regarding the usefulness of the course, the university position in the rankings and university's faculty. After these five sections focusing on the factors that

influence students' satisfaction, we included a set of questions to measure students' overall satisfaction with the HEI, as it is pointed out in the scale proposed by Sojkin, Bartkowiak and Skuza (2012).

The last section in the online questionnaire focused on the measurement of students' satisfaction and loyalty to their HEI. The students' overall satisfaction with their HEI was measured with a five-tem scale adapted from Fraering and Minor (2013). To evaluate loyalty, we used the scales proposed by Liu and Jia (2008), Deghan et al. (2014), Palmer et al. (2016), and Annamdevula and Bellamkonda (2017), and asked if students would recommend their HEI, if they would still choose the same HEI in case they decide to continue their education, if they speak favorably about their HEI to others, if they want to keep in touch with their HEI and if they feel proud because they studied in their HEI. The items of all the multi-item scales used may be observed in table 1.

Table 1 shows an overview of the items of the scales used in this study and also the reference of the study in which we based ourselves to measure the different variables of our research model.

Table 1: Construct Measurement

Constructs	Measures	Adapted from
Students' decision		
Social life	This university enables me to join students' organizations.	Sojkin, B., Bartkowiak, P. & Skuza, A. (2012)
	This university is a privileged place to socialize with other students.	
	This university has a varied and interesting social life.	
	The university has many clubs and societies nearby.	
	This university allows me to develop close personal relationships with others	Palmer, Adrian & Koenig-Lewis, Nicole & Asaad, Yousra. (2016)
Intellectual growth	In this university, I can develop strong professional/practical skills.	Sojkin, B., Bartkowiak, P. & Skuza, A. (2012)
	In this university, I can develop myself intellectual and personally.	
	In this university, I had the opportunity to gain experience in foreign universities through exchange programs.	

	In this university, I have the opportunity of developing foreign language skills.	
Graduate employment	In this university, I have the chance of enhancing my career prospects.	Sojkin, B., Bartkowiak, P. & Skuza, A. (2012)
	This university improves my chances of finding a better job in Portugal or abroad.	
	In this university, I can invest in my skills to have a better position in the future.	
	In this university, I have possibilities of using acquired knowledge and skills in practice.	
Academic reputation	This university has a significant number of well-known/ successful alumni.	Sojkin, B., Bartkowiak, P. & Skuza, A. (2012)
	This is a well-known university.	
	The reputation of the university is high.	
	Employers have a positive opinion about this university's graduates.	
	The university's name is memorable	
	This university's name tells a lot about the nature of the institution.	
	Things I have heard about the university from newspaper reports, television, conversations with other people, etc. present a good image of the institution.	
	It is considered prestigious to be an alumnus of the university.	
	The university maintains a high standard of academic excellence.	
Quality of education	This university gives me good chances to develop professional skills	Sojkin, B., Bartkowiak, P. & Skuza, A. (2012)
	This university enables me to develop myself intellectually and personally.	
	The practical usefulness of courses offered is high.	
	The quality of the courses/program is high.	
	The university is well positioned in the rankings.	
	In this university, I have access to professional and educational databases.	
	The university's faculty has high professional qualifications.	
Satisfaction	I have truly enjoyed studying in my university.	Fraering, M. and Minor, M. S. (2013).
	Studying in my university has been a good experience.	
	I feel relaxed at my university.	
	My university has made me very happy.	
	When I have a problem, my university helps me solve it.	
Loyalty	I like to recommend this university.	Liu, Yong & Jia, ShengHua. (2008)
	I would participate in activities of alumni actively.	
	This university is my first choice of continuing education.	
	I have strongly sense of belonging this university.	
	I have a sense of reliance on this school.	

I say positive things about my university.	Palmer, Adrian & Koenig-Lewis, Nicole & Asaad, Yousra. (2016)
If I was faced with the same choice again, I'd still choose the university that I'm studying.	
I am interested in keeping in touch with my university after graduation.	
I would consider enrolling in more programs at this university.	Deghan et al, (2014)
I feel proud to study in this university	Annamdevula and Bellamkonda (2017)

2.2.   Sample

The target population of this research was composed by current and former students from two different universities, namely, Universidade do Minho (UM) and Universidade do Porto (UP). The sample included university students from the same course, Economics. Between February 2021 and April 2021, a total of 200 students answered the online questionnaire, being 100 students from UM and 100 from UP, both studying economics. The data obtained through the online form were analyzed using the SPSS version 22.

Chapter 3
Results

3.1.   Statistical Analysis

Data was analyzed with SPSS, version 22. For descriptive analysis means (M) and standard deviations (SD) were used for continuous variables, after confirming symmetry by assessing histogram. For categorical variables we calculated frequencies (n) and percentages (%). Construct reliability was assessed with Cronbach's alfa according to Taber (2018) criterion that establishes $\alpha>.60$ as adequate. Item-to-total correlation complemented the previous analysis,

considering the criterion of >.30 (Field, 2020). We also calculated Cronbach's alfa after eliminating each of the construct items for assessing advantage of item elimination for reliability.

Constructs were created as observed variables by computing the mean of their items. Their distribution was assessed with histograms and Kolmogorov-Smirnov normality test, concluding for the use of parametric statistics. Hence, we measured the associations between constructs with Pearson correlations.

Constructs associations with categorical variables were evaluated with ANOVAs and Tukey multiple comparison test.

Next, we used hierarchical linear regression to assess the contribution of student satisfaction for loyalty, before and after adjusting for all other covariates, social life, intellectual growth, graduate employment, academic reputation, and quality of education.

Linear regression assumptions were verified, namely residuals normality and absence of residuals lower than -3 and higher than 3 (Field, 2020). Residuals heteroskedasticity was assessed by plotting the standardized vs predicted residuals (Field, 2020). No trend was found, confirming homoscedasticity. Multicollinearity was assessed by calculating VIF, considering values below 4 as acceptable (Field, 2020). Regression coefficients (β) were estimated using the least-squares method. Adjustment was assessed with R^2. Mediation effects of satisfaction in loyalty were also measured. For this , JASP® software was used. Estimates were calculated and calibrated considering a maximum likelihood approach for k=1000 samples. The null hypothesis was rejected for $p<.05$.

3.2. Results

A total of 200 Portuguese students enrolled in the Bachelor's in Economics from two Portuguese public universities - Universidade do Minho and Universidade do Porto - were assessed, 120 (60.0%) females, 73 (36.5%) males and

7 (3.5%) of other gender identity. Regarding working status, 90 (45.0%) respondents were employed, 73 (36.5%) were students, 31 (15.5%) unemployed and 6 (3.0%) in another situation. Average age was 25.75 years old (SD=5.48), varying between 18 and 60 years old.

Table 2 presents the results for descriptive statistics and reliability analysis for the assessed constructs. Cronbach's alpha results were all above .60, suggesting acceptable reliability. Item-to-total correlation results were in line with Cronbach's alpha considering the threshold of 0.30, despite some items fell slightly below. Hence, we considered that all constructs had good reliability and psychometric properties.

Table 2: Descriptive statistics and reliability analysis for assessed constructs

Construct	Number of items	Item-to-total correlation	Cronbach's alpha
Social life	5	[0.26 – 0.66]	0.66
Intellectual growth	4	[0.29 – 0.46]	0.60
Graduate employment	4	[0.33 – 0.46]	0.60
Academic reputation	9	[0.38 – 0.54]	0.78
Quality of education	7	[0.37 – 0.59]	0.77
Students' satisfaction	5	[0.28 – 0.49]	0.65
Loyalty	7	[0.30 – 0.58]	0.76

Table 3 presents the association of the constructs with gender. No significant associations were found.

Table 3: Association of the constructs with gender

Construct	Male	Female	Other	ANOVA (p-value)

	4.14	4.13	4.11	
Social life	(0.49)	(0.54)	(0.25)	p=.088
	4.02	3.93	4.25	
Intellectual growth	(0.49)	(0.61)	(0.20)	p=.945
Graduate	4.06	3.95	3.96	
employment	(0.51)	(0.57)	(0.57)	p=.545
	4.11	4.15	4.17	
Academic reputation	(0.40)	(0.50)	(0.49)	p=.660
	4.04	4.16	3.98	
Quality of education	(0.57)	(0.50)	(0.15)	p=.286
	4.07	4.07	4.00	
Students' satisfaction	(0.50)	(0.50)	(0.59)	p=.919
	4.05	4.08	4.12	
Loyalty	(0.53)	(0.54)	(0.50)	p=.782

Table 4 presents the association of the constructs with working status. A significant association was found only for social life (p=.004), higher in the group of the employed (M=4.27, SD=0.50), when compared with the students (M=3.99, SD=0.47) (Table 4).

Table 4: Association of the constructs with working status

Construct	Unemployed	Employed	Student	Other	ANOVA (p-value)
Social life	4.06 (0.53)	4.27 (0.50)	3.99 (0.47)	4.10 (0.35)	p=.004 (a)
Intellectual growth	3.86 (0.56)	4.05 (0.51)	4.00 (0.56)	3.92 (0.30)	p=.404
Graduate employment	4.15 (0.48)	4.02 (0.52)	3.92 (0.58)	4.38 (0.34)	p=.086
Academic reputation	4.07 (0.47)	4.17 (0.45)	4.10 (0.42)	4.19 (0.53)	p=.604
Quality of education	4.12 (0.48)	4.09 (0.61)	4.05 (0.47)	4.21 (0.42)	p=.841
Students' satisfaction	4.07 (0.48)	4.10 (0.55)	4.02 (0.47)	4.17 (0.29)	p=.774

Loyalty	3.95 (0.46)	4.12 (0.59)	4.02 (0.48)	4.26 (0.37)	p=.270			

(a) Employed vs student (p=.003)

Table 5 shows the correlation matrix for the assessed constructs. Positive and significant correlations were found for student's satisfaction association with social life (r=.297, p<.01), student's satisfaction association with intellectual growth (r=.355, p<.01), student's satisfaction association with graduate employment (r=.302, p<.01), student's satisfaction association with academic reputation (r=.491, p<.01) and student's satisfaction association with quality of education (r=.548, p<.01). Table 5 also shows associations between loyalty to university and students' satisfaction as well as with all other covariates. Because significant associations were found for all these associations a hierarchical multiple linear regression was implemented to measure these associations.

Table 5: Correlations between assessed constructs

	M	SD	1	2	3	4	5	6	7
1 Social life	4.13	0.50	1	.349**	.104	.257**	.182**	.297**	.171*
2 Intellectual growth	4.00	0.53		1	.431**	.468**	.324**	.355**	.288**
3 Graduate employment	4.02	0.54			1	.451**	.438**	.302**	.400**
4 Academic reputation	4.13	0.44				1	.597**	.491**	.515**
5 Quality of Education	4.08	0.53					1	.548**	.658**
6 Students' satisfaction	4.07	0.50						1	.688**
7 Loyalty	4.06	0.53							1

*p<.05;**p<.01

Table 6 shows the results of the multiple linear regression considering student's satisfaction as dependent variable. All potential predictors were included because all were significantly associated with student's satisfaction. In the multivariate model, social life (β=0.15, p=.017), academic reputation (β=0.20, p=.021) and quality of education (β=0.36, p<.001) were positively associated with

students' satisfaction. Standardized coefficients showed that quality of education had the highest effect size (Std. β=0.38) when associated with student's satisfaction. Model quality was adequate, with F=23.40 (p<.001) and 36.0% of loyalty explained by all included variables.

Table 6: Multiple linear regression for predicting students' satisfaction

	Unstd. β (SE)	Std. β	p-valor
Social life	0.15 (0.06)	0.15	**p=.017**
Intellectual growth	0.09 (0.07)	0.10	p=.165
Graduate employment	-0.04 (0.06)	-0.01	p=.950
Academic reputation	0.20 (0.09)	0.18	**p=.021**
Quality of education	0.36 (0.07)	0.38	**p<.001**
F-test	F=23.40 (p<.001)		
aR²	0.360		

Unstd. β= unstandardized coefficients; Std. β= standardized coefficients; SE=standard error; aR²= adjusted R²

Table 7 shows the results of the hierarchical multiple linear regression considering loyalty as dependent variable. On the first step we included student's satisfaction that accounted on its own for 47.1% of loyalty's explained variance. Student's satisfaction crude effect size was β=1.10 (p<.001), a positive significant association. After adjusting for all other covariates, student's satisfaction effect was β=0.50 (p<.001), confirming hypothesis 6, suggesting that the loyalty mean score increases 0.50 by each unit increase of students' satisfaction score. Quality of education was the other significant predictor with and effect size of β=0.33 (p<.001). Standardized coefficients show that student's satisfaction had the highest effect size (Std. β=0.47) when associated with student's loyalty. Model quality was adequate, with F=48.32 (p<.001) and 58.8% of loyalty explained by all included variables, and increased of 11.7%, when compared with the single predictor model, of students' satisfaction. Adjusting for sex and age did not produce any improvement for model quality.

Table 7: Two step hierarchical regression for predicting loyalty

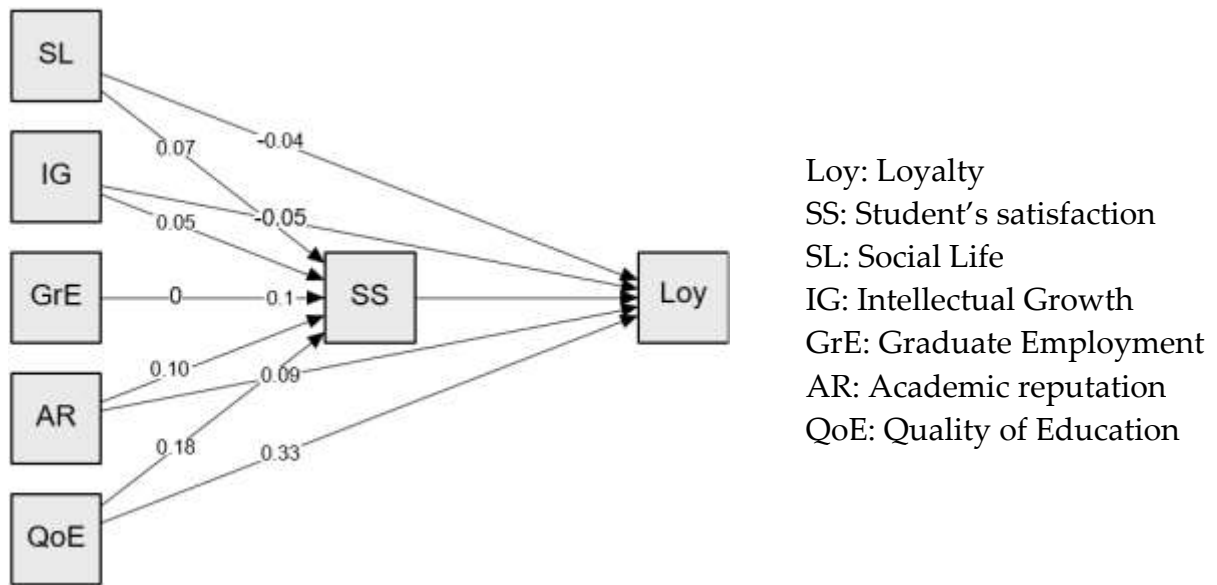|	Loyalty – model 1			Loyalty – model 2		
	Unstd. β (SE)	Std. β	p-valor	Unstd. β (SE)	Std. β	p-valor
Students' satisfaction	1.10 (0.22)	0.69	**p<.001**	0.50 (0.06)	0.47	**p<.001**
Social life	-		-	-0.04 (0.05)	-0.04	p=.414
Intellectual growth	-		-	-0.05 (0.06)	-0.05	p=.357
Graduate employment	-		-	0.10 (0.05)	0.11	p=.056
Academic reputation	-		-	0.09 (0.08)	0.07	p=.258
Quality of education	-		-	0.33 (0.06)	0.34	**p<.001**
F-test	F=178.44 (p<.001)			F=48.32 (p<.001)		
aR²	0.471			0.588		

Unstd. β= unstandardized coefficients; Std. β= standardized coefficients; SE=standard error; aR²= adjusted R²

Table 8 and Figure 2 show total, direct, and indirect effects of predictors in loyalty through satisfaction. Significant indirect effects were found for social life (β=0.07, p=.019), academic reputation (β=0.10, p=.023) and quality of education (β=0.18, p<.001).

Table 8: Mediation effects of student's satisfaction in loyalty

	Total effects		Direct effects → Loyalty		Indirect effects → SS → Loyalty	
	β (SE)	p-value	β (SE)	p-value	β (SE)	p-value
Social life	0.03 (0.06)	p=.613	-0.04 (0.05)	p=.404	0.07 (0.03)	**p=.019**
Intellectual growth	-0.01 (0.06)	p=.919	-0.05 (0.06)	p=.347	0.05 (0.03)	p=.163
Graduate employment	0.10 (0.06)	p=.097	0.10 (0.05)	p=.050	0.00 (0.03)	p=.949
Academic reputation	0.19 (0.09)	**p=.027**	0.09 (0.07)	p=.248	0.10 (0.04)	**p=.023**
Quality of education	0.51 (0.07)	**p<.001**	0.33 (0.06)	**p<.001**	0.18 (0.04)	**p<.001**

Coefficients calibrated with bootstrap estimation (k=1000); β= unstandardized coefficients; SE=standard error; adjusted R² for loyalty=0.60; adjusted R² for student's satisfaction=0.38

Loy: Loyalty
SS: Student's satisfaction
SL: Social Life
IG: Intellectual Growth
GrE: Graduate Employment
AR: Academic reputation
QoE: Quality of Education

Figure 2: Direct and indirect effects (trough student's satisfaction) of predictors in loyalty

Table 9: Assessment of hypothesis 1 to 5

Hypothesis	Estimated coefficient	Hypothesis assessment
H1: Students' satisfaction is positively affected by Social Life	β=0.15 (p=.017)	✓
H2: Students' satisfaction is positively affected by Intellectual Growth	β=0.09 (p=.165)	X
H3: Students' satisfaction is positively affected by Graduate Employment	β=-0.04 (p=.950)	X
H4: Students' satisfaction is positively affected by Academic Reputation	β=0.20 (p=.021)	✓
H5: Students' satisfaction is positively affected by Quality of Education	β=0.36 (p=.021)	✓
H6: Loyalty is positively affected by Student's Satisfaction	β=0.50 (p<.001)	✓

**p<.001

Table 9 shows the results regarding the study hypotheses. Hypotheses 1, 4, 5 and 6 were accepted, suggesting associations between student's satisfaction and social life, academic reputation, quality of education and loyalty.

Chapter 4

Discussion

Since the purpose of this study was to assess the students' decision-making process when choosing between different HEIs, and especially to understand whether student's satisfaction with their decision influences their loyalty to the chosen HEI, several hypotheses were designed. Most hypotheses have been validated by the data.

Aligned with previous studies (Moogan, Baron & Harris, 1999; Briggs, 2007; Sojkin et al., 2011), the obtained results demonstrate that there is a positive relationship between social life and students' satisfaction. Regarding the positive relationship between students' satisfaction and social life, previous studies have already demonstrated such positive impact in different contexts and countries, meaning that this study truly corroborates the existing literature (Moogan, Baron & Harris, 1999; Briggs, 2007; Sojkin et al., 2011).

Also, academic reputation was found to be a key determinant of students' satisfaction, considering that a positive relationship between the two variables was registered in this study. These findings are similar to those obtained in Alves and Raposo's (2007) study, which highlighted that Portuguese nursing students considered the university's image as one of the greatest influencing factors in their satisfaction as students of that HEI. On an international level, this study is also congruent with the research developed by Azoury, Daou and Khoury (2014), who concluded that university image/reputation is a relevant determinant of students' satisfaction in private business schools in Lebanon, Jordan, Qatar,

Egypt, UAE, Oman, Turkey, and Cyprus. Finally, as hypothesized, students' satisfaction is positively affected by the quality of education. This is, in fact, the best predictor of satisfaction in the model. Other studies found that the university perceived quality has an important role in determining students' satisfaction (Alves & Raposo, 2007).

Finally, the quality of education, that has been previously shown as an important factor for students' satisfaction, as stressed by Sojkin et al. (2011) and Alves and Raposo (2007), has also emerged in the present study as a significant predictor of satisfaction.

We were not able to confirm significant effects of two predictor variables – intellectual growth and graduate employment - on satisfaction. In terms of intellectual growth, results showed no significant relationship between this dimension and students' satisfaction with HEIs, thus contradicting previous findings, such as those obtained from the study conducted by Čavar, Bulian and Dubreta (2019), who claimed that Croatian students' satisfaction with their HEI was mostly determined by the faculty's curriculum and the learning effectiveness for future employment. Similarly, this study did not find a significant relationship between students' satisfaction and graduate employment, which also contradicts the position of Čavar, Bulian and Dubreta (2019), who suggested that future employment is indeed an important determinant of students' satisfaction.

The positive impact of satisfaction on loyalty was also confirmed in the present study, highly corroborating several other studies, such as those developed by Helgesen and Nesset (2007a, 2007b), Alves and Raposo (2007), Subrahmanyam and Shekhar (2017), Liu and Jia (2008), and Henning-Thurau, Langer and Hansen (2001). At the same time, mediation analysis has shown that satisfaction mediates the positive effects of social life, reputation and education quality on loyalty towards the HEI. Besides the indirect effect on loyalty, through the mediation of satisfaction, education quality has also a direct effect on loyalty (which is not the

case of any other predictor), meaning that education quality does not have to necessarily generate satisfaction to generate loyalty to an HEI.

Chapter 5

Conclusions

5.1.   Theoretical Implications

This investigation allows us to understand students' satisfaction with the HEIs they attend and how their satisfaction influences their loyalty to the chosen HEI. Concerning students' satisfaction, this study assessed its relationship with five specific dimensions: social life, intellectual growth, graduate employment, academic reputation, and quality of education. According to the results, only three of these dimensions - social life, academic reputation, and quality of education - have significant impact on students' satisfaction and, indirectly, on students' loyalty, through satisfaction meditation. The fact that no significant impact of intellectual growth and graduate employment on students' satisfaction have been found contradicts previous research, more precisely the study conducted by Čavar, Bulian and Dubreta (2019).

5.2.   Managerial Implications

Nowadays, HEIs face more competitive market structures, which brings a strong threat to some of these institutions due to their limited resources, especially when compared to others. Therefore, all HEIs are forced to take

advantage of all their resources in order to attract potential students (Alves, Duarte & Raposo, 2010). The key factor for HEIs it definitely to build a strong brand image, aiming to ensure student loyalty and to guarantee that the HEI becomes more attractive for new students as well. In this scenario, it is beneficial for HEIs to understand the impact of students' satisfaction in their loyalty towards the institution, as well as the students' satisfaction influence on the decision-making process when choosing between different HEIs.

The main results of this investigation demonstrate that students' satisfaction is highly influenced by the dimensions of social life, academic reputation, and quality of education, and that students' loyalty is significantly influenced by students' satisfaction. From a management perspective, the most relevant factor is the student-based brand equity, or even HEI preference among students, meaning that universities in general must focus on the development and improvement of specific aspects in order to increase students' satisfaction, and consequently students' loyalty to the HEI, more precisely:

- Graduate career prospects, university learning environment, university destination, reputation and cultural integration, which position the university's brand (Gray, Fan & Llanes, 2003)
- Campus life, quality of teachers and of resources, and university access services, which consist in the most important factors in the marketing of university brands (Gatfield, Braker & Graham, 1999)
- Institutional reputation, programmes offered, fees, communication through publicity and e-media, interactions with faculty staff and other students, and premiums that are offered (Ivy, 2008)
- And facilities, processes in the marketing of services and people (Nicholls et al., 1995; Price, Matzdorf & Agathi, 2003).

Indeed, if HEIs in general invest and improve their resources and services, providing students with optimized resources, experiences, events, and knowledge, universities will be more attractive to potential students, captivating

them and guaranteeing their loyalty. Nowadays, it seems that the most important factor is related to brand equity, which is why HEI must concentrate on promoting and improving their brand, establishing a connection with potential students, and trying to provide them what they actually expect from higher education. Basically, it is crucial to invest in marketing and in brand equity since these are detrimental for students' satisfaction and students' loyalty.

5.3.   Limitations and Future Research

This study has some limitations. Firstly, the size of the sample is relatively small, taking into consideration that the questionnaire was administered and posted online, being answered only by 200 students. Even though the age range of the sample is relatively wide, a greater number of respondents would have been beneficial for this study.

Likewise, the 200 students that answered to the online questionnaire refer to only two different universities (Universidade do Minho and Universidade de Porto), and one program (Economics) which limits the obtained results, not allowing to generalize the results to all HEIs and programs. Therefore, having students that were/are enrolled in different HEIs and programs would be beneficial, providing more heterogenous data, which might better represent the overall perspectives of students regarding their satisfaction and loyalty towards HEIs.

Moreover, the questionnaire's respondents are all Portuguese, studying in Portuguese HEIs, which makes it impossible to assess the representativeness of the obtained data in international HEIs, for example. In other words, the obtained data only represents the Portuguese reality and circumstances, being geographically limited.

Hence, future research should tackle all these limitations. For instance, future research could be based on a bigger sample (more than 200 students), include

more HEIs (either nationally speaking or on an international level, the latter being advantageous to confront different realities/perspectives), and include several nationalities (even in Portuguese HEIs, future research could include the perspective of foreign students, considering that they can have different perspectives and thoughts).

References

Aaker, D. A. (1996). *Measuring brand equity: Across products and markets. California* Management Review, 38(3), 102-120.

Alamro, A., & Rowley, J. (2011). *Brand strategies of Jordanian telecommunications service providers.* Journal of Brand Management, 18(4), 329-348.

Alves, H., & Raposo, M. (2007). *Conceptual Model of Student Satisfaction in Higher Education.* Total Quality Management & Business Excellence, 18(5), 571–588.

Alves, H., Duarte, P. and Raposo, M. (2010). *Understanding university image: A structural equation model approach.* International Review on Public and Nonprofit Marketing, 7: 21-36.

Amorim, I. (2019, 8 september). *Há 38 cursos sem qualquer candidato.* https://www.jn.pt/nacional/ha-38-cursos-sem-qualquer-candidato-11279964.html

Bennett, R. & Ali-Choudhury, R. (2009). *Prospective Students' Perceptions of University Brands: An Empirical Study.* Journal of Marketing for Higher Education. 19. 85-107.

Azoury, N., Daou, L., & Khoury, C. E. (2014). *University image and its relationship to student satisfaction- case of the Middle Eastern private business schools.* International Strategic Management Review, 2(1), 1–8.

Balaji, M.S., Roy, S.K. and Sadeque, S. (2016). *Antecedents and consequences of university brand identification*. Journal of Business Research, 69: 3023 – 3032.

Brewer, A., & Zhao, J. (2010). *The impact of a pathway college on reputation and brand awareness for its affiliated university in Sydney*. International Journal of Education Management, 24(1), 34-47.

Briggs, S. (2007). *An exploratory study of the factors influencing undergraduate student choice: the case of higher education in Scotland.* Studies in Higher Education, 31:6, 705-722.

Čavar, I., Bulian, L. and Dubreta, N. (2019). *Student Satisfaction in Higher Education: Factors Affecting Engineering Students' Satisfaction*. ICERI2019 Proceedings, pp. 6782-6792.

Connor, H., R. Burton, R. Pearson, E. Pollard, and J. Regan. 1999. *Making the right choice - How students choose Universities and Colleges.* Institute for Employment Studies.

Cote, J. and Giese, J. (2002). *Defining Consumer Satisfaction*. Academy of Marketing Science Review, Vol. 2000, No. 1

Douglas, J., McClelland, R., & Davies, J. (2008). *The development of a conceptual model of student satisfaction with their experience in higher education.* Quality Assurance in Education, *16(1), 19–35.*

Du preez, R. (2015). *Towards a 21st century university: Teachings from consumer behavior applicable to higher education*. South African Journal of Higher Education, 29(5), 140-155.

Durkin, M., McKenna, S., & Cummins, D. (2012). *Emotional connections in higher education marketing.* International Journal of Education Management, 26(2), 153-161.

Eagle, L., & Brennan, R. (2007). *Are students customers? TQM and marketing perspectives.* Quality Assurance in Education, 15(1), 44-60.

Elliott, K. M. (2002). *Key Determinants of Student Satisfaction.* Journal of College Student Retention: Research, Theory & Practice, 4(3), 271–279.

Elliott, K. M., & Shin, D. (2002). *Student Satisfaction: An alternative approach to assessing this important concept.* Journal of Higher Education Policy and Management, 24(2), 197–209.

Garnett, J. (2014). *Musician and teacher: Employability and identity.* Music Education Research, 16(2), 127-143.

Gatfield, T., Braker, B., & Graham, P. (1999). *Measuring communication impact of university advertising materials.* Corporate Communications: An International Journal, 4(2), 73-79.

Gray, B. J., Fan, K. S., & Llanes, V. A. (2003). *Branding universities in Asian markets.* Journal of Product & Brand Management, 12(2/3), 108-122.

Griskevicius, V., & Kenrick, D. T. (2013). *Fundamental motives: how evolutionary needs influence consumer behavior.* Journal of Consumer Psychology, 23(3), 372-386.

Helgesen, O., & Nesset, E. (2007). *What Accounts for Students' Loyalty? Some Field Study Evidence.* International Journal of Educational Management, 21, 126-143.

Hemsley-Brown, J., & Oplatka, I. (2006). *Universities in a competitive global marketplace: A systematic review of the literature on higher education marketing.* International Journal of Public Sector Management, 19(4), 316-338.

Hennig-Thurau, T., Langer, M. F., & Hansen, U. (2001). *Modeling and managing student loyalty: An approach based on the concept of relationship quality.* Journal of service research, 3(4), 331-344.

Howard, D., & Kerin, R. (2013). *A surname brand effect explanation for consumer brand preference and advocacy.* Journal of Product & Brand Management, 22(5/6), 362-370.

Ivy, J. (2008). *A new higher education marketing mix: The 7Ps for MBA marketing.* International Journal of Educational Management, 22(4), 288-299.

Jevons, C. (2006). *Beyond product's brand management. Universities: A prime example of branding going wrong.* Journal of Product & Brand Management, 15, 466-467.

Kapferer, J. N. (2008). *The new strategic brand management: Creating and sustaining brand equity long term.* (4th ed.). London: Kogan.

Keller, K. L. (2013). *Strategic brand management: Building, measuring, and managing brand equity.* (4th ed.). Boston: Pearson.

Kevin M. Elliott & Margaret A. Healy (2001). *Key Factors Influencing Student Satisfaction Related to Recruitment and Retention*. Journal of Marketing for Higher Education, 10:4, 1-11.

Khan, M. (2013). *Customers Loyalty: Concept & Definition (A Review)*. International Journal of Information, Business and Management, Vol. 5, No.3

Kotler, P., & Armstrong, G. (2012). *Principles of marketing.* (13th ed.). New Jersey: Prentice Hall.

Kotler, P., & Fox, K. F. A. (1995). *Strategic marketing for educational institutions.* (2nd ed.). New Jersey: Prentice Hall.

Kotowwicz, A. (2021, 25 september). *77% dos candidatos colocados na 1.ª fase.* https://observador.pt/especiais/77-dos-candidatos-colocados-na-1-a-fase-veja-aqui-se-entrou-no-ensino-superior/

Landrum, R. E., Turrisi, R., & Harless, C. (1999). *University image: the benefits of assessment and modeling.* Journal of marketing for Higher Education, 9(1), 53-68.

Li, I., & Miller, P. (2013). *The absorption of recent graduates into the Australian labour market: Variations by university attended and field of study.* Australian Economic Review, 46(1), 14-30.

Lieven, T., Grohmann, B., Hermann, A., Landwehr, J. R., & Tilburg, M. (2015). *The effect of brand design on brand gender perceptions and brand preference*. European Journal of Marketing, 49(1/2), 146-169.

Liu, Yong & Jia, ShengHua. (2008). *An Empirical Research on the Forming of Students' Loyalty to University Brand from the Brand Community Point of View*. Vol. 1, Pages: 46-49.

Matthew, T. L., Ipkin, A. W., Chu, R., & Ting-Hsiang, T. (2014). *Do perceived CSR initiatives enhance customer preference and loyalty in casinos?* International Journal of Contemporary Hospitality Management, 26(7), 1024-1045.

Moogan, Y. J., Baron, S., & Harris, K. (1999). *Decision-making behaviour of potential higher education students.* Higher Education Quarterly, 53(3), 211-228.

Moogan, Y. J., & Baron, S. (2003). *An analysis of student characteristics within the student decision making process.* Journal of further and Higher Education, 27(3), 271-287.

Morrow, M. J., Doyle, K., Ogletree, R. J., & Parsons, N. P. (1995). *Adult learners in undergraduate health education professional education programs: Planning for now and the future.* Journal of Health education, 26(6), 333-337.

Mourad, M., Ennew, C. & Kortam, W. (2011). *Brand equity in higher education.* Marketing Intelligence & Planning, 29(4), 403-420.

Mourad, M. (2013). *Conceptualizing brand equity in the higher education market: An exploratory study.* American Marketing Association/ Winter 2013.

Murray, J., Murray, H. & Lann, L. (1997). *Growth Strategies for U.S. Colleges and Universities.* Journal of Marketing for Higher Education, Taylor & Francis Journals, vol. 8(1), pages 41-53.

Newman, F., Couturier, L., & Scurry, J. (2004). *The future of higher education: Rhetoric, realty, and the risks of the market.* San Francisco: Jossey-Bass.

Nicholls, J., Harris, J., Morgan, E., Clarke, K., & Sims, D. (1995). *Marketing higher education: the MBA experience.* International Journal of Educational Management, 9(2), 31-38.

Nguyen, T. D., Barrett, N. J., & Miller, K. E. (2011). *Brand loyalty in emerging markets.* Marketing Intelligence & Planning, 29(3), 222-232.

Paden, N., & Stell, R. (2006). *Branding options for distance learning programs: Managing the effect on university image.* International Journal of Instructional Technology and Distance Learning, 3(8), 45-54.

Parker, C., & Mathews, B. P. (2001). *Customer satisfaction: Contrasting academic and consumers' interpretations.* Marketing Intelligence & Planning, 19(1), 38–44.

Price, I., Matzdorf, F., & Agathi, H. (2003). *The impact of facilities on student choice of university.* Facilities, 21(10), 212-222.

Saleem, S., Moosa, K., Imam, A., Ahmed Khan, R. (2017). *Service Quality and Student Satisfaction: The Moderating Role of University Culture, Reputation and Price in Education Sector of Pakista.* Iranian Journal of Management Studies, 10(1), pp. 237-258.

Shank, M. D., & Beasley, F. (1998). *Gender effects on the university selection process.* Journal of Marketing for Higher Education, 8(3), 63-71.

Sharma, A. A., Raob, V. R., & Poplic, S. (2013). *Measuring consumer-based brand equity for Indian business schools.* Journal of Marketing for Higher Education, 23(2), 175-203.

ShengHua, J. and Yong, L. (2008). *An empirical research on the forming of students' loyalty to university brand from the brand community point of view.* International Workshop on Education Technology and Trainning & International Workshop on Geoscience and Remote Sensing, pp. 46-49.

Silva, R. (2016). *Número de alunos a entrar o ensino superior volta a aumentar.* Expresso.

Silva, S. (2019). *Portugal tem muitos alunos o secundário, mas poucos chegam ao superior.* Público.

Sojkin, B., Bartkowiak, P., & Skuza, A. (2012). *Determinants of higher education choices and student satisfaction: the case of Poland.* Higher education, 63(5), 565-581.

Subrahmanyam, A., & Shekhar, B. R. (2017). *Where do you find loyalty in the contemporary university scene?.* Journal of Applied Research in Higher Education.

Taber, K. S. (2017). *The Use of Cronbach's Alpha When Developing and Reporting Research Instruments in Science Education.* Research in Science Education, 48(6), 1273–1296.

Thomas, E. & Galambos, N. (2004). *What Satisfies Students? Mining Student-Opinion Data with Regression and Decision Tree Analysis.* Research in Higher Education.

Tolbert, D. (2014). *An exploration of the use of branding to shape institutional image in the marketing activities of faith-based higher education institutions.* Christian Higher Education, 13(4), 233-249.

Wang, E. S. T. (2015). *Effect of food service-brand equity on consumer-perceived food value, physical risk, and brand preference.* British Food Journal, 117(2), 553-564.

Whisman, R. (2009). *Internal branding: A university's most valuable intangible asset.* Journal of Product & Brand Management, 18(5), 367-370.

Williams, R., & Omar, M. (2014). *How branding process activities impact brand equity within higher education institutions.* Journal of Marketing for Higher Education, 24(1), 1-10.

Yunker, P. J., & Yunker, J. A. (2003). *Are students' evaluations of teaching valid? Evidence from an analytical business core course.* Journal of Education for Business, 78(6), 313-317.

Zafar, B. (2011). *How Do College Students Form Expectations?* Journal of Labor Economics, 29(2), 301–348.

Appendix

Appendix 1: Questionnaire

Lealdade dos estudantes à Universidade

Este questionário faz parte de uma investigação para o Trabalho Final de Mestrado em Marketing na Universidade Católica do Porto, que pretende compreender o comportamento dos alunos em relação à sua instituição de ensino superior. Caso tenha frequentado duas ou mais instituições, considere por favor a última frequentada.
Este questionário é anónimo e confidencial e as respostas serão apenas tratadas exclusivamente para fins académicos.
O preenchimento total do questionário durará aproximadamente 5 minutos.
Estou disponível para responder a quaisquer questões através do seguinte email: sara_ferreira25@hotmail.com.
Agradeço a disponibilidade e colaboração neste estudo!

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*Obrigatório

Dados Sociodemográficos

1. Sexo *

    Marcar apenas uma oval.

    ⬭ Masculino

    ⬭ Feminino

    ⬭ Outro

2. Idade *

    _____

3. Em que cidade reside *

    _____

4. Situação Profissional *

Marcar apenas uma oval.

○ Estudante

○ Empregado

○ Dsempregado

○ À procura de emprego

○ Outra atividade

5. Área de estudo e universidade *

Marcar apenas uma oval.

○ Economia - Universidade do Minho

○ Economia - Universidade do Porto, FEP

Utilizando uma escala de 1-5 (em que 1 significa discordo completamente e 5 concordo completamente), posicione-se em relação às afirmações seguintes relativas à vida social da instituição de ensino superior/universidade onde estuda/estudou.

6. A instituição de ensino superior/universidade onde estudo/estudei deu-me *
oportunidade de envolvimento em organizações de estudantes.

Marcar apenas uma oval.

	1	2	3	4	5	
Discordo completamente	○	○	○	○	○	Concordo completamente

7. A instituição de ensino superior/universidade onde estudo/estudei é um local de * socialização com outros estudantes.

Marcar apenas uma oval.

	1	2	3	4	5	
Discordo completamente	◯	◯	◯	◯	◯	Concordo completamente

8. A instituição de ensino superior/universidade onde estudo/estudei tem vida * social interessante e variada.

Marcar apenas uma oval.

	1	2	3	4	5	
Discordo completamente	◯	◯	◯	◯	◯	Concordo completamente

9. A instituição de ensino superior/universidade onde estudo/estudei tem cafés, * bares e discotecas perto.

Marcar apenas uma oval.

	1	2	3	4	5	
Discordo completamente	◯	◯	◯	◯	◯	Concordo completamente

10. A instituição de ensino superior/universidade onde estudo/estudei permite- * me/permitiu-me ter relações pessoais com os outros alunos.

Marcar apenas uma oval.

	1	2	3	4	5	
Discordo completamente	◯	◯	◯	◯	◯	Concordo completamente

Utilizando uma escala de 1-5 (em que 1 significa discordo completamente e 5 concordo completamente), posicione-se em relação às seguintes afirmações relativas ao seu crescimento intelectual com a instituição de ensino superior/universidade onde estuda/estudou.

11. Na instituição de ensino superior/universidade onde estudo/estudei, posso/pude desenvolver capacidades profissionais e práticas. *

Marcar apenas uma oval.

	1	2	3	4	5	
Discordo completamente	◯	◯	◯	◯	◯	Concordo completamente

12. Na instituição de ensino superior/universidade onde estudo/estudei, posso/pude desenvolver-me intelectualmente. *

Marcar apenas uma oval.

	1	2	3	4	5	
Discordo completamente	◯	◯	◯	◯	◯	Concordo completamente

13. Na instituição de ensino superior/universidade onde estudo/estudei, tenho/tive * oportunidade de ganhar experiência em universidades estrangeiras através de programas de câmbio (ex: Erasmus).

Marcar apenas uma oval.

	1	2	3	4	5	
Discordo completamente	◯	◯	◯	◯	◯	Concordo completamente

14. Na instituição de ensino superior/universidade onde estudo/estudei, tenho/tive *
oportunidade de aprender nova línguas.

Marcar apenas uma oval.

	1	2	3	4	5	
Discordo completamente	◯	◯	◯	◯	◯	Concordo completamente

Utilizando uma escala de 1-5 (em que 1 significa discordo completamente e 5 concordo completamente), posicione-se em relação às seguintes afirmações relativas à oportunidade de emprego que a instituição de ensino superior/universidade onde estuda/estudou lhe proporcionou.

15. Na instituição de ensino superior/universidade onde estudo/estudei, tenho/tive *
oportunidade de melhorar a minha carreira.

Marcar apenas uma oval.

	1	2	3	4	5	
Discordo completamente	◯	◯	◯	◯	◯	Concordo completamente

16. Na instituição de ensino superior/universidade onde estudo/estudei, dá-me/deu-me a oportunidade de encontrar um emprego melhor em Portugal ou no estrangeiro. *

Marcar apenas uma oval.

	1	2	3	4	5	
Discordo completamente	◯	◯	◯	◯	◯	Concordo completamente

17. Na instituição de ensino superior/universidade onde estudo/estudei, posso/pude investir em conhecimentos para uma melhor posição no futuro. *

Marcar apenas uma oval.

	1	2	3	4	5	
Discordo completamente	◯	◯	◯	◯	◯	Concordo completamente

18. Na instituição de ensino superior/universidade onde estudo/estudei, posso/pude adquirir conhecimentos e habilidades práticas. *

Marcar apenas uma oval.

	1	2	3	4	5	
Discordo completamente	◯	◯	◯	◯	◯	Concordo completamente

Utilizando uma escala de 1-5 (em que 1 significa discordo completamente e 5 concordo completamente), posicione-se em relação às seguintes afirmações relativas à reputação da instituição de ensino superior/universidade onde estuda/estudou.

19. A instituição de ensino superior/universidade onde estudo/estudei tem/tinha ex-alunos conhecidos e bem sucedidos. *

Marcar apenas uma oval.

	1	2	3	4	5	
Discordo completamente	◯	◯	◯	◯	◯	Concordo completamente

20. A opinião sobre a instituição de ensino superior/universidade por parte das pessoas empregadas é positiva. *

Marcar apenas uma oval.

	1	2	3	4	5	
Discordo completamente	◯	◯	◯	◯	◯	Concordo completamente

21. O nome da instituição de ensino superior/universidade é reconhecido por parte dos outros. *

Marcar apenas uma oval.

	1	2	3	4	5	
Discordo completamente	◯	◯	◯	◯	◯	Concordo completamente

22. O nome da instituição de ensino superior/universidade acompanha o que eu conhecia da instituição. *

Marcar apenas uma oval.

	1	2	3	4	5	
Discordo completamente	◯	◯	◯	◯	◯	Concordo completamente

23. A informação dada pelos media e outras pessoas relativamente à imagem da instituição de ensino superior/universidade é positiva. *

Marcar apenas uma oval.

	1	2	3	4	5	
Discordo completamente	◯	◯	◯	◯	◯	Concordo completamente

24. É considerado um prestígio ser/ter sido aluno da minha instituição de ensino *
    superior/universidade.

Marcar apenas uma oval.

	1	2	3	4	5	
Discordo completamente	◯	◯	◯	◯	◯	Concordo completamente

25. A instituição de ensino superior/universidade onde estudo/estudei *
    apresenta/apresentava um alto nível de excelência académica.

Marcar apenas uma oval.

	1	2	3	4	5	
Discordo completamente	◯	◯	◯	◯	◯	Concordo completamente

Utilizando uma escala de 1-5 (em que 1 significa discordo completamente e 5 concordo completamente), posicione-se em relação às seguintes afirmações relativas à qualidade da educação oferecida pela instituição de ensino superior/universidade onde estuda/estudou.

26. A minha instituição de ensino superior/universidade dá-me/deu-me *
    oportunidade de desenvolvimento profissional.

Marcar apenas uma oval.

	1	2	3	4	5	
Discordo completamente	◯	◯	◯	◯	◯	Concordo completamente

27. A minha instituição de ensino superior/universidade permite-me/permitiu-me *
desenvolver-me intelectual e pessoalmente.

Marcar apenas uma oval.

	1	2	3	4	5	
Discordo completamente	◯	◯	◯	◯	◯	Concordo completamente

28. A utilidade prática do curso é alta. *

Marcar apenas uma oval.

	1	2	3	4	5	
Discordo completamente	◯	◯	◯	◯	◯	Concordo completamente

29. A qualidade do curso é alta. *

Marcar apenas uma oval.

	1	2	3	4	5	
Discordo completamente	◯	◯	◯	◯	◯	Concordo completamente

30. A instituição de ensino superior/universidade está bem posicionada no *
ranking.

Marcar apenas uma oval.

	1	2	3	4	5	
Discordo completamente	◯	◯	◯	◯	◯	Concordo completamente

31. Tenho/tive acesso a bases de dados educacionais e profissionais. *

Marcar apenas uma oval.

	1	2	3	4	5	
Discordo completamente	◯	◯	◯	◯	◯	Concordo completamente

32. A qualificação profissional do corpo docente da instituição de ensino superior/universidade é alta. *

Marcar apenas uma oval.

	1	2	3	4	5	
Discordo completamente	◯	◯	◯	◯	◯	Concordo completamente

Utilizando uma escala de 1-5 (em que 1 significa discordo completamente e 5 concordo completamente), indique qual a sua opinião relativamente às seguintes afirmações relativas à instituição de ensino superior/universidade onde estuda/estudou.

33. Eu gosto/gostei realmente de estudar na minha instituição de ensino superior/universidade. *

Marcar apenas uma oval.

	1	2	3	4	5	
Discordo completamente	◯	◯	◯	◯	◯	Concordo completamento

34. Estudar na minha instituição de ensino superior/universidade é/foi uma boa experiência. *

Marcar apenas uma oval.

	1	2	3	4	5	
Discordo completamente	◯	◯	◯	◯	◯	Concordo completamente

35. Eu sinto-me/sentia-me relaxado na minha instituição de ensino superior/universidade. *

Marcar apenas uma oval.

	1	2	3	4	5	
Discordo completamente	◯	◯	◯	◯	◯	Concordo completamente

36. A minha instituição de ensino superior/universidade faz-me/fez-me muito feliz. *

Marcar apenas uma oval.

	1	2	3	4	5	
Discordo completamente	◯	◯	◯	◯	◯	Discordo completamente

37. Sempre que tenho/tive um problema, a minha instituição de ensino superior/universidade ajuda/ajudo a resolvê-lo. *

Marcar apenas uma oval.

	1	2	3	4	5	
Discordo completamente	◯	◯	◯	◯	◯	Concordo completamente

Utilizando uma escala de 1-5 (em que 1 significa discordo completamente e 5 concordo completamente), indique qual a sua opinião relativamente às seguintes afirmações relativas à instituição de ensino superior/universidade onde estuda/estudou.

38. Eu gostaria de recomendar a instituição de ensino superior/universidade onde *
estudo/estudei.

Marcar apenas uma oval.

	1	2	3	4	5	
Discordo completamente	◯	◯	◯	◯	◯	Concordo completamente

39. Eu gostaria de participar ativamente em atividades da instituição de ensino *
superior/universidade onde estudo/estudei.

Marcar apenas uma oval.

	1	2	3	4	5	
Discordo completamente	◯	◯	◯	◯	◯	Concordo completamente

40. A instituição de ensino superior/universidade onde estudo/estudei seria a *
minha primeira escolha para continuar os estudos.

Marcar apenas uma oval.

	1	2	3	4	5	
Discordo completamente	◯	◯	◯	◯	◯	Concordo completamente

41. Eu sinto verdadeiramente que pertenço/pertenci à minha instituição de ensino *
superior/universidade.

Marcar apenas uma oval.

	1	2	3	4	5	
Discordo completamente	◯	◯	◯	◯	◯	Concordo completamente

42. Eu digo coisas positivas sobre a minha instituição de ensino *
superior/universidade.

Marcar apenas uma oval.

	1	2	3	4	5	
Discordo completamente	◯	◯	◯	◯	◯	Concordo completamente

43. Se eu fosse confrontado novamente com a mesma escolha, eu escolheria *
estudar nesta instituição de ensino superior/universidade.

Marcar apenas uma oval.

	1	2	3	4	5	
Discordo completamente	◯	◯	◯	◯	◯	Concordo completamente

44. Eu tenho/tive interesse em manter contacto com a minha instituição de ensino *
superior/universidade depois de me formar.

Marcar apenas uma oval.

	1	2	3	4	5	
Discordo completamente	◯	◯	◯	◯	◯	Concordo completamente

45. Eu consideraria envolver-me mais em programas da instituição de ensino superior/universidade onde estudo/estudei. *

Marcar apenas uma oval.

	1	2	3	4	5	
Discordo completamente	◯	◯	◯	◯	◯	Concordo completamente

46. Sinto orgulho em ter estudado na minha instituição de ensino superior/universidade. *

Marcar apenas uma oval.

	1	2	3	4	5	
Discordo completamente	◯	◯	◯	◯	◯	Concordo completamente